

ALMANAC

VI

PLANETARY

PHENOMENA OF

VENUS IN CE

The almanac VI contains a list of planetary phenomena of Venus from the 1st millennium CE to the 6th millennium CE, from the 1st century CE to the 51st century CE.

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.







































































































































	-4 Jan 16 j 23:49	0° H		asc. node	-2 Jul 26 j 13:42	5° G 10'32	
asc. node	-4 Feb 08 j 18:29	27° H 12'55			-2 Aug 15 j 20:05	0° O	
	-4 Feb 11 j 03:26	0° Y			-2 Sep 09 j 00:13	0° M	
	-4 Mar 08 j 12:48	0° B		morning set	-2 Sep 23 j 01:02	17° M 33'38	
evening max el	-4 Apr 01 j 12:47	24° B 54'49	45°28'06		-2 Oct 02 j 22:52	0° L	
	-4 Apr 06 j 21:59	0° II			-2 Oct 26 j 19:02	0° M	
greatest brilliancy	-4 May 05 j 19:56	21° II 13'36	-4.5m				
retrograde	-4 May 20 j 03:40	24° II 48'42		superior conj	-2 Nov 01 j 13:06	7° M 14'36	0°31'36
desc. node	-4 May 30 j 08:12	22° II 46'03		minimum elong	-2 Nov 01 j 20:48	7° M 38'52	0°31'15
evening set	-4 Jun 04 j 05:19	20° II 27'40		max. Earth dist.	-2 Nov 01 j 16:38	7° M 25'45	1.71055 AU
inferior conj	-4 Jun 10 j 15:30	16° II 38'27	-2°-36'-25	desc. node	-2 Nov 15 j 03:33	24° M 22'15	
minimum elong	-4 Jun 10 j 09:56	16° II 47'06	2°34'52		-2 Nov 19 j 14:54	0° J	
min. Earth dist.	-4 Jun 10 j 19:02	16° II 32'57	0.28941 AU	evening rise	-2 Dec 13 j 07:27	29° J 46'27	
morning rise	-4 Jun 16 j 14:14	13° II 03'32			-2 Dec 13 j 11:47	0° B	
direct	-4 Jul 02 j 07:14	8° II 20'22			-1 Jan 06 j 10:45	0° \approx	
greatest brilliancy	-4 Jul 16 j 12:59	11° II 50'50	-4.5m		-1 Jan 30 j 13:29	0° H	
	-4 Aug 11 j 03:19	0° G			-1 Feb 23 j 22:35	0° Y	
morning max el	-4 Aug 20 j 13:36	8° G 48'05	46°07'37	asc. node	-1 Mar 08 j 06:26	14° Y 59'33	
	-4 Sep 09 j 23:45	0° O			-1 Mar 20 j 17:33	0° B	
asc. node	-4 Sep 20 j 11:18	11° O 39'20			-1 Apr 15 j 03:26	0° II	
	-4 Oct 06 j 08:17	0° M			-1 May 11 j 14:00	0° G	
	-4 Oct 31 j 08:08	0° L			-1 Jun 09 j 05:09	0° O	
	-4 Nov 24 j 17:07	0° M		evening max el	-1 Jun 12 j 12:41	3° O 12'00	45°28'18
	-4 Dec 18 j 20:12	0° J		desc. node	-1 Jun 27 j 20:13	16° O 47'06	
desc. node	-3 Jan 10 j 01:12	27° J 40'37			-1 Jul 18 j 11:56	0° M	
	-3 Jan 11 j 21:58	0° B		greatest brilliancy	-1 Jul 19 j 15:33	0° M 27'55	-4.5m
	-3 Feb 05 j 00:31	0° \approx		retrograde	-1 Jul 31 j 05:43	2° M 49'53	
morning set	-3 Feb 24 j 09:33	24° \approx 02'58			-1 Aug 12 j 07:10	30° R O	
	-3 Mar 01 j 04:47	0° H		evening set	-1 Aug 18 j 02:50	26° O 53'45	
	-3 Mar 25 j 11:12	0° Y		inferior conj	-1 Aug 21 j 08:27	24° O 55'57	-8°-44'-47
				minimum elong	-1 Aug 21 j 06:40	24° O 58'42	8°44'46
superior conj	-3 Apr 03 j 19:00	11° Y 29'56	-1°-2'-8	min. Earth dist.	-1 Aug 21 j 22:01	24° O 35'06	0.28085 AU
minimum elong	-3 Apr 04 j 04:35	11° Y 59'26	1°01'50	morning rise	-1 Aug 24 j 10:21	23° O 03'28	
max. Earth dist.	-3 Apr 05 j 19:27	13° Y 59'08	1.73247 AU	direct	-1 Sep 11 j 15:16	16° O 52'12	
	-3 Apr 18 j 19:49	0° B		greatest brilliancy	-1 Sep 25 j 21:23	20° O 32'26	-4.6m
asc. node	-3 May 03 j 04:11	17° B 37'42			-1 Oct 10 j 12:21	0° M	
evening rise	-3 May 10 j 22:28	27° B 09'00		asc. node	-1 Oct 18 j 23:03	7° M 07'27	
	-3 May 13 j 06:15	0° II		morning max el	-1 Nov 01 j 05:20	19° M 53'15	46°48'02
	-3 Jun 06 j 18:09	0° G			-1 Nov 10 j 20:53	0° L	
	-3 Jul 01 j 07:43	0° O			-1 Dec 07 j 10:43	0° M	
	-3 Jul 26 j 00:10	0° M			00 Jan 01 j 16:32	0° J	
	-3 Aug 19 j 21:43	0° L			00 Jan 26 j 10:46	0° B	
desc. node	-3 Aug 22 j 17:50	3° L 23'50		desc. node	00 Feb 07 j 12:57	14° B 44'16	
	-3 Sep 14 j 03:49	0° M			00 Feb 20 j 00:52	0° \approx	
	-3 Oct 10 j 01:55	0° J			00 Mar 15 j 13:43	0° H	
	-3 Nov 06 j 15:26	0° B			00 Apr 09 j 02:18	0° Y	
evening max el	-3 Nov 07 j 20:08	1° B 13'20	47°24'44		00 May 03 j 14:42	0° B	
	-3 Dec 12 j 01:50	0° \approx		morning set	00 May 05 j 09:09	2° B 09'55	
asc. node	-3 Dec 13 j 20:51	0° \approx 57'54			00 May 28 j 02:13	0° II	
greatest brilliancy	-3 Dec 15 j 21:31	1° \approx 57'20	-4.7m	asc. node	00 May 30 j 16:06	3° II 09'53	
retrograde	-3 Dec 28 j 22:09	5° \approx 09'07		max. Earth dist.	00 Jun 08 j 17:21	14° II 16'53	1.73569 AU
	-2 Jan 13 j 23:32	30° R B					
evening set	-2 Jan 14 j 06:02	29° B 50'31		superior conj	00 Jun 10 j 17:52	16° II 46'01	0°25'51
min. Earth dist.	-2 Jan 17 j 17:55	27° B 42'47	0.27349 AU	minimum elong	00 Jun 10 j 12:54	16° II 30'44	0°25'37
inferior conj	-2 Jan 18 j 18:01	27° B 05'10	7°33'04		00 Jun 21 j 11:57	0° G	
minimum elong	-2 Jan 18 j 09:09	27° B 19'00	7°31'41		00 Jul 15 j 19:34	0° O	
morning rise	-2 Jan 22 j 12:42	24° B 46'09		evening rise	00 Jul 16 j 11:06	0° O 48'02	
direct	-2 Feb 08 j 08:03	19° B 14'50			00 Aug 09 j 01:42	0° M	
greatest brilliancy	-2 Feb 18 j 22:54	21° B 20'31	-4.6m		00 Sep 02 j 07:46	0° L	
	-2 Mar 06 j 07:10	0° \approx		desc. node	00 Sep 19 j 05:47	20° L 53'10	
morning max el	-2 Mar 29 j 17:04	20° \approx 12'38	46°08'04		00 Sep 26 j 15:15	0° M	
desc. node	-2 Apr 04 j 10:34	25° \approx 51'52			00 Oct 21 j 01:36	0° J	
	-2 Apr 08 j 12:22	0° H			00 Nov 14 j 17:33	0° B	
	-2 May 06 j 09:45	0° Y			00 Dec 09 j 22:05	0° \approx	
	-2 Jun 01 j 18:11	0° B			01 Jan 05 j 09:42	0° H	
	-2 Jun 27 j 07:35	0° II		asc. node	01 Jan 10 j 08:39	5° H 18'33	
	-2 Jul 22 j 07:23	0° G		evening max el	01 Jan 18 j 08:49	13° H 35'30	46°36'59

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	01 Feb 05 j 00:52	0°♊		max. Earth dist.	03 Aug 14 j 14:09	17°♌20'30	1.72345 AU
greatest brilliancy	01 Feb 23 j 00:30	12°♊13'01	-4.6m				
retrograde	01 Mar 09 j 11:48	15°♊58'35		superior conj	03 Aug 18 j 08:37	22°♌02'16	1°23'50
evening set	01 Mar 26 j 09:34	10°♊25'24		minimum elong	03 Aug 18 j 06:15	21°♌54'52	1°23'50
inferior conj	01 Mar 30 j 19:25	7°♊40'30	6°36'23		03 Aug 24 j 17:51	0°♍	
minimum elong	01 Mar 31 j 04:46	7°♊25'39	6°34'40		03 Sep 17 j 17:51	0°♌	
min. Earth dist.	01 Mar 30 j 20:07	7°♊39'23	0.28814 AU	evening rise	03 Sep 25 j 06:58	9°♌26'46	
morning rise	01 Apr 05 j 00:16	4°♊28'23			03 Oct 11 j 17:04	0°♍	
	01 Apr 15 j 19:40	30°♋		desc. node	03 Oct 17 j 17:46	7°♍32'45	
direct	01 Apr 21 j 05:49	29°♋25'02			03 Nov 04 j 16:48	0°♎	
	01 Apr 26 j 19:26	0°♊			03 Nov 28 j 18:10	0°♏	
desc. node	01 May 01 j 22:19	1°♊28'46			03 Dec 22 j 23:15	0°♐	
greatest brilliancy	01 May 03 j 13:00	2°♊06'36	-4.5m		04 Jan 16 j 12:16	0°♋	
morning max el	01 Jun 08 j 23:51	29°♊12'02	45°44'43	asc. node	04 Feb 07 j 20:30	26°♋39'29	
	01 Jun 09 j 19:55	0°♋			04 Feb 10 j 17:00	0°♊	
	01 Jul 08 j 19:27	0°♌			04 Mar 08 j 04:58	0°♋	
	01 Aug 04 j 08:24	0°♍		evening max el	04 Mar 30 j 04:35	22°♋44'12	45°29'32
asc. node	01 Aug 23 j 01:29	22°♍03'31			04 Apr 06 j 22:59	0°♌	
	01 Aug 29 j 16:19	0°♌		greatest brilliancy	04 May 03 j 09:53	19°♌02'34	-4.5m
	01 Sep 23 j 06:14	0°♍		retrograde	04 May 17 j 20:35	22°♌40'47	
	01 Oct 17 j 09:20	0°♎		desc. node	04 May 29 j 10:21	20°♌02'30	
	01 Nov 10 j 07:07	0°♏		evening set	04 Jun 01 j 21:14	18°♌19'53	
	01 Dec 04 j 03:24	0°♎		inferior conj	04 Jun 08 j 07:52	14°♌29'53	-2°-17'-28
morning set	01 Dec 07 j 07:48	4°♎00'16		minimum elong	04 Jun 08 j 02:56	14°♌37'33	2°16'04
desc. node	01 Dec 12 j 15:23	10°♎41'21		min. Earth dist.	04 Jun 08 j 11:16	14°♌24'36	0.28953 AU
	01 Dec 28 j 00:20	0°♏		morning rise	04 Jun 14 j 08:25	10°♌52'43	
				direct	04 Jun 29 j 23:51	6°♌11'32	
superior conj	02 Jan 18 j 05:59	26°♏36'53	-1°-12'-43	greatest brilliancy	04 Jul 14 j 05:33	9°♌42'23	-4.5m
minimum elong	02 Jan 17 j 19:31	26°♏04'09	1°12'27		04 Aug 11 j 05:20	0°♍	
	02 Jan 20 j 22:57	0°♐		morning max el	04 Aug 18 j 06:15	6°♍38'17	46°06'15
max. Earth dist.	02 Jan 22 j 09:39	1°♐48'27	1.71674 AU		04 Sep 09 j 16:23	0°♌	
	02 Feb 14 j 00:11	0°♋		asc. node	04 Sep 19 j 13:28	11°♌02'08	
evening rise	02 Feb 27 j 11:02	16°♋41'51			04 Oct 05 j 22:11	0°♍	
	02 Mar 10 j 05:07	0°♊			04 Oct 30 j 20:51	0°♎	
	02 Apr 03 j 14:49	0°♋			04 Nov 24 j 05:13	0°♏	
asc. node	02 Apr 04 j 18:23	1°♋24'20			04 Dec 18 j 07:54	0°♎	
	02 Apr 28 j 06:14	0°♌		desc. node	05 Jan 09 j 03:07	27°♎10'59	
	02 May 23 j 04:41	0°♍			05 Jan 11 j 09:23	0°♏	
	02 Jun 17 j 12:56	0°♌			05 Feb 04 j 11:42	0°♐	
	02 Jul 13 j 13:27	0°♍		morning set	05 Feb 21 j 22:54	21°♐41'18	
desc. node	02 Jul 25 j 07:54	13°♍09'25			05 Feb 28 j 15:47	0°♋	
	02 Aug 09 j 22:08	0°♎			05 Mar 24 j 22:03	0°♊	
evening max el	02 Aug 24 j 13:20	14°♎52'33	46°36'11				
	02 Sep 10 j 05:01	0°♏		superior conj	05 Apr 01 j 11:20	9°♊19'04	-1°-4'-23
greatest brilliancy	02 Oct 02 j 20:34	14°♏20'11	-4.6m	minimum elong	05 Apr 01 j 20:55	9°♊48'34	1°04'05
retrograde	02 Oct 13 j 10:43	16°♏25'00		max. Earth dist.	05 Apr 03 j 15:18	11°♊59'12	1.73209 AU
evening set	02 Oct 28 j 09:49	12°♏03'58			05 Apr 18 j 06:36	0°♋	
inferior conj	02 Nov 03 j 00:39	8°♏46'55	-3°-9'-33	asc. node	05 May 02 j 06:20	17°♋11'10	
minimum elong	02 Nov 03 j 07:32	8°♏36'27	3°07'28	evening rise	05 May 08 j 16:55	25°♋05'17	
min. Earth dist.	02 Nov 03 j 08:38	8°♏34'47	0.26441 AU		05 May 12 j 17:05	0°♌	
morning rise	02 Nov 09 j 04:51	5°♏11'08			05 Jun 06 j 05:10	0°♍	
asc. node	02 Nov 15 j 10:58	2°♏27'22			05 Jun 30 j 19:05	0°♌	
direct	02 Nov 23 j 09:27	1°♏09'17			05 Jul 25 j 12:06	0°♍	
greatest brilliancy	02 Dec 05 j 22:10	4°♏04'27	-4.7m		05 Aug 19 j 10:29	0°♎	
	03 Jan 08 j 15:14	0°♎		desc. node	05 Aug 21 j 19:51	2°♎51'25	
morning max el	03 Jan 12 j 21:43	4°♎14'41	46°49'42		05 Sep 13 j 17:55	0°♏	
	03 Feb 06 j 00:43	0°♏			05 Oct 09 j 18:28	0°♎	
	03 Mar 04 j 08:18	0°♐		evening max el	05 Nov 05 j 11:40	28°♎52'46	47°24'41
desc. node	03 Mar 07 j 00:52	3°♐07'39			05 Nov 06 j 14:12	0°♏	
	03 Mar 29 j 21:40	0°♋		asc. node	05 Dec 12 j 22:53	29°♏17'13	
	03 Apr 24 j 02:17	0°♊		greatest brilliancy	05 Dec 13 j 12:52	29°♏33'32	-4.7m
	03 May 19 j 01:22	0°♋			05 Dec 14 j 12:43	0°♐	
	03 Jun 12 j 19:28	0°♌		retrograde	05 Dec 26 j 12:53	2°♐43'54	
asc. node	03 Jun 28 j 03:55	18°♌44'45			06 Jan 06 j 23:42	30°♋	
	03 Jul 07 j 08:06	0°♍		evening set	06 Jan 11 j 16:12	27°♋31'10	
morning set	03 Jul 12 j 17:36	6°♍38'18		min. Earth dist.	06 Jan 15 j 06:57	25°♋19'17	0.27280 AU
	03 Jul 31 j 15:13	0°♌		inferior conj	06 Jan 16 j 07:38	24°♋40'48	7°21'37

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

minimum elong	06 Jan 15 j 22:24	24°  55'13	7°20'03	evening rise	08 Jul 14 j 05:45	28°  43'18	
morning rise	06 Jan 20 j 05:05	22°  18'02			08 Jul 15 j 06:35	0° 	
direct	06 Feb 05 j 21:39	16°  51'46			08 Aug 08 j 12:57	0° 	
greatest brilliancy	06 Feb 16 j 10:40	18°  56'18	-4.6m		08 Sep 01 j 19:22	0° 	
	06 Mar 07 j 00:32	0° 		desc. node	08 Sep 18 j 07:55	20°  23'04	
morning max el	06 Mar 27 j 07:43	17°  55'38	46°09'33		08 Sep 26 j 03:18	0° 	
desc. node	06 Apr 03 j 12:39	25°  04'36			08 Oct 20 j 14:15	0° 	
	06 Apr 08 j 07:58	0° 			08 Nov 14 j 07:03	0° 	
	06 May 06 j 00:44	0° 			08 Dec 09 j 13:06	0° 	
	06 Jun 01 j 07:13	0° 			09 Jan 05 j 04:17	0° 	
	06 Jun 26 j 19:36	0° 		asc. node	09 Jan 09 j 10:39	4°  31'57	
	06 Jul 21 j 18:53	0° 		evening max el	09 Jan 15 j 22:43	11°  14'13	46°39'35
asc. node	06 Jul 25 j 15:39	4°  54'143			09 Feb 05 j 11:01	0° 	
	06 Aug 15 j 07:19	0° 		greatest brilliancy	09 Feb 20 j 18:04	10°  01'31	-4.6m
	06 Sep 08 j 11:20	0° 		retrograde	09 Mar 07 j 03:42	13°  46'07	
morning set	06 Sep 20 j 15:14	15°  12'56		evening set	09 Mar 24 j 04:30	8°  08'58	
	06 Oct 02 j 09:58	0° 		inferior conj	09 Mar 28 j 11:38	5°  28'10	6°49'02
	06 Oct 26 j 06:10	0° 		minimum elong	09 Mar 28 j 20:49	5°  13'34	6°47'25
				min. Earth dist.	09 Mar 28 j 12:04	5°  27'30	0.28790 AU
superior conj	06 Oct 29 j 23:52	4°  42'21	0°35'11	morning rise	09 Apr 02 j 13:23	2°  20'16	
minimum elong	06 Oct 30 j 08:15	5°  08'42	0°34'48		09 Apr 07 j 00:15	30°  R 	
max. Earth dist.	06 Oct 29 j 22:48	4°  38'58	1.71069 AU	direct	09 Apr 18 j 20:56	27°  13'03	
desc. node	06 Nov 14 j 05:38	23°  35'37		greatest brilliancy	09 May 01 j 03:16	29°  15'10	-4.5m
	06 Nov 19 j 02:06	0° 		desc. node	09 May 01 j 00:27	29°  15'17	
evening rise	06 Dec 10 j 17:00	27°  10'24			09 May 01 j 09:50	0° 	
	06 Dec 12 j 23:03	0° 		morning max el	09 Jun 06 j 14:44	26°  58'44	45°44'55
	07 Jan 05 j 22:07	0° 			09 Jun 09 j 17:58	0° 	
	07 Jan 30 j 01:00	0° 			09 Jul 08 j 11:09	0° 	
	07 Feb 23 j 10:21	0° 			09 Aug 03 j 21:50	0° 	
asc. node	07 Mar 07 j 08:33	14°  29'40		asc. node	09 Aug 22 j 03:40	21°  53'21	
	07 Mar 20 j 05:50	0° 			09 Aug 29 j 04:40	0° 	
	07 Apr 14 j 16:48	0° 			09 Sep 22 j 18:04	0° 	
	07 May 11 j 05:41	0° 			09 Oct 16 j 20:54	0° 	
	07 Jun 09 j 03:24	0° 			09 Nov 09 j 18:35	0° 	
evening max el	07 Jun 10 j 03:19	0°  57'15	45°26'51		09 Dec 03 j 14:48	0° 	
desc. node	07 Jun 26 j 22:08	15°  42'36		morning set	09 Dec 04 j 17:26	1°  23'48	
greatest brilliancy	07 Jul 17 j 04:12	28°  10'15	-4.5m	desc. node	09 Dec 11 j 17:21	10°  21'50	
	07 Jul 23 j 08:02	0° 			09 Dec 27 j 11:39	0° 	
retrograde	07 Jul 28 j 19:05	0° 					
	07 Aug 03 j 02:41	30°  R 		superior conj	10 Jan 15 j 16:28	24°  04'20	-1°-10'-35
evening set	07 Aug 15 j 15:07	24°  39'48		minimum elong	10 Jan 15 j 05:31	23°  30'03	1°10'18
inferior conj	07 Aug 18 j 22:55	22°  38'37	-8°-42'-4	max. Earth dist.	10 Jan 19 j 16:10	29°  03'38	1.71622 AU
minimum elong	07 Aug 18 j 20:16	22°  42'42	8°41'59		10 Jan 20 j 10:11	0° 	
min. Earth dist.	07 Aug 19 j 12:00	22°  18'28	0.28138 AU		10 Feb 13 j 11:23	0° 	
morning rise	07 Aug 22 j 01:13	20°  45'12		evening rise	10 Feb 24 j 23:56	14°  18'26	
direct	07 Sep 09 j 06:07	14°  34'06			10 Mar 09 j 16:20	0° 	
greatest brilliancy	07 Sep 23 j 12:14	18°  13'16	-4.6m		10 Apr 03 j 02:10	0° 	
	07 Oct 11 j 00:43	0° 		asc. node	10 Apr 03 j 20:31	0°  56'07	
asc. node	07 Oct 18 j 01:11	6°  06'39			10 Apr 27 j 17:53	0° 	
morning max el	07 Oct 29 j 18:36	17°  27'53	46°46'58		10 May 22 j 16:53	0° 	
	07 Nov 10 j 16:06	0° 			10 Jun 17 j 02:10	0° 	
	07 Dec 07 j 02:01	0° 			10 Jul 13 j 04:35	0° 	
	08 Jan 01 j 06:09	0° 		desc. node	10 Jul 24 j 10:00	12°  29'39	
	08 Jan 25 j 23:27	0° 			10 Aug 09 j 17:39	0° 	
desc. node	08 Feb 06 j 15:01	14°  21'56		evening max el	10 Aug 22 j 01:36	12°  27'10	46°33'34
	08 Feb 19 j 12:56	0° 			10 Sep 10 j 18:15	0° 	
	08 Mar 15 j 01:19	0° 		greatest brilliancy	10 Sep 30 j 09:08	11°  15'43	-4.6m
	08 Apr 08 j 13:35	0° 		retrograde	10 Oct 10 j 22:40	13°  15'04	
morning set	08 May 03 j 03:09	0°  04'15		evening set	10 Oct 26 j 00:16	9°  13'11	
	08 May 03 j 01:46	0° 		inferior conj	10 Oct 31 j 12:44	6°  17'44	-3°-32'-18
	08 May 27 j 13:09	0° 		minimum elong	10 Oct 31 j 20:20	6°  06'13	3°30'03
asc. node	08 May 29 j 18:07	2°  14'31		min. Earth dist.	10 Oct 31 j 22:09	6°  03'27	0.26476 AU
max. Earth dist.	08 Jun 06 j 13:24	12°  17'31	1.73584 AU	morning rise	10 Nov 06 j 15:56	2°  14'35	
					10 Nov 12 j 20:40	30°  R 	
superior conj	08 Jun 08 j 12:33	14°  14'22	0°22'53	asc. node	10 Nov 14 j 12:58	29°  29'54	
minimum elong	08 Jun 08 j 08:06	14°  12'42	0°22'40	direct	10 Nov 20 j 21:58	28°  29'13	
	08 Jun 20 j 22:53	0° 			10 Nov 29 j 06:19	0° 	

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

greatest brilliancy	10 Dec 03 j 13:47	1° \mathbb{M} 38'15	-4.7m		13 Aug 18 j 23:23	0° $\underline{\mathfrak{A}}$	
	11 Jan 08 j 15:58	0° \mathfrak{A}		desc. node	13 Aug 20 j 22:00	2° $\underline{\mathfrak{A}}$ 19'03	
morning max el	11 Jan 10 j 11:52	1° \mathfrak{A} 50'10	46°50'37		13 Sep 13 j 08:10	0° \mathbb{M}	
	11 Feb 05 j 17:53	0° \mathfrak{C}			13 Oct 09 j 11:17	0° \mathfrak{A}	
	11 Mar 03 j 22:41	0° \approx		evening max el	13 Nov 03 j 03:19	26° \mathfrak{A} 32'50	47°24'39
desc. node	11 Mar 06 j 03:02	2° \approx 32'32			13 Nov 06 j 13:46	0° \mathfrak{C}	
	11 Mar 29 j 10:37	0° \mathfrak{H}		greatest brilliancy	13 Dec 11 j 05:05	27° \mathfrak{C} 11'33	-4.7m
	11 Apr 23 j 14:23	0° \mathfrak{Y}		asc. node	13 Dec 12 j 00:50	27° \mathfrak{C} 33'27	
	11 May 18 j 12:56	0° \mathfrak{B}			13 Dec 20 j 03:39	0° \approx	
	11 Jun 12 j 06:41	0° \mathbb{I}		retrograde	13 Dec 24 j 03:32	0° \approx 19'18	
asc. node	11 Jun 27 j 05:54	18° \mathbb{I} 16'53			13 Dec 28 j 01:27	30° \mathfrak{R} \mathfrak{C}	
	11 Jul 06 j 19:08	0° \mathfrak{S}		evening set	14 Jan 09 j 02:36	25° \mathfrak{C} 12'43	
morning set	11 Jul 10 j 11:17	4° \mathfrak{S} 31'03		min. Earth dist.	14 Jan 12 j 20:26	22° \mathfrak{C} 56'16	0.27211 AU
	11 Jul 31 j 02:12	0° Ω		inferior conj	14 Jan 13 j 21:23	22° \mathfrak{C} 17'20	7°09'21
max. Earth dist.	11 Aug 12 j 07:53	15° Ω 12'02	1.72396 AU	minimum elong	14 Jan 13 j 11:50	22° \mathfrak{C} 32'14	7°07'38
				morning rise	14 Jan 17 j 21:38	19° \mathfrak{C} 50'32	
superior conj	11 Aug 16 j 01:22	19° Ω 50'36	1°23'21	direct	14 Feb 03 j 11:16	14° \mathfrak{C} 29'43	
minimum elong	11 Aug 15 j 22:18	19° Ω 41'03	1°23'19	greatest brilliancy	14 Feb 13 j 22:41	16° \mathfrak{C} 32'53	-4.6m
	11 Aug 24 j 04:52	0° \mathfrak{M}			14 Mar 07 j 13:14	0° \approx	
	11 Sep 17 j 04:59	0° $\underline{\mathfrak{A}}$		morning max el	14 Mar 24 j 21:43	15° \approx 37'15	46°10'47
evening rise	11 Sep 22 j 20:30	7° $\underline{\mathfrak{A}}$ 04'00		desc. node	14 Apr 02 j 14:45	24° \approx 18'26	
	11 Oct 11 j 04:22	0° \mathbb{M}			14 Apr 08 j 02:54	0° \mathfrak{H}	
desc. node	11 Oct 16 j 19:51	7° \mathbb{M} 03'44			14 May 05 j 15:27	0° \mathfrak{Y}	
	11 Nov 04 j 04:18	0° \mathfrak{A}			14 May 31 j 20:06	0° \mathfrak{B}	
	11 Nov 28 j 05:56	0° \mathfrak{C}			14 Jun 26 j 07:31	0° \mathbb{I}	
	11 Dec 22 j 11:24	0° \approx			14 Jul 21 j 06:15	0° \mathfrak{S}	
	12 Jan 16 j 01:02	0° \mathfrak{H}		asc. node	14 Jul 24 j 17:50	4° \mathfrak{S} 13'57	
asc. node	12 Feb 06 j 22:38	26° \mathfrak{H} 05'20			14 Aug 14 j 18:26	0° Ω	
	12 Feb 10 j 06:59	0° \mathfrak{Y}			14 Sep 07 j 22:21	0° \mathfrak{M}	
	12 Mar 07 j 21:47	0° \mathfrak{B}		morning set	14 Sep 18 j 05:23	12° \mathfrak{M} 52'31	
evening max el	12 Mar 27 j 21:02	20° \mathfrak{B} 34'18	45°31'09		14 Oct 01 j 20:57	0° $\underline{\mathfrak{A}}$	
	12 Apr 07 j 01:46	0° \mathbb{I}			14 Oct 25 j 17:11	0° \mathbb{M}	
greatest brilliancy	12 May 01 j 00:43	16° \mathbb{I} 51'50	-4.5m				
retrograde	12 May 15 j 13:23	20° \mathbb{I} 31'45		superior conj	14 Oct 27 j 10:55	2° \mathbb{M} 11'19	0°38'41
desc. node	12 May 28 j 12:17	17° \mathbb{I} 14'21		minimum elong	14 Oct 27 j 19:52	2° \mathbb{M} 39'31	0°38'16
evening set	12 May 30 j 13:15	16° \mathbb{I} 11'05		max. Earth dist.	14 Oct 27 j 01:35	1° \mathbb{M} 41'58	1.71083 AU
inferior conj	12 Jun 06 j 00:08	12° \mathbb{I} 20'20	-1°-58'-15	desc. node	14 Nov 13 j 07:37	23° \mathbb{M} 25'05	
minimum elong	12 Jun 05 j 19:52	12° \mathbb{I} 26'59	1°57'02		14 Nov 18 j 13:09	0° \mathfrak{A}	
min. Earth dist.	12 Jun 06 j 03:17	12° \mathbb{I} 15'26	0.28962 AU	evening rise	14 Dec 08 j 02:43	24° \mathfrak{A} 35'25	
morning rise	12 Jun 12 j 02:20	8° \mathbb{I} 40'59			14 Dec 12 j 10:08	0° \mathfrak{C}	
direct	12 Jun 27 j 16:41	4° \mathbb{I} 01'53			15 Jan 05 j 09:15	0° \approx	
greatest brilliancy	12 Jul 11 j 20:51	7° \mathbb{I} 31'38	-4.5m		15 Jan 29 j 12:14	0° \mathfrak{H}	
	12 Aug 11 j 06:19	0° \mathfrak{S}			15 Feb 22 j 21:51	0° \mathfrak{Y}	
morning max el	12 Aug 15 j 22:47	4° \mathfrak{S} 27'47	46°04'55	asc. node	15 Mar 06 j 10:37	14° \mathfrak{Y} 00'26	
	12 Sep 09 j 08:54	0° Ω			15 Mar 19 j 17:55	0° \mathfrak{B}	
asc. node	12 Sep 18 j 15:30	10° Ω 24'30			15 Apr 14 j 06:02	0° \mathbb{I}	
	12 Oct 05 j 12:04	0° \mathfrak{M}			15 May 10 j 21:25	0° \mathfrak{S}	
	12 Oct 30 j 09:34	0° $\underline{\mathfrak{A}}$		evening max el	15 Jun 07 j 17:19	28° \mathfrak{S} 41'36	45°25'30
	12 Nov 23 j 17:17	0° \mathbb{M}			15 Jun 09 j 02:21	0° Ω	
	12 Dec 17 j 19:35	0° \mathfrak{A}		desc. node	15 Jun 26 j 00:17	14° Ω 37'33	
desc. node	13 Jan 08 j 05:14	26° \mathfrak{A} 41'51		greatest brilliancy	15 Jul 14 j 16:35	25° Ω 53'08	-4.5m
	13 Jan 10 j 20:48	0° \mathfrak{C}		retrograde	15 Jul 26 j 08:31	28° Ω 17'32	
	13 Feb 03 j 22:56	0° \approx		evening set	15 Aug 13 j 03:11	22° Ω 27'25	
morning set	13 Feb 19 j 11:52	19° \approx 18'12		inferior conj	15 Aug 16 j 13:31	20° Ω 22'31	-8°-38'-27
	13 Feb 28 j 02:51	0° \mathfrak{H}		minimum elong	15 Aug 16 j 10:02	20° Ω 27'52	8°38'17
	13 Mar 24 j 09:00	0° \mathfrak{Y}		min. Earth dist.	15 Aug 17 j 02:22	20° Ω 02'42	0.28191 AU
				morning rise	15 Aug 19 j 16:41	18° Ω 27'38	
superior conj	13 Mar 30 j 03:10	7° \mathfrak{Y} 06'12	-1°-6'-33	direct	15 Sep 06 j 20:46	12° Ω 17'02	
minimum elong	13 Mar 30 j 12:40	7° \mathfrak{Y} 35'29	1°06'16	greatest brilliancy	15 Sep 21 j 04:07	15° Ω 56'32	-4.6m
max. Earth dist.	13 Apr 01 j 11:38	10° \mathfrak{Y} 00'16	1.73169 AU		15 Oct 11 j 09:32	0° \mathfrak{M}	
	13 Apr 17 j 17:28	0° \mathfrak{B}		asc. node	15 Oct 17 j 03:13	5° \mathfrak{M} 07'54	
asc. node	13 May 01 j 08:18	16° \mathfrak{B} 43'44		morning max el	15 Oct 27 j 07:53	15° \mathfrak{M} 03'26	46°45'54
evening rise	13 May 06 j 10:53	22° \mathfrak{B} 59'47			15 Nov 10 j 10:34	0° $\underline{\mathfrak{A}}$	
	13 May 12 j 04:00	0° \mathbb{I}			15 Dec 06 j 16:53	0° \mathbb{M}	
	13 Jun 05 j 16:16	0° \mathfrak{S}			15 Dec 31 j 19:24	0° \mathfrak{A}	
	13 Jun 30 j 06:34	0° Ω			16 Jan 25 j 11:45	0° \mathfrak{C}	
	13 Jul 25 j 00:09	0° \mathfrak{M}		desc. node	16 Feb 05 j 17:11	13° \mathfrak{C} 43'03	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	16 Feb 19 j 00:36	0°≈			18 Sep 11 j 11:18	0°ℓ	
	16 Mar 14 j 12:31	0°✕		greatest brilliancy	18 Sep 27 j 20:58	9°ℓ23'42	-4.6m
	16 Apr 08 j 00:28	0°Υ		retrograde	18 Oct 08 j 11:04	11°ℓ28'11	
morning set	16 Apr 30 j 21:16	28°Υ00'01		evening set	18 Oct 23 j 14:55	6°ℓ59'24	
	16 May 02 j 12:27	0°♄		inferior conj	18 Oct 29 j 00:47	3°ℓ49'33	-3°-54'-32
	16 May 26 j 23:46	0°♂		minimum elong	18 Oct 29 j 09:03	3°ℓ37'03	3°52'08
asc. node	16 May 28 j 20:10	2°♂16'18		min. Earth dist.	18 Oct 29 j 11:18	3°ℓ33'39	0.26513 AU
max. Earth dist.	16 Jun 04 j 09:28	10°♂19'13	1.73603 AU	morning rise	18 Nov 04 j 02:46	0°ℓ17'25	
					18 Nov 04 j 16:00	30°ℓ00	
superior conj	16 Jun 06 j 07:18	12°♂39'59	0°19'53	asc. node	18 Nov 13 j 15:00	26°♂59'34	
minimum elong	16 Jun 06 j 03:23	12°♂27'59	0°19'42	direct	18 Nov 18 j 11:00	26°♂10'23	
	16 Jun 20 j 09:30	0°♄		greatest brilliancy	18 Dec 01 j 04:29	29°♂12'02	-4.7m
evening rise	16 Jul 12 j 00:28	26°♄39'50			18 Dec 02 j 21:10	0°ℓ	
	16 Jul 14 j 17:19	0°♂		morning max el	19 Jan 08 j 02:34	29°ℓ28'09	46°51'25
	16 Aug 07 j 23:54	0°♊			19 Jan 08 j 15:09	0°♄	
	16 Sep 01 j 06:39	0°♂			19 Feb 05 j 10:19	0°♄	
desc. node	16 Sep 17 j 09:57	19°♂53'35			19 Mar 03 j 12:33	0°≈	
	16 Sep 25 j 15:03	0°ℓ		desc. node	19 Mar 05 j 05:01	1°≈58'15	
	16 Oct 20 j 02:38	0°♄			19 Mar 28 j 23:07	0°✕	
	16 Nov 13 j 20:19	0°♄			19 Apr 23 j 02:03	0°Υ	
	16 Dec 09 j 03:57	0°≈			19 May 18 j 00:03	0°♄	
	17 Jan 04 j 22:55	0°✕			19 Jun 11 j 17:28	0°♂	
asc. node	17 Jan 08 j 12:53	3°✕46'28		asc. node	19 Jun 26 j 08:06	17°♂50'58	
evening max el	17 Jan 13 j 12:48	8°✕54'31	46°42'21		19 Jul 06 j 05:45	0°♄	
	17 Feb 05 j 23:50	0°Υ		morning set	19 Jul 08 j 05:24	2°♄26'30	
greatest brilliancy	17 Feb 18 j 10:50	7°Υ50'29	-4.6m		19 Jul 30 j 12:48	0°♂	
retrograde	17 Mar 04 j 20:06	11°Υ35'42		max. Earth dist.	19 Aug 10 j 00:35	13°♂01'38	1.72453 AU
evening set	17 Mar 21 j 23:34	5°Υ54'22					
inferior conj	17 Mar 26 j 04:03	3°Υ17'46	7°00'55	superior conj	19 Aug 13 j 18:25	17°♂41'05	1°22'44
minimum elong	17 Mar 26 j 13:02	3°Υ03'29	6°59'25	minimum elong	19 Aug 13 j 14:42	17°♂29'28	1°22'42
min. Earth dist.	17 Mar 26 j 04:02	3°Υ17'47	0.28762 AU		19 Aug 23 j 15:34	0°♊	
morning rise	17 Mar 31 j 02:42	0°Υ14'23			19 Sep 16 j 15:50	0°♂	
	17 Mar 31 j 12:37	30°ℓ✕		evening rise	19 Sep 20 j 10:09	4°♂42'28	
direct	17 Apr 16 j 12:09	25°✕02'57			19 Oct 10 j 15:25	0°ℓ	
greatest brilliancy	17 Apr 28 j 18:04	27°✕42'21	-4.5m	desc. node	19 Oct 15 j 21:50	6°ℓ35'14	
desc. node	17 Apr 30 j 02:25	28°✕17'01			19 Nov 03 j 15:34	0°♄	
	17 May 03 j 14:21	0°Υ			19 Nov 27 j 17:28	0°♄	
morning max el	17 Jun 04 j 06:36	24°Υ49'20	45°45'02		19 Dec 21 j 23:19	0°≈	
	17 Jun 09 j 14:36	0°♄			20 Jan 15 j 13:36	0°✕	
	17 Jul 08 j 02:09	0°♂		asc. node	20 Feb 06 j 00:41	25°✕31'36	
	17 Aug 03 j 10:45	0°♄			20 Feb 09 j 20:49	0°Υ	
asc. node	17 Aug 21 j 05:44	21°♄02'22			20 Mar 07 j 14:35	0°♄	
	17 Aug 28 j 16:36	0°♂		evening max el	20 Mar 25 j 14:00	18°♄26'29	45°32'49
	17 Sep 22 j 05:30	0°♊			20 Apr 07 j 05:45	0°♂	
	17 Oct 16 j 08:06	0°♂		greatest brilliancy	20 Apr 28 j 17:06	14°♂44'20	-4.5m
	17 Nov 09 j 05:39	0°ℓ		retrograde	20 May 13 j 06:04	18°♂24'14	
morning set	17 Dec 02 j 03:08	28°ℓ48'39		desc. node	20 May 27 j 14:26	14°♂24'24	
	17 Dec 03 j 01:49	0°♄		evening set	20 May 28 j 05:43	14°♂03'53	
desc. node	17 Dec 10 j 19:26	9°♄43'49		inferior conj	20 Jun 03 j 16:38	10°♂12'34	-1°-39'00
	17 Dec 26 j 22:36	0°♄		minimum elong	20 Jun 03 j 13:02	10°♂18'11	1°37'59
				min. Earth dist.	20 Jun 03 j 19:38	10°♂07'53	0.28966 AU
superior conj	18 Jan 13 j 02:48	21°♄32'20	-1°-8'-18	morning rise	20 Jun 09 j 20:17	6°♂31'03	
minimum elong	18 Jan 12 j 15:28	20°♄56'50	1°07'59	direct	20 Jun 25 j 09:43	1°♂54'14	
max. Earth dist.	18 Jan 16 j 21:12	26°♄15'14	1.71573 AU	greatest brilliancy	20 Jul 09 j 11:02	5°♂21'03	-4.5m
	18 Jan 19 j 21:04	0°≈			20 Aug 11 j 05:36	0°♄	
	18 Feb 12 j 22:12	0°✕		morning max el	20 Aug 13 j 14:40	2°♄17'06	46°03'29
evening rise	18 Feb 22 j 12:53	11°✕56'14			20 Sep 09 j 00:46	0°♂	
	18 Mar 09 j 03:10	0°Υ		asc. node	20 Sep 17 j 17:32	9°♂48'08	
asc. node	18 Apr 02 j 22:31	0°♄28'49			20 Oct 05 j 01:35	0°♊	
	18 Apr 02 j 13:06	0°♄			20 Oct 29 j 22:03	0°♂	
	18 Apr 27 j 05:06	0°♂			20 Nov 23 j 05:12	0°ℓ	
	18 May 22 j 04:40	0°♄			20 Dec 17 j 07:08	0°♄	
	18 Jun 16 j 15:01	0°♂		desc. node	21 Jan 07 j 07:24	26°♄13'21	
	18 Jul 12 j 19:31	0°♊			21 Jan 10 j 08:05	0°♄	
desc. node	18 Jul 23 j 12:07	11°♊50'43			21 Feb 03 j 10:00	0°≈	
	18 Aug 09 j 13:22	0°♂		morning set	21 Feb 17 j 00:31	16°≈54'32	
evening max el	18 Aug 19 j 15:02	10°♂05'49	46°30'51		21 Feb 27 j 13:46	0°✕	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	21 Mar 23 j 19:47	0°♈		direct	23 Sep 04 j 11:30	10°♏00'10	
				greatest brilliancy	23 Sep 18 j 20:53	13°♏41'24	-4.6m
superior conj	21 Mar 27 j 18:52	4°♈53'22	-1°-8'-37		23 Oct 11 j 15:50	0°♐	
minimum elong	21 Mar 28 j 04:14	5°♈22'16	1°08'22	asc. node	23 Oct 16 j 05:17	4°♐10'40	
max. Earth dist.	21 Mar 30 j 08:23	8°♈03'06	1.73126 AU	morning max el	23 Oct 24 j 21:45	12°♐40'42	46°44'54
	21 Apr 17 j 04:12	0°♉			23 Nov 10 j 04:34	0°♑	
asc. node	21 Apr 30 j 10:25	16°♉17'11			23 Dec 06 j 07:36	0°♒	
evening rise	21 May 04 j 04:53	20°♉54'44			23 Dec 31 j 08:39	0°♓	
	21 May 11 j 14:46	0°♊			24 Jan 25 j 00:11	0°♑	
	21 Jun 05 j 03:13	0°♋		desc. node	24 Feb 04 j 19:08	13°♑11'51	
	21 Jun 29 j 17:51	0°♌			24 Feb 18 j 12:28	0°♒	
	21 Jul 24 j 11:59	0°♍			24 Mar 13 j 23:58	0°♓	
	21 Aug 18 j 12:06	0°♎			24 Apr 07 j 11:37	0°♈	
desc. node	21 Aug 20 j 00:02	1°♎46'56		morning set	24 Apr 28 j 14:51	25°♈53'17	
	21 Sep 12 j 22:22	0°♏			24 May 01 j 23:24	0°♉	
	21 Oct 09 j 04:19	0°♐			24 May 26 j 10:38	0°♊	
evening max el	21 Oct 31 j 18:16	24°♐11'01	47°24'09	asc. node	24 May 27 j 22:19	1°♊49'33	
	21 Nov 06 j 14:29	0°♑		max. Earth dist.	24 Jun 02 j 06:41	8°♊23'38	1.73620 AU
greatest brilliancy	21 Dec 08 j 21:53	24°♑49'22	-4.7m				
asc. node	21 Dec 11 j 03:05	25°♑45'08		superior conj	24 Jun 04 j 01:43	10°♊35'49	0°16'50
retrograde	21 Dec 21 j 17:19	27°♑53'22		minimum elong	24 Jun 03 j 22:22	10°♊25'34	0°16'40
evening set	22 Jan 06 j 12:45	22°♑53'08			24 Jun 19 j 20:23	0°♋	
min. Earth dist.	22 Jan 10 j 10:10	20°♑31'28	0.27144 AU	evening rise	24 Jul 09 j 19:11	24°♋35'38	
inferior conj	22 Jan 11 j 10:53	19°♑52'52	6°56'03		24 Jul 14 j 04:19	0°♌	
minimum elong	22 Jan 11 j 01:05	20°♑08'10	6°54'11		24 Aug 07 j 11:07	0°♍	
morning rise	22 Jan 15 j 13:59	17°♑21'47			24 Aug 31 j 18:11	0°♎	
direct	22 Feb 01 j 00:12	12°♑06'31		desc. node	24 Sep 16 j 11:59	19°♎23'32	
greatest brilliancy	22 Feb 11 j 11:34	14°♑09'23	-4.6m		24 Sep 25 j 03:02	0°♏	
	22 Mar 07 j 22:50	0°♒			24 Oct 19 j 15:11	0°♐	
morning max el	22 Mar 22 j 10:34	13°♒15'36	46°12'11		24 Nov 13 j 09:48	0°♑	
desc. node	22 Apr 01 j 16:47	23°♒32'42			24 Dec 08 j 19:08	0°♒	
	22 Apr 07 j 21:22	0°♓			25 Jan 04 j 18:21	0°♓	
	22 May 05 j 05:59	0°♈		asc. node	25 Jan 07 j 14:52	2°♓58'48	
	22 May 31 j 08:53	0°♉		evening max el	25 Jan 11 j 03:21	6°♓35'04	46°44'51
	22 Jun 25 j 19:22	0°♊			25 Feb 06 j 17:57	0°♈	
	22 Jul 20 j 17:35	0°♋		greatest brilliancy	25 Feb 16 j 02:37	5°♈36'23	-4.6m
asc. node	22 Jul 23 j 19:54	3°♋45'55		retrograde	25 Mar 02 j 12:37	9°♈23'00	
	22 Aug 14 j 05:29	0°♌		evening set	25 Mar 19 j 18:14	3°♈37'20	
	22 Sep 07 j 09:16	0°♍		inferior conj	25 Mar 23 j 20:07	1°♈04'52	7°12'15
morning set	22 Sep 15 j 20:07	10°♍34'10		minimum elong	25 Mar 24 j 04:50	0°♈51'02	7°10'53
	22 Oct 01 j 07:52	0°♎		min. Earth dist.	25 Mar 23 j 19:24	1°♈06'00	0.28739 AU
max. Earth dist.	22 Oct 24 j 05:49	28°♎49'44	1.71110 AU		25 Mar 25 j 13:09	30°♈	
				morning rise	25 Mar 28 j 15:37	28°♈06'21	
superior conj	22 Oct 24 j 22:24	29°♎41'52	0°42'03	direct	25 Apr 14 j 03:26	22°♈50'19	
minimum elong	22 Oct 25 j 07:51	0°♏11'37	0°41'38	greatest brilliancy	25 Apr 26 j 08:40	25°♈29'20	-4.5m
	22 Oct 25 j 04:09	0°♐		desc. node	25 Apr 29 j 04:33	26°♈45'12	
desc. node	22 Nov 12 j 09:46	22°♐57'01			25 May 05 j 01:48	0°♉	
	22 Nov 18 j 00:13	0°♑		morning max el	25 Jun 01 j 22:57	22°♉39'37	45°45'15
evening rise	22 Dec 05 j 12:20	21°♑59'55			25 Jun 09 j 11:08	0°♊	
	22 Dec 11 j 21:19	0°♒			25 Jul 07 j 17:23	0°♋	
	23 Jan 04 j 20:32	0°♓			25 Aug 02 j 23:57	0°♌	
	23 Jan 28 j 23:39	0°♈		asc. node	25 Aug 20 j 07:42	20°♌30'58	
	23 Feb 22 j 09:34	0°♉			25 Aug 28 j 04:50	0°♍	
asc. node	23 Mar 05 j 12:38	13°♉30'23			25 Sep 21 j 17:14	0°♎	
	23 Mar 19 j 06:15	0°♊			25 Oct 15 j 19:35	0°♏	
	23 Apr 13 j 19:34	0°♋			25 Nov 08 j 17:00	0°♐	
	23 May 10 j 13:36	0°♌		morning set	25 Nov 29 j 13:26	26°♐14'38	
evening max el	23 Jun 05 j 07:03	26°♌24'59	45°24'22		25 Dec 02 j 13:03	0°♑	
	23 Jun 09 j 02:33	0°♍		desc. node	25 Dec 09 j 21:35	9°♑15'19	
desc. node	23 Jun 25 j 02:26	13°♍30'28			25 Dec 26 j 09:45	0°♒	
greatest brilliancy	23 Jul 12 j 04:09	23°♍35'03	-4.5m				
retrograde	23 Jul 23 j 22:27	26°♍02'24		superior conj	26 Jan 10 j 13:20	19°♒00'08	-1°-5'-53
evening set	23 Aug 10 j 15:02	20°♍15'33		minimum elong	26 Jan 10 j 01:43	18°♒23'46	1°05'32
inferior conj	23 Aug 14 j 04:12	18°♍06'38	-8°-33'-57	max. Earth dist.	26 Jan 14 j 05:51	23°♒37'20	1.71530 AU
minimum elong	23 Aug 13 j 23:56	18°♍13'12	8°33'44		26 Jan 19 j 08:11	0°♓	
min. Earth dist.	23 Aug 14 j 16:41	17°♍47'25	0.28239 AU		26 Feb 12 j 09:19	0°♈	
morning rise	23 Aug 17 j 08:36	16°♍09'58		evening rise	26 Feb 20 j 01:51	9°♈33'08	

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	26 Mar 08 j 14:20	0°♄			28 Aug 11 j 04:28	0°♄		
asc. node	26 Apr 02 j 00:37	0°♄00'34			28 Sep 08 j 16:49	0°♄		
	26 Apr 02 j 00:25	0°♄		asc. node	28 Sep 16 j 19:42	9°♄11'14		
	26 Apr 26 j 16:45	0°♄			28 Oct 04 j 15:22	0°♄		
	26 May 21 j 16:56	0°♄			28 Oct 29 j 10:46	0°♄		
	26 Jun 16 j 04:26	0°♄			28 Nov 22 j 17:21	0°♄		
	26 Jul 12 j 11:08	0°♄			28 Dec 16 j 18:56	0°♄		
desc. node	26 Jul 22 j 14:06	11°♄09'43		desc. node	29 Jan 06 j 09:20	25°♄43'13		
	26 Aug 09 j 10:12	0°♄			29 Jan 09 j 19:37	0°♄		
evening max el	26 Aug 17 j 05:03	7°♄44'56	46°28'10		29 Feb 02 j 21:20	0°♄		
	26 Sep 12 j 10:55	0°♄		morning set	29 Feb 14 j 13:16	14°♄30'18		
greatest brilliancy	26 Sep 25 j 08:52	6°♄54'59	-4.6m		29 Feb 27 j 00:53	0°♄		
retrograde	26 Oct 05 j 23:29	8°♄59'10			29 Mar 23 j 06:46	0°♄		
evening set	26 Oct 21 j 05:45	4°♄26'41						
inferior conj	26 Oct 26 j 12:51	1°♄20'24	-4°-16'-15	superior conj	29 Mar 25 j 10:46	2°♄40'29	-1°-10'-35	
minimum elong	26 Oct 26 j 21:41	1°♄07'01	4°13'45	minimum elong	29 Mar 25 j 19:57	3°♄08'48	1°10'20	
min. Earth dist.	26 Oct 27 j 00:16	1°♄03'08	0.26548 AU	max. Earth dist.	29 Mar 28 j 05:17	6°♄05'42	1.73078 AU	
	26 Oct 28 j 18:15	30°♄			29 Apr 16 j 15:07	0°♄		
morning rise	26 Nov 01 j 13:17	27°♄50'29		asc. node	29 Apr 29 j 12:34	15°♄50'11		
asc. node	26 Nov 12 j 17:11	23°♄54'21		evening rise	29 May 01 j 22:57	18°♄49'16		
direct	26 Nov 16 j 00:16	23°♄40'49			29 May 11 j 01:46	0°♄		
greatest brilliancy	26 Nov 28 j 18:20	26°♄43'46	-4.7m		29 Jun 04 j 14:27	0°♄		
	26 Dec 04 j 22:01	0°♄			29 Jun 29 j 05:28	0°♄		
morning max el	27 Jan 05 j 16:49	27°♄04'11	46°52'16		29 Jul 24 j 00:12	0°♄		
	27 Jan 08 j 13:41	0°♄			29 Aug 18 j 01:15	0°♄		
	27 Feb 05 j 02:43	0°♄		desc. node	29 Aug 19 j 02:03	1°♄13'41		
	27 Mar 03 j 02:31	0°♄			29 Sep 12 j 13:03	0°♄		
desc. node	27 Mar 04 j 07:06	1°♄23'42			29 Oct 08 j 22:00	0°♄		
	27 Mar 28 j 11:50	0°♄		evening max el	29 Oct 29 j 08:03	21°♄45'26	47°23'40	
	27 Apr 22 j 14:02	0°♄			29 Nov 06 j 16:50	0°♄		
	27 May 17 j 11:33	0°♄		greatest brilliancy	29 Dec 06 j 14:40	22°♄26'13	-4.7m	
	27 Jun 11 j 04:40	0°♄		asc. node	29 Dec 10 j 05:04	23°♄51'27		
asc. node	27 Jun 25 j 10:08	17°♄23'12		retrograde	29 Dec 19 j 06:33	25°♄26'40		
morning set	27 Jul 05 j 23:15	0°♄19'53		evening set	30 Jan 03 j 22:54	20°♄32'22		
	27 Jul 05 j 16:47	0°♄		min. Earth dist.	30 Jan 08 j 00:10	18°♄05'20	0.27077 AU	
	27 Jul 29 j 23:48	0°♄		inferior conj	30 Jan 09 j 00:21	17°♄27'36	6°42'01	
max. Earth dist.	27 Aug 07 j 15:45	10°♄45'21	1.72506 AU	minimum elong	30 Jan 08 j 14:22	17°♄43'11	6°39'58	
				morning rise	30 Jan 13 j 06:21	14°♄52'13		
superior conj	27 Aug 11 j 11:18	15°♄29'57	1°21'58	direct	30 Jan 29 j 12:38	9°♄42'16		
minimum elong	27 Aug 11 j 06:57	15°♄16'25	1°21'56	greatest brilliancy	30 Feb 09 j 01:31	11°♄46'10	-4.6m	
	27 Aug 23 j 02:38	0°♄			30 Mar 08 j 06:04	0°♄		
	27 Sep 16 j 03:04	0°♄		morning max el	30 Mar 19 j 23:11	10°♄52'44	46°13'47	
evening rise	27 Sep 17 j 23:45	2°♄19'43		desc. node	30 Mar 31 j 18:54	22°♄47'25		
	27 Oct 10 j 02:50	0°♄			30 Apr 07 j 15:31	0°♄		
desc. node	27 Oct 14 j 23:58	6°♄06'06			30 May 04 j 20:27	0°♄		
	27 Nov 03 j 03:12	0°♄			30 May 30 j 21:40	0°♄		
	27 Nov 27 j 05:22	0°♄			30 Jun 25 j 07:16	0°♄		
	27 Dec 21 j 11:35	0°♄			30 Jul 20 j 05:02	0°♄		
	28 Jan 15 j 02:31	0°♄		asc. node	30 Jul 22 j 21:54	3°♄17'18		
asc. node	28 Feb 05 j 02:43	24°♄56'55			30 Aug 13 j 16:42	0°♄		
	28 Feb 09 j 11:01	0°♄			30 Sep 06 j 20:24	0°♄		
	28 Mar 07 j 08:01	0°♄		morning set	30 Sep 13 j 10:38	8°♄14'32		
evening max el	28 Mar 23 j 06:15	16°♄15'57	45°34'20		30 Sep 30 j 18:59	0°♄		
	28 Apr 07 j 12:09	0°♄		max. Earth dist.	30 Oct 21 j 11:44	26°♄02'09	1.71135 AU	
greatest brilliancy	28 Apr 26 j 09:51	12°♄36'09	-4.5m					
retrograde	28 May 10 j 22:08	16°♄15'26		superior conj	30 Oct 22 j 09:40	27°♄11'12	0°45'20	
evening set	28 May 25 j 22:16	11°♄55'12		minimum elong	30 Oct 22 j 19:33	27°♄42'18	0°44'55	
desc. node	28 May 26 j 16:33	11°♄29'55			30 Oct 24 j 15:19	0°♄		
inferior conj	28 Jun 01 j 09:05	8°♄03'36	-1°-19'-38	desc. node	30 Nov 11 j 11:51	22°♄28'17		
minimum elong	28 Jun 01 j 06:10	8°♄08'09	1°18'48		30 Nov 17 j 11:28	0°♄		
min. Earth dist.	28 Jun 01 j 12:17	7°♄58'36	0.28973 AU	evening rise	30 Dec 02 j 21:49	19°♄23'37		
morning rise	28 Jun 07 j 14:01	4°♄19'52			30 Dec 11 j 08:38	0°♄		
	28 Jun 19 j 13:21	30°♄			31 Jan 04 j 07:55	0°♄		
direct	28 Jun 23 j 02:25	29°♄45'15			31 Jan 28 j 11:12	0°♄		
	28 Jun 26 j 16:54	0°♄			31 Feb 21 j 21:25	0°♄		
greatest brilliancy	28 Jul 07 j 01:15	3°♄09'01	-4.5m	asc. node	31 Mar 04 j 14:46	13°♄00'26		
morning max el	28 Aug 11 j 05:38	0°♄02'49	46°02'06		31 Mar 18 j 18:41	0°♄		

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	31 Apr 13 j 09:14	0°♊			33 Sep 21 j 04:41	0°♎	
	31 May 10 j 06:02	0°♋			33 Oct 15 j 06:51	0°♏	
evening max el	31 Jun 02 j 21:08	24°♋09'36	45°23'21		33 Nov 08 j 04:11	0°♐	
	31 Jun 09 j 03:51	0°♌		morning set	33 Nov 26 j 23:28	23°♐40'08	
desc. node	31 Jun 24 j 04:21	12°♌21'20			33 Dec 02 j 00:11	0°♑	
greatest brilliancy	31 Jul 09 j 14:33	21°♌16'07	-4.5m	desc. node	33 Dec 08 j 23:34	8°♑46'33	
retrograde	31 Jul 21 j 13:02	23°♌47'44			33 Dec 25 j 20:49	0°♒	
evening set	31 Aug 08 j 02:41	18°♌04'14					
inferior conj	31 Aug 11 j 18:58	15°♌50'54	-8°-28'-40	superior conj	34 Jan 07 j 23:12	16°♒26'02	-1°-3'-17
minimum elong	31 Aug 11 j 13:56	15°♌58'37	8°28'19	minimum elong	34 Jan 07 j 11:24	15°♒49'05	1°02'54
min. Earth dist.	31 Aug 12 j 06:42	15°♌32'52	0.28293 AU	max. Earth dist.	34 Jan 11 j 15:30	21°♒02'42	1.71485 AU
morning rise	31 Aug 15 j 00:56	13°♌52'02			34 Jan 18 j 19:11	0°♓	
direct	31 Sep 02 j 02:42	7°♌43'26			34 Feb 11 j 20:17	0°♈	
greatest brilliancy	31 Sep 16 j 14:19	11°♌27'11	-4.6m	evening rise	34 Feb 17 j 14:17	7°♈08'46	
	31 Oct 11 j 20:19	0°♎			34 Mar 08 j 01:20	0°♉	
asc. node	31 Oct 15 j 07:26	3°♎14'25		asc. node	34 Apr 01 j 02:45	29°♉33'07	
morning max el	31 Oct 22 j 12:41	10°♎20'28	46°43'46		34 Apr 01 j 11:33	0°♊	
	31 Nov 09 j 22:20	0°♏			34 Apr 26 j 04:12	0°♋	
	31 Dec 05 j 22:17	0°♐			34 May 21 j 05:00	0°♌	
	31 Dec 30 j 21:55	0°♑			34 Jun 15 j 17:39	0°♌	
	32 Jan 24 j 12:35	0°♒			34 Jul 12 j 02:36	0°♍	
desc. node	32 Feb 03 j 21:16	12°♒41'16		desc. node	34 Jul 21 j 16:14	10°♍29'52	
	32 Feb 18 j 00:17	0°♓			34 Aug 09 j 07:15	0°♎	
	32 Mar 13 j 11:22	0°♈		evening max el	34 Aug 14 j 19:14	5°♎25'53	46°25'27
	32 Apr 06 j 22:42	0°♉			34 Sep 13 j 18:24	0°♏	
morning set	32 Apr 26 j 08:39	23°♉47'15		greatest brilliancy	34 Sep 22 j 21:17	4°♏28'45	-4.6m
	32 May 01 j 10:17	0°♊		retrograde	34 Oct 03 j 11:33	6°♏31'56	
	32 May 25 j 21:24	0°♋		evening set	34 Oct 18 j 20:54	1°♏55'48	
asc. node	32 May 27 j 00:21	1°♋22'43			34 Oct 22 j 04:51	30°♏	
max. Earth dist.	32 May 31 j 05:36	6°♋33'37	1.73631 AU	inferior conj	34 Oct 24 j 01:07	28°♏53'06	-4°-37'-13
				minimum elong	34 Oct 24 j 10:27	28°♏38'57	4°34'39
superior conj	32 Jun 01 j 20:25	8°♋32'49	0°13'47	min. Earth dist.	34 Oct 24 j 13:25	28°♏34'27	0.26591 AU
minimum elong	32 Jun 01 j 17:40	8°♋24'21	0°13'39	morning rise	34 Oct 29 j 23:43	25°♏25'26	
behind sun begin	32 Jun 01 j 06:16	7°♋49'22		asc. node	34 Nov 11 j 19:11	21°♏16'56	
behind sun end	32 Jun 02 j 05:03	8°♋59'20		direct	34 Nov 13 j 13:41	21°♏13'04	
	32 Jun 19 j 07:08	0°♋		greatest brilliancy	34 Nov 26 j 08:18	24°♏16'45	-4.7m
evening rise	32 Jul 07 j 14:18	22°♋33'09			34 Dec 06 j 06:17	0°♐	
	32 Jul 13 j 15:10	0°♌		morning max el	35 Jan 03 j 06:14	24°♐38'31	46°52'47
	32 Aug 06 j 22:13	0°♍			35 Jan 08 j 11:09	0°♑	
	32 Aug 31 j 05:41	0°♎			35 Feb 04 j 18:42	0°♒	
desc. node	32 Sep 15 j 14:08	18°♎53'55		desc. node	35 Mar 02 j 16:14	0°♓	
	32 Sep 24 j 15:01	0°♏			35 Mar 03 j 09:14	0°♓49'56	
	32 Oct 19 j 03:50	0°♑			35 Mar 28 j 00:18	0°♈	
	32 Nov 12 j 23:26	0°♒			35 Apr 22 j 01:43	0°♉	
	32 Dec 08 j 10:34	0°♓			35 May 16 j 22:43	0°♊	
	33 Jan 04 j 14:22	0°♈			35 Jun 10 j 15:31	0°♋	
asc. node	33 Jan 06 j 16:54	2°♈10'38		asc. node	35 Jun 24 j 12:08	16°♋56'22	
evening max el	33 Jan 08 j 18:46	4°♈17'47	46°47'31	morning set	35 Jul 03 j 17:14	28°♋14'44	
	33 Feb 07 j 18:28	0°♉			35 Jul 05 j 03:29	0°♌	
greatest brilliancy	33 Feb 13 j 18:45	3°♉22'59	-4.6m		35 Jul 29 j 10:27	0°♍	
retrograde	33 Feb 28 j 05:28	7°♉10'25		max. Earth dist.	35 Aug 05 j 06:35	8°♍29'12	1.72558 AU
evening set	33 Mar 17 j 12:53	1°♉20'33					
	33 Mar 19 j 17:08	30°♎		superior conj	35 Aug 09 j 04:36	13°♍21'20	1°21'07
inferior conj	33 Mar 21 j 12:08	28°♎52'06	7°23'07	minimum elong	35 Aug 08 j 23:41	13°♍06'01	1°21'03
minimum elong	33 Mar 21 j 20:33	28°♎38'47	7°21'53		35 Aug 22 j 13:21	0°♎	
min. Earth dist.	33 Mar 21 j 10:20	28°♎54'57	0.28709 AU	evening rise	35 Sep 15 j 13:57	0°♏00'09	
morning rise	33 Mar 26 j 04:26	25°♎58'37			35 Sep 15 j 13:54	0°♏	
direct	33 Apr 11 j 19:09	20°♎38'03			35 Oct 09 j 13:51	0°♐	
greatest brilliancy	33 Apr 23 j 22:27	23°♎15'49	-4.5m	desc. node	35 Oct 14 j 02:02	5°♐37'58	
desc. node	33 Apr 28 j 06:40	25°♎16'57			35 Nov 02 j 14:27	0°♑	
	33 May 06 j 02:41	0°♑			35 Nov 26 j 16:56	0°♒	
morning max el	33 May 30 j 15:46	20°♑31'43	45°45'34		35 Dec 20 j 23:36	0°♓	
	33 Jun 09 j 06:46	0°♒			36 Jan 14 j 15:14	0°♈	
	33 Jul 07 j 08:09	0°♋		asc. node	36 Feb 04 j 04:52	24°♈23'00	
	33 Aug 02 j 12:47	0°♌			36 Feb 09 j 01:09	0°♉	
asc. node	33 Aug 19 j 09:55	20°♌01'12			36 Mar 07 j 01:36	0°♊	
	33 Aug 27 j 16:45	0°♍		evening max el	36 Mar 20 j 21:30	14°♊03'30	45°36'05

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	36 Apr 07 j 20:42	0°♊		max. Earth dist.	38 Oct 18 j 20:35	23°♊24'44	1.71162 AU
greatest brilliancy	36 Apr 24 j 02:23	10°♊28'17	-4.5m				
retrograde	36 May 08 j 14:01	14°♊07'34		superior conj	38 Oct 19 j 21:13	24°♊42'14	0°48'31
evening set	36 May 23 j 14:57	9°♊47'02		minimum elong	38 Oct 20 j 07:27	25°♊14'27	0°48'06
desc. node	36 May 25 j 18:28	8°♊33'51			38 Oct 24 j 02:12	0°♊	
inferior conj	36 May 30 j 01:33	5°♊55'35	-1°00'-10	desc. node	38 Nov 10 j 13:49	22°♊00'06	
minimum elong	36 May 29 j 23:20	5°♊59'02	0°59'32		38 Nov 16 j 22:25	0°♊	
min. Earth dist.	36 May 30 j 05:11	5°♊49'53	0.28976 AU	evening rise	38 Nov 30 j 07:39	16°♊49'23	
morning rise	36 Jun 05 j 07:37	2°♊09'49			38 Dec 10 j 19:38	0°♊	
	36 Jun 09 j 17:16	30°♊			39 Jan 03 j 19:00	0°♊	
direct	36 Jun 20 j 18:38	27°♊37'11			39 Jan 27 j 22:25	0°♊	
	36 Jul 02 j 08:33	0°♊			39 Feb 21 j 08:58	0°♊	
greatest brilliancy	36 Jul 04 j 16:09	0°♊58'48	-4.5m	asc. node	39 Mar 03 j 16:50	12°♊31'09	
morning max el	36 Aug 08 j 20:02	27°♊48'22	46°00'54		39 Mar 18 j 06:55	0°♊	
	36 Aug 11 j 02:00	0°♊			39 Apr 12 j 22:48	0°♊	
	36 Sep 08 j 08:11	0°♊			39 May 09 j 22:36	0°♊	
asc. node	36 Sep 15 j 21:43	8°♊35'27		evening max el	39 May 31 j 12:03	21°♊56'41	45°22'27
	36 Oct 04 j 04:36	0°♊			39 Jun 09 j 06:28	0°♊	
	36 Oct 28 j 22:59	0°♊		desc. node	39 Jun 23 j 06:30	11°♊10'56	
	36 Nov 22 j 05:02	0°♊		greatest brilliancy	39 Jul 07 j 00:57	18°♊57'38	-4.5m
	36 Dec 16 j 06:17	0°♊		retrograde	39 Jul 19 j 03:57	21°♊33'23	
desc. node	37 Jan 05 j 11:26	25°♊14'58		evening set	39 Aug 05 j 14:11	15°♊53'38	
	37 Jan 09 j 06:46	0°♊		inferior conj	39 Aug 09 j 09:40	13°♊35'34	-8°-22'-39
	37 Feb 02 j 08:18	0°♊		minimum elong	39 Aug 09 j 03:56	13°♊44'22	8°22'10
morning set	37 Feb 12 j 01:35	12°♊05'35		min. Earth dist.	39 Aug 09 j 20:21	13°♊19'09	0.28341 AU
	37 Feb 26 j 11:43	0°♊		morning rise	39 Aug 12 j 17:29	11°♊34'06	
	37 Mar 22 j 17:29	0°♊		direct	39 Aug 30 j 18:18	5°♊27'22	
				greatest brilliancy	39 Sep 14 j 06:47	9°♊12'35	-4.6m
superior conj	37 Mar 23 j 02:10	0°♊26'50	-1°-12'-27		39 Oct 11 j 22:51	0°♊	
minimum elong	37 Mar 23 j 11:04	0°♊54'18	1°12'14	asc. node	39 Oct 14 j 09:27	2°♊19'41	
max. Earth dist.	37 Mar 25 j 23:27	4°♊00'37	1.73030 AU	morning max el	39 Oct 20 j 04:07	8°♊02'24	46°42'33
	37 Apr 16 j 01:47	0°♊			39 Nov 09 j 15:29	0°♊	
asc. node	37 Apr 28 j 14:31	15°♊23'22			39 Dec 05 j 12:35	0°♊	
evening rise	37 Apr 29 j 16:25	16°♊42'48			39 Dec 30 j 10:51	0°♊	
	37 May 10 j 12:30	0°♊			40 Jan 24 j 00:42	0°♊	
	37 Jun 04 j 01:23	0°♊		desc. node	40 Feb 02 j 23:22	12°♊11'22	
	37 Jun 28 j 16:47	0°♊			40 Feb 17 j 11:50	0°♊	
	37 Jul 23 j 12:07	0°♊			40 Mar 12 j 22:31	0°♊	
	37 Aug 17 j 14:07	0°♊			40 Apr 06 j 09:36	0°♊	
desc. node	37 Aug 18 j 04:12	0°♊41'44		morning set	40 Apr 24 j 02:21	21°♊41'29	
	37 Sep 12 j 03:32	0°♊			40 Apr 30 j 21:01	0°♊	
	37 Oct 08 j 15:39	0°♊			40 May 25 j 08:04	0°♊	
evening max el	37 Oct 26 j 21:09	19°♊19'29	47°23'12	asc. node	40 May 26 j 02:24	0°♊56'18	
	37 Nov 06 j 20:06	0°♊		max. Earth dist.	40 May 29 j 04:53	4°♊44'57	1.73644 AU
greatest brilliancy	37 Dec 04 j 06:45	20°♊03'32	-4.7m				
asc. node	37 Dec 09 j 07:05	21°♊54'43		superior conj	40 May 30 j 14:51	6°♊29'17	0°10'42
retrograde	37 Dec 16 j 19:55	23°♊01'37		minimum elong	40 May 30 j 12:42	6°♊22'40	0°10'36
evening set	38 Jan 01 j 09:09	18°♊12'38		behind sun begin	40 May 29 j 19:55	5°♊31'07	
min. Earth dist.	38 Jan 05 j 14:14	15°♊40'32	0.27016 AU	behind sun end	40 May 31 j 05:29	7°♊14'13	
inferior conj	38 Jan 06 j 13:51	15°♊03'45	6°27'04		40 Jun 18 j 17:49	0°♊	
minimum elong	38 Jan 06 j 03:46	15°♊19'29	6°24'54	evening rise	40 Jul 05 j 09:06	20°♊29'55	
morning rise	38 Jan 10 j 22:50	12°♊24'10			40 Jul 13 j 01:59	0°♊	
direct	38 Jan 27 j 00:58	7°♊19'09			40 Aug 06 j 09:17	0°♊	
greatest brilliancy	38 Feb 06 j 16:09	9°♊25'00	-4.6m		40 Aug 30 j 17:07	0°♊	
	38 Mar 08 j 10:40	0°♊		desc. node	40 Sep 14 j 16:08	18°♊24'05	
morning max el	38 Mar 17 j 12:17	8°♊31'47	46°15'14		40 Sep 24 j 02:57	0°♊	
desc. node	38 Mar 30 j 20:58	22°♊03'30			40 Oct 18 j 16:27	0°♊	
	38 Apr 07 j 08:56	0°♊			40 Nov 12 j 13:04	0°♊	
	38 May 04 j 10:31	0°♊			40 Dec 08 j 02:08	0°♊	
	38 May 30 j 10:10	0°♊			41 Jan 04 j 10:55	0°♊	
	38 Jun 24 j 18:56	0°♊		asc. node	41 Jan 05 j 19:07	1°♊22'21	
	38 Jul 19 j 16:12	0°♊		evening max el	41 Jan 06 j 10:53	2°♊02'25	46°50'06
asc. node	38 Jul 22 j 00:05	2°♊50'03			41 Feb 09 j 04:55	0°♊	
	38 Aug 13 j 03:37	0°♊		greatest brilliancy	41 Feb 11 j 12:02	1°♊11'20	-4.6m
	38 Sep 06 j 07:13	0°♊		retrograde	41 Feb 25 j 22:22	4°♊57'51	
morning set	38 Sep 11 j 01:14	5°♊56'15			41 Mar 13 j 17:47	30°♊	
	38 Sep 30 j 05:48	0°♊		evening set	41 Mar 15 j 07:30	29°♊04'10	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

inferior conj	41 Mar 19 j 04:09	26° K 39'30	7°33'17	minimum elong	43 Aug 06 j 16:29	10° Ω 55'13	1°20'03
minimum elong	41 Mar 19 j 12:12	26° K 26'44	7°32'10		43 Aug 22 j 00:21	0° M	
min. Earth dist.	41 Mar 19 j 01:00	26° K 44'29	0.28676 AU	evening rise	43 Sep 13 j 04:08	27° M 39'37	
morning rise	41 Mar 23 j 17:12	23° K 50'59			43 Sep 15 j 01:04	0° $\underline{\text{A}}$	
direct	41 Apr 09 j 11:11	18° K 26'15			43 Oct 09 j 01:13	0° M	
greatest brilliancy	41 Apr 21 j 11:01	21° K 01'13	-4.5m	desc. node	43 Oct 13 j 04:02	5° M 08'32	
desc. node	41 Apr 27 j 08:36	23° K 51'44			43 Nov 02 j 02:03	0° Z	
	41 May 06 j 20:47	0° Y			43 Nov 26 j 04:50	0° Z	
morning max el	41 May 28 j 08:12	18° Y 23'08	45°45'43		43 Dec 20 j 11:55	0° \approx	
	41 Jun 09 j 01:46	0° B			44 Jan 14 j 04:18	0° K	
	41 Jul 06 j 22:44	0° II		asc. node	44 Feb 03 j 06:52	23° K 47'43	
	41 Aug 02 j 01:36	0° S			44 Feb 08 j 15:41	0° Y	
asc. node	41 Aug 18 j 11:56	19° S 30'40			44 Mar 06 j 19:54	0° B	
	41 Aug 27 j 04:42	0° Ω		evening max el	44 Mar 18 j 12:08	11° B 48'38	45°37'54
	41 Sep 20 j 16:13	0° M			44 Apr 08 j 08:44	0° II	
	41 Oct 14 j 18:09	0° $\underline{\text{A}}$		greatest brilliancy	44 Apr 21 j 18:10	8° II 18'43	-4.5m
	41 Nov 07 j 15:22	0° M		retrograde	44 May 06 j 06:10	11° II 59'23	
morning set	41 Nov 24 j 09:34	21° M 05'52		evening set	44 May 21 j 07:51	7° II 37'59	
	41 Dec 01 j 11:18	0° Z		desc. node	44 May 24 j 20:38	5° II 35'01	
desc. node	41 Dec 08 j 01:39	8° Z 18'08		inferior conj	44 May 27 j 18:07	3° II 47'08	0°-40'-36
	41 Dec 25 j 07:54	0° Z		minimum elong	44 May 27 j 16:38	3° II 49'28	0°40'11
				min. Earth dist.	44 May 27 j 22:16	3° II 40'37	0.28979 AU
superior conj	42 Jan 05 j 09:00	13° Z 51'37	-1°00'-33	morning rise	44 Jun 03 j 01:12	29° B 59'40	
minimum elong	42 Jan 04 j 21:09	13° Z 14'27	1°00'09		44 Jun 03 j 00:58	30° R B	
max. Earth dist.	42 Jan 09 j 02:32	18° Z 32'14	1.71441 AU	direct	44 Jun 18 j 10:31	25° B 28'31	
	42 Jan 18 j 06:14	0° \approx		greatest brilliancy	44 Jul 02 j 08:00	28° B 49'18	-4.5m
	42 Feb 11 j 07:19	0° K			44 Jul 04 j 18:29	0° II	
evening rise	42 Feb 15 j 02:38	4° K 43'50		morning max el	44 Aug 06 j 10:48	25° II 34'10	45°59'43
	42 Mar 07 j 12:23	0° Y			44 Aug 10 j 23:03	0° S	
asc. node	42 Mar 31 j 04:43	29° Y 05'01			44 Sep 07 j 23:39	0° Ω	
	42 Mar 31 j 22:44	0° B		asc. node	44 Sep 14 j 23:46	7° Ω 59'03	
	42 Apr 25 j 15:42	0° II			44 Oct 03 j 18:05	0° M	
	42 May 20 j 17:11	0° S			44 Oct 28 j 11:34	0° $\underline{\text{A}}$	
	42 Jun 15 j 07:05	0° Ω			44 Nov 21 j 17:06	0° M	
	42 Jul 11 j 18:32	0° M			44 Dec 15 j 18:02	0° Z	
desc. node	42 Jul 20 j 18:19	9° M 48'45		desc. node	45 Jan 04 j 13:36	24° Z 45'36	
	42 Aug 09 j 05:27	0° $\underline{\text{A}}$			45 Jan 08 j 18:17	0° Z	
evening max el	42 Aug 12 j 08:39	3° $\underline{\text{A}}$ 04'07	46°22'32		45 Feb 01 j 19:37	0° \approx	
	42 Sep 15 j 17:33	0° M		morning set	45 Feb 09 j 13:32	9° \approx 38'34	
greatest brilliancy	42 Sep 20 j 10:43	2° M 02'34	-4.6m		45 Feb 25 j 22:52	0° K	
retrograde	42 Sep 30 j 23:01	4° M 03'34					
	42 Oct 15 j 09:16	30° R $\underline{\text{A}}$		superior conj	45 Mar 20 j 17:30	28° K 11'55	-1°-14'-12
evening set	42 Oct 16 j 12:01	29° $\underline{\text{A}}$ 23'44		minimum elong	45 Mar 21 j 02:05	28° K 38'24	1°14'01
inferior conj	42 Oct 21 j 13:16	26° $\underline{\text{A}}$ 24'53	-4°-57'-43		45 Mar 22 j 04:30	0° Y	
minimum elong	42 Oct 21 j 23:02	26° $\underline{\text{A}}$ 10'03	4°55'06	max. Earth dist.	45 Mar 23 j 16:10	1° Y 50'04	1.72981 AU
min. Earth dist.	42 Oct 22 j 02:45	26° $\underline{\text{A}}$ 04'24	0.26632 AU		45 Apr 15 j 12:48	0° B	
morning rise	42 Oct 27 j 09:43	22° $\underline{\text{A}}$ 59'41		evening rise	45 Apr 27 j 09:58	14° B 35'32	
asc. node	42 Nov 10 j 21:13	18° $\underline{\text{A}}$ 44'23		asc. node	45 Apr 27 j 16:37	14° B 55'58	
direct	42 Nov 11 j 02:18	18° $\underline{\text{A}}$ 44'19		greatest brilliancy	45 Apr 29 j 01:18	16° B 36'13	-3.9m
greatest brilliancy	42 Nov 23 j 22:26	21° $\underline{\text{A}}$ 49'05	-4.7m		45 May 09 j 23:35	0° II	
	42 Dec 07 j 05:52	0° M			45 Jun 03 j 12:41	0° S	
morning max el	42 Dec 31 j 18:33	22° M 09'24	46°53'23		45 Jun 28 j 04:27	0° Ω	
	43 Jan 08 j 08:04	0° Z			45 Jul 23 j 00:24	0° M	
	43 Feb 04 j 10:35	0° Z		desc. node	45 Aug 17 j 06:12	0° $\underline{\text{A}}$ 08'14	
desc. node	43 Mar 02 j 11:12	0° \approx 15'25			45 Aug 17 j 03:25	0° $\underline{\text{A}}$	
	43 Mar 02 j 05:58	0° \approx			45 Sep 11 j 18:34	0° M	
	43 Mar 27 j 12:52	0° K			45 Oct 08 j 10:13	0° Z	
	43 Apr 21 j 13:32	0° Y		evening max el	45 Oct 24 j 10:16	16° Z 52'11	47°22'27
	43 May 16 j 10:03	0° B			45 Nov 07 j 01:58	0° Z	
	43 Jun 10 j 02:32	0° II		greatest brilliancy	45 Dec 01 j 21:50	17° Z 37'10	-4.7m
asc. node	43 Jun 23 j 14:20	16° II 29'35		asc. node	45 Dec 08 j 09:17	19° Z 50'46	
morning set	43 Jul 01 j 11:20	26° II 09'27		retrograde	45 Dec 14 j 09:21	20° Z 33'53	
	43 Jul 04 j 14:22	0° S		evening set	45 Dec 29 j 19:06	15° Z 49'47	
	43 Jul 28 j 21:20	0° Ω		min. Earth dist.	46 Jan 03 j 03:48	13° Z 13'03	0.26955 AU
max. Earth dist.	43 Aug 02 j 22:46	6° Ω 16'37	1.72618 AU	inferior conj	46 Jan 04 j 02:59	12° Z 37'04	6°11'02
				minimum elong	46 Jan 03 j 16:51	12° Z 52'48	6°08'46
superior conj	43 Aug 06 j 21:59	11° Ω 12'17	1°20'09	morning rise	46 Jan 08 j 15:03	9° Z 53'27	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

direct	46 Jan 24 j 13:07	4°☾53'09			48 Aug 05 j 20:36	0°☿	
greatest brilliancy	46 Feb 04 j 06:17	7°☾01'04	-4.6m		48 Aug 30 j 04:48	0°♊	
	46 Mar 08 j 14:11	0°♋		desc. node	48 Sep 13 j 18:11	17°♊53'42	
morning max el	46 Mar 15 j 01:58	6°♋10'46	46°16'53		48 Sep 23 j 15:07	0°♌	
desc. node	46 Mar 29 j 23:01	21°♋18'53			48 Oct 18 j 05:16	0°♍	
	46 Apr 07 j 02:25	0°♎			48 Nov 12 j 02:56	0°☾	
	46 May 04 j 00:47	0°♏			48 Dec 07 j 18:04	0°♐	
	46 May 29 j 22:56	0°♑		evening max el	49 Jan 04 j 02:57	29°♋46'12	46°52'24
	46 Jun 24 j 06:52	0°♒			49 Jan 04 j 08:24	0°♋	
	46 Jul 19 j 03:41	0°☾		asc. node	49 Jan 04 j 21:04	0°♌32'02	
asc. node	46 Jul 21 j 02:05	2°☾21'18		greatest brilliancy	49 Feb 09 j 06:14	28°♌59'51	-4.6m
	46 Aug 12 j 14:50	0°♎			49 Feb 11 j 10:59	0°♏	
	46 Sep 05 j 18:19	0°♐		retrograde	49 Feb 23 j 14:54	2°♏43'57	
morning set	46 Sep 08 j 16:23	3°♐38'49			49 Mar 07 j 04:04	30°♌	
	46 Sep 29 j 16:55	0°♊		evening set	49 Mar 13 j 01:58	26°♌46'57	
max. Earth dist.	46 Oct 16 j 08:03	20°♊54'34	1.71193 AU	inferior conj	49 Mar 16 j 20:06	24°♌25'49	7°42'47
				minimum elong	49 Mar 17 j 03:44	24°♌13'43	7°41'49
superior conj	46 Oct 17 j 09:08	22°♊13'29	0°51'35	min. Earth dist.	49 Mar 16 j 15:48	24°♌32'39	0.28641 AU
minimum elong	46 Oct 17 j 19:36	22°♊46'27	0°51'10	morning rise	49 Mar 21 j 05:50	21°♌42'09	
	46 Oct 23 j 13:24	0°♌		direct	49 Apr 07 j 03:10	16°♌13'30	
desc. node	46 Nov 09 j 15:59	21°♌31'26		greatest brilliancy	49 Apr 18 j 23:12	18°♌45'04	-4.5m
	46 Nov 16 j 09:43	0°♍		desc. node	49 Apr 26 j 10:46	22°♌28'37	
evening rise	46 Nov 27 j 17:28	14°♍13'51			49 May 07 j 10:43	0°♏	
	46 Dec 10 j 07:02	0°☾		morning max el	49 May 25 j 23:49	16°♏11'49	45°45'58
	47 Jan 03 j 06:30	0°♋			49 Jun 08 j 20:30	0°♑	
	47 Jan 27 j 10:05	0°♌			49 Jul 06 j 13:18	0°♒	
	47 Feb 20 j 20:58	0°♏			49 Aug 01 j 14:27	0°☾	
asc. node	47 Mar 02 j 18:49	12°♏00'20		asc. node	49 Aug 17 j 13:55	18°☾59'52	
	47 Mar 17 j 19:35	0°♑			49 Aug 26 j 16:42	0°♎	
	47 Apr 12 j 12:51	0°♒			49 Sep 20 j 03:48	0°♐	
	47 May 09 j 15:52	0°☾			49 Oct 14 j 05:32	0°♊	
evening max el	47 May 29 j 03:54	19°☾45'13	45°21'39		49 Nov 07 j 02:38	0°♌	
	47 Jun 09 j 11:07	0°♎		morning set	49 Nov 21 j 20:09	18°♌32'52	
desc. node	47 Jun 22 j 08:37	9°♎57'40			49 Nov 30 j 22:29	0°♍	
greatest brilliancy	47 Jul 04 j 12:13	16°♎39'44	-4.5m	desc. node	49 Dec 07 j 03:47	7°♍49'44	
retrograde	47 Jul 16 j 18:59	19°♎18'40			49 Dec 24 j 19:00	0°☾	
evening set	47 Aug 03 j 01:45	13°♎43'12					
inferior conj	47 Aug 07 j 00:33	11°♎20'04	-8°-15'-49	superior conj	50 Jan 02 j 19:11	11°☾18'15	0°-57'-42
minimum elong	47 Aug 06 j 18:10	11°♎29'51	8°15'14	minimum elong	50 Jan 02 j 07:23	10°☾41'15	0°57'17
min. Earth dist.	47 Aug 07 j 10:06	11°♎05'23	0.28383 AU	max. Earth dist.	50 Jan 06 j 13:25	16°☾01'08	1.71396 AU
morning rise	47 Aug 10 j 10:24	9°♎15'33			50 Jan 17 j 17:18	0°♋	
direct	47 Aug 28 j 10:20	3°♎11'23			50 Feb 10 j 18:23	0°♌	
greatest brilliancy	47 Sep 11 j 22:09	6°♎56'16	-4.6m	evening rise	50 Feb 12 j 15:04	2°♌18'57	
	47 Oct 12 j 00:13	0°♏			50 Mar 06 j 23:30	0°♏	
asc. node	47 Oct 13 j 11:31	1°♏25'37		asc. node	50 Mar 30 j 06:50	28°♏37'03	
morning max el	47 Oct 17 j 19:32	5°♏44'00	46°41'18		50 Mar 31 j 10:00	0°♑	
	47 Nov 09 j 08:31	0°♊			50 Apr 25 j 03:20	0°♒	
	47 Dec 05 j 02:59	0°♌			50 May 20 j 05:31	0°☾	
	47 Dec 29 j 23:59	0°♍			50 Jun 14 j 20:42	0°♎	
	48 Jan 23 j 13:06	0°☾			50 Jul 11 j 10:44	0°♐	
desc. node	48 Feb 02 j 01:20	11°☾40'02		desc. node	50 Jul 19 j 20:19	9°♐06'56	
	48 Feb 16 j 23:43	0°♋			50 Aug 09 j 04:29	0°♊	
	48 Mar 12 j 10:01	0°♌		evening max el	50 Aug 09 j 21:08	0°♊40'24	46°19'41
	48 Apr 05 j 20:48	0°♏		greatest brilliancy	50 Sep 18 j 00:40	29°♊37'31	-4.6m
morning set	48 Apr 21 j 19:49	19°♏34'01			50 Sep 19 j 02:33	0°♌	
	48 Apr 30 j 08:01	0°♑		retrograde	50 Sep 28 j 10:21	1°♌36'09	
	48 May 24 j 18:58	0°♒			50 Oct 07 j 09:36	30°♌	
asc. node	48 May 25 j 04:32	0°♒29'23		evening set	50 Oct 14 j 03:21	26°♊52'10	
max. Earth dist.	48 May 27 j 04:28	2°♒56'31	1.73651 AU	inferior conj	50 Oct 19 j 01:37	23°♊57'31	-5°-17'-23
				minimum elong	50 Oct 19 j 11:43	23°♊42'09	5°14'46
superior conj	48 May 28 j 09:11	4°♒24'41	0°07'35	min. Earth dist.	50 Oct 19 j 16:33	23°♊34'48	0.26678 AU
minimum elong	48 May 28 j 07:39	4°♒19'57	0°07'31	morning rise	50 Oct 24 j 19:40	20°♊35'05	
behind sun begin	48 May 27 j 11:46	3°♒18'54		direct	50 Nov 08 j 14:38	16°♊16'01	
behind sun end	48 May 29 j 03:32	5°♒21'01		asc. node	50 Nov 09 j 23:25	16°♊18'16	
	48 Jun 18 j 04:44	0°☾		greatest brilliancy	50 Nov 21 j 13:43	19°♊23'15	-4.7m
evening rise	48 Jul 03 j 04:01	18°☾26'22			50 Dec 07 j 23:15	0°♌	
	48 Jul 12 j 13:03	0°♎		morning max el	50 Dec 29 j 06:50	19°♌40'17	46°54'08

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	51 Jan 08 j 04:13	0°♊		desc. node	53 Aug 16 j 08:15	29°♎35'35	
	51 Feb 04 j 02:05	0°♋			53 Aug 16 j 16:31	0°♌	
desc. node	51 Mar 01 j 13:18	29°♈41'51			53 Sep 11 j 09:28	0°♍	
	51 Mar 01 j 19:27	0°♎			53 Oct 08 j 04:52	0°♊	
	51 Mar 27 j 01:13	0°♏		evening max el	53 Oct 22 j 00:14	14°♊28'21	47°21'45
	51 Apr 21 j 01:12	0°♐			53 Nov 07 j 09:31	0°♋	
	51 May 15 j 21:16	0°♑		greatest brilliancy	53 Nov 29 j 12:10	15°♋11'03	-4.7m
asc. node	51 Jun 09 j 13:28	0°♒		asc. node	53 Dec 07 j 11:15	17°♌42'42	
morning set	51 Jun 22 j 16:19	16°♒02'26		retrograde	53 Dec 11 j 23:16	18°♌07'15	
	51 Jun 29 j 05:25	24°♒04'21		evening set	53 Dec 27 j 05:13	13°♌27'38	
	51 Jul 04 j 01:09	0°♓		min. Earth dist.	53 Dec 31 j 17:06	10°♌46'46	0.26899 AU
	51 Jul 28 j 08:07	0°♑		inferior conj	54 Jan 01 j 16:05	10°♋11'12	5°54'17
max. Earth dist.	51 Jul 31 j 16:53	4°♑10'28	1.72674 AU	minimum elong	54 Jan 01 j 05:59	10°♋26'50	5°51'54
				morning rise	54 Jan 06 j 07:15	7°♋23'40	
superior conj	51 Aug 04 j 15:25	9°♑03'53	1°19'02	direct	54 Jan 22 j 01:49	2°♋28'01	
minimum elong	51 Aug 04 j 09:24	8°♑45'13	1°18'57	greatest brilliancy	54 Feb 01 j 19:44	4°♋37'13	-4.6m
	51 Aug 21 j 11:12	0°♎			54 Mar 08 j 15:47	0°♎	
evening rise	51 Sep 10 j 18:38	25°♎20'45		morning max el	54 Mar 12 j 16:39	3°♎53'07	46°18'31
	51 Sep 14 j 12:04	0°♌		desc. node	54 Mar 29 j 01:06	20°♎35'55	
	51 Oct 08 j 12:25	0°♍			54 Apr 06 j 19:10	0°♏	
desc. node	51 Oct 12 j 06:11	4°♍40'07			54 May 03 j 14:33	0°♐	
	51 Nov 01 j 13:32	0°♊			54 May 29 j 11:15	0°♑	
	51 Nov 25 j 16:38	0°♋			54 Jun 23 j 18:24	0°♒	
	51 Dec 20 j 00:09	0°♎			54 Jul 18 j 14:47	0°♓	
	52 Jan 13 j 17:14	0°♏		asc. node	54 Jul 20 j 04:07	1°♓53'42	
asc. node	52 Feb 02 j 08:56	23°♏13'02			54 Aug 12 j 01:43	0°♑	
	52 Feb 08 j 06:08	0°♐			54 Sep 05 j 05:08	0°♎	
	52 Mar 06 j 14:21	0°♑		morning set	54 Sep 06 j 07:34	1°♎22'30	
evening max el	52 Mar 16 j 02:37	9°♑34'17	45°39'50		54 Sep 29 j 03:45	0°♌	
	52 Apr 09 j 00:24	0°♒		max. Earth dist.	54 Oct 13 j 17:44	18°♌19'49	1.71221 AU
greatest brilliancy	52 Apr 19 j 08:46	6°♒08'30	-4.5m				
retrograde	52 May 03 j 22:43	9°♒52'11		superior conj	54 Oct 14 j 21:05	19°♌45'53	0°54'32
evening set	52 May 19 j 00:57	5°♒29'27		minimum elong	54 Oct 15 j 07:43	20°♌19'18	0°54'07
desc. node	52 May 23 j 22:43	2°♒35'46			54 Oct 23 j 00:18	0°♍	
inferior conj	52 May 25 j 10:45	1°♒39'28	0°-21'-4	desc. node	54 Nov 08 j 18:03	21°♍03'33	
minimum elong	52 May 25 j 09:58	1°♒40'41	0°20'52		54 Nov 15 j 20:42	0°♊	
min. Earth dist.	52 May 25 j 15:18	1°♒32'20	0.28987 AU	evening rise	54 Nov 25 j 03:08	11°♊38'58	
	52 May 28 j 02:38	30°♒♏			54 Dec 09 j 18:05	0°♋	
morning rise	52 May 31 j 18:45	27°♒50'42			55 Jan 02 j 17:40	0°♎	
direct	52 Jun 16 j 02:28	23°♒20'28			55 Jan 26 j 21:28	0°♏	
greatest brilliancy	52 Jun 30 j 00:47	26°♒41'43	-4.5m		55 Feb 20 j 08:43	0°♐	
	52 Jul 06 j 07:02	0°♒		asc. node	55 Mar 01 j 20:59	11°♐30'52	
morning max el	52 Aug 04 j 02:40	23°♒23'22	45°58'37		55 Mar 17 j 08:01	0°♑	
	52 Aug 10 j 19:11	0°♓			55 Apr 12 j 02:41	0°♒	
	52 Sep 07 j 14:41	0°♑			55 May 09 j 09:04	0°♓	
asc. node	52 Sep 14 j 01:55	7°♑23'52		evening max el	55 May 26 j 20:00	17°♓35'33	45°20'54
	52 Oct 03 j 07:13	0°♎			55 Jun 09 j 17:12	0°♑	
	52 Oct 27 j 23:48	0°♌		desc. node	55 Jun 21 j 10:33	8°♑43'07	
	52 Nov 21 j 04:51	0°♍		greatest brilliancy	55 Jul 02 j 00:25	14°♑24'23	-4.5m
	52 Dec 15 j 05:30	0°♊		retrograde	55 Jul 14 j 09:44	17°♑05'19	
desc. node	53 Jan 03 j 15:30	24°♊16'16		evening set	55 Jul 31 j 13:20	11°♑34'34	
	53 Jan 08 j 05:32	0°♋		inferior conj	55 Aug 04 j 15:31	9°♑06'07	-8°-8'-18
	53 Feb 01 j 06:40	0°♎		minimum elong	55 Aug 04 j 08:32	9°♑16'53	8°07'35
morning set	53 Feb 07 j 01:20	7°♎11'44		min. Earth dist.	55 Aug 05 j 00:06	8°♑52'53	0.28425 AU
	53 Feb 25 j 09:44	0°♏		morning rise	55 Aug 08 j 03:33	6°♑58'08	
				direct	55 Aug 26 j 02:21	0°♑57'01	
superior conj	53 Mar 18 j 08:50	25°♏57'51	-1°-15'-51	greatest brilliancy	55 Sep 09 j 12:34	4°♑39'55	-4.6m
minimum elong	53 Mar 18 j 17:03	26°♏23'14	1°15'41		55 Oct 12 j 00:03	0°♎	
max. Earth dist.	53 Mar 21 j 08:08	29°♏38'05	1.72930 AU	asc. node	55 Oct 12 j 13:39	0°♎33'31	
	53 Mar 21 j 15:14	0°♐		morning max el	55 Oct 15 j 10:25	3°♎25'08	46°39'53
	53 Apr 14 j 23:29	0°♑			55 Nov 09 j 00:59	0°♌	
evening rise	53 Apr 25 j 03:38	12°♑29'39			55 Dec 04 j 16:58	0°♍	
asc. node	53 Apr 26 j 18:47	14°♑29'45			55 Dec 29 j 12:45	0°♊	
	53 May 09 j 10:22	0°♒			56 Jan 23 j 01:06	0°♋	
	53 Jun 02 j 23:41	0°♓		desc. node	56 Feb 01 j 03:28	11°♋10'19	
	53 Jun 27 j 15:51	0°♑			56 Feb 16 j 11:13	0°♎	
	53 Jul 22 j 12:27	0°♎			56 Mar 11 j 21:10	0°♏	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	56 Apr 05 j 07:42	0°♄		greatest brilliancy	58 Sep 15 j 13:59	27°♌12'50	-4.6m
morning set	56 Apr 19 j 13:13	17°♄27'16		retrograde	58 Sep 25 j 21:51	29°♌10'12	
	56 Apr 29 j 18:44	0°♄		evening set	58 Oct 11 j 18:49	24°♌21'31	
asc. node	56 May 24 j 06:33	0°♌03'00		inferior conj	58 Oct 16 j 14:06	21°♌31'21	-5°-36'-11
	56 May 24 j 05:35	0°♌		minimum elong	58 Oct 17 j 00:28	21°♌15'34	5°33'37
max. Earth dist.	56 May 25 j 02:53	1°♌05'23	1.73651 AU	min. Earth dist.	58 Oct 17 j 06:24	21°♌06'34	0.26729 AU
				morning rise	58 Oct 22 j 05:36	18°♌12'09	
superior conj	56 May 26 j 03:37	2°♌21'19	0°04'29	direct	58 Nov 06 j 03:07	13°♌48'38	
minimum elong	56 May 26 j 02:42	2°♌18'30	0°04'26	asc. node	58 Nov 09 j 01:23	13°♌58'53	
behind sun begin	56 May 25 j 05:04	1°♌12'04		greatest brilliancy	58 Nov 19 j 05:49	16°♌59'24	-4.7m
behind sun end	56 May 27 j 00:20	3°♌24'56			58 Dec 08 j 12:00	0°♌	
	56 Jun 17 j 15:21	0°♌		morning max el	58 Dec 26 j 19:51	17°♌13'12	46°54'39
evening rise	56 Jun 30 j 23:06	16°♌24'18			59 Jan 07 j 23:42	0°♌	
	56 Jul 11 j 23:47	0°♌			59 Feb 03 j 17:23	0°♌	
	56 Aug 05 j 07:37	0°♌		desc. node	59 Feb 28 j 15:26	29°♌08'28	
	56 Aug 29 j 16:12	0°♌			59 Mar 01 j 08:51	0°♌	
desc. node	56 Sep 12 j 20:21	17°♌24'31			59 Mar 26 j 13:33	0°♌	
	56 Sep 23 j 03:03	0°♌			59 Apr 20 j 12:49	0°♌	
	56 Oct 17 j 17:55	0°♌			59 May 15 j 08:25	0°♌	
	56 Nov 11 j 16:44	0°♌			59 Jun 09 j 00:22	0°♌	
	56 Dec 07 j 10:04	0°♌		asc. node	59 Jun 21 j 18:22	15°♌35'30	
evening max el	57 Jan 01 j 18:16	27°♌28'24	46°54'44	morning set	59 Jun 26 j 23:22	21°♌58'54	
asc. node	57 Jan 03 j 23:08	29°♌41'39			59 Jul 03 j 11:56	0°♌	
	57 Jan 04 j 06:29	0°♌			59 Jul 27 j 18:54	0°♌	
greatest brilliancy	57 Feb 07 j 00:45	26°♌49'02	-4.6m	max. Earth dist.	59 Jul 29 j 12:01	2°♌07'30	1.72726 AU
	57 Feb 16 j 05:04	0°♌					
retrograde	57 Feb 21 j 06:52	0°♌30'12		superior conj	59 Aug 02 j 08:54	6°♌55'39	1°17'50
	57 Feb 26 j 05:38	30°♌		minimum elong	59 Aug 02 j 02:25	6°♌35'31	1°17'43
evening set	57 Mar 10 j 20:13	24°♌30'10			59 Aug 20 j 22:03	0°♌	
inferior conj	57 Mar 14 j 11:57	22°♌12'26	7°51'41	evening rise	59 Sep 08 j 09:28	23°♌03'04	
minimum elong	57 Mar 14 j 19:06	22°♌01'06	7°50'52		59 Sep 13 j 23:03	0°♌	
min. Earth dist.	57 Mar 14 j 06:45	22°♌20'43	0.28603 AU		59 Oct 07 j 23:36	0°♌	
morning rise	57 Mar 18 j 18:17	19°♌33'33		desc. node	59 Oct 11 j 08:13	4°♌11'32	
direct	57 Apr 04 j 18:34	14°♌01'01			59 Nov 01 j 00:58	0°♌	
greatest brilliancy	57 Apr 16 j 11:35	16°♌29'22	-4.5m		59 Nov 25 j 04:24	0°♌	
desc. node	57 Apr 25 j 12:52	21°♌08'24			59 Dec 19 j 12:23	0°♌	
	57 May 07 j 20:51	0°♌			60 Jan 13 j 06:17	0°♌	
morning max el	57 May 23 j 14:39	13°♌59'01	45°46'20	asc. node	60 Feb 01 j 11:05	22°♌38'01	
	57 Jun 08 j 14:31	0°♌			60 Feb 07 j 20:53	0°♌	
	57 Jul 06 j 03:27	0°♌			60 Mar 06 j 09:30	0°♌	
	57 Aug 01 j 02:58	0°♌		evening max el	60 Mar 13 j 17:47	7°♌20'59	45°41'54
asc. node	57 Aug 16 j 16:07	18°♌30'31			60 Apr 09 j 22:04	0°♌	
	57 Aug 26 j 04:25	0°♌		greatest brilliancy	60 Apr 16 j 23:01	3°♌57'10	-4.5m
	57 Sep 19 j 15:07	0°♌		retrograde	60 May 01 j 15:32	7°♌44'06	
	57 Oct 13 j 16:40	0°♌		evening set	60 May 16 j 18:04	3°♌19'48	
	57 Nov 06 j 13:42	0°♌			60 May 22 j 08:32	30°♌	
morning set	57 Nov 19 j 06:32	15°♌59'40		inferior conj	60 May 23 j 03:12	29°♌30'49	0°-1'-28
	57 Nov 30 j 09:30	0°♌		minimum elong	60 May 23 j 03:09	29°♌30'54	0°01'27
desc. node	57 Dec 06 j 05:46	7°♌21'17		transit middle	60 May 23 j 03:09	29°♌30'54	0°01'27
	57 Dec 24 j 06:00	0°♌		transit begin	60 May 22 j 23:06	29°♌37'13	
				transit end	60 May 23 j 07:12	29°♌24'34	
superior conj	57 Dec 31 j 04:50	8°♌43'35	0°-54'-42	desc. node	60 May 23 j 00:40	29°♌34'47	
minimum elong	57 Dec 30 j 17:12	8°♌07'04	0°54'16	min. Earth dist.	60 May 23 j 07:53	29°♌23'30	0.28993 AU
max. Earth dist.	58 Jan 03 j 19:59	13°♌16'52	1.71353 AU	morning rise	60 May 29 j 12:02	25°♌41'07	
	58 Jan 17 j 04:15	0°♌		direct	60 Jun 13 j 18:43	21°♌11'30	
evening rise	58 Feb 10 j 02:50	29°♌52'17		greatest brilliancy	60 Jun 27 j 17:16	24°♌33'16	-4.5m
	58 Feb 10 j 05:19	0°♌			60 Jul 07 j 09:05	0°♌	
	58 Mar 06 j 10:28	0°♌		morning max el	60 Aug 01 j 19:16	21°♌14'04	45°57'31
asc. node	58 Mar 29 j 08:57	28°♌09'31			60 Aug 10 j 14:53	0°♌	
	58 Mar 30 j 21:09	0°♌			60 Sep 07 j 05:39	0°♌	
	58 Apr 24 j 14:52	0°♌		asc. node	60 Sep 13 j 03:57	6°♌48'13	
	58 May 19 j 17:47	0°♌			60 Oct 02 j 20:22	0°♌	
	58 Jun 14 j 10:19	0°♌			60 Oct 27 j 12:04	0°♌	
	58 Jul 11 j 03:03	0°♌			60 Nov 20 j 16:38	0°♌	
desc. node	58 Jul 18 j 22:27	8°♌25'27			60 Dec 14 j 16:59	0°♌	
evening max el	58 Aug 07 j 09:10	28°♌16'22	46°17'01	desc. node	61 Jan 02 j 17:40	23°♌47'40	
	58 Aug 09 j 04:18	0°♌			61 Jan 07 j 16:49	0°♌	

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	61 Jan 31 j 17:47	0°≈		minimum elong	63 Aug 01 j 23:05	7°Ω03'22	7°59'13
morning set	61 Feb 04 j 13:06	4°≈44'24		min. Earth dist.	63 Aug 02 j 14:38	6°Ω39'21	0.28465 AU
	61 Feb 24 j 20:42	0°✕		morning rise	63 Aug 05 j 20:59	4°Ω39'57	
					63 Aug 15 j 16:12	30°℞☿	
superior conj	61 Mar 15 j 23:52	23°✕42'12	-1°-17'-23	direct	63 Aug 23 j 18:03	28°☿42'09	
minimum elong	61 Mar 16 j 07:38	24°✕06'14	1°17'14		63 Sep 01 j 01:59	0°Ω	
max. Earth dist.	61 Mar 18 j 23:54	27°✕24'49	1.72884 AU	greatest brilliancy	63 Sep 07 j 02:54	2°Ω22'45	-4.6m
	61 Mar 21 j 02:08	0°Υ		asc. node	63 Oct 11 j 15:42	29°Ω41'16	
	61 Apr 14 j 10:22	0°♄			63 Oct 11 j 23:12	0°♍	
evening rise	61 Apr 22 j 20:54	10°♄21'58		morning max el	63 Oct 13 j 00:15	1°♍02'54	46°38'23
asc. node	61 Apr 25 j 20:44	14°♄02'18			63 Nov 08 j 17:29	0°♎	
	61 May 08 j 21:21	0°♎			63 Dec 04 j 07:08	0°♏	
	61 Jun 02 j 10:53	0°☿			63 Dec 29 j 01:45	0°♐	
	61 Jun 27 j 03:28	0°Ω			64 Jan 22 j 13:22	0°♑	
	61 Jul 22 j 00:47	0°♍		desc. node	64 Jan 31 j 05:34	10°♑39'40	
desc. node	61 Aug 15 j 10:23	29°♍02'17			64 Feb 15 j 22:58	0°≈	
	61 Aug 16 j 05:58	0°♎			64 Mar 11 j 08:32	0°✕	
	61 Sep 11 j 00:50	0°♏			64 Apr 04 j 18:48	0°Υ	
	61 Oct 08 j 00:15	0°♐		morning set	64 Apr 17 j 06:51	15°Υ20'29	
evening max el	61 Oct 19 j 15:22	12°♐07'01	47°21'03		64 Apr 29 j 05:40	0°♄	
	61 Nov 07 j 19:58	0°♑		max. Earth dist.	64 May 23 j 00:09	29°♄10'00	1.73655 AU
greatest brilliancy	61 Nov 27 j 02:38	12°♑44'59	-4.7m	asc. node	64 May 23 j 08:38	29°♄36'00	
asc. node	61 Dec 06 j 13:19	15°♑29'15					
retrograde	61 Dec 09 j 13:33	15°♑40'20		superior conj	64 May 23 j 22:10	0°♎17'33	0°01'21
evening set	61 Dec 24 j 15:40	11°♑05'12		minimum elong	64 May 23 j 21:54	0°♎16'44	0°01'20
min. Earth dist.	61 Dec 29 j 06:22	8°♑20'29	0.26839 AU	behind sun begin	64 May 22 j 23:37	29°♄08'19	
inferior conj	61 Dec 30 j 05:13	7°♑45'10	5°36'52	behind sun end	64 May 24 j 20:11	1°♎25'10	
minimum elong	61 Dec 29 j 19:16	8°♑00'34	5°34'25		64 May 23 j 16:27	0°♎	
morning rise	62 Jan 03 j 23:27	4°♑53'47			64 Jun 17 j 02:16	0°☿	
direct	62 Jan 19 j 15:01	0°♑03'00		evening rise	64 Jun 28 j 18:11	14°☿21'24	
greatest brilliancy	62 Jan 30 j 08:17	2°♑12'16	-4.6m		64 Jul 11 j 10:52	0°Ω	
	62 Mar 08 j 16:13	0°≈			64 Aug 04 j 18:58	0°♍	
morning max el	62 Mar 10 j 07:25	1°≈35'20	46°19'55		64 Aug 29 j 03:57	0°♎	
desc. node	62 Mar 28 j 03:12	19°≈53'05		desc. node	64 Sep 11 j 22:19	16°♎53'44	
	62 Apr 06 j 11:46	0°✕			64 Sep 22 j 15:20	0°♏	
	62 May 03 j 04:26	0°Υ			64 Oct 17 j 06:59	0°♐	
	62 May 28 j 23:48	0°♄			64 Nov 11 j 07:01	0°♑	
	62 Jun 23 j 06:12	0°♎			64 Dec 07 j 02:44	0°≈	
	62 Jul 18 j 02:08	0°☿		evening max el	64 Dec 30 j 08:50	25°≈07'26	46°57'01
asc. node	62 Jul 19 j 06:19	1°☿25'52		asc. node	65 Jan 03 j 01:21	28°≈49'36	
	62 Aug 11 j 12:50	0°Ω			65 Jan 04 j 05:56	0°✕	
morning set	62 Sep 03 j 22:40	29°Ω05'18		greatest brilliancy	65 Feb 04 j 19:11	24°✕36'57	-4.6m
	62 Sep 04 j 16:11	0°♍		retrograde	65 Feb 18 j 22:38	28°✕15'40	
	62 Sep 28 j 14:51	0°♎		evening set	65 Mar 08 j 14:23	22°✕12'50	
max. Earth dist.	62 Oct 11 j 00:34	15°♎35'22	1.71252 AU	inferior conj	65 Mar 12 j 03:53	19°✕58'28	7°59'55
				minimum elong	65 Mar 12 j 10:29	19°✕47'57	7°59'12
superior conj	62 Oct 12 j 09:11	17°♎17'56	0°57'21	min. Earth dist.	65 Mar 11 j 22:05	20°✕07'42	0.28560 AU
minimum elong	62 Oct 12 j 19:53	17°♎51'33	0°56'59	morning rise	65 Mar 16 j 06:52	17°✕24'18	
	62 Oct 22 j 11:29	0°♏		direct	65 Apr 02 j 09:25	11°✕47'50	
desc. node	62 Nov 07 j 20:02	20°♏34'30		greatest brilliancy	65 Apr 14 j 00:42	14°✕13'55	-4.5m
	62 Nov 15 j 07:57	0°♐		desc. node	65 Apr 24 j 14:49	19°✕49'53	
evening rise	62 Nov 22 j 12:51	9°♐03'16			65 May 08 j 04:28	0°Υ	
	62 Dec 09 j 05:25	0°♑		morning max el	65 May 21 j 05:09	11°Υ44'48	45°46'49
	63 Jan 02 j 05:04	0°≈			65 Jun 08 j 08:20	0°♄	
	63 Jan 26 j 09:02	0°✕			65 Jul 05 j 17:43	0°♎	
	63 Feb 19 j 20:40	0°Υ			65 Jul 31 j 15:42	0°☿	
asc. node	63 Feb 28 j 23:03	11°Υ00'29		asc. node	65 Aug 15 j 18:08	17°☿59'45	
	63 Mar 16 j 20:42	0°♄			65 Aug 25 j 16:25	0°Ω	
	63 Apr 11 j 16:55	0°♎			65 Sep 19 j 02:45	0°♍	
	63 May 09 j 03:00	0°☿			65 Oct 13 j 04:06	0°♎	
evening max el	63 May 24 j 11:46	15°☿24'06	45°20'06		65 Nov 06 j 01:02	0°♏	
	63 Jun 10 j 02:14	0°Ω		morning set	65 Nov 16 j 16:55	13°♏25'35	
desc. node	63 Jun 20 j 12:44	7°Ω25'41			65 Nov 29 j 20:47	0°♐	
greatest brilliancy	63 Jun 29 j 13:37	12°Ω09'16	-4.5m	desc. node	65 Dec 05 j 07:53	6°♐52'28	
retrograde	63 Jul 12 j 00:02	14°Ω51'18			65 Dec 23 j 17:15	0°♑	
evening set	63 Jul 29 j 00:59	9°Ω25'29					
inferior conj	63 Aug 02 j 06:38	6°Ω51'42	-8°00'-6	superior conj	65 Dec 28 j 14:24	6°♑07'43	0°-51'-33

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

minimum elong	65 Dec 28 j 03:00	5° $\overline{3}$ 31'55	0°51'07	greatest brilliancy	68 Jun 25 j 08:49	22° $\overline{8}$ 23'49	-4.5m
max. Earth dist.	65 Dec 31 j 23:59	10° $\overline{3}$ 23'39	1.71315 AU		68 Jul 08 j 04:08	0° \overline{II}	
	66 Jan 16 j 15:31	0° \approx		morning max el	68 Jul 30 j 12:14	19° \overline{II} 05'58	45°56'27
evening rise	66 Feb 07 j 14:34	27° \approx 24'29			68 Aug 10 j 09:57	0° $\overline{5}$	
	66 Feb 09 j 16:34	0° \overline{X}			68 Sep 06 j 20:23	0° \overline{Q}	
	66 Mar 05 j 21:45	0° \overline{Y}		asc. node	68 Sep 12 j 05:59	6° \overline{Q} 12'54	
asc. node	66 Mar 28 j 10:57	27° \overline{Y} 40'50			68 Oct 02 j 09:26	0° \overline{P}	
	66 Mar 30 j 08:34	0° $\overline{8}$			68 Oct 27 j 00:20	0° \overline{A}	
	66 Apr 24 j 02:39	0° \overline{II}			68 Nov 20 j 04:30	0° \overline{M}	
	66 May 19 j 06:18	0° $\overline{5}$			68 Dec 14 j 04:36	0° \overline{X}	
	66 Jun 14 j 00:14	0° \overline{Q}		desc. node	69 Jan 01 j 19:48	23° \overline{X} 18'35	
	66 Jul 10 j 19:56	0° \overline{P}			69 Jan 07 j 04:13	0° $\overline{3}$	
desc. node	66 Jul 18 j 00:32	7° \overline{P} 42'34			69 Jan 31 j 04:59	0° \approx	
evening max el	66 Aug 04 j 21:24	25° \overline{P} 52'13	46°14'16	morning set	69 Feb 02 j 00:23	2° \approx 15'13	
	66 Aug 09 j 05:39	0° \overline{A}			69 Feb 24 j 07:45	0° \overline{X}	
greatest brilliancy	66 Sep 13 j 02:15	24° \overline{A} 46'14	-4.6m				
retrograde	66 Sep 23 j 09:46	26° \overline{A} 43'34		superior conj	69 Mar 13 j 14:29	21° \overline{X} 25'00	-1°-18'-48
evening set	66 Oct 09 j 10:19	21° \overline{A} 49'46		minimum elong	69 Mar 13 j 21:44	21° \overline{X} 47'27	1°18'41
inferior conj	66 Oct 14 j 02:33	19° \overline{A} 04'10	-5°-54'-19	max. Earth dist.	69 Mar 16 j 17:13	25° \overline{X} 16'06	1.72835 AU
minimum elong	66 Oct 14 j 13:07	18° \overline{A} 48'09	5°51'48		69 Mar 20 j 13:05	0° \overline{Y}	
min. Earth dist.	66 Oct 14 j 19:56	18° \overline{A} 37'48	0.26785 AU		69 Apr 13 j 21:19	0° $\overline{8}$	
morning rise	66 Oct 19 j 15:21	15° \overline{A} 48'49		evening rise	69 Apr 20 j 14:00	8° $\overline{8}$ 13'32	
direct	66 Nov 03 j 16:00	11° \overline{A} 20'14		asc. node	69 Apr 24 j 22:52	13° $\overline{8}$ 35'15	
asc. node	66 Nov 08 j 03:28	11° \overline{A} 44'05			69 May 08 j 08:22	0° \overline{II}	
greatest brilliancy	66 Nov 16 j 22:02	14° \overline{A} 34'59	-4.7m		69 Jun 01 j 22:07	0° $\overline{5}$	
	66 Dec 08 j 21:53	0° \overline{M}			69 Jun 26 j 15:06	0° \overline{Q}	
morning max el	66 Dec 24 j 09:44	14° \overline{M} 47'35	46°55'08		69 Jul 21 j 13:04	0° \overline{P}	
	67 Jan 07 j 18:56	0° \overline{X}		desc. node	69 Aug 14 j 12:23	28° \overline{P} 28'45	
	67 Feb 03 j 08:43	0° $\overline{3}$			69 Aug 15 j 19:23	0° \overline{A}	
desc. node	67 Feb 27 j 17:24	28° $\overline{3}$ 34'07			69 Sep 10 j 16:17	0° \overline{M}	
	67 Feb 28 j 22:23	0° \approx			69 Oct 07 j 20:08	0° \overline{X}	
	67 Mar 26 j 02:01	0° \overline{X}		evening max el	69 Oct 17 j 06:44	9° \overline{X} 46'21	47°19'52
	67 Apr 20 j 00:36	0° \overline{Y}			69 Nov 08 j 10:05	0° $\overline{3}$	
	67 May 14 j 19:45	0° $\overline{8}$		greatest brilliancy	69 Nov 24 j 17:21	10° $\overline{3}$ 18'23	-4.7m
	67 Jun 08 j 11:24	0° \overline{II}		asc. node	69 Dec 05 j 15:29	13° $\overline{3}$ 08'58	
asc. node	67 Jun 20 j 20:34	15° \overline{II} 08'42		retrograde	69 Dec 07 j 03:13	13° $\overline{3}$ 11'41	
morning set	67 Jun 24 j 17:44	19° \overline{II} 54'23		evening set	69 Dec 22 j 01:54	8° $\overline{3}$ 41'12	
	67 Jul 02 j 22:51	0° $\overline{5}$		min. Earth dist.	69 Dec 26 j 19:31	5° $\overline{3}$ 52'18	0.26783 AU
	67 Jul 27 j 05:48	0° \overline{Q}		inferior conj	69 Dec 27 j 17:59	5° $\overline{3}$ 17'37	5°18'22
max. Earth dist.	67 Jul 27 j 08:45	0° \overline{Q} 09'08	1.72780 AU	minimum elong	69 Dec 27 j 08:15	5° $\overline{3}$ 32'38	5°15'53
				morning rise	70 Jan 01 j 15:15	2° $\overline{3}$ 22'10	
superior conj	67 Jul 31 j 02:40	4° \overline{Q} 48'00	1°16'32		70 Jan 06 j 08:29	30° \overline{R} \overline{X}	
minimum elong	67 Jul 30 j 19:45	4° \overline{Q} 26'32	1°16'23	direct	70 Jan 17 j 03:59	27° \overline{X} 36'34	
	67 Aug 20 j 09:03	0° \overline{P}		greatest brilliancy	70 Jan 27 j 20:37	29° \overline{X} 45'38	-4.6m
evening rise	67 Sep 06 j 00:33	20° \overline{P} 45'40			70 Jan 28 j 11:17	0° $\overline{3}$	
	67 Sep 13 j 10:13	0° \overline{A}		morning max el	70 Mar 07 j 21:11	29° $\overline{3}$ 14'27	46°21'23
	67 Oct 07 j 11:00	0° \overline{M}			70 Mar 08 j 15:44	0° \approx	
desc. node	67 Oct 10 j 10:14	3° \overline{M} 42'09		desc. node	70 Mar 27 j 05:13	19° \approx 10'21	
	67 Oct 31 j 12:39	0° \overline{X}			70 Apr 06 j 04:08	0° \overline{X}	
	67 Nov 24 j 16:26	0° $\overline{3}$			70 May 02 j 18:09	0° \overline{Y}	
	67 Dec 19 j 00:53	0° \approx			70 May 28 j 12:12	0° $\overline{8}$	
	68 Jan 12 j 19:38	0° \overline{X}			70 Jun 22 j 17:51	0° \overline{II}	
asc. node	68 Jan 31 j 13:05	22° \overline{X} 01'48			70 Jul 17 j 13:21	0° $\overline{5}$	
	68 Feb 07 j 12:00	0° \overline{Y}		asc. node	70 Jul 18 j 08:18	0° $\overline{5}$ 57'46	
	68 Mar 06 j 05:25	0° $\overline{8}$			70 Aug 10 j 23:49	0° \overline{Q}	
evening max el	68 Mar 11 j 09:51	5° $\overline{8}$ 09'26	45°44'02	morning set	70 Sep 01 j 14:12	26° \overline{Q} 50'03	
	68 Apr 11 j 04:25	0° \overline{II}			70 Sep 04 j 03:04	0° \overline{P}	
greatest brilliancy	68 Apr 14 j 14:24	1° \overline{II} 47'03	-4.5m		70 Sep 28 j 01:45	0° \overline{A}	
retrograde	68 Apr 29 j 08:43	5° \overline{II} 35'46		max. Earth dist.	70 Oct 08 j 06:42	12° \overline{A} 49'30	1.71286 AU
evening set	68 May 14 j 11:27	1° \overline{II} 10'01					
	68 May 16 j 12:38	30° \overline{R} $\overline{8}$		superior conj	70 Oct 09 j 21:54	14° \overline{A} 52'44	1°00'02
inferior conj	68 May 20 j 19:42	27° $\overline{8}$ 21'59	0°18'12	minimum elong	70 Oct 10 j 08:34	15° \overline{A} 26'14	0°59'40
minimum elong	68 May 20 j 20:23	27° $\overline{8}$ 20'57	0°18'00		70 Oct 21 j 22:27	0° \overline{M}	
min. Earth dist.	68 May 21 j 00:13	27° $\overline{8}$ 14'56	0.28994 AU	desc. node	70 Nov 06 j 22:12	20° \overline{M} 06'40	
desc. node	68 May 22 j 02:50	26° $\overline{8}$ 33'22			70 Nov 14 j 19:01	0° \overline{X}	
morning rise	68 May 27 j 05:13	23° $\overline{8}$ 31'39		evening rise	70 Nov 19 j 22:48	6° \overline{X} 28'51	
direct	68 Jun 11 j 11:27	19° $\overline{8}$ 02'41			70 Dec 08 j 16:35	0° $\overline{3}$	

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	71 Jan 01 j 16:23	0°♊			73 Jun 08 j 01:31	0°♋		
	71 Jan 25 j 20:35	0°♌			73 Jul 05 j 07:33	0°♍		
	71 Feb 19 j 08:35	0°♎			73 Jul 31 j 04:05	0°♏		
asc. node	71 Feb 28 j 01:02	10°♐29'58		asc. node	73 Aug 14 j 20:09	17°♑29'59		
	71 Mar 16 j 09:23	0°♒			73 Aug 25 j 04:04	0°♓		
	71 Apr 11 j 07:11	0°♈			73 Sep 18 j 14:02	0°♉		
	71 May 08 j 21:14	0°♊			73 Oct 12 j 15:12	0°♋		
evening max el	71 May 22 j 02:34	13°♌10'40	45°19'27		73 Nov 05 j 12:01	0°♍		
	71 Jun 10 j 14:12	0°♎		morning set	73 Nov 14 j 03:41	10°♏53'50		
desc. node	71 Jun 19 j 14:48	6°♐05'59			73 Nov 29 j 07:42	0°♑		
greatest brilliancy	71 Jun 27 j 02:53	9°♒54'37	-4.5m	desc. node	73 Dec 04 j 09:59	6°♓24'48		
retrograde	71 Jul 09 j 14:05	12°♈38'02			73 Dec 23 j 04:07	0°♉		
evening set	71 Jul 26 j 12:33	7°♊17'02						
inferior conj	71 Jul 30 j 21:45	4°♌38'03	-7°-51'-9	superior conj	73 Dec 26 j 00:18	3°♎34'05	0°-48'-19	
minimum elong	71 Jul 30 j 13:41	4°♐50'31	7°50'08	minimum elong	73 Dec 25 j 13:14	2°♓59'20	0°47'54	
min. Earth dist.	71 Jul 31 j 05:29	4°♒26'05	0.28500 AU	max. Earth dist.	73 Dec 29 j 04:40	7°♈33'46	1.71276 AU	
morning rise	71 Aug 03 j 14:34	2°♊22'24			74 Jan 16 j 02:20	0°♌		
	71 Aug 07 j 21:37	30°♎♑		evening rise	74 Feb 05 j 02:34	24°♏58'48		
direct	71 Aug 21 j 09:16	26°♑27'56			74 Feb 09 j 03:23	0°♌		
	71 Sep 04 j 11:48	0°♎			74 Mar 05 j 08:37	0°♐		
greatest brilliancy	71 Sep 04 j 18:06	0°♐07'29	-4.6m	asc. node	74 Mar 27 j 13:03	27°♐13'29		
morning max el	71 Oct 10 j 13:30	28°♌40'13	46°37'10		74 Mar 29 j 19:39	0°♋		
asc. node	71 Oct 10 j 17:45	28°♐50'55			74 Apr 23 j 14:10	0°♈		
	71 Oct 11 j 21:04	0°♎			74 May 18 j 18:37	0°♊		
	71 Nov 08 j 09:20	0°♌			74 Jun 13 j 14:02	0°♎		
	71 Dec 03 j 20:49	0°♏			74 Jul 10 j 12:51	0°♐		
	71 Dec 28 j 14:20	0°♑		desc. node	74 Jul 17 j 02:31	6°♎59'38		
	72 Jan 22 j 01:19	0°♓		evening max el	74 Aug 02 j 10:10	23°♎30'30	46°11'39	
desc. node	72 Jan 30 j 07:32	10°♈09'25			74 Aug 09 j 08:01	0°♌		
	72 Feb 15 j 10:28	0°♊		greatest brilliancy	74 Sep 10 j 13:21	22°♐19'30	-4.6m	
	72 Mar 10 j 19:43	0°♌		retrograde	74 Sep 20 j 22:06	24°♐17'49		
	72 Apr 04 j 05:44	0°♐		evening set	74 Oct 07 j 01:49	19°♐18'43		
morning set	72 Apr 14 j 23:52	13°♐12'14		inferior conj	74 Oct 11 j 14:53	16°♐37'40	-6°-11'-46	
	72 Apr 28 j 16:25	0°♋		minimum elong	74 Oct 12 j 01:34	16°♐21'28	6°09'19	
max. Earth dist.	72 May 20 j 20:05	27°♋11'08	1.73655 AU	min. Earth dist.	74 Oct 12 j 08:56	16°♐10'19	0.26841 AU	
				morning rise	74 Oct 17 j 00:47	13°♐26'35		
superior conj	72 May 21 j 16:19	28°♋13'13	0°-1'-50	direct	74 Nov 01 j 05:20	8°♐52'40		
minimum elong	72 May 21 j 16:40	28°♋14'18	0°01'49	asc. node	74 Nov 07 j 05:38	9°♐35'25		
behind sun begin	72 May 20 j 18:23	27°♋05'55		greatest brilliancy	74 Nov 14 j 13:38	12°♐10'43	-4.7m	
behind sun end	72 May 22 j 14:56	29°♋22'41			74 Dec 09 j 04:44	0°♏		
asc. node	72 May 22 j 10:46	29°♋09'53		morning max el	74 Dec 22 j 00:19	12°♏24'48	46°55'44	
	72 May 23 j 03:06	0°♈			75 Jan 07 j 13:16	0°♑		
	72 Jun 16 j 12:57	0°♊			75 Feb 02 j 23:25	0°♓		
evening rise	72 Jun 26 j 13:03	12°♌18'35		desc. node	75 Feb 26 j 19:30	28°♈01'39		
	72 Jul 10 j 21:43	0°♎			75 Feb 28 j 11:22	0°♊		
	72 Aug 04 j 06:06	0°♎			75 Mar 25 j 14:00	0°♌		
	72 Aug 28 j 15:29	0°♌			75 Apr 19 j 11:57	0°♐		
desc. node	72 Sep 11 j 00:23	16°♐23'57			75 May 14 j 06:43	0°♋		
	72 Sep 22 j 03:22	0°♏			75 Jun 07 j 22:09	0°♈		
	72 Oct 16 j 19:45	0°♑		asc. node	75 Jun 19 j 22:31	14°♈42'00		
	72 Nov 10 j 21:00	0°♓		morning set	75 Jun 22 j 11:53	17°♈50'05		
	72 Dec 06 j 19:13	0°♊			75 Jul 02 j 09:29	0°♊		
evening max el	72 Dec 27 j 22:37	22°♏45'35	46°59'08	max. Earth dist.	75 Jul 25 j 04:19	28°♊08'06	1.72830 AU	
asc. node	73 Jan 02 j 03:16	27°♏57'06			75 Jul 26 j 16:26	0°♎		
	73 Jan 04 j 05:56	0°♌						
greatest brilliancy	73 Feb 02 j 12:16	22°♌23'41	-4.6m	superior conj	75 Jul 28 j 20:10	2°♌40'22	1°15'05	
retrograde	73 Feb 16 j 14:10	26°♌01'38		minimum elong	75 Jul 28 j 12:51	2°♌17'41	1°14'56	
evening set	73 Mar 06 j 08:11	19°♌55'55			75 Aug 19 j 19:46	0°♎		
inferior conj	73 Mar 09 j 19:41	17°♌44'47	8°07'18	evening rise	75 Sep 03 j 15:29	18°♎28'40		
minimum elong	73 Mar 10 j 01:42	17°♌35'12	8°06'43		75 Sep 12 j 21:07	0°♌		
min. Earth dist.	73 Mar 09 j 13:22	17°♌54'49	0.28524 AU		75 Oct 06 j 22:09	0°♏		
morning rise	73 Mar 13 j 19:27	15°♌15'21		desc. node	75 Oct 09 j 12:22	3°♏13'58		
direct	73 Mar 31 j 00:00	9°♌34'39			75 Oct 31 j 00:06	0°♑		
greatest brilliancy	73 Apr 11 j 15:01	12°♌00'05	-4.5m		75 Nov 24 j 04:12	0°♓		
desc. node	73 Apr 23 j 16:59	18°♌34'28			75 Dec 18 j 13:08	0°♊		
	73 May 08 j 09:38	0°♐			76 Jan 12 j 08:42	0°♌		
morning max el	73 May 18 j 19:55	9°♐31'37	45°47'22	asc. node	76 Jan 30 j 15:09	21°♌26'39		

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	76 Feb 07 j 02:53	0°♄			78 Jul 17 j 00:26	0°♄		
	76 Mar 06 j 01:27	0°♄			78 Aug 10 j 10:44	0°♄		
evening max el	76 Mar 09 j 02:21	3°♄00'10	45°46'12	morning set	78 Aug 30 j 05:39	24°♄34'32		
greatest brilliancy	76 Apr 12 j 06:45	29°♄39'29	-4.5m		78 Sep 03 j 13:58	0°♄		
	76 Apr 13 j 00:08	0°♄			78 Sep 27 j 12:42	0°♄		
retrograde	76 Apr 27 j 01:47	3°♄28'31		max. Earth dist.	78 Oct 05 j 11:53	10°♄00'27	1.71325 AU	
	76 May 10 j 08:34	30°♄						
evening set	76 May 12 j 05:05	29°♄01'22		superior conj	78 Oct 07 j 10:33	12°♄27'05	1°02'36	
inferior conj	76 May 18 j 12:17	25°♄14'18	0°37'46	minimum elong	78 Oct 07 j 21:06	13°♄00'14	1°02'15	
minimum elong	76 May 18 j 13:40	25°♄12'08	0°37'22		78 Oct 21 j 09:30	0°♄		
min. Earth dist.	76 May 18 j 16:32	25°♄07'38	0.28998 AU	desc. node	78 Nov 06 j 00:14	19°♄38'13		
desc. node	76 May 21 j 04:53	23°♄33'54			78 Nov 14 j 06:09	0°♄		
morning rise	76 May 24 j 22:17	21°♄23'20		evening rise	78 Nov 17 j 08:28	3°♄53'27		
direct	76 Jun 09 j 04:33	16°♄55'02			78 Dec 08 j 03:48	0°♄		
greatest brilliancy	76 Jun 22 j 23:37	20°♄14'14	-4.5m		79 Jan 01 j 03:45	0°♄		
	76 Jul 08 j 17:59	0°♄			79 Jan 25 j 08:10	0°♄		
morning max el	76 Jul 28 j 04:48	16°♄57'34	45°55'15		79 Feb 18 j 20:34	0°♄		
	76 Aug 10 j 04:20	0°♄		asc. node	79 Feb 27 j 03:11	9°♄59'45		
	76 Sep 06 j 10:47	0°♄			79 Mar 15 j 22:09	0°♄		
asc. node	76 Sep 11 j 08:08	5°♄38'34			79 Apr 10 j 21:36	0°♄		
	76 Oct 01 j 22:15	0°♄			79 May 08 j 15:51	0°♄		
	76 Oct 26 j 12:22	0°♄		evening max el	79 May 19 j 16:49	10°♄56'17	45°19'00	
	76 Nov 19 j 16:07	0°♄			79 Jun 11 j 05:56	0°♄		
	76 Dec 13 j 15:58	0°♄		desc. node	79 Jun 18 j 16:45	4°♄44'12		
desc. node	76 Dec 31 j 21:42	22°♄49'31		greatest brilliancy	79 Jun 24 j 15:25	7°♄39'54	-4.5m	
	77 Jan 06 j 15:23	0°♄		retrograde	79 Jul 07 j 04:39	10°♄26'06		
morning set	77 Jan 30 j 11:42	29°♄46'42		evening set	79 Jul 24 j 00:22	5°♄09'29		
	77 Jan 30 j 15:58	0°♄		inferior conj	79 Jul 28 j 13:10	2°♄25'25	-7°-41'-27	
	77 Feb 23 j 18:34	0°♄		minimum elong	79 Jul 28 j 04:38	2°♄38'37	7°40'18	
				min. Earth dist.	79 Jul 28 j 20:37	2°♄13'53	0.28540 AU	
superior conj	77 Mar 11 j 05:12	19°♄08'46	-1°-20'-4	morning rise	79 Aug 01 j 08:36	0°♄05'47		
minimum elong	77 Mar 11 j 11:55	19°♄29'32	1°19'59		79 Aug 01 j 12:30	30°♄		
max. Earth dist.	77 Mar 14 j 12:32	23°♄14'14	1.72782 AU	direct	79 Aug 19 j 00:34	24°♄14'31		
	77 Mar 19 j 23:47	0°♄		greatest brilliancy	79 Sep 02 j 10:46	27°♄54'39	-4.6m	
	77 Apr 13 j 08:00	0°♄			79 Sep 06 j 09:45	0°♄		
evening rise	77 Apr 18 j 07:15	6°♄06'21		morning max el	79 Oct 08 j 03:17	26°♄18'36	46°35'42	
asc. node	77 Apr 24 j 00:59	13°♄08'57		asc. node	79 Oct 09 j 19:53	28°♄01'11		
	77 May 07 j 19:09	0°♄			79 Oct 11 j 18:19	0°♄		
	77 Jun 01 j 09:09	0°♄			79 Nov 08 j 01:11	0°♄		
	77 Jun 26 j 02:35	0°♄			79 Dec 03 j 10:38	0°♄		
	77 Jul 21 j 01:20	0°♄			79 Dec 28 j 03:06	0°♄		
desc. node	77 Aug 13 j 14:26	27°♄55'24			80 Jan 21 j 13:25	0°♄		
	77 Aug 15 j 08:52	0°♄		desc. node	80 Jan 29 j 09:41	9°♄39'18		
	77 Sep 10 j 07:55	0°♄			80 Feb 14 j 22:07	0°♄		
	77 Oct 07 j 16:35	0°♄			80 Mar 10 j 07:02	0°♄		
evening max el	77 Oct 14 j 21:31	7°♄24'22	47°18'39		80 Apr 03 j 16:48	0°♄		
	77 Nov 09 j 04:46	0°♄		morning set	80 Apr 12 j 16:52	11°♄03'26		
greatest brilliancy	77 Nov 22 j 08:57	7°♄53'05	-4.7m		80 Apr 28 j 03:18	0°♄		
retrograde	77 Dec 04 j 16:22	10°♄43'05		max. Earth dist.	80 May 18 j 16:02	25°♄11'56	1.73652 AU	
asc. node	77 Dec 04 j 17:26	10°♄43'04						
evening set	77 Dec 19 j 12:20	6°♄17'11		superior conj	80 May 19 j 10:41	26°♄09'10	0°-4'-57	
min. Earth dist.	77 Dec 24 j 09:02	3°♄23'52	0.26727 AU	minimum elong	80 May 19 j 11:42	26°♄12'17	0°04'56	
inferior conj	77 Dec 25 j 06:43	2°♄50'20	4°59'15	behind sun begin	80 May 18 j 14:11	25°♄06'16		
minimum elong	77 Dec 24 j 21:17	3°♄04'55	4°56'46	behind sun end	80 May 20 j 09:12	27°♄18'17		
morning rise	77 Dec 30 j 06:54	29°♄50'46		asc. node	80 May 21 j 12:45	28°♄42'49		
	77 Dec 30 j 00:21	30°♄			80 May 22 j 13:54	0°♄		
direct	78 Jan 14 j 16:36	25°♄10'22			80 Jun 15 j 23:46	0°♄		
greatest brilliancy	78 Jan 25 j 09:34	27°♄19'40	-4.6m	evening rise	80 Jun 24 j 08:21	10°♄16'52		
	78 Jan 31 j 03:38	0°♄			80 Jul 10 j 08:42	0°♄		
morning max el	78 Mar 05 j 10:03	26°♄51'30	46°22'57		80 Aug 03 j 17:22	0°♄		
	78 Mar 08 j 14:08	0°♄			80 Aug 28 j 03:10	0°♄		
desc. node	78 Mar 26 j 07:20	18°♄28'45		desc. node	80 Sep 10 j 02:32	15°♄53'50		
	78 Apr 05 j 20:05	0°♄			80 Sep 21 j 15:40	0°♄		
	78 May 02 j 07:37	0°♄			80 Oct 16 j 08:54	0°♄		
	78 May 28 j 00:24	0°♄			80 Nov 10 j 11:31	0°♄		
	78 Jun 22 j 05:20	0°♄			80 Dec 06 j 12:28	0°♄		
asc. node	78 Jul 17 j 10:20	0°♄		evening max el	80 Dec 25 j 12:36	20°♄22'59	47°01'24	

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

asc. node	81 Jan 01 j 05:22	27° ≈ 02'43			83 Jul 26 j 03:25	0° Ω	
	81 Jan 04 j 07:43	0° ✕					
greatest brilliancy	81 Jan 31 j 04:35	20° ✕ 08'03	-4.6m	superior conj	83 Jul 26 j 14:01	0° Ω 32'52	1°13'34
retrograde	81 Feb 14 j 06:01	23° ✕ 46'23		minimum elong	83 Jul 26 j 06:23	0° Ω 09'11	1°13'23
evening set	81 Mar 04 j 01:41	17° ✕ 37'48			83 Aug 19 j 06:50	0° ☿	
inferior conj	81 Mar 07 j 11:22	15° ✕ 29'41	8°14'00	evening rise	83 Sep 01 j 06:59	16° ☿ 12'33	
minimum elong	81 Mar 07 j 16:46	15° ✕ 21'07	8°13'33		83 Sep 12 j 08:20	0° ♊	
min. Earth dist.	81 Mar 07 j 04:13	15° ✕ 41'02	0.28482 AU		83 Oct 06 j 09:35	0° ♋	
morning rise	81 Mar 11 j 08:03	13° ✕ 05'07		desc. node	83 Oct 08 j 14:24	2° ♋ 44'37	
direct	81 Mar 28 j 14:36	7° ✕ 20'04			83 Oct 30 j 11:49	0° ♌	
greatest brilliancy	81 Apr 09 j 05:23	9° ✕ 45'22	-4.5m		83 Nov 23 j 16:17	0° ♍	
desc. node	81 Apr 22 j 19:04	17° ✕ 20'15			83 Dec 18 j 01:45	0° ≈	
	81 May 08 j 13:20	0° ☿			84 Jan 11 j 22:17	0° ✕	
morning max el	81 May 16 j 11:29	7° ☿ 19'33	45°48'03	asc. node	84 Jan 29 j 17:17	20° ✕ 50'00	
	81 Jun 07 j 18:36	0° ♊			84 Feb 06 j 18:31	0° ☿	
	81 Jul 04 j 21:30	0° ♋			84 Mar 05 j 22:51	0° ♌	
	81 Jul 30 j 16:36	0° ♍		evening max el	84 Mar 06 j 18:46	0° ♌ 48'53	45°48'19
asc. node	81 Aug 13 j 22:19	17° ♍ 00'12		greatest brilliancy	84 Apr 10 j 00:19	27° ♌ 31'38	-4.5m
	81 Aug 24 j 15:53	0° ♎			84 Apr 16 j 06:55	0° ♍	
	81 Sep 18 j 01:30	0° ☿		retrograde	84 Apr 24 j 18:25	1° ♍ 19'21	
	81 Oct 12 j 02:30	0° ♊			84 May 02 j 21:45	30° ♌	
	81 Nov 04 j 23:17	0° ♋		evening set	84 May 09 j 22:48	26° ♌ 50'55	
morning set	81 Nov 11 j 14:35	8° ♋ 21'30		inferior conj	84 May 16 j 04:47	23° ♌ 04'59	0°57'15
	81 Nov 28 j 18:58	0° ♌		minimum elong	84 May 16 j 06:52	23° ♌ 01'43	0°56'39
desc. node	81 Dec 03 j 11:57	5° ♌ 55'34		min. Earth dist.	84 May 16 j 08:57	22° ♌ 58'27	0.28995 AU
	81 Dec 22 j 15:23	0° ♍		desc. node	84 May 20 j 06:50	20° ♌ 33'53	
				morning rise	84 May 22 j 15:03	19° ♌ 13'26	
superior conj	81 Dec 23 j 09:37	0° ♍ 57'17	0°-44'-57	direct	84 Jun 06 j 21:26	14° ♌ 45'59	
minimum elong	81 Dec 22 j 23:01	0° ♍ 23'58	0°44'31	greatest brilliancy	84 Jun 20 j 13:30	18° ♌ 02'07	-4.5m
max. Earth dist.	81 Dec 26 j 09:31	4° ♍ 43'00	1.71246 AU		84 Jul 09 j 04:51	0° ♍	
	82 Jan 15 j 13:35	0° ≈		morning max el	84 Jul 25 j 20:25	14° ♍ 45'49	45°54'10
evening rise	82 Feb 02 j 13:55	22° ≈ 29'44			84 Aug 09 j 22:39	0° ♍	
	82 Feb 08 j 14:37	0° ✕			84 Sep 06 j 01:19	0° ♎	
	82 Mar 04 j 19:54	0° ☿		asc. node	84 Sep 10 j 10:09	5° ♎ 03'12	
asc. node	82 Mar 26 j 15:09	26° ☿ 44'54			84 Oct 01 j 11:15	0° ☿	
	82 Mar 29 j 07:08	0° ♊			84 Oct 26 j 00:37	0° ♊	
	82 Apr 23 j 02:06	0° ♋			84 Nov 19 j 03:58	0° ♋	
	82 May 18 j 07:22	0° ♌			84 Dec 13 j 03:33	0° ♌	
	82 Jun 13 j 04:18	0° ♍		desc. node	84 Dec 30 j 23:53	22° ♌ 20'38	
	82 Jul 10 j 06:25	0° ☿			85 Jan 06 j 02:45	0° ♍	
desc. node	82 Jul 16 j 04:40	6° ☿ 15'55		morning set	85 Jan 27 j 22:59	27° ♍ 17'14	
evening max el	82 Jul 31 j 00:10	21° ☿ 11'24	46°09'11		85 Jan 30 j 03:11	0° ≈	
	82 Aug 09 j 12:12	0° ♊			85 Feb 23 j 05:41	0° ✕	
greatest brilliancy	82 Sep 08 j 00:13	19° ♊ 53'00	-4.6m				
retrograde	82 Sep 18 j 10:59	21° ♊ 52'33		superior conj	85 Mar 08 j 19:36	16° ✕ 50'25	-1°-21'-14
evening set	82 Oct 04 j 17:40	16° ♊ 48'26		minimum elong	85 Mar 09 j 01:41	17° ✕ 09'15	1°21'10
inferior conj	82 Oct 09 j 03:33	14° ♊ 11'41	-6°-28'-6	max. Earth dist.	85 Mar 12 j 07:29	21° ✕ 10'05	1.72732 AU
minimum elong	82 Oct 09 j 14:16	13° ♊ 55'27	6°25'47		85 Mar 19 j 10:51	0° ☿	
min. Earth dist.	82 Oct 09 j 21:45	13° ♊ 44'06	0.26900 AU		85 Apr 12 j 19:04	0° ♊	
morning rise	82 Oct 14 j 10:25	11° ♊ 04'58		evening rise	85 Apr 15 j 23:56	3° ♊ 56'12	
direct	82 Oct 29 j 19:21	6° ♊ 25'54		asc. node	85 Apr 23 j 02:56	12° ♊ 41'01	
asc. node	82 Nov 06 j 07:34	7° ♊ 32'01			85 May 07 j 06:18	0° ♋	
greatest brilliancy	82 Nov 12 j 04:26	9° ♊ 45'30	-4.7m		85 May 31 j 20:32	0° ♌	
	82 Dec 09 j 09:45	0° ♋			85 Jun 25 j 14:26	0° ♍	
morning max el	82 Dec 19 j 15:06	10° ♋ 01'42	46°55'50		85 Jul 20 j 13:57	0° ☿	
	83 Jan 07 j 07:34	0° ♌		desc. node	85 Aug 12 j 16:34	27° ☿ 21'17	
	83 Feb 02 j 14:26	0° ♍			85 Aug 14 j 22:45	0° ♊	
desc. node	83 Feb 25 j 21:36	27° ♍ 27'52			85 Sep 10 j 00:03	0° ♋	
	83 Feb 28 j 00:45	0° ≈			85 Oct 07 j 13:55	0° ♌	
	83 Mar 25 j 02:25	0° ✕		evening max el	85 Oct 12 j 11:29	4° ♌ 59'50	47°17'24
	83 Apr 18 j 23:43	0° ☿			85 Nov 10 j 06:07	0° ♍	
	83 May 13 j 18:04	0° ♊		greatest brilliancy	85 Nov 20 j 01:18	5° ♍ 28'31	-4.7m
	83 Jun 07 j 09:15	0° ♋		retrograde	85 Dec 02 j 05:11	8° ♍ 14'40	
asc. node	83 Jun 19 j 00:35	14° ♋ 14'33		asc. node	85 Dec 03 j 19:31	8° ♍ 11'32	
morning set	83 Jun 20 j 06:08	15° ♋ 45'08		evening set	85 Dec 16 j 23:10	3° ♍ 52'57	
	83 Jul 01 j 20:29	0° ♌		min. Earth dist.	85 Dec 21 j 23:05	0° ♍ 55'13	0.26673 AU
max. Earth dist.	83 Jul 22 j 22:39	26° ♌ 02'15	1.72876 AU	inferior conj	85 Dec 22 j 19:40	0° ♍ 23'23	4°39'39

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

minimum elong	85 Dec 22 j 10:36	0° $\overline{3}$ 37'24	4°37'10	behind sun end	88 May 18 j 02:17	25° $\overline{8}$ 10'25	
	85 Dec 23 j 10:48	30° \overline{R} \overline{A}		asc. node	88 May 20 j 14:52	28° $\overline{8}$ 16'20	
morning rise	85 Dec 27 j 22:39	27° \overline{A} 19'47			88 May 22 j 00:39	0° \overline{II}	
direct	86 Jan 12 j 04:56	22° \overline{A} 44'20			88 Jun 15 j 10:36	0° \overline{S}	
greatest brilliancy	86 Jan 22 j 23:31	24° \overline{A} 54'50	-4.6m	evening rise	88 Jun 22 j 03:34	8° \overline{S} 14'56	
	86 Feb 01 j 19:41	0° \overline{S}			88 Jul 09 j 19:42	0° \overline{Q}	
morning max el	86 Mar 02 j 22:11	24° \overline{S} 26'14	46°24'22		88 Aug 03 j 04:40	0° \overline{M}	
	86 Mar 08 j 11:48	0° \approx			88 Aug 27 j 14:52	0° \overline{A}	
desc. node	86 Mar 25 j 09:24	17° \approx 47'06		desc. node	88 Sep 09 j 04:30	15° \overline{A} 23'12	
	86 Apr 05 j 11:58	0° \overline{H}			88 Sep 21 j 03:56	0° \overline{M}	
	86 May 01 j 21:13	0° \overline{Y}			88 Oct 15 j 22:01	0° \overline{A}	
	86 May 27 j 12:48	0° \overline{B}			88 Nov 10 j 02:04	0° \overline{S}	
	86 Jun 21 j 17:03	0° \overline{II}			88 Dec 06 j 05:55	0° \approx	
	86 Jul 16 j 11:44	0° \overline{S}		evening max el	88 Dec 23 j 03:25	18° \approx 02'53	47°03'38
asc. node	86 Jul 16 j 12:32	0° \overline{S} 02'24		asc. node	88 Dec 31 j 07:33	26° \approx 07'54	
	86 Aug 09 j 21:50	0° \overline{Q}			89 Jan 04 j 10:46	0° \overline{H}	
morning set	86 Aug 27 j 21:05	22° \overline{Q} 18'35		greatest brilliancy	89 Jan 28 j 20:39	17° \overline{H} 52'25	-4.6m
	86 Sep 03 j 01:01	0° \overline{M}		retrograde	89 Feb 11 j 22:27	21° \overline{H} 31'26	
	86 Sep 26 j 23:47	0° \overline{A}		evening set	89 Mar 01 j 18:57	15° \overline{H} 20'14	
max. Earth dist.	86 Oct 02 j 20:23	7° \overline{A} 21'32	1.71367 AU	inferior conj	89 Mar 05 j 03:01	13° \overline{H} 14'48	8°19'59
				minimum elong	89 Mar 05 j 07:46	13° \overline{H} 07'17	8°19'39
superior conj	86 Oct 04 j 23:23	10° \overline{A} 01'43	1°05'02	min. Earth dist.	89 Mar 04 j 18:40	13° \overline{H} 28'02	0.28438 AU
minimum elong	86 Oct 05 j 09:46	10° \overline{A} 34'21	1°04'42	morning rise	89 Mar 08 j 20:47	10° \overline{H} 54'57	
	86 Oct 20 j 20:40	0° \overline{M}		direct	89 Mar 26 j 05:31	5° \overline{H} 05'52	
desc. node	86 Nov 05 j 02:14	19° \overline{M} 09'17		greatest brilliancy	89 Apr 06 j 18:59	7° \overline{H} 30'23	-4.5m
	86 Nov 13 j 17:23	0° \overline{A}		desc. node	89 Apr 21 j 21:01	16° \overline{H} 08'37	
evening rise	86 Nov 14 j 18:26	1° \overline{A} 18'39			89 May 08 j 15:11	0° \overline{Y}	
	86 Dec 07 j 15:08	0° \overline{S}		morning max el	89 May 14 j 03:38	5° \overline{Y} 09'34	45°48'43
	86 Dec 31 j 15:11	0° \approx			89 Jun 07 j 11:07	0° \overline{B}	
	87 Jan 24 j 19:49	0° \overline{H}			89 Jul 04 j 11:07	0° \overline{II}	
	87 Feb 18 j 08:38	0° \overline{Y}			89 Jul 30 j 04:57	0° \overline{S}	
asc. node	87 Feb 26 j 05:14	9° \overline{Y} 28'58		asc. node	89 Aug 13 j 00:20	16° \overline{S} 30'24	
	87 Mar 15 j 11:03	0° \overline{B}			89 Aug 24 j 03:35	0° \overline{Q}	
	87 Apr 10 j 12:19	0° \overline{II}			89 Sep 17 j 12:51	0° \overline{M}	
	87 May 08 j 11:13	0° \overline{S}			89 Oct 11 j 13:41	0° \overline{A}	
evening max el	87 May 17 j 07:01	8° \overline{S} 41'14	45°18'33		89 Nov 04 j 10:21	0° \overline{M}	
	87 Jun 12 j 03:41	0° \overline{Q}		morning set	89 Nov 09 j 01:34	5° \overline{M} 50'04	
desc. node	87 Jun 17 j 18:56	3° \overline{Q} 19'13			89 Nov 28 j 06:00	0° \overline{A}	
greatest brilliancy	87 Jun 22 j 03:01	5° \overline{Q} 23'17	-4.5m	desc. node	89 Dec 02 j 14:07	5° \overline{A} 27'38	
retrograde	87 Jul 04 j 19:37	8° \overline{Q} 13'22					
evening set	87 Jul 21 j 12:01	3° \overline{Q} 00'58		superior conj	89 Dec 20 j 18:53	28° \overline{A} 20'56	0°-41'-28
inferior conj	87 Jul 26 j 04:25	0° \overline{Q} 11'57	-7°-31'-5	minimum elong	89 Dec 20 j 08:49	27° \overline{A} 49'19	0°41'02
minimum elong	87 Jul 25 j 19:28	0° \overline{Q} 25'46	7°29'46		89 Dec 22 j 02:25	0° \overline{S}	
min. Earth dist.	87 Jul 26 j 11:28	0° \overline{Q} 01'02	0.28578 AU	max. Earth dist.	89 Dec 23 j 17:41	2° \overline{S} 03'21	1.71217 AU
	87 Jul 26 j 12:09	30° \overline{R} \overline{S}			90 Jan 15 j 00:36	0° \approx	
morning rise	87 Jul 30 j 02:35	27° \overline{S} 48'22		evening rise	90 Jan 31 j 01:18	20° \approx 01'26	
direct	87 Aug 16 j 15:46	22° \overline{S} 00'16			90 Feb 08 j 01:38	0° \overline{H}	
greatest brilliancy	87 Aug 31 j 03:57	25° \overline{S} 42'13	-4.6m		90 Mar 04 j 06:59	0° \overline{Y}	
	87 Sep 07 j 17:06	0° \overline{Q}		asc. node	90 Mar 25 j 17:09	26° \overline{Y} 16'43	
morning max el	87 Oct 05 j 17:44	23° \overline{Q} 58'44	46°34'21		90 Mar 28 j 18:24	0° \overline{B}	
asc. node	87 Oct 08 j 21:55	27° \overline{Q} 11'54			90 Apr 22 j 13:47	0° \overline{II}	
	87 Oct 11 j 14:54	0° \overline{M}			90 May 17 j 19:53	0° \overline{S}	
	87 Nov 07 j 16:47	0° \overline{A}			90 Jun 12 j 18:26	0° \overline{Q}	
	87 Dec 03 j 00:19	0° \overline{M}			90 Jul 10 j 00:07	0° \overline{M}	
	87 Dec 27 j 15:46	0° \overline{A}		desc. node	90 Jul 15 j 06:44	5° \overline{M} 31'55	
	88 Jan 21 j 01:26	0° \overline{S}		evening max el	90 Jul 28 j 14:25	18° \overline{M} 53'27	46°06'26
desc. node	88 Jan 28 j 11:46	9° \overline{S} 09'11			90 Aug 09 j 18:07	0° \overline{A}	
	88 Feb 14 j 09:41	0° \approx		greatest brilliancy	90 Sep 05 j 11:47	17° \overline{A} 27'32	-4.6m
	88 Mar 09 j 18:15	0° \overline{H}		retrograde	90 Sep 15 j 23:27	19° \overline{A} 27'05	
	88 Apr 03 j 03:45	0° \overline{Y}		evening set	90 Oct 02 j 09:25	14° \overline{A} 18'19	
morning set	88 Apr 10 j 09:55	8° \overline{Y} 54'56		inferior conj	90 Oct 06 j 16:03	11° \overline{A} 45'48	-6°-43'-51
	88 Apr 27 j 14:06	0° \overline{B}		minimum elong	90 Oct 07 j 02:41	11° \overline{A} 29'39	6°41'39
max. Earth dist.	88 May 16 j 13:08	23° \overline{B} 16'22	1.73655 AU	min. Earth dist.	90 Oct 07 j 10:27	11° \overline{A} 17'52	0.26958 AU
				morning rise	90 Oct 11 j 19:36	8° \overline{A} 43'32	
superior conj	88 May 17 j 05:02	24° \overline{B} 05'10	0°-8'-4	direct	90 Oct 27 j 09:10	3° \overline{A} 59'23	
minimum elong	88 May 17 j 06:41	24° \overline{B} 10'14	0°08'01	asc. node	90 Nov 05 j 09:42	5° \overline{A} 33'41	
behind sun begin	88 May 16 j 11:04	23° \overline{B} 10'03		greatest brilliancy	90 Nov 09 j 18:17	7° \overline{A} 19'14	-4.7m

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Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	90 Dec 09 j 12:50	0°♌		desc. node	93 Aug 11 j 18:35	26°♏47'48	
morning max el	90 Dec 17 j 05:02	7°♌37'02	46°56'02		93 Aug 14 j 12:21	0°♎	
	91 Jan 07 j 01:10	0°♏			93 Sep 09 j 16:03	0°♌	
	91 Feb 02 j 04:55	0°♐			93 Oct 07 j 11:40	0°♏	
desc. node	91 Feb 24 j 23:37	26°♐55'01		evening max el	93 Oct 10 j 00:17	2°♏33'22	47°15'50
	91 Feb 27 j 13:42	0°♑			93 Nov 11 j 17:22	0°♐	
	91 Mar 24 j 14:26	0°♒		greatest brilliancy	93 Nov 17 j 17:11	3°♐03'22	-4.7m
	91 Apr 18 j 11:08	0°♓		retrograde	93 Nov 29 j 17:31	5°♐46'06	
	91 May 13 j 05:04	0°♈		asc. node	93 Dec 02 j 21:42	5°♐33'38	
	91 Jun 06 j 20:01	0°♉		evening set	93 Dec 14 j 09:51	1°♐27'53	
morning set	91 Jun 18 j 00:38	13°♉42'00			93 Dec 16 j 23:11	30°♑	
asc. node	91 Jun 18 j 02:47	13°♉48'35		min. Earth dist.	93 Dec 19 j 13:08	28°♏25'44	0.26626 AU
	91 Jul 01 j 07:07	0°♊		inferior conj	93 Dec 20 j 08:20	27°♏56'05	4°19'05
max. Earth dist.	91 Jul 20 j 16:24	23°♊55'46	1.72925 AU	minimum elong	93 Dec 19 j 23:43	28°♏09'24	4°16'40
				morning rise	93 Dec 25 j 14:06	24°♏48'37	
superior conj	91 Jul 24 j 08:05	28°♊27'08	1°11'57	direct	94 Jan 09 j 16:38	20°♏17'34	
minimum elong	91 Jul 24 j 00:09	28°♊02'35	1°11'45	greatest brilliancy	94 Jan 20 j 14:15	22°♏30'35	-4.6m
	91 Jul 25 j 14:04	0°♋			94 Feb 02 j 23:39	0°♐	
	91 Aug 18 j 17:35	0°♌		morning max el	94 Feb 28 j 10:27	22°♐01'27	46°26'00
evening rise	91 Aug 29 j 22:34	13°♌57'38			94 Mar 08 j 08:33	0°♑	
	91 Sep 11 j 19:17	0°♍		desc. node	94 Mar 24 j 11:27	17°♑06'32	
	91 Oct 05 j 20:48	0°♎			94 Apr 05 j 03:21	0°♒	
desc. node	91 Oct 07 j 16:26	2°♎15'56			94 May 01 j 10:24	0°♓	
	91 Oct 29 j 23:20	0°♏			94 May 27 j 00:51	0°♈	
	91 Nov 23 j 04:09	0°♐			94 Jun 21 j 04:25	0°♉	
	91 Dec 17 j 14:08	0°♑		asc. node	94 Jul 15 j 14:30	29°♉34'53	
	92 Jan 11 j 11:39	0°♒			94 Jul 15 j 22:44	0°♊	
asc. node	92 Jan 28 j 19:17	20°♒13'46			94 Aug 09 j 08:38	0°♋	
	92 Feb 06 j 10:00	0°♓		morning set	94 Aug 25 j 13:00	20°♋05'06	
evening max el	92 Mar 04 j 10:26	28°♓36'40	45°50'29		94 Sep 02 j 11:46	0°♌	
	92 Mar 05 j 20:37	0°♈			94 Sep 26 j 10:35	0°♍	
greatest brilliancy	92 Apr 07 j 18:07	25°♈25'09	-4.5m	max. Earth dist.	94 Sep 30 j 08:25	4°♍54'38	1.71409 AU
retrograde	92 Apr 22 j 10:42	29°♈11'29					
evening set	92 May 07 j 16:42	24°♈41'31		superior conj	94 Oct 02 j 12:43	7°♍38'56	1°07'18
inferior conj	92 May 13 j 21:22	20°♈57'04	1°16'44	minimum elong	94 Oct 02 j 22:52	8°♍10'48	1°07'00
minimum elong	92 May 14 j 00:09	20°♈52'42	1°15'56		94 Oct 20 j 07:31	0°♎	
min. Earth dist.	92 May 14 j 01:45	20°♈50'10	0.28992 AU	desc. node	94 Nov 04 j 04:26	18°♎41'47	
desc. node	92 May 19 j 09:03	17°♈36'38		evening rise	94 Nov 12 j 04:46	28°♎45'53	
morning rise	92 May 20 j 07:42	17°♈04'59			94 Nov 13 j 04:22	0°♏	
direct	92 Jun 04 j 13:54	12°♈38'15			94 Dec 07 j 02:15	0°♐	
greatest brilliancy	92 Jun 18 j 03:31	15°♈51'19	-4.5m		94 Dec 31 j 02:29	0°♑	
	92 Jul 09 j 12:17	0°♉			95 Jan 24 j 07:21	0°♒	
morning max el	92 Jul 23 j 11:21	12°♉33'40	45°53'13		95 Feb 17 j 20:36	0°♓	
	92 Aug 09 j 16:03	0°♊		asc. node	95 Feb 25 j 07:15	8°♓58'29	
	92 Sep 05 j 15:18	0°♋			95 Mar 14 j 23:53	0°♈	
asc. node	92 Sep 09 j 12:13	4°♋29'23			95 Apr 10 j 03:01	0°♉	
	92 Sep 30 j 23:50	0°♌			95 May 08 j 06:54	0°♊	
	92 Oct 25 j 12:33	0°♍		evening max el	95 May 14 j 22:01	6°♊28'58	45°18'22
	92 Nov 18 j 15:32	0°♎			95 Jun 13 j 09:04	0°♋	
	92 Dec 12 j 14:53	0°♏		desc. node	95 Jun 16 j 21:00	1°♋52'12	
desc. node	92 Dec 30 j 01:59	21°♏52'16		greatest brilliancy	95 Jun 19 j 14:07	3°♋07'10	-4.5m
	93 Jan 05 j 13:53	0°♐		retrograde	95 Jul 02 j 11:09	6°♋01'52	
morning set	93 Jan 25 j 09:46	24°♐46'57		evening set	95 Jul 18 j 23:54	0°♋53'29	
	93 Jan 29 j 14:08	0°♑			95 Jul 20 j 12:41	30°♌	
	93 Feb 22 j 16:29	0°♒		inferior conj	95 Jul 23 j 19:48	27°♌59'35	-7°-20'-6
				minimum elong	95 Jul 23 j 10:31	28°♌13'54	7°18'39
superior conj	93 Mar 06 j 09:46	14°♒32'21	-1°-22'-16	min. Earth dist.	95 Jul 24 j 02:11	27°♌49'43	0.28612 AU
minimum elong	93 Mar 06 j 15:09	14°♒49'02	1°22'13	morning rise	95 Jul 27 j 20:49	25°♌31'59	
max. Earth dist.	93 Mar 10 j 01:40	19°♒04'31	1.72675 AU	direct	95 Aug 14 j 07:33	19°♌47'12	
	93 Mar 18 j 21:35	0°♓		greatest brilliancy	95 Aug 28 j 21:03	23°♌30'50	-4.6m
	93 Apr 12 j 05:47	0°♈			95 Sep 08 j 15:13	0°♍	
evening rise	93 Apr 13 j 16:32	1°♈46'46		morning max el	95 Oct 03 j 09:23	21°♍42'55	46°33'05
asc. node	93 Apr 22 j 05:05	12°♈14'38		asc. node	95 Oct 08 j 00:00	26°♍24'25	
	93 May 06 j 17:08	0°♉			95 Oct 11 j 10:33	0°♎	
	93 May 31 j 07:37	0°♊			95 Nov 07 j 07:53	0°♏	
	93 Jun 25 j 01:58	0°♋			95 Dec 02 j 13:37	0°♌	
	93 Jul 20 j 02:15	0°♌			95 Dec 27 j 04:08	0°♍	

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	96 Jan 20 j 13:15	0°☾		evening max el	98 Jul 26 j 04:25	16°☿34'49	46°03'48
desc. node	96 Jan 27 j 13:44	8°☾39'13			98 Aug 10 j 02:26	0°♊	
	96 Feb 13 j 21:07	0°♊		greatest brilliancy	98 Sep 03 j 00:19	15°♊03'26	-4.6m
	96 Mar 09 j 05:24	0°♋		retrograde	98 Sep 13 j 11:30	17°♊02'04	
	96 Apr 02 j 14:39	0°♌		evening set	98 Sep 30 j 01:22	11°♊48'45	
morning set	96 Apr 08 j 02:37	6°♌45'27		inferior conj	98 Oct 04 j 04:47	9°♊20'28	-6°-58'-41
	96 Apr 27 j 00:49	0°♍		minimum elong	98 Oct 04 j 15:16	9°♊04'31	6°56'38
				min. Earth dist.	98 Oct 04 j 23:36	8°♊51'50	0.27017 AU
superior conj	96 May 14 j 23:05	22°♍00'29	0°-11'-13	morning rise	98 Oct 09 j 04:49	6°♊22'40	
minimum elong	96 May 15 j 01:22	22°♍07'32	0°11'06	direct	98 Oct 24 j 22:47	1°♊33'16	
behind sun begin	96 May 14 j 09:08	21°♍17'40		asc. node	98 Nov 04 j 11:51	3°♊40'04	
behind sun end	96 May 15 j 17:37	22°♍57'23		greatest brilliancy	98 Nov 07 j 08:25	4°♊53'17	-4.7m
max. Earth dist.	96 May 14 j 11:34	21°♍25'08	1.73650 AU		98 Dec 09 j 14:35	0°♋	
asc. node	96 May 19 j 16:59	27°♋50'08		morning max el	98 Dec 14 j 18:17	5°♋10'07	46°56'11
	96 May 21 j 11:18	0°♌			99 Jan 06 j 18:32	0°♌	
	96 Jun 14 j 21:18	0°♍			99 Feb 01 j 19:23	0°☾	
evening rise	96 Jun 19 j 22:43	6°♍13'13		desc. node	99 Feb 24 j 01:42	26°☾22'15	
	96 Jul 09 j 06:36	0°♎			99 Feb 27 j 02:40	0°♊	
	96 Aug 02 j 15:52	0°♏			99 Mar 24 j 02:30	0°♋	
	96 Aug 27 j 02:30	0°♐			99 Apr 17 j 22:39	0°♌	
desc. node	96 Sep 08 j 06:35	14°♐53'07			99 May 12 j 16:15	0°♍	
	96 Sep 20 j 16:09	0°♑			99 Jun 06 j 06:58	0°♌	
	96 Oct 15 j 11:07	0°♌		morning set	99 Jun 15 j 19:02	11°♌37'56	
	96 Nov 09 j 16:37	0°☾		asc. node	99 Jun 17 j 04:45	13°♌21'14	
	96 Dec 05 j 23:35	0°♊			99 Jun 30 j 17:59	0°♍	
evening max el	96 Dec 20 j 19:08	15°♊45'28	47°05'40	max. Earth dist.	99 Jul 18 j 09:22	21°♍46'16	1.72973 AU
asc. node	96 Dec 30 j 09:30	25°♊11'47					
	97 Jan 04 j 15:23	0°♋		superior conj	99 Jul 22 j 02:05	26°☾20'42	1°10'14
greatest brilliancy	97 Jan 26 j 12:50	15°♋37'02	-4.6m	minimum elong	99 Jul 21 j 17:54	25°☾55'23	1°10'00
retrograde	97 Feb 09 j 14:59	19°♋16'06			99 Jul 25 j 00:55	0°♎	
evening set	97 Feb 27 j 11:53	13°♋02'46			99 Aug 18 j 04:32	0°♏	
inferior conj	97 Mar 02 j 18:33	10°♋59'32	8°25'11	evening rise	99 Aug 27 j 14:13	11°♏42'29	
minimum elong	97 Mar 02 j 22:38	10°♋53'04	8°24'56		99 Sep 11 j 06:27	0°♐	
min. Earth dist.	97 Mar 02 j 08:46	11°♋15'00	0.28395 AU		99 Oct 05 j 08:14	0°♑	
morning rise	97 Mar 06 j 09:36	8°♋44'02		desc. node	99 Oct 06 j 18:35	1°♑46'56	
direct	97 Mar 23 j 20:50	2°♋51'23			99 Oct 29 j 11:05	0°♌	
greatest brilliancy	97 Apr 04 j 07:43	5°♋14'04	-4.5m		99 Nov 22 j 16:17	0°☾	
desc. node	97 Apr 20 j 23:13	14°♋59'11			99 Dec 17 j 02:51	0°♊	
	97 May 08 j 15:49	0°♌			100 Jan 11 j 01:23	0°♋	
morning max el	97 May 11 j 19:58	2°♌59'49	45°49'22	asc. node	100 Jan 27 j 21:23	19°♋36'50	
	97 Jun 07 j 03:25	0°♍			100 Feb 06 j 01:58	0°♌	
	97 Jul 04 j 00:40	0°♎		evening max el	100 Mar 02 j 01:14	26°♌21'39	45°52'44
	97 Jul 29 j 17:14	0°☾			100 Mar 05 j 19:30	0°♍	
asc. node	97 Aug 12 j 02:22	16°☾00'46		greatest brilliancy	100 Apr 05 j 10:57	23°♍16'52	-4.5m
	97 Aug 23 j 15:13	0°♎		retrograde	100 Apr 20 j 02:55	27°♍03'22	
	97 Sep 17 j 00:10	0°♏		evening set	100 May 05 j 10:47	22°♍31'25	
	97 Oct 11 j 00:51	0°♐		inferior conj	100 May 11 j 14:05	18°♍48'50	1°36'00
	97 Nov 03 j 21:27	0°♑		minimum elong	100 May 11 j 17:32	18°♍43'24	1°35'00
morning set	97 Nov 06 j 12:52	3°♑19'35		min. Earth dist.	100 May 11 j 18:55	18°♍41'12	0.28990 AU
	97 Nov 27 j 17:05	0°♌		morning rise	100 May 18 j 00:17	14°♍56'25	
desc. node	97 Dec 01 j 16:11	4°♌59'23		desc. node	100 May 18 j 11:03	14°♍41'48	
				direct	100 Jun 02 j 05:58	10°♍29'58	
superior conj	97 Dec 18 j 04:26	25°♌45'25	0°-37'-54	greatest brilliancy	100 Jun 15 j 18:30	13°♍41'03	-4.5m
minimum elong	97 Dec 17 j 19:00	25°♌15'48	0°37'31		100 Jul 09 j 17:51	0°♎	
max. Earth dist.	97 Dec 21 j 03:20	29°♌28'11	1.71184 AU	morning max el	100 Jul 21 j 02:18	10°♎20'39	45°52'17
	97 Dec 21 j 13:27	0°☾			100 Aug 09 j 09:27	0°☾	
	98 Jan 14 j 11:36	0°♊			100 Sep 05 j 05:28	0°♎	
evening rise	98 Jan 28 j 12:53	17°♊33'37		asc. node	100 Sep 08 j 14:22	3°♎55'05	
	98 Feb 07 j 12:38	0°♋			100 Sep 30 j 12:38	0°♏	
	98 Mar 03 j 18:05	0°♌			100 Oct 25 j 00:41	0°♐	
asc. node	98 Mar 24 j 19:18	25°♌48'45			100 Nov 18 j 03:19	0°♑	
	98 Mar 28 j 05:45	0°♍			100 Dec 12 j 02:26	0°♌	
	98 Apr 22 j 01:37	0°♎		desc. node	100 Dec 29 j 03:54	21°♌22'30	
	98 May 17 j 08:35	0°☾					
	98 Jun 12 j 08:50	0°♎					
	98 Jul 09 j 18:21	0°♏					
desc. node	98 Jul 14 j 08:44	4°♏46'56					

superior conj	101 Mar 03 j 23:56	12° Υ 13'12	-1°-23'-9	inferior conj	103 Jul 21 j 11:13	25° Θ 46'37	-7°-8'-27
minimum elong	101 Mar 04 j 04:35	12° Υ 27'36	1°23'08	minimum elong	103 Jul 21 j 01:40	26° Θ 01'20	7°06'52
max. Earth dist.	101 Mar 07 j 17:20	16° Υ 50'11	1.72616 AU	min. Earth dist.	103 Jul 21 j 16:41	25° Θ 38'10	0.28645 AU
	101 Mar 18 j 08:37	0° Υ		morning rise	103 Jul 25 j 15:06	23° Θ 14'55	
evening rise	101 Apr 11 j 09:07	29° Υ 36'22		direct	103 Aug 11 j 23:50	17° Θ 33'47	
	101 Apr 11 j 16:48	0° Υ		greatest brilliancy	103 Aug 26 j 13:01	21° Θ 17'30	-4.6m
asc. node	101 Apr 21 j 07:13	11° Υ 47'17			103 Sep 09 j 07:57	0° Ω	
	101 May 06 j 04:15	0° Π		morning max el	103 Oct 01 j 01:24	19° Ω 27'21	46°31'31
	101 May 30 j 19:00	0° Θ		asc. node	103 Oct 07 j 02:07	25° Ω 36'47	
	101 Jun 24 j 13:52	0° Ω			103 Oct 11 j 06:01	0° Π	
	101 Jul 19 j 14:59	0° Π			103 Nov 06 j 23:11	0° Ω	
desc. node	101 Aug 10 j 20:38	26° Π 13'08			103 Dec 02 j 03:13	0° Π	
	101 Aug 14 j 02:28	0° Ω			103 Dec 26 j 16:49	0° Υ	
	101 Sep 09 j 08:43	0° Π			104 Jan 20 j 01:21	0° Θ	
	101 Oct 07 j 10:43	0° Υ		desc. node	104 Jan 26 j 15:54	8° Θ 09'03	
evening max el	101 Oct 07 j 12:49	0° Υ 05'16	47°14'24		104 Feb 13 j 08:49	0° \approx	
	101 Nov 13 j 23:48	0° Θ			104 Mar 08 j 16:46	0° Υ	
greatest brilliancy	101 Nov 15 j 08:14	0° Θ 36'06	-4.7m		104 Apr 02 j 01:48	0° Υ	
retrograde	101 Nov 27 j 06:06	3° Θ 16'38		morning set	104 Apr 05 j 19:05	4° Υ 34'24	
asc. node	101 Dec 01 j 23:38	2° Θ 48'47			104 Apr 26 j 11:49	0° Υ	
	101 Dec 09 j 23:14	30° Υ					
evening set	101 Dec 11 j 20:39	29° Υ 01'07		superior conj	104 May 12 j 17:01	19° Υ 54'33	0°-14'-21
min. Earth dist.	101 Dec 17 j 03:02	25° Υ 55'11	0.26585 AU	minimum elong	104 May 12 j 19:56	20° Υ 03'33	0°14'13
inferior conj	101 Dec 17 j 20:56	25° Υ 27'36	3°57'54	behind sun begin	104 May 12 j 09:55	19° Υ 32'47	
minimum elong	101 Dec 17 j 12:50	25° Υ 40'05	3°55'34	behind sun end	104 May 13 j 05:57	20° Υ 34'18	
morning rise	101 Dec 23 j 05:25	22° Υ 16'35		max. Earth dist.	104 May 12 j 10:42	19° Υ 35'11	1.73643 AU
direct	102 Jan 07 j 04:16	17° Υ 49'20		asc. node	104 May 18 j 18:57	27° Υ 22'36	
greatest brilliancy	102 Jan 18 j 05:08	20° Υ 05'23	-4.6m		104 May 20 j 22:14	0° Π	
	102 Feb 03 j 20:37	0° Θ			104 Jun 14 j 08:17	0° Θ	
morning max el	102 Feb 25 j 23:45	19° Θ 37'56	46°27'37	evening rise	104 Jun 17 j 17:53	4° Θ 10'49	
	102 Mar 08 j 05:02	0° \approx			104 Jul 08 j 17:45	0° Ω	
desc. node	102 Mar 23 j 13:34	16° \approx 25'30			104 Aug 02 j 03:18	0° Π	
	102 Apr 04 j 18:55	0° Υ			104 Aug 26 j 14:23	0° Ω	
	102 Apr 30 j 23:51	0° Υ		desc. node	104 Sep 07 j 08:43	14° Ω 22'28	
	102 May 26 j 13:10	0° Υ			104 Sep 20 j 04:41	0° Π	
	102 Jun 20 j 16:04	0° Π			104 Oct 15 j 00:36	0° Υ	
asc. node	102 Jul 14 j 16:35	29° Π 06'49			104 Nov 09 j 07:42	0° Θ	
	102 Jul 15 j 10:01	0° Θ			104 Dec 05 j 18:04	0° \approx	
	102 Aug 08 j 19:46	0° Ω		evening max el	104 Dec 18 j 11:21	13° \approx 28'02	47°07'39
morning set	102 Aug 23 j 04:52	17° Ω 50'29		asc. node	104 Dec 29 j 11:36	24° \approx 13'44	
	102 Sep 01 j 22:53	0° Π			105 Jan 04 j 22:37	0° Υ	
	102 Sep 25 j 21:45	0° Ω		greatest brilliancy	105 Jan 24 j 05:57	13° Υ 21'27	-4.6m
max. Earth dist.	102 Sep 27 j 20:30	2° Ω 26'45	1.71452 AU	retrograde	105 Feb 07 j 07:13	16° Υ 58'55	
				evening set	105 Feb 25 j 04:24	10° Υ 44'14	
superior conj	102 Sep 30 j 01:55	5° Ω 14'29	1°09'28	inferior conj	105 Feb 28 j 09:52	8° Υ 42'42	8°29'38
minimum elong	102 Sep 30 j 11:44	5° Ω 45'19	1°09'11	minimum elong	105 Feb 28 j 13:14	8° Υ 37'22	8°29'29
	102 Oct 19 j 18:46	0° Π		min. Earth dist.	105 Feb 27 j 22:38	9° Υ 00'28	0.28346 AU
desc. node	102 Nov 03 j 06:26	18° Π 12'34		morning rise	105 Mar 03 j 22:20	6° Υ 31'11	
evening rise	102 Nov 09 j 14:51	26° Π 11'17		direct	105 Mar 21 j 12:06	0° Υ 35'40	
	102 Nov 12 j 15:42	0° Υ		greatest brilliancy	105 Apr 01 j 19:13	2° Υ 55'13	-4.5m
	102 Dec 06 j 13:42	0° Θ		desc. node	105 Apr 20 j 01:16	13° Υ 50'40	
	102 Dec 30 j 14:06	0° \approx			105 May 08 j 15:37	0° Υ	
	103 Jan 23 j 19:14	0° Υ		morning max el	105 May 09 j 11:42	0° Υ 47'53	45°50'00
asc. node	103 Feb 17 j 08:57	0° Υ			105 Jun 06 j 19:37	0° Υ	
	103 Feb 24 j 09:23	8° Υ 27'10			105 Jul 03 j 14:17	0° Π	
	103 Mar 14 j 13:08	0° Υ			105 Jul 29 j 05:37	0° Θ	
	103 Apr 09 j 18:16	0° Π		asc. node	105 Aug 11 j 04:32	15° Θ 31'14	
	103 May 08 j 03:36	0° Θ			105 Aug 23 j 02:57	0° Ω	
evening max el	103 May 12 j 13:56	4° Θ 18'07	45°18'20		105 Sep 16 j 11:34	0° Π	
	103 Jun 15 j 04:35	0° Ω			105 Oct 10 j 12:05	0° Ω	
desc. node	103 Jun 15 j 22:57	0° Ω 21'28			105 Nov 03 j 08:39	0° Π	
greatest brilliancy	103 Jun 17 j 01:34	0° Ω 50'58	-4.5m	morning set	105 Nov 04 j 00:16	0° Π 49'09	
retrograde	103 Jun 30 j 02:52	3° Ω 49'42			105 Nov 27 j 04:17	0° Υ	
	103 Jul 14 j 05:02	30° Υ		desc. node	105 Nov 30 j 18:10	4° Υ 30'22	
evening set	103 Jul 16 j 11:58	28° Θ 45'28					

superior conj	105 Dec 15 j 13:41	23°♄08'27	0°-34'-14	desc. node	108 May 17 j 13:02	11°♄49'44	
minimum elong	105 Dec 15 j 05:01	22°♄41'12	0°33'52	direct	108 May 30 j 21:41	8°♄21'28	
max. Earth dist.	105 Dec 18 j 11:10	26°♄46'49	1.71157 AU	greatest brilliancy	108 Jun 13 j 10:16	11°♄31'59	-4.5m
	105 Dec 21 j 00:40	0°♄			108 Jul 09 j 21:23	0°♄	
	106 Jan 13 j 22:47	0°♄		morning max el	108 Jul 18 j 17:41	8°♄09'12	45°51'25
evening rise	106 Jan 25 j 23:48	15°♄03'02			108 Aug 09 j 02:16	0°♄	
	106 Feb 06 j 23:48	0°♄			108 Sep 04 j 19:17	0°♄	
	106 Mar 03 j 05:20	0°♄		asc. node	108 Sep 07 j 16:22	3°♄21'12	
asc. node	106 Mar 23 j 21:21	25°♄20'05			108 Sep 30 j 01:10	0°♄	
	106 Mar 27 j 17:15	0°♄			108 Oct 24 j 12:35	0°♄	
	106 Apr 21 j 13:36	0°♄			108 Nov 17 j 14:50	0°♄	
	106 May 16 j 21:29	0°♄			108 Dec 11 j 13:42	0°♄	
	106 Jun 11 j 23:31	0°♄		desc. node	108 Dec 28 j 06:05	20°♄54'33	
	106 Jul 09 j 13:07	0°♄			109 Jan 04 j 12:20	0°♄	
desc. node	106 Jul 13 j 10:53	4°♄01'34		morning set	109 Jan 20 j 07:09	19°♄44'32	
evening max el	106 Jul 23 j 17:47	14°♄14'37	46°01'15		109 Jan 28 j 12:18	0°♄	
	106 Aug 10 j 13:38	0°♄			109 Feb 21 j 14:26	0°♄	
greatest brilliancy	106 Aug 31 j 13:26	12°♄40'27	-4.6m				
retrograde	106 Sep 10 j 23:18	14°♄37'54		superior conj	109 Mar 01 j 14:02	9°♄54'42	-1°-23'-54
evening set	106 Sep 27 j 17:23	9°♄20'02		minimum elong	109 Mar 01 j 17:55	10°♄06'45	1°23'53
inferior conj	106 Oct 01 j 17:42	6°♄56'06	-7°-12'-28	max. Earth dist.	109 Mar 05 j 06:52	14°♄30'04	1.72562 AU
minimum elong	106 Oct 02 j 03:56	6°♄40'29	7°10'35		109 Mar 17 j 19:23	0°♄	
min. Earth dist.	106 Oct 02 j 13:09	6°♄26'26	0.27076 AU	evening rise	109 Apr 09 j 01:26	27°♄25'58	
morning rise	106 Oct 06 j 14:07	4°♄02'56			109 Apr 11 j 03:34	0°♄	
	106 Oct 15 j 23:35	30°♄		asc. node	109 Apr 20 j 09:09	11°♄20'07	
direct	106 Oct 22 j 12:00	29°♄07'58			109 May 05 j 15:07	0°♄	
	106 Oct 29 j 04:20	0°♄			109 May 30 j 06:09	0°♄	
asc. node	106 Nov 03 j 13:47	1°♄51'19			109 Jun 24 j 01:32	0°♄	
greatest brilliancy	106 Nov 04 j 23:14	2°♄28'53	-4.7m		109 Jul 19 j 03:31	0°♄	
	106 Dec 09 j 14:58	0°♄		desc. node	109 Aug 09 j 22:45	25°♄39'17	
morning max el	106 Dec 12 j 06:54	2°♄41'49	46°56'11		109 Aug 13 j 16:27	0°♄	
	107 Jan 06 j 11:32	0°♄			109 Sep 09 j 01:25	0°♄	
	107 Feb 01 j 09:42	0°♄		evening max el	109 Oct 05 j 02:07	27°♄40'11	47°12'55
desc. node	107 Feb 23 j 03:48	25°♄49'31			109 Oct 07 j 10:25	0°♄	
	107 Feb 26 j 15:36	0°♄		greatest brilliancy	109 Nov 12 j 22:28	28°♄08'47	-4.7m
	107 Mar 23 j 14:35	0°♄			109 Nov 18 j 10:10	0°♄	
	107 Apr 17 j 10:09	0°♄		retrograde	109 Nov 24 j 19:08	0°♄48'10	
	107 May 12 j 03:22	0°♄		asc. node	109 Dec 01 j 01:45	29°♄58'58	
	107 Jun 05 j 17:52	0°♄			109 Dec 01 j 00:09	30°♄	
morning set	107 Jun 13 j 13:12	9°♄33'20		evening set	109 Dec 09 j 07:39	26°♄34'55	
asc. node	107 Jun 16 j 06:49	12°♄54'24		min. Earth dist.	109 Dec 14 j 16:38	23°♄25'52	0.26543 AU
	107 Jun 30 j 04:46	0°♄		inferior conj	109 Dec 15 j 09:28	23°♄00'01	3°36'13
max. Earth dist.	107 Jul 16 j 03:08	19°♄39'27	1.73022 AU	minimum elong	109 Dec 15 j 01:56	23°♄11'36	3°33'59
				morning rise	109 Dec 20 j 20:36	19°♄45'52	
superior conj	107 Jul 19 j 20:04	24°♄14'26	1°08'24	direct	110 Jan 04 j 16:24	15°♄22'07	
minimum elong	107 Jul 19 j 11:41	23°♄48'31	1°08'10	greatest brilliancy	110 Jan 15 j 19:21	17°♄40'44	-4.6m
	107 Jul 24 j 11:43	0°♄			110 Feb 04 j 11:36	0°♄	
	107 Aug 17 j 15:27	0°♄		morning max el	110 Feb 23 j 13:53	17°♄17'54	46°29'14
evening rise	107 Aug 25 j 06:09	9°♄28'28			110 Mar 08 j 00:22	0°♄	
	107 Sep 10 j 17:32	0°♄		desc. node	110 Mar 22 j 15:36	15°♄46'09	
	107 Oct 04 j 19:34	0°♄			110 Apr 04 j 09:47	0°♄	
desc. node	107 Oct 05 j 20:35	1°♄17'52			110 Apr 30 j 12:47	0°♄	
	107 Oct 28 j 22:41	0°♄			110 May 26 j 01:03	0°♄	
	107 Nov 22 j 04:16	0°♄			110 Jun 20 j 03:21	0°♄	
	107 Dec 16 j 15:26	0°♄		asc. node	110 Jul 13 j 18:44	28°♄40'01	
	108 Jan 10 j 15:04	0°♄			110 Jul 14 j 20:57	0°♄	
asc. node	108 Jan 26 j 23:30	19°♄00'02			110 Aug 08 j 06:32	0°♄	
	108 Feb 05 j 18:06	0°♄		morning set	110 Aug 20 j 20:47	15°♄37'19	
evening max el	108 Feb 28 j 15:36	24°♄05'37	45°55'02		110 Sep 01 j 09:37	0°♄	
	108 Mar 05 j 19:22	0°♄			110 Sep 25 j 08:32	0°♄	
greatest brilliancy	108 Apr 03 j 02:51	21°♄07'16	-4.5m	max. Earth dist.	110 Sep 25 j 08:19	29°♄59'19	1.71496 AU
retrograde	108 Apr 17 j 19:12	24°♄55'15					
evening set	108 May 03 j 04:51	20°♄20'48		superior conj	110 Sep 27 j 15:15	2°♄51'43	1°11'29
inferior conj	108 May 09 j 06:41	16°♄40'30	1°55'07	minimum elong	110 Sep 28 j 00:40	3°♄21'15	1°11'14
minimum elong	108 May 09 j 10:47	16°♄34'02	1°53'57		110 Oct 19 j 05:40	0°♄	
min. Earth dist.	108 May 09 j 11:59	16°♄32'08	0.28989 AU	desc. node	110 Nov 02 j 08:27	17°♄44'23	
morning rise	108 May 15 j 16:39	12°♄48'10		evening rise	110 Nov 07 j 01:03	23°♄38'05	

	110 Nov 12 j 02:43	0°♁		morning max el	113 May 07 j 02:34	28°♁34'59	45°50'47
	110 Dec 06 j 00:50	0°♂			113 May 08 j 13:54	0°♀	
	110 Dec 30 j 01:22	0°≈			113 Jun 06 j 11:07	0°♂	
	111 Jan 23 j 06:43	0°♁			113 Jul 03 j 03:23	0°♂	
	111 Feb 16 j 20:51	0°♀			113 Jul 28 j 17:36	0°♂	
asc. node	111 Feb 23 j 11:26	7°♀56'58		asc. node	113 Aug 10 j 06:31	15°♂02'07	
	111 Mar 14 j 01:59	0°♂			113 Aug 22 j 14:23	0°♂	
	111 Apr 09 j 09:13	0°♂			113 Sep 15 j 22:43	0°♂	
	111 May 08 j 00:30	0°♂			113 Oct 09 j 23:06	0°♂	
evening max el	111 May 10 j 06:35	2°♂10'16	45°18'12	morning set	113 Nov 01 j 11:42	28°♂19'30	
greatest brilliancy	111 Jun 14 j 14:20	28°♂37'40	-4.5m		113 Nov 02 j 19:37	0°♂	
desc. node	111 Jun 15 j 01:10	28°♂49'11			113 Nov 26 j 15:15	0°♁	
	111 Jun 18 j 04:37	0°♂		desc. node	113 Nov 29 j 20:20	4°♁02'41	
retrograde	111 Jun 27 j 18:29	1°♂38'51					
	111 Jul 06 j 22:04	30°♂		superior conj	113 Dec 12 j 22:55	20°♁32'13	0°-30'-30
evening set	111 Jul 14 j 00:17	26°♂39'01		minimum elong	113 Dec 12 j 15:04	20°♁07'32	0°30'09
inferior conj	111 Jul 19 j 02:46	23°♂35'10	-6°-56'-12	max. Earth dist.	113 Dec 15 j 17:03	24°♁00'03	1.71130 AU
minimum elong	111 Jul 18 j 17:00	23°♂50'15	6°54'30		113 Dec 20 j 11:37	0°♂	
min. Earth dist.	111 Jul 19 j 07:23	23°♂28'02	0.28676 AU		114 Jan 13 j 09:45	0°≈	
morning rise	111 Jul 23 j 09:31	20°♂59'13		evening rise	114 Jan 23 j 10:35	12°≈32'37	
direct	111 Aug 09 j 16:26	15°♂22'05			114 Feb 06 j 10:48	0°♁	
greatest brilliancy	111 Aug 24 j 04:02	19°♂04'20	-4.6m		114 Mar 02 j 16:25	0°♀	
	111 Sep 09 j 19:53	0°♂		asc. node	114 Mar 22 j 23:21	24°♀51'54	
morning max el	111 Sep 28 j 16:51	17°♂11'47	46°29'54		114 Mar 27 j 04:33	0°♂	
asc. node	111 Oct 06 j 04:08	24°♂50'49			114 Apr 21 j 01:22	0°♂	
	111 Oct 11 j 00:31	0°♂			114 May 16 j 10:10	0°♂	
	111 Nov 06 j 13:53	0°♂			114 Jun 11 j 14:03	0°♂	
	111 Dec 01 j 16:19	0°♂			114 Jul 09 j 08:06	0°♂	
	111 Dec 26 j 05:05	0°♁		desc. node	114 Jul 12 j 12:56	3°♂16'03	
	112 Jan 19 j 13:04	0°♂		evening max el	114 Jul 21 j 06:15	11°♂53'04	45°58'35
desc. node	112 Jan 25 j 17:56	7°♂39'34			114 Aug 11 j 04:15	0°♂	
	112 Feb 12 j 20:07	0°≈		greatest brilliancy	114 Aug 29 j 02:14	10°♂17'42	-4.6m
	112 Mar 08 j 03:44	0°♁		retrograde	114 Sep 08 j 11:00	12°♂14'32	
	112 Apr 01 j 12:30	0°♀		evening set	114 Sep 25 j 09:18	6°♂51'50	
morning set	112 Apr 03 j 11:51	2°♀25'34		inferior conj	114 Sep 29 j 06:39	4°♂32'17	-7°-25'-18
	112 Apr 25 j 22:22	0°♂		minimum elong	114 Sep 29 j 16:33	4°♂17'10	7°23'37
				min. Earth dist.	114 Sep 30 j 02:52	4°♂01'26	0.27141 AU
superior conj	112 May 10 j 11:12	17°♂50'43	0°-17'-26	morning rise	114 Oct 03 j 23:23	1°♂44'02	
minimum elong	112 May 10 j 14:45	18°♂01'37	0°17'17		114 Oct 07 j 05:33	30°♂	
max. Earth dist.	112 May 10 j 10:44	17°♂49'16	1.73634 AU	direct	114 Oct 20 j 01:07	26°♂42'50	
asc. node	112 May 17 j 21:06	26°♂56'51			114 Nov 02 j 09:51	0°♂	
	112 May 20 j 08:45	0°♂		greatest brilliancy	114 Nov 02 j 15:21	0°♂06'26	-4.7m
	112 Jun 13 j 18:54	0°♂		asc. node	114 Nov 02 j 15:55	0°♂07'06	
evening rise	112 Jun 15 j 13:14	2°♂10'06			114 Dec 09 j 14:13	0°♂	
	112 Jul 08 j 04:33	0°♂		morning max el	114 Dec 09 j 19:39	0°♂13'52	46°56'15
	112 Aug 01 j 14:25	0°♂			115 Jan 06 j 04:08	0°♁	
	112 Aug 26 j 01:57	0°♂			115 Jan 31 j 23:47	0°♂	
desc. node	112 Sep 06 j 10:42	13°♂52'15		desc. node	115 Feb 22 j 05:48	25°♂16'55	
	112 Sep 19 j 16:56	0°♂			115 Feb 26 j 04:21	0°≈	
	112 Oct 14 j 13:51	0°♁			115 Mar 23 j 02:31	0°♁	
	112 Nov 08 j 22:37	0°♂			115 Apr 16 j 21:33	0°♀	
	112 Dec 05 j 12:39	0°≈			115 May 11 j 14:24	0°♂	
evening max el	112 Dec 16 j 03:17	11°≈10'35	47°09'25		115 Jun 05 j 04:40	0°♂	
asc. node	112 Dec 28 j 13:45	23°≈15'27		morning set	115 Jun 11 j 07:42	7°♂30'05	
	113 Jan 05 j 08:04	0°♁		asc. node	115 Jun 15 j 08:59	12°♂28'12	
greatest brilliancy	113 Jan 22 j 00:07	11°♁07'55	-4.6m		115 Jun 29 j 15:27	0°♂	
retrograde	113 Feb 04 j 23:07	14°♁42'22		max. Earth dist.	115 Jul 13 j 23:35	17°♂41'20	1.73069 AU
evening set	113 Feb 22 j 20:39	8°♁27'10					
min. Earth dist.	113 Feb 25 j 12:52	6°♁46'24	0.28290 AU	superior conj	115 Jul 17 j 14:29	22°♂09'56	1°06'31
inferior conj	113 Feb 26 j 01:14	6°♁26'49	8°33'23	minimum elong	115 Jul 17 j 05:57	21°♂43'33	1°06'15
minimum elong	113 Feb 26 j 03:50	6°♁22'42	8°33'18		115 Jul 23 j 22:24	0°♂	
morning rise	113 Mar 01 j 11:17	4°♁18'50			115 Aug 17 j 02:16	0°♂	
	113 Mar 10 j 02:15	30°♂		evening rise	115 Aug 22 j 22:37	7°♂16'32	
direct	113 Mar 19 j 03:08	28°≈21'02			115 Sep 10 j 04:35	0°♂	
	113 Mar 28 j 13:29	0°♁			115 Oct 04 j 06:54	0°♂	
greatest brilliancy	113 Mar 30 j 06:49	0°♁37'21	-4.5m	desc. node	115 Oct 04 j 22:39	0°♂48'59	
desc. node	113 Apr 19 j 03:13	12°♁44'59			115 Oct 28 j 10:21	0°♁	

	115 Nov 21 j 16:21	0°☾			118 Jul 14 j 08:11	0°☾	
	115 Dec 16 j 04:09	0°≈			118 Aug 07 j 17:37	0°♈	
	116 Jan 10 j 04:58	0°✠		morning set	118 Aug 18 j 13:06	13°♈24'33	
asc. node	116 Jan 26 j 01:29	18°✠22'24			118 Aug 31 j 20:39	0°♍	
	116 Feb 05 j 10:36	0°♍		max. Earth dist.	118 Sep 22 j 19:01	27°♍27'37	1.71536 AU
evening max el	116 Feb 26 j 06:03	21°♍49'29	45°57'29		118 Sep 24 j 19:36	0°♎	
	116 Mar 05 j 20:33	0°♎					
greatest brilliancy	116 Mar 31 j 18:11	18°♎56'37	-4.5m	superior conj	118 Sep 25 j 05:15	0°♎30'18	1°13'20
retrograde	116 Apr 15 j 11:53	22°♎46'56		minimum elong	118 Sep 25 j 14:13	0°♎58'24	1°13'07
evening set	116 Apr 30 j 23:01	18°♎09'36			118 Oct 18 j 16:48	0°♏	
inferior conj	116 May 06 j 23:15	14°♎31'45	2°14'09	desc. node	118 Nov 01 j 10:38	17°♏16'01	
minimum elong	116 May 07 j 03:59	14°♎24'17	2°12'49	evening rise	118 Nov 04 j 11:45	21°♏05'40	
min. Earth dist.	116 May 07 j 04:47	14°♎23'01	0.28986 AU		118 Nov 11 j 13:58	0°♐	
morning rise	116 May 13 j 08:52	10°♎39'58			118 Dec 05 j 12:15	0°♑	
desc. node	116 May 16 j 15:15	9°♎00'31			118 Dec 29 j 12:59	0°≈	
direct	116 May 28 j 13:36	6°♎12'29			119 Jan 22 j 18:37	0°✠	
greatest brilliancy	116 Jun 11 j 02:25	9°♎23'14	-4.5m		119 Feb 16 j 09:17	0°♍	
	116 Jul 09 j 23:23	0°♐		asc. node	119 Feb 22 j 13:27	7°♍25'09	
morning max el	116 Jul 16 j 10:00	6°♐00'03	45°50'48		119 Mar 13 j 15:27	0°♎	
	116 Aug 08 j 18:46	0°☾			119 Apr 09 j 00:58	0°♐	
	116 Sep 04 j 08:59	0°♈			119 May 07 j 22:51	0°☾	
asc. node	116 Sep 06 j 18:25	2°♈47'41		evening max el	119 May 07 j 22:49	29°♐59'55	45°18'10
	116 Sep 29 j 13:41	0°♍		greatest brilliancy	119 Jun 12 j 04:12	26°☾24'11	-4.5m
	116 Oct 24 j 00:31	0°♎		desc. node	119 Jun 14 j 03:10	27°☾11'53	
	116 Nov 17 j 02:29	0°♏		retrograde	119 Jun 25 j 09:37	29°☾26'25	
	116 Dec 11 j 01:09	0°♐		evening set	119 Jul 11 j 12:39	24°☾31'01	
desc. node	116 Dec 27 j 08:10	20°♐25'34		inferior conj	119 Jul 16 j 18:14	21°☾22'20	-6°-43'-29
	117 Jan 03 j 23:37	0°♑		minimum elong	119 Jul 16 j 08:20	21°☾37'40	6°41'39
morning set	117 Jan 17 j 17:19	17°♑11'12		min. Earth dist.	119 Jul 16 j 22:18	21°☾16'02	0.28701 AU
	117 Jan 27 j 23:27	0°≈		morning rise	119 Jul 21 j 03:48	18°☾41'59	
	117 Feb 21 j 01:29	0°✠		direct	119 Aug 07 j 08:39	13°☾09'01	
				greatest brilliancy	119 Aug 21 j 18:20	16°☾48'50	-4.6m
superior conj	117 Feb 27 j 03:31	7°✠33'30	-1°-24'-31		119 Sep 10 j 05:17	0°♈	
minimum elong	117 Feb 27 j 06:34	7°✠42'58	1°24'30	morning max el	119 Sep 26 j 07:24	14°♈52'54	46°28'29
max. Earth dist.	117 Mar 02 j 19:31	12°✠06'27	1.72507 AU	asc. node	119 Oct 05 j 06:15	24°♈04'47	
	117 Mar 17 j 06:21	0°♍			119 Oct 10 j 18:57	0°♍	
evening rise	117 Apr 06 j 17:27	25°♍13'54			119 Nov 06 j 04:42	0°♎	
	117 Apr 10 j 14:33	0°♎			119 Dec 01 j 05:36	0°♏	
asc. node	117 Apr 19 j 11:19	10°♎52'56			119 Dec 25 j 17:33	0°♐	
	117 May 05 j 02:14	0°♐			120 Jan 19 j 01:03	0°♑	
	117 May 29 j 17:33	0°☾		desc. node	120 Jan 24 j 19:56	7°♑09'05	
	117 Jun 23 j 13:27	0°♈			120 Feb 12 j 07:45	0°≈	
	117 Jul 18 j 16:18	0°♍			120 Mar 07 j 15:06	0°✠	
desc. node	117 Aug 09 j 00:45	25°♍04'35			120 Mar 31 j 23:39	0°♍	
	117 Aug 13 j 06:41	0°♎		morning set	120 Apr 01 j 04:06	0°♍13'40	
	117 Sep 08 j 18:32	0°♏			120 Apr 25 j 09:23	0°♎	
evening max el	117 Oct 02 j 16:16	25°♏17'05	47°11'14				
	117 Oct 07 j 11:24	0°♐		superior conj	120 May 08 j 04:53	15°♎43'56	0°-20'-33
greatest brilliancy	117 Nov 10 j 11:45	25°♐39'45	-4.7m	minimum elong	120 May 08 j 09:03	15°♎56'42	0°20'22
retrograde	117 Nov 22 j 08:19	28°♐18'39		max. Earth dist.	120 May 08 j 08:59	15°♎56'31	1.73621 AU
asc. node	117 Nov 30 j 03:54	27°♐02'13		asc. node	120 May 16 j 23:11	26°♎29'33	
evening set	117 Dec 06 j 18:50	24°♐07'21			120 May 19 j 19:44	0°♐	
min. Earth dist.	117 Dec 12 j 05:56	20°♐55'32	0.26510 AU	evening rise	120 Jun 13 j 08:09	0°☾06'45	
inferior conj	117 Dec 12 j 21:53	20°♐31'06	3°13'51		120 Jun 13 j 05:57	0°☾	
minimum elong	117 Dec 12 j 15:00	20°♐41'39	3°11'46		120 Jul 07 j 15:48	0°♈	
morning rise	117 Dec 18 j 11:36	17°♐14'00			120 Aug 01 j 01:59	0°♍	
direct	118 Jan 02 j 05:08	12°♐53'38			120 Aug 25 j 14:00	0°♎	
greatest brilliancy	118 Jan 13 j 09:01	15°♐14'00	-4.6m	desc. node	120 Sep 05 j 12:47	13°♎21'04	
	118 Feb 04 j 23:24	0°♑			120 Sep 19 j 05:38	0°♏	
morning max el	118 Feb 21 j 04:26	14°♑57'28	46°30'41		120 Oct 14 j 03:33	0°♐	
	118 Mar 07 j 19:40	0°≈			120 Nov 08 j 14:01	0°♑	
desc. node	118 Mar 21 j 17:40	15°≈06'02			120 Dec 05 j 07:58	0°≈	
	118 Apr 04 j 00:53	0°✠		evening max el	120 Dec 13 j 18:16	8°≈49'57	47°11'08
	118 Apr 30 j 02:01	0°♍		asc. node	120 Dec 27 j 15:42	22°≈14'47	
	118 May 25 j 13:15	0°♎			121 Jan 05 j 21:06	0°✠	
	118 Jun 19 j 14:56	0°♐		greatest brilliancy	121 Jan 19 j 18:12	8°✠53'26	-4.6m
asc. node	118 Jul 12 j 20:42	28°♐11'39		retrograde	121 Feb 02 j 14:29	12°✠24'59	

evening set	121 Feb 20 j 12:36	6° Υ 09'48		superior conj	123 Jul 15 j 08:39	20° \ominus 03'57	1°04'31
min. Earth dist.	121 Feb 23 j 03:28	4° Υ 31'05	0.28239 AU	minimum elong	123 Jul 15 j 00:01	19° \ominus 37'13	1°04'14
inferior conj	121 Feb 23 j 16:40	4° Υ 10'09	8°36'17		123 Jul 23 j 09:20	0° Ω	
minimum elong	121 Feb 23 j 18:29	4° Υ 07'14	8°36'14		123 Aug 16 j 13:19	0° \cap	
morning rise	121 Feb 27 j 00:37	2° Υ 05'09		evening rise	123 Aug 20 j 14:55	5° \cap 03'28	
	121 Mar 02 j 16:04	30° \Re			123 Sep 09 j 15:51	0° $\underline{\Delta}$	
direct	121 Mar 16 j 17:50	26° \approx 05'23			123 Oct 03 j 18:26	0° \mathbb{L}	
greatest brilliancy	121 Mar 27 j 19:44	28° \approx 19'39	-4.5m	desc. node	123 Oct 04 j 00:47	0° \mathbb{L} 19'45	
	121 Mar 31 j 15:31	0° Υ			123 Oct 27 j 22:13	0° \mathcal{Z}	
desc. node	121 Apr 18 j 05:27	11° Υ 40'20			123 Nov 21 j 04:39	0° \mathcal{Z}	
morning max el	121 May 04 j 16:44	26° Υ 18'48	45°51'28		123 Dec 15 j 17:06	0° \approx	
	121 May 08 j 11:54	0° Υ			124 Jan 09 j 19:05	0° Υ	
	121 Jun 06 j 02:55	0° \mathcal{B}		asc. node	124 Jan 25 j 03:37	17° Υ 44'40	
	121 Jul 02 j 16:53	0° \mathbb{I}			124 Feb 05 j 03:26	0° Υ	
	121 Jul 28 j 05:59	0° \ominus		evening max el	124 Feb 23 j 21:20	19° Υ 35'27	46°00'06
asc. node	121 Aug 09 j 08:36	14° \ominus 32'07			124 Mar 05 j 23:03	0° \mathcal{B}	
	121 Aug 22 j 02:10	0° Ω		greatest brilliancy	124 Mar 29 j 09:33	16° \mathcal{B} 46'27	-4.5m
	121 Sep 15 j 10:11	0° \cap		retrograde	124 Apr 13 j 05:08	20° \mathcal{B} 39'06	
	121 Oct 09 j 10:26	0° $\underline{\Delta}$		evening set	124 Apr 28 j 17:28	15° \mathcal{B} 58'47	
morning set	121 Oct 29 j 23:16	25° $\underline{\Delta}$ 49'09		inferior conj	124 May 04 j 15:57	12° \mathcal{B} 23'20	2°32'56
	121 Nov 02 j 06:56	0° \mathbb{L}		minimum elong	124 May 04 j 21:18	12° \mathcal{B} 14'56	2°31'26
	121 Nov 26 j 02:31	0° \mathcal{Z}		min. Earth dist.	124 May 04 j 21:19	12° \mathcal{B} 14'54	0.28985 AU
desc. node	121 Nov 28 j 22:23	3° \mathcal{Z} 33'39		morning rise	124 May 11 j 01:06	8° \mathcal{B} 32'29	
				desc. node	124 May 15 j 17:14	6° \mathcal{B} 16'07	
superior conj	121 Dec 10 j 08:28	17° \mathcal{Z} 56'00	0°-26'-43	direct	124 May 26 j 06:11	4° \mathcal{B} 03'59	
minimum elong	121 Dec 10 j 01:29	17° \mathcal{Z} 34'01	0°26'24	greatest brilliancy	124 Jun 08 j 18:26	7° \mathcal{B} 14'39	-4.5m
max. Earth dist.	121 Dec 12 j 20:11	21° \mathcal{Z} 03'45	1.71101 AU		124 Jul 10 j 00:07	0° \mathbb{I}	
	121 Dec 19 j 22:51	0° \mathcal{Z}		morning max el	124 Jul 14 j 03:02	3° \mathbb{I} 52'34	45°49'57
	122 Jan 12 j 20:56	0° \approx			124 Aug 08 j 11:06	0° \ominus	
evening rise	122 Jan 20 j 21:39	10° \approx 02'19			124 Sep 03 j 22:43	0° Ω	
	122 Feb 05 j 22:00	0° Υ		asc. node	124 Sep 05 j 20:35	2° Ω 14'12	
	122 Mar 02 j 03:45	0° Υ			124 Sep 29 j 02:15	0° \cap	
asc. node	122 Mar 22 j 01:30	24° Υ 23'17			124 Oct 23 j 12:31	0° $\underline{\Delta}$	
	122 Mar 26 j 16:09	0° \mathcal{B}			124 Nov 16 j 14:08	0° \mathbb{L}	
	122 Apr 20 j 13:31	0° \mathbb{I}			124 Dec 10 j 12:35	0° \mathcal{Z}	
	122 May 15 j 23:19	0° \ominus		desc. node	124 Dec 26 j 10:07	19° \mathcal{Z} 56'07	
	122 Jun 11 j 05:13	0° Ω			125 Jan 03 j 10:54	0° \mathcal{Z}	
	122 Jul 09 j 04:07	0° \cap		morning set	125 Jan 15 j 03:25	14° \mathcal{Z} 37'41	
desc. node	122 Jul 11 j 14:57	2° \cap 28'36			125 Jan 27 j 10:36	0° \approx	
evening max el	122 Jul 18 j 18:23	9° \cap 29'45	45°56'07		125 Feb 20 j 12:30	0° Υ	
	122 Aug 12 j 00:27	0° $\underline{\Delta}$					
greatest brilliancy	122 Aug 26 j 14:02	7° $\underline{\Delta}$ 53'04	-4.6m	superior conj	125 Feb 24 j 17:01	5° Υ 12'18	-1°-24'-58
retrograde	122 Sep 05 j 23:03	9° $\underline{\Delta}$ 50'36		minimum elong	125 Feb 24 j 19:12	5° Υ 19'04	1°24'59
evening set	122 Sep 23 j 01:07	4° $\underline{\Delta}$ 22'45		max. Earth dist.	125 Feb 28 j 09:32	9° Υ 47'03	1.72449 AU
inferior conj	122 Sep 26 j 19:35	2° $\underline{\Delta}$ 07'34	-7°-37'-21		125 Mar 16 j 17:17	0° Υ	
minimum elong	122 Sep 27 j 05:05	1° $\underline{\Delta}$ 53'04	7°35'50	evening rise	125 Apr 04 j 09:39	23° Υ 02'38	
min. Earth dist.	122 Sep 27 j 16:18	1° $\underline{\Delta}$ 35'59	0.27207 AU		125 Apr 10 j 01:27	0° \mathcal{B}	
	122 Sep 30 j 08:14	30° \Re		asc. node	125 Apr 18 j 13:25	10° \mathcal{B} 25'52	
morning rise	122 Oct 01 j 08:38	29° \cap 24'38			125 May 04 j 13:14	0° \mathbb{I}	
direct	122 Oct 17 j 14:23	24° \cap 16'46			125 May 29 j 04:52	0° \ominus	
greatest brilliancy	122 Oct 31 j 08:07	27° \cap 44'11	-4.7m		125 Jun 23 j 01:21	0° Ω	
asc. node	122 Nov 01 j 18:05	28° \cap 26'02			125 Jul 18 j 05:07	0° \cap	
	122 Nov 04 j 14:36	0° $\underline{\Delta}$		desc. node	125 Aug 08 j 02:51	24° \cap 29'52	
morning max el	122 Dec 07 j 09:14	27° $\underline{\Delta}$ 47'18	46°56'24		125 Aug 12 j 21:06	0° $\underline{\Delta}$	
	122 Dec 09 j 12:50	0° \mathbb{L}			125 Sep 08 j 12:03	0° \mathbb{L}	
	123 Jan 05 j 20:39	0° \mathcal{Z}		evening max el	125 Sep 30 j 07:00	22° \mathbb{L} 55'28	47°09'29
	123 Jan 31 j 13:53	0° \mathcal{Z}			125 Oct 07 j 13:45	0° \mathcal{Z}	
desc. node	123 Feb 21 j 07:55	24° \mathcal{Z} 44'24		greatest brilliancy	125 Nov 08 j 01:27	23° \mathcal{Z} 11'15	-4.7m
	123 Feb 25 j 17:09	0° \approx		retrograde	125 Nov 19 j 21:30	25° \mathcal{Z} 48'46	
	123 Mar 22 j 14:32	0° Υ		asc. node	125 Nov 29 j 05:50	23° \mathcal{Z} 59'51	
	123 Apr 16 j 09:04	0° Υ		evening set	125 Dec 04 j 06:12	21° \mathcal{Z} 39'33	
	123 May 11 j 01:35	0° \mathcal{B}		inferior conj	125 Dec 10 j 10:11	18° \mathcal{Z} 02'01	2°50'58
	123 Jun 04 j 15:39	0° \mathbb{I}		minimum elong	125 Dec 10 j 04:00	18° \mathcal{Z} 11'28	2°49'04
morning set	123 Jun 09 j 02:07	5° \mathbb{I} 25'50		min. Earth dist.	125 Dec 09 j 19:06	18° \mathcal{Z} 25'06	0.26475 AU
asc. node	123 Jun 14 j 10:57	12° \mathbb{I} 00'39		morning rise	125 Dec 16 j 02:19	14° \mathcal{Z} 42'03	
	123 Jun 29 j 02:21	0° \ominus		direct	125 Dec 30 j 17:56	10° \mathcal{Z} 25'18	
max. Earth dist.	123 Jul 11 j 20:44	15° \ominus 44'38	1.73116 AU	greatest brilliancy	126 Jan 10 j 21:56	12° \mathcal{Z} 46'23	-4.6m

	126 Feb 05 j 08:01	0°☾			128 Sep 18 j 18:02	0°♍	
morning max el	126 Feb 18 j 18:24	12°☾35'54	46°32'06		128 Oct 13 j 17:02	0°♊	
	126 Mar 07 j 14:16	0°♊			128 Nov 08 j 05:23	0°☾	
desc. node	126 Mar 20 j 19:47	14°♊26'57			128 Dec 05 j 03:40	0°♊	
	126 Apr 03 j 15:37	0°♋		evening max el	128 Dec 11 j 08:16	6°♊26'59	47°12'41
	126 Apr 29 j 14:56	0°♌		asc. node	128 Dec 26 j 17:51	21°♊13'22	
	126 May 25 j 01:08	0°♍			129 Jan 06 j 14:28	0°♋	
asc. node	126 Jun 19 j 02:14	0°♎		greatest brilliancy	129 Jan 17 j 12:01	6°♋38'20	-4.6m
	126 Jul 11 j 22:50	27°♎44'33		retrograde	129 Jan 31 j 05:27	10°♋07'26	
	126 Jul 13 j 19:10	0°☾		evening set	129 Feb 18 j 03:57	3°♋52'45	
	126 Aug 07 j 04:28	0°♏		inferior conj	129 Feb 21 j 07:52	1°♋53'23	8°38'18
morning set	126 Aug 16 j 05:30	11°♏12'46		minimum elong	129 Feb 21 j 08:53	1°♋51'45	8°38'17
	126 Aug 31 j 07:31	0°♐		min. Earth dist.	129 Feb 20 j 18:03	2°♋15'19	0.28184 AU
max. Earth dist.	126 Sep 20 j 03:15	24°♐48'42	1.71585 AU		129 Feb 24 j 08:10	30°♋	
				morning rise	129 Feb 24 j 14:03	29°♋51'00	
superior conj	126 Sep 22 j 19:16	28°♐09'24	1°15'04	direct	129 Mar 14 j 07:51	23°♋49'32	
minimum elong	126 Sep 23 j 03:42	28°♐35'51	1°14'52	greatest brilliancy	129 Mar 25 j 09:17	26°♋02'57	-4.5m
	126 Sep 24 j 06:31	0°♑			129 Apr 02 j 10:58	0°♋	
	126 Oct 18 j 03:50	0°♒		desc. node	129 Apr 17 j 07:28	10°♋37'40	
desc. node	126 Oct 31 j 12:39	16°♒47'27		morning max el	129 May 02 j 06:38	24°♋02'47	45°52'24
evening rise	126 Nov 01 j 22:06	18°♒32'28			129 May 08 j 08:43	0°♌	
	126 Nov 11 j 01:07	0°♊			129 Jun 05 j 18:04	0°♍	
	126 Dec 04 j 23:32	0°☾			129 Jul 02 j 05:51	0°♎	
	126 Dec 29 j 00:27	0°♊			129 Jul 27 j 17:53	0°☾	
	127 Jan 22 j 06:21	0°♋		asc. node	129 Aug 08 j 10:45	14°☾03'41	
	127 Feb 15 j 21:31	0°♌			129 Aug 21 j 13:30	0°♏	
asc. node	127 Feb 21 j 15:37	6°♌54'24			129 Sep 14 j 21:13	0°♐	
	127 Mar 13 j 04:44	0°♍			129 Oct 08 j 21:21	0°♑	
	127 Apr 08 j 16:37	0°♎		morning set	129 Oct 27 j 11:13	23°♑21'21	
evening max el	127 May 05 j 14:32	27°♎49'26	45°18'18		129 Nov 01 j 17:50	0°♒	
	127 May 07 j 21:38	0°☾			129 Nov 25 j 13:27	0°♊	
greatest brilliancy	127 Jun 09 j 18:46	24°☾13'11	-4.5m	desc. node	129 Nov 28 j 00:24	3°♊05'36	
desc. node	127 Jun 13 j 05:10	25°☾32'55					
retrograde	127 Jun 23 j 00:41	27°☾16'17		superior conj	129 Dec 07 j 17:52	15°♊20'16	0°-22'-51
evening set	127 Jul 09 j 01:30	22°☾25'03		minimum elong	129 Dec 07 j 11:49	15°♊01'13	0°22'36
inferior conj	127 Jul 14 j 10:04	19°☾11'55	-6°-30'-13	max. Earth dist.	129 Dec 09 j 22:06	18°♊04'30	1.71085 AU
minimum elong	127 Jul 14 j 00:05	19°☾27'24	6°28'17		129 Dec 19 j 09:47	0°☾	
min. Earth dist.	127 Jul 14 j 13:53	19°☾05'59	0.28725 AU		130 Jan 12 j 07:53	0°♊	
morning rise	127 Jul 18 j 22:26	16°☾27'07		evening rise	130 Jan 18 j 08:13	7°♊31'11	
direct	127 Aug 05 j 00:43	10°☾58'19			130 Feb 05 j 08:59	0°♋	
greatest brilliancy	127 Aug 19 j 09:05	14°☾35'45	-4.5m		130 Mar 01 j 14:50	0°♌	
	127 Sep 10 j 11:30	0°♏		asc. node	130 Mar 21 j 03:34	23°♌55'15	
morning max el	127 Sep 23 j 21:12	12°♏33'24	46°26'49		130 Mar 26 j 03:30	0°♍	
asc. node	127 Oct 04 j 08:21	23°♏20'22			130 Apr 20 j 01:23	0°♎	
	127 Oct 10 j 12:36	0°♐			130 May 15 j 12:12	0°☾	
	127 Nov 05 j 19:07	0°♑			130 Jun 10 j 20:10	0°♏	
	127 Nov 30 j 18:37	0°♒			130 Jul 09 j 00:16	0°♐	
	127 Dec 25 j 05:48	0°♊		desc. node	130 Jul 10 j 17:07	1°♐42'05	
desc. node	128 Jan 18 j 12:48	0°☾		evening max el	130 Jul 16 j 07:24	7°♐10'13	45°53'53
	128 Jan 23 j 22:08	6°☾39'54			130 Aug 13 j 02:43	0°♑	
	128 Feb 11 j 19:06	0°♊		greatest brilliancy	130 Aug 24 j 01:05	5°♑29'58	-4.6m
	128 Mar 07 j 02:09	0°♋		retrograde	130 Sep 03 j 12:10	7°♑29'21	
morning set	128 Mar 29 j 20:14	28°♋02'23		evening set	130 Sep 20 j 17:09	1°♑56'23	
	128 Mar 31 j 10:28	0°♌			130 Sep 23 j 23:11	30°♒♐	
	128 Apr 24 j 20:04	0°♍		inferior conj	130 Sep 24 j 08:49	29°♒45'21	-7°-48'-19
superior conj	128 May 05 j 22:46	13°♍38'48	0°-23'-38	minimum elong	130 Sep 24 j 17:54	29°♒31'33	7°46'58
minimum elong	128 May 06 j 03:31	13°♍53'22	0°23'25	min. Earth dist.	130 Sep 25 j 05:34	29°♒13'48	0.27273 AU
max. Earth dist.	128 May 06 j 05:44	14°♍00'09	1.73603 AU	morning rise	130 Sep 28 j 18:15	27°♒07'50	
asc. node	128 May 16 j 01:12	26°♍03'00		direct	130 Oct 15 j 04:22	21°♒53'23	
	128 May 19 j 06:23	0°♎		greatest brilliancy	130 Oct 29 j 00:31	25°♒23'56	-4.7m
evening rise	128 Jun 11 j 03:23	28°♎05'30		asc. node	130 Oct 31 j 20:00	26°♒50'32	
	128 Jun 12 j 16:39	0°☾			130 Nov 06 j 00:11	0°♑	
	128 Jul 07 j 02:39	0°♏		morning max el	130 Dec 04 j 23:52	25°♑25'03	46°56'14
	128 Jul 31 j 13:09	0°♐			130 Dec 09 j 10:02	0°♒	
	128 Aug 25 j 01:40	0°♑			131 Jan 05 j 12:30	0°♊	
desc. node	128 Sep 04 j 14:56	12°♑51'16		desc. node	131 Jan 31 j 03:34	0°☾	
					131 Feb 20 j 09:59	24°☾12'32	

	131 Feb 25 j 05:40	0°♊		greatest brilliancy	133 Nov 05 j 16:08	20°♊44'26	-4.7m
	131 Mar 22 j 02:19	0°♋		retrograde	133 Nov 17 j 10:22	23°♊19'11	
	131 Apr 15 j 20:20	0°♌		asc. node	133 Nov 28 j 08:00	20°♊52'28	
	131 May 10 j 12:30	0°♍		evening set	133 Dec 01 j 17:53	19°♊12'03	
	131 Jun 04 j 02:21	0°♎		inferior conj	133 Dec 07 j 22:30	15°♊33'31	2°27'43
morning set	131 Jun 06 j 20:23	3°♎22'07		minimum elong	133 Dec 07 j 17:06	15°♊41'48	2°26'02
asc. node	131 Jun 13 j 13:04	11°♎34'29		min. Earth dist.	133 Dec 07 j 08:34	15°♊54'51	0.26441 AU
	131 Jun 28 j 12:57	0°♏		morning rise	133 Dec 13 j 16:50	12°♊10'40	
max. Earth dist.	131 Jul 09 j 18:41	13°♏51'24	1.73158 AU	direct	133 Dec 28 j 06:34	7°♊57'36	
				greatest brilliancy	134 Jan 08 j 10:54	10°♊19'08	-4.7m
superior conj	131 Jul 13 j 02:49	17°♏58'54	1°02'25		134 Feb 05 j 13:59	0°♋	
minimum elong	131 Jul 12 j 18:06	17°♏31'59	1°02'08	morning max el	134 Feb 16 j 07:20	10°♋12'03	46°33'30
	131 Jul 22 j 19:58	0°♌			134 Mar 07 j 08:15	0°♋	
	131 Aug 16 j 00:05	0°♍		desc. node	134 Mar 19 j 21:49	13°♋48'24	
evening rise	131 Aug 18 j 07:30	2°♍52'16			134 Apr 03 j 06:03	0°♋	
	131 Sep 09 j 02:49	0°♎			134 Apr 29 j 03:43	0°♌	
desc. node	131 Oct 03 j 02:46	29°♎51'05			134 May 24 j 13:01	0°♍	
	131 Oct 03 j 05:39	0°♏			134 Jun 18 j 13:35	0°♎	
	131 Oct 27 j 09:44	0°♊		asc. node	134 Jul 11 j 00:58	27°♎17'20	
	131 Nov 20 j 16:37	0°♋			134 Jul 13 j 06:12	0°♏	
	131 Dec 15 j 05:46	0°♌			134 Aug 06 j 15:22	0°♌	
	132 Jan 09 j 09:04	0°♋		morning set	134 Aug 13 j 21:44	9°♌00'25	
asc. node	132 Jan 24 j 05:43	17°♋07'12			134 Aug 30 j 18:22	0°♍	
	132 Feb 04 j 20:25	0°♌		max. Earth dist.	134 Sep 17 j 11:57	22°♍11'26	1.71634 AU
evening max el	132 Feb 21 j 13:23	17°♌23'32	46°02'32				
	132 Mar 06 j 03:08	0°♍		superior conj	134 Sep 20 j 09:20	25°♍48'50	1°16'39
greatest brilliancy	132 Mar 27 j 02:01	14°♍37'32	-4.5m	minimum elong	134 Sep 20 j 17:11	26°♍13'27	1°16'29
retrograde	132 Apr 10 j 22:21	18°♍30'36			134 Sep 23 j 17:26	0°♎	
evening set	132 Apr 26 j 11:51	13°♍47'26			134 Oct 17 j 14:52	0°♏	
inferior conj	132 May 02 j 08:23	10°♍14'23	2°51'37	evening rise	134 Oct 30 j 08:34	15°♏59'44	
minimum elong	132 May 02 j 14:19	10°♍05'04	2°49'58	desc. node	134 Oct 30 j 14:40	16°♏18'50	
min. Earth dist.	132 May 02 j 13:21	10°♍06'36	0.28981 AU		134 Nov 10 j 12:18	0°♊	
morning rise	132 May 08 j 16:54	6°♍24'43			134 Dec 04 j 10:52	0°♋	
desc. node	132 May 14 j 19:14	3°♍35'10			134 Dec 28 j 11:56	0°♌	
direct	132 May 23 j 22:52	1°♍55'14			135 Jan 21 j 18:05	0°♋	
greatest brilliancy	132 Jun 06 j 09:16	5°♍04'40	-4.5m		135 Feb 15 j 09:48	0°♌	
	132 Jul 09 j 23:32	0°♎		asc. node	135 Feb 20 j 17:38	6°♌23'12	
morning max el	132 Jul 11 j 19:52	1°♎45'11	45°49'12		135 Mar 12 j 18:08	0°♍	
	132 Aug 08 j 02:55	0°♏			135 Apr 08 j 08:35	0°♎	
	132 Sep 03 j 12:04	0°♌		evening max el	135 May 03 j 05:25	25°♎36'29	45°18'19
asc. node	132 Sep 04 j 22:35	1°♌41'12			135 May 07 j 21:39	0°♏	
	132 Sep 28 j 14:31	0°♍		greatest brilliancy	135 Jun 07 j 08:36	22°♏00'30	-4.5m
	132 Oct 23 j 00:13	0°♎		desc. node	135 Jun 12 j 07:22	23°♏49'35	
	132 Nov 16 j 01:31	0°♏		retrograde	135 Jun 20 j 15:34	25°♏05'25	
	132 Dec 09 j 23:44	0°♊		evening set	135 Jul 06 j 14:16	20°♏17'55	
desc. node	132 Dec 25 j 12:18	19°♊28'20		inferior conj	135 Jul 12 j 01:48	17°♏00'41	-6°-16'-15
	133 Jan 02 j 21:54	0°♋		minimum elong	135 Jul 11 j 15:47	17°♏16'14	6°14'15
morning set	133 Jan 12 j 13:54	12°♋06'07		min. Earth dist.	135 Jul 12 j 05:41	16°♏54'38	0.28750 AU
	133 Jan 26 j 21:29	0°♌		morning rise	135 Jul 16 j 16:59	14°♏11'31	
	133 Feb 19 j 23:18	0°♋		direct	135 Aug 02 j 16:15	8°♏46'35	
				greatest brilliancy	135 Aug 17 j 00:52	12°♏23'14	-4.5m
superior conj	133 Feb 22 j 06:27	2°♋51'21	-1°-25'-16		135 Sep 10 j 16:00	0°♌	
minimum elong	133 Feb 22 j 07:44	2°♋55'22	1°25'18	morning max el	135 Sep 21 j 10:45	10°♌12'46	46°25'20
max. Earth dist.	133 Feb 26 j 01:37	7°♋34'28	1.72400 AU	asc. node	135 Oct 03 j 10:23	22°♌35'51	
	133 Mar 16 j 04:03	0°♌			135 Oct 10 j 06:02	0°♍	
evening rise	133 Apr 02 j 01:32	20°♌50'37			135 Nov 05 j 09:30	0°♎	
	133 Apr 09 j 12:15	0°♍			135 Nov 30 j 07:40	0°♏	
asc. node	133 Apr 17 j 15:23	9°♍58'37			135 Dec 24 j 18:08	0°♊	
	133 May 04 j 00:11	0°♎			136 Jan 18 j 00:38	0°♋	
	133 May 28 j 16:09	0°♏		desc. node	136 Jan 23 j 00:08	6°♋09'45	
	133 Jun 22 j 13:11	0°♌			136 Feb 11 j 06:34	0°♌	
	133 Jul 17 j 17:55	0°♍			136 Mar 06 j 13:18	0°♋	
desc. node	133 Aug 07 j 04:57	23°♍55'21		morning set	136 Mar 27 j 12:23	25°♋50'36	
	133 Aug 12 j 11:32	0°♎			136 Mar 30 j 21:25	0°♌	
	133 Sep 08 j 05:49	0°♏			136 Apr 24 j 06:54	0°♍	
evening max el	133 Sep 27 j 21:43	20°♏34'13	47°07'35				
	133 Oct 07 j 17:29	0°♊		superior conj	136 May 03 j 16:43	11°♍33'24	0°-26'-39

minimum elong	136 May 03 j 22:02	11°♄49'43	0°26'26	morning rise	138 Sep 26 j 03:37	24°♎49'03	
max. Earth dist.	136 May 04 j 01:35	12°♄00'38	1.73588 AU	direct	138 Oct 12 j 18:38	19°♎28'11	
asc. node	136 May 15 j 03:20	25°♄36'23		greatest brilliancy	138 Oct 26 j 15:59	23°♎00'43	-4.7m
	136 May 18 j 17:12	0°♂		asc. node	138 Oct 30 j 22:10	25°♎16'56	
evening rise	136 Jun 08 j 22:34	26°♂03'37			138 Nov 07 j 01:06	0°♎	
	136 Jun 12 j 03:34	0°♎		morning max el	138 Dec 02 j 14:52	23°♎02'14	46°56'06
	136 Jul 06 j 13:47	0°♎			138 Dec 09 j 07:05	0°♎	
	136 Jul 31 j 00:38	0°♎			139 Jan 05 j 04:33	0°♎	
	136 Aug 24 j 13:39	0°♎			139 Jan 30 j 17:31	0°♎	
desc. node	136 Sep 03 j 16:52	12°♎19'54		desc. node	139 Feb 19 j 12:00	23°♎39'35	
	136 Sep 18 j 06:46	0°♎			139 Feb 24 j 18:27	0°♎	
	136 Oct 13 j 06:54	0°♎			139 Mar 21 j 14:23	0°♎	
	136 Nov 07 j 21:13	0°♎			139 Apr 15 j 07:55	0°♎	
	136 Dec 05 j 00:15	0°♎			139 May 09 j 23:45	0°♎	
evening max el	136 Dec 08 j 21:44	4°♎01'56	47°14'14		139 Jun 03 j 13:21	0°♎	
asc. node	136 Dec 25 j 19:59	20°♎09'37		morning set	139 Jun 04 j 14:55	1°♎18'12	
	137 Jan 07 j 14:31	0°♎		asc. node	139 Jun 12 j 15:12	11°♎07'20	
greatest brilliancy	137 Jan 15 j 04:53	4°♎20'55	-4.6m		139 Jun 27 j 23:52	0°♎	
retrograde	137 Jan 28 j 20:35	7°♎48'55		max. Earth dist.	139 Jul 07 j 16:29	11°♎56'49	1.73197 AU
evening set	137 Feb 15 j 18:46	1°♎35'02					
	137 Feb 18 j 07:29	30°♎		superior conj	139 Jul 10 j 21:14	15°♎53'43	1°00'15
inferior conj	137 Feb 18 j 22:58	29°♎35'28	8°39'27	minimum elong	139 Jul 10 j 12:31	15°♎26'48	0°59'58
minimum elong	137 Feb 18 j 23:10	29°♎35'09	8°39'28		139 Jul 22 j 06:55	0°♎	
min. Earth dist.	137 Feb 18 j 08:27	29°♎58'28	0.28128 AU		139 Aug 15 j 11:12	0°♎	
morning rise	137 Feb 22 j 03:46	27°♎35'19		evening rise	139 Aug 16 j 00:21	0°♎40'54	
direct	137 Mar 11 j 21:38	21°♎32'23			139 Sep 08 j 14:10	0°♎	
greatest brilliancy	137 Mar 22 j 23:16	23°♎45'50	-4.5m	desc. node	139 Oct 02 j 04:51	29°♎21'23	
	137 Apr 03 j 17:12	0°♎			139 Oct 02 j 17:17	0°♎	
desc. node	137 Apr 16 j 09:28	9°♎35'44			139 Oct 26 j 21:44	0°♎	
morning max el	137 Apr 29 j 21:03	21°♎47'14	45°53'29		139 Nov 20 j 05:06	0°♎	
	137 May 08 j 05:07	0°♎			139 Dec 14 j 18:59	0°♎	
	137 Jun 05 j 09:15	0°♎			140 Jan 08 j 23:37	0°♎	
	137 Jul 01 j 19:00	0°♎		asc. node	140 Jan 23 j 07:43	16°♎27'59	
	137 Jul 27 j 06:02	0°♎			140 Feb 04 j 14:09	0°♎	
asc. node	137 Aug 07 j 12:44	13°♎33'48		evening max el	140 Feb 19 j 05:41	15°♎11'06	46°05'08
	137 Aug 21 j 01:08	0°♎			140 Mar 06 j 09:39	0°♎	
	137 Sep 14 j 08:36	0°♎		greatest brilliancy	140 Mar 24 j 19:35	12°♎29'10	-4.5m
	137 Oct 08 j 08:39	0°♎		retrograde	140 Apr 08 j 15:28	16°♎21'10	
morning set	137 Oct 24 j 23:04	20°♎52'08		evening set	140 Apr 24 j 06:28	11°♎35'20	
	137 Nov 01 j 05:05	0°♎		inferior conj	140 Apr 30 j 00:56	8°♎04'43	3°10'01
	137 Nov 25 j 00:41	0°♎		minimum elong	140 Apr 30 j 07:24	7°♎54'32	3°08'16
desc. node	137 Nov 27 j 02:33	2°♎36'58		min. Earth dist.	140 Apr 30 j 05:28	7°♎57'35	0.28972 AU
				morning rise	140 May 06 j 08:33	4°♎16'15	
superior conj	137 Dec 05 j 03:04	12°♎42'52	0°-18'-56	desc. node	140 May 13 j 21:28	0°♎57'40	
minimum elong	137 Dec 04 j 21:59	12°♎26'55	0°18'43		140 May 18 j 04:53	30°♎	
max. Earth dist.	137 Dec 07 j 02:33	15°♎12'17	1.71069 AU	direct	140 May 21 j 15:42	29°♎45'53	
	137 Dec 18 j 21:01	0°♎			140 May 25 j 03:59	0°♎	
	138 Jan 11 j 19:07	0°♎		greatest brilliancy	140 Jun 03 j 23:03	2°♎52'33	-4.5m
evening rise	138 Jan 15 j 18:45	4°♎58'58		morning max el	140 Jul 09 j 12:19	29°♎36'08	45°48'30
	138 Feb 04 j 20:16	0°♎			140 Jul 09 j 22:18	0°♎	
	138 Mar 01 j 02:15	0°♎			140 Aug 07 j 18:46	0°♎	
asc. node	138 Mar 20 j 05:34	23°♎26'00			140 Sep 03 j 01:36	0°♎	
	138 Mar 25 j 15:11	0°♎		asc. node	140 Sep 04 j 00:39	1°♎07'43	
	138 Apr 19 j 13:35	0°♎			140 Sep 28 j 03:01	0°♎	
	138 May 15 j 01:29	0°♎			140 Oct 22 j 12:12	0°♎	
	138 Jun 10 j 11:41	0°♎			140 Nov 15 j 13:13	0°♎	
	138 Jul 08 j 21:31	0°♎			140 Dec 09 j 11:16	0°♎	
desc. node	138 Jul 09 j 19:08	0°♎53'23		desc. node	140 Dec 24 j 14:21	18°♎58'48	
evening max el	138 Jul 13 j 21:07	4°♎51'29	45°51'32		141 Jan 02 j 09:18	0°♎	
	138 Aug 14 j 17:02	0°♎		morning set	141 Jan 09 j 23:51	9°♎31'36	
greatest brilliancy	138 Aug 21 j 11:18	3°♎04'40	-4.6m		141 Jan 26 j 08:45	0°♎	
retrograde	138 Sep 01 j 01:20	5°♎06'11			141 Feb 19 j 10:27	0°♎	
	138 Sep 17 j 10:49	30°♎					
evening set	138 Sep 18 j 08:49	29°♎28'27		superior conj	141 Feb 19 j 19:22	0°♎27'43	-1°-25'-26
inferior conj	138 Sep 21 j 21:50	27°♎21'12	-7°-58'-23	minimum elong	141 Feb 19 j 19:44	0°♎28'52	1°25'27
minimum elong	138 Sep 22 j 06:23	27°♎08'11	7°57'14	max. Earth dist.	141 Feb 23 j 18:36	5°♎23'37	1.72341 AU
min. Earth dist.	138 Sep 22 j 18:16	26°♎50'08	0.27342 AU		141 Mar 15 j 15:07	0°♎	

evening rise	141 Mar 30 j 17:06	18° Υ 36'43			143 Nov 04 j 23:40	0° Ω	
	141 Apr 08 j 23:20	0° \mathcal{B}			143 Nov 29 j 20:33	0° \mathcal{M}	
asc. node	141 Apr 16 j 17:33	9° \mathcal{B} 31'09			143 Dec 24 j 06:19	0° \mathcal{A}	
	141 May 03 j 11:25	0° Π			144 Jan 17 j 12:23	0° \mathcal{C}	
	141 May 28 j 03:43	0° \mathcal{E}		desc. node	144 Jan 22 j 02:09	5° \mathcal{C} 39'52	
	141 Jun 22 j 01:20	0° Ω			144 Feb 10 j 17:58	0° \approx	
	141 Jul 17 j 07:01	0° \mathcal{M}			144 Mar 06 j 00:26	0° \mathcal{H}	
desc. node	141 Aug 06 j 06:57	23° \mathcal{M} 19'48		morning set	144 Mar 25 j 04:06	23° \mathcal{H} 37'20	
	141 Aug 12 j 02:20	0° Ω			144 Mar 30 j 08:22	0° Υ	
	141 Sep 08 j 00:11	0° \mathcal{M}			144 Apr 23 j 17:43	0° \mathcal{B}	
evening max el	141 Sep 25 j 11:32	18° \mathcal{M} 10'13	47°05'26				
	141 Oct 07 j 23:18	0° \mathcal{A}		superior conj	144 May 01 j 10:18	9° \mathcal{B} 26'56	0°-29'-41
greatest brilliancy	141 Nov 03 j 07:20	18° \mathcal{A} 17'22	-4.7m	minimum elong	144 May 01 j 16:10	9° \mathcal{B} 44'58	0°29'26
retrograde	141 Nov 14 j 22:28	20° \mathcal{A} 48'29		max. Earth dist.	144 May 01 j 20:35	9° \mathcal{B} 58'29	1.73570 AU
asc. node	141 Nov 27 j 10:05	17° \mathcal{A} 38'52		asc. node	144 May 14 j 05:25	25° \mathcal{B} 09'42	
evening set	141 Nov 29 j 05:40	16° \mathcal{A} 43'04			144 May 18 j 03:58	0° Π	
inferior conj	141 Dec 05 j 10:44	13° \mathcal{A} 03'58	2°04'06	evening rise	144 Jun 06 j 17:34	24° Π 01'26	
minimum elong	141 Dec 05 j 06:08	13° \mathcal{A} 11'00	2°02'38		144 Jun 11 j 14:24	0° \mathcal{E}	
min. Earth dist.	141 Dec 04 j 22:23	13° \mathcal{A} 22'54	0.26415 AU		144 Jul 06 j 00:49	0° Ω	
morning rise	141 Dec 11 j 07:04	9° \mathcal{A} 38'13			144 Jul 30 j 12:02	0° \mathcal{M}	
direct	141 Dec 25 j 18:38	5° \mathcal{A} 28'31			144 Aug 24 j 01:36	0° Ω	
greatest brilliancy	142 Jan 06 j 00:48	7° \mathcal{A} 51'28	-4.7m	desc. node	144 Sep 02 j 18:59	11° Ω 49'17	
	142 Feb 05 j 18:32	0° \mathcal{C}			144 Sep 17 j 19:28	0° \mathcal{M}	
morning max el	142 Feb 13 j 19:32	7° \mathcal{C} 44'57	46°34'56		144 Oct 12 j 20:43	0° \mathcal{A}	
	142 Mar 07 j 02:13	0° \approx			144 Nov 07 j 13:05	0° \mathcal{C}	
desc. node	142 Mar 18 j 23:53	13° \approx 09'16			144 Dec 04 j 21:13	0° \approx	
	142 Apr 02 j 20:38	0° \mathcal{H}		evening max el	144 Dec 06 j 12:00	1° \approx 39'41	47°15'48
	142 Apr 28 j 16:39	0° Υ		asc. node	144 Dec 24 j 21:54	19° \approx 04'39	
	142 May 24 j 01:01	0° \mathcal{B}			145 Jan 08 j 23:33	0° \mathcal{H}	
	142 Jun 18 j 01:02	0° Π		greatest brilliancy	145 Jan 12 j 20:40	2° \mathcal{H} 02'53	-4.6m
asc. node	142 Jul 10 j 02:55	26° Π 49'05		retrograde	145 Jan 26 j 12:15	5° \mathcal{H} 31'16	
	142 Jul 12 j 17:22	0° \mathcal{E}			145 Feb 12 j 05:47	30° $\mathcal{R}\approx$	
	142 Aug 06 j 02:23	0° Ω		evening set	145 Feb 13 j 09:15	29° \approx 18'30	
morning set	142 Aug 11 j 14:16	6° Ω 48'40		min. Earth dist.	145 Feb 15 j 22:36	27° \approx 42'42	0.28075 AU
	142 Aug 30 j 05:21	0° \mathcal{M}		inferior conj	145 Feb 16 j 14:07	27° \approx 18'12	8°39'49
max. Earth dist.	142 Sep 14 j 22:41	19° \mathcal{M} 40'14	1.71683 AU	minimum elong	145 Feb 16 j 13:30	27° \approx 19'10	8°39'48
				morning rise	145 Feb 19 j 17:57	25° \approx 19'48	
superior conj	142 Sep 17 j 23:59	23° \mathcal{M} 29'50	1°18'04	direct	145 Mar 09 j 11:46	19° \approx 15'50	
minimum elong	142 Sep 18 j 07:13	23° \mathcal{M} 52'33	1°17'56	greatest brilliancy	145 Mar 20 j 13:07	21° \approx 29'15	-4.5m
	142 Sep 23 j 04:27	0° Ω			145 Apr 04 j 14:46	0° \mathcal{H}	
	142 Oct 17 j 01:58	0° \mathcal{M}		desc. node	145 Apr 15 j 11:40	8° \mathcal{H} 36'14	
evening rise	142 Oct 27 j 19:38	13° \mathcal{M} 28'43		morning max el	145 Apr 27 j 12:32	19° \mathcal{H} 34'38	45°54'29
desc. node	142 Oct 29 j 16:51	15° \mathcal{M} 50'36			145 May 08 j 00:44	0° Υ	
	142 Nov 09 j 23:34	0° \mathcal{A}			145 Jun 05 j 00:06	0° \mathcal{B}	
	142 Dec 03 j 22:18	0° \mathcal{C}			145 Jul 01 j 07:54	0° Π	
	142 Dec 27 j 23:33	0° \approx			145 Jul 26 j 17:56	0° \mathcal{E}	
	143 Jan 21 j 06:01	0° \mathcal{H}		asc. node	145 Aug 06 j 14:50	13° \mathcal{E} 04'59	
	143 Feb 14 j 22:18	0° Υ			145 Aug 20 j 12:30	0° Ω	
asc. node	143 Feb 19 j 19:40	5° Υ 51'23			145 Sep 13 j 19:43	0° \mathcal{M}	
	143 Mar 12 j 07:50	0° \mathcal{B}			145 Oct 07 j 19:41	0° Ω	
	143 Apr 08 j 01:00	0° Π		morning set	145 Oct 22 j 11:15	18° Ω 24'47	
evening max el	143 Apr 30 j 19:55	23° Π 22'29	45°18'42		145 Oct 31 j 16:06	0° \mathcal{M}	
	143 May 07 j 22:59	0° \mathcal{E}			145 Nov 24 j 11:41	0° \mathcal{A}	
greatest brilliancy	143 Jun 04 j 21:28	19° \mathcal{E} 46'48	-4.5m	desc. node	145 Nov 26 j 04:36	2° \mathcal{A} 08'46	
desc. node	143 Jun 11 j 09:21	22° \mathcal{E} 02'28					
retrograde	143 Jun 18 j 06:56	22° \mathcal{E} 55'10		superior conj	145 Dec 02 j 12:30	10° \mathcal{A} 06'54	0°-15'00
evening set	143 Jul 04 j 03:18	18° \mathcal{E} 10'48		minimum elong	145 Dec 02 j 08:27	9° \mathcal{A} 54'10	0°14'48
inferior conj	143 Jul 09 j 17:40	14° \mathcal{E} 49'50	-6°-1'-56	behind sun begin	145 Dec 01 j 20:54	9° \mathcal{A} 17'50	
minimum elong	143 Jul 09 j 07:40	15° \mathcal{E} 05'21	5°59'49	behind sun end	145 Dec 02 j 20:00	10° \mathcal{A} 30'31	
min. Earth dist.	143 Jul 09 j 21:33	14° \mathcal{E} 43'47	0.28775 AU	max. Earth dist.	145 Dec 04 j 09:39	12° \mathcal{A} 29'00	1.71053 AU
morning rise	143 Jul 14 j 11:39	11° \mathcal{E} 56'33			145 Dec 18 j 07:59	0° \mathcal{C}	
direct	143 Jul 31 j 07:44	6° \mathcal{E} 35'06			146 Jan 11 j 06:05	0° \approx	
greatest brilliancy	143 Aug 14 j 17:42	10° \mathcal{E} 12'28	-4.5m	evening rise	146 Jan 13 j 05:31	2° \approx 28'21	
	143 Sep 10 j 18:46	0° Ω			146 Feb 04 j 07:16	0° \mathcal{H}	
morning max el	143 Sep 19 j 01:22	7° Ω 55'06	46°23'58		146 Feb 28 j 13:22	0° Υ	
asc. node	143 Oct 02 j 12:29	21° Ω 52'14		asc. node	146 Mar 19 j 07:44	22° Υ 58'11	
	143 Oct 09 j 23:03	0° \mathcal{M}			146 Mar 25 j 02:35	0° \mathcal{B}	

	146 Apr 19 j 01:35	0°♄		148 Sep 27 j 15:08	0°♄	
	146 May 14 j 14:36	0°♄		148 Oct 21 j 23:49	0°♄	
	146 Jun 10 j 03:08	0°♄		148 Nov 15 j 00:32	0°♄	
desc. node	146 Jul 08 j 21:10	0°♄04'45		148 Dec 08 j 22:24	0°♄	
	146 Jul 08 j 19:13	0°♄		148 Dec 23 j 16:19	18°♄30'16	
evening max el	146 Jul 11 j 11:52	2°♄36'16 45°49'19		149 Jan 01 j 20:19	0°♄	
	146 Aug 17 j 03:27	0°♄		149 Jan 07 j 09:40	6°♄57'40	
greatest brilliancy	146 Aug 18 j 21:58	0°♄41'34 -4.6m		149 Jan 25 j 19:41	0°♄	
retrograde	146 Aug 29 j 14:31	2°♄44'43				
	146 Sep 10 j 09:49	30°♄		superior conj	149 Feb 17 j 08:09	28°♄04'33 -1°-25'-26
evening set	146 Sep 16 j 00:36	27°♄02'47		minimum elong	149 Feb 17 j 07:33	28°♄02'42 1°25'27
inferior conj	146 Sep 19 j 11:05	24°♄58'57 -8°-7'-33			149 Feb 18 j 21:17	0°♄
minimum elong	146 Sep 19 j 19:03	24°♄46'49 8°06'35		max. Earth dist.	149 Feb 21 j 10:29	3°♄10'15 1.72282 AU
min. Earth dist.	146 Sep 20 j 06:59	24°♄28'39 0.27408 AU			149 Mar 15 j 01:52	0°♄
morning rise	146 Sep 23 j 13:13	22°♄31'58		evening rise	149 Mar 28 j 08:28	16°♄23'07
direct	146 Oct 10 j 09:20	17°♄05'06			149 Apr 08 j 10:05	0°♄
greatest brilliancy	146 Oct 24 j 06:32	20°♄37'53 -4.7m		asc. node	149 Apr 15 j 19:37	9°♄04'30
asc. node	146 Oct 30 j 00:17	23°♄47'54			149 May 02 j 22:19	0°♄
	146 Nov 07 j 18:52	0°♄			149 May 27 j 14:57	0°♄
morning max el	146 Nov 30 j 05:43	20°♄40'19 46°55'46			149 Jun 21 j 13:11	0°♄
	146 Dec 09 j 03:03	0°♄			149 Jul 16 j 19:54	0°♄
	147 Jan 04 j 19:59	0°♄		desc. node	149 Aug 05 j 09:03	22°♄45'02
	147 Jan 30 j 06:58	0°♄			149 Aug 11 j 17:02	0°♄
desc. node	147 Feb 18 j 14:07	23°♄08'10			149 Sep 07 j 18:44	0°♄
	147 Feb 24 j 06:48	0°♄		evening max el	149 Sep 23 j 00:28	15°♄44'54 47°03'17
	147 Mar 21 j 02:01	0°♄			149 Oct 08 j 07:02	0°♄
	147 Apr 14 j 19:04	0°♄		greatest brilliancy	149 Oct 31 j 22:56	15°♄51'34 -4.7m
	147 May 09 j 10:35	0°♄		retrograde	149 Nov 12 j 10:16	18°♄18'52
morning set	147 Jun 02 j 09:29	29°♄15'33		evening set	149 Nov 26 j 17:40	14°♄14'33
	147 Jun 03 j 00:01	0°♄		asc. node	149 Nov 26 j 12:02	14°♄22'01
asc. node	147 Jun 11 j 17:10	10°♄40'46		inferior conj	149 Dec 02 j 23:00	10°♄35'30 1°40'08
	147 Jun 27 j 10:27	0°♄		minimum elong	149 Dec 02 j 19:15	10°♄41'14 1°38'56
max. Earth dist.	147 Jul 05 j 12:24	9°♄57'29 1.73236 AU		min. Earth dist.	149 Dec 02 j 12:32	10°♄51'31 0.26392 AU
				morning rise	149 Dec 08 j 21:09	7°♄07'05
superior conj	147 Jul 08 j 15:38	13°♄49'37 0°58'01		direct	149 Dec 23 j 06:15	3°♄00'14
minimum elong	147 Jul 08 j 06:58	13°♄22'52 0°57'42		greatest brilliancy	150 Jan 03 j 15:35	5°♄25'48 -4.7m
	147 Jul 21 j 17:33	0°♄			150 Feb 05 j 20:58	0°♄
evening rise	147 Aug 13 j 17:13	28°♄30'43		morning max el	150 Feb 11 j 07:36	5°♄18'15 46°36'20
	147 Aug 14 j 21:58	0°♄			150 Mar 06 j 19:26	0°♄
	147 Sep 08 j 01:09	0°♄		desc. node	150 Mar 18 j 02:01	12°♄31'36
desc. node	147 Oct 01 j 06:59	28°♄53'03			150 Apr 02 j 10:44	0°♄
	147 Oct 02 j 04:34	0°♄			150 Apr 28 j 05:13	0°♄
	147 Oct 26 j 09:23	0°♄			150 May 23 j 12:42	0°♄
	147 Nov 19 j 17:15	0°♄			150 Jun 17 j 12:11	0°♄
	147 Dec 14 j 07:54	0°♄		asc. node	150 Jul 09 j 05:04	26°♄22'23
	148 Jan 08 j 13:57	0°♄			150 Jul 12 j 04:14	0°♄
asc. node	148 Jan 22 j 09:50	15°♄49'48			150 Aug 05 j 13:07	0°♄
	148 Feb 04 j 07:52	0°♄		morning set	150 Aug 09 j 06:54	4°♄38'07
evening max el	148 Feb 16 j 21:47	12°♄59'07 46°07'42			150 Aug 29 j 16:06	0°♄
	148 Mar 06 j 18:02	0°♄		max. Earth dist.	150 Sep 12 j 11:32	17°♄16'17 1.71739 AU
greatest brilliancy	148 Mar 22 j 13:43	10°♄22'46 -4.5m				
retrograde	148 Apr 06 j 08:08	14°♄13'02		superior conj	150 Sep 15 j 14:37	21°♄11'29 1°19'22
evening set	148 Apr 22 j 01:15	9°♄24'35		minimum elong	150 Sep 15 j 21:14	21°♄32'11 1°19'15
inferior conj	148 Apr 27 j 17:34	5°♄56'34 3°28'07			150 Sep 22 j 15:17	0°♄
minimum elong	148 Apr 28 j 00:32	5°♄45'34 3°26'15			150 Oct 16 j 12:56	0°♄
min. Earth dist.	148 Apr 27 j 21:55	5°♄49'42 0.28962 AU		evening rise	150 Oct 25 j 06:34	10°♄57'50
morning rise	148 May 04 j 00:04	2°♄09'18		desc. node	150 Oct 28 j 18:50	15°♄22'13
	148 May 08 j 09:14	30°♄			150 Nov 09 j 10:40	0°♄
desc. node	148 May 12 j 23:24	28°♄26'20			150 Dec 03 j 09:33	0°♄
direct	148 May 19 j 08:23	27°♄38'07			150 Dec 27 j 10:59	0°♄
	148 May 30 j 20:30	0°♄			151 Jan 20 j 17:47	0°♄
greatest brilliancy	148 Jun 01 j 12:22	0°♄41'09 -4.5m			151 Feb 14 j 10:42	0°♄
morning max el	148 Jul 07 j 03:59	27°♄26'20 45°47'44		asc. node	151 Feb 18 j 21:49	5°♄20'22
	148 Jul 09 j 19:42	0°♄			151 Mar 11 j 21:29	0°♄
	148 Aug 07 j 10:01	0°♄			151 Apr 07 j 17:33	0°♄
	148 Sep 02 j 14:42	0°♄		evening max el	151 Apr 28 j 10:52	21°♄10'04 45°19'13
asc. node	148 Sep 03 j 02:47	0°♄35'34			151 May 08 j 01:32	0°♄

greatest brilliancy	151 Jun 02 j 09:33	17° \mathfrak{S} 32'48	-4.5m	desc. node	153 Nov 25 j 06:37	1° \mathfrak{X} 40'13	
desc. node	151 Jun 10 j 11:24	20° \mathfrak{S} 12'02					
retrograde	151 Jun 15 j 22:49	20° \mathfrak{S} 45'41		superior conj	153 Nov 29 j 21:58	7° \mathfrak{X} 30'41	0°-11'-1
evening set	151 Jul 01 j 16:31	16° \mathfrak{S} 04'06		minimum elong	153 Nov 29 j 18:59	7° \mathfrak{X} 21'18	0°10'53
inferior conj	151 Jul 07 j 09:33	12° \mathfrak{S} 39'39	-5°-47'-3	behind sun begin	153 Nov 28 j 22:46	6° \mathfrak{X} 17'40	
minimum elong	151 Jul 06 j 23:38	12° \mathfrak{S} 55'02	5°44'53	behind sun end	153 Nov 30 j 15:12	8° \mathfrak{X} 24'57	
min. Earth dist.	151 Jul 07 j 13:14	12° \mathfrak{S} 33'57	0.28798 AU	max. Earth dist.	153 Dec 01 j 18:50	9° \mathfrak{X} 51'52	1.71044 AU
morning rise	151 Jul 12 j 06:21	9° \mathfrak{S} 42'26			153 Dec 17 j 19:06	0° \mathfrak{C}	
direct	151 Jul 28 j 23:31	4° \mathfrak{S} 24'19		evening rise	154 Jan 10 j 15:54	29° \mathfrak{C} 55'49	
greatest brilliancy	151 Aug 12 j 10:39	8° \mathfrak{S} 02'48	-4.5m		154 Jan 10 j 17:14	0° \approx	
	151 Sep 10 j 19:51	0° \mathfrak{Q}			154 Feb 03 j 18:29	0° \mathfrak{H}	
morning max el	151 Sep 16 j 16:48	5° \mathfrak{Q} 40'17	46°22'28		154 Feb 28 j 00:43	0° \mathfrak{Y}	
asc. node	151 Oct 01 j 14:35	21° \mathfrak{Q} 09'38		asc. node	154 Mar 18 j 09:45	22° \mathfrak{Y} 29'15	
	151 Oct 09 j 15:36	0° \mathfrak{M}			154 Mar 24 j 14:14	0° \mathfrak{B}	
	151 Nov 04 j 13:37	0° \mathfrak{A}			154 Apr 18 j 13:50	0° \mathfrak{I}	
	151 Nov 29 j 09:22	0° \mathfrak{M}			154 May 14 j 04:04	0° \mathfrak{S}	
	151 Dec 23 j 18:28	0° \mathfrak{X}			154 Jun 09 j 19:08	0° \mathfrak{Q}	
	152 Jan 17 j 00:03	0° \mathfrak{C}		desc. node	154 Jul 07 j 23:21	29° \mathfrak{Q} 14'51	
desc. node	152 Jan 21 j 04:21	5° \mathfrak{C} 10'43			154 Jul 08 j 18:07	0° \mathfrak{M}	
	152 Feb 10 j 05:17	0° \approx		evening max el	154 Jul 09 j 02:43	0° \mathfrak{M} 20'37	45°47'05
	152 Mar 05 j 11:29	0° \mathfrak{H}		greatest brilliancy	154 Aug 16 j 09:43	28° \mathfrak{M} 19'20	-4.5m
morning set	152 Mar 22 j 19:31	21° \mathfrak{H} 23'19			154 Aug 22 j 15:01	0° \mathfrak{A}	
	152 Mar 29 j 19:14	0° \mathfrak{Y}		retrograde	154 Aug 27 j 03:23	0° \mathfrak{A} 22'59	
	152 Apr 23 j 04:30	0° \mathfrak{B}			154 Aug 31 j 13:13	30° \mathfrak{R} \mathfrak{M}	
				evening set	154 Sep 13 j 16:20	24° \mathfrak{M} 37'23	
superior conj	152 Apr 29 j 03:46	7° \mathfrak{B} 20'11	0°-32'-41	inferior conj	154 Sep 17 j 00:27	22° \mathfrak{M} 36'43	-8°-15'-51
minimum elong	152 Apr 29 j 10:11	7° \mathfrak{B} 39'51	0°32'24	minimum elong	154 Sep 17 j 07:46	22° \mathfrak{M} 25'32	8°15'03
max. Earth dist.	152 Apr 29 j 16:36	7° \mathfrak{B} 59'36	1.73552 AU	min. Earth dist.	154 Sep 17 j 19:59	22° \mathfrak{M} 06'55	0.27468 AU
asc. node	152 May 13 j 07:24	24° \mathfrak{B} 42'50		morning rise	154 Sep 20 j 22:58	20° \mathfrak{M} 14'41	
	152 May 17 j 14:44	0° \mathfrak{I}		direct	154 Oct 07 j 23:50	14° \mathfrak{M} 42'11	
evening rise	152 Jun 04 j 12:40	21° \mathfrak{I} 59'35		greatest brilliancy	154 Oct 21 j 20:22	18° \mathfrak{M} 13'59	-4.6m
	152 Jun 11 j 01:13	0° \mathfrak{S}		asc. node	154 Oct 29 j 02:13	22° \mathfrak{M} 21'22	
	152 Jul 05 j 11:50	0° \mathfrak{Q}			154 Nov 08 j 08:14	0° \mathfrak{A}	
	152 Jul 29 j 23:24	0° \mathfrak{M}		morning max el	154 Nov 27 j 19:39	18° \mathfrak{A} 15'45	46°55'21
	152 Aug 23 j 13:31	0° \mathfrak{A}			154 Dec 08 j 22:33	0° \mathfrak{M}	
desc. node	152 Sep 01 j 21:08	11° \mathfrak{A} 18'55			155 Jan 04 j 11:21	0° \mathfrak{X}	
	152 Sep 17 j 08:11	0° \mathfrak{M}			155 Jan 29 j 20:33	0° \mathfrak{C}	
	152 Oct 12 j 10:40	0° \mathfrak{X}		desc. node	155 Feb 17 j 16:11	22° \mathfrak{C} 35'53	
	152 Nov 07 j 05:17	0° \mathfrak{C}			155 Feb 23 j 19:22	0° \approx	
evening max el	152 Dec 04 j 03:16	29° \mathfrak{C} 19'31	47°17'11		155 Mar 20 j 13:56	0° \mathfrak{H}	
	152 Dec 04 j 19:09	0° \approx			155 Apr 14 j 06:32	0° \mathfrak{Y}	
asc. node	152 Dec 24 j 00:05	17° \mathfrak{A} 57'42			155 May 08 j 21:42	0° \mathfrak{B}	
greatest brilliancy	153 Jan 10 j 12:13	29° \mathfrak{A} 43'28	-4.6m	morning set	155 May 31 j 03:49	27° \mathfrak{B} 11'17	
	153 Jan 11 j 02:20	0° \mathfrak{H}			155 Jun 02 j 10:57	0° \mathfrak{I}	
retrograde	153 Jan 24 j 04:06	3° \mathfrak{H} 12'07		asc. node	155 Jun 10 j 19:18	10° \mathfrak{I} 13'51	
	153 Feb 05 j 15:17	30° \mathfrak{R} \mathfrak{A}			155 Jun 26 j 21:20	0° \mathfrak{S}	
evening set	153 Feb 10 j 23:04	27° \mathfrak{A} 01'08		max. Earth dist.	155 Jul 03 j 06:57	7° \mathfrak{S} 53'08	1.73274 AU
min. Earth dist.	153 Feb 13 j 12:13	25° \mathfrak{A} 25'53	0.28018 AU				
inferior conj	153 Feb 14 j 04:59	24° \mathfrak{A} 59'27	8°39'13	superior conj	155 Jul 06 j 09:58	11° \mathfrak{S} 44'26	0°55'41
minimum elong	153 Feb 14 j 03:33	25° \mathfrak{A} 01'41	8°39'11	minimum elong	155 Jul 06 j 01:22	11° \mathfrak{S} 17'57	0°55'23
morning rise	153 Feb 17 j 08:16	23° \mathfrak{A} 02'11			155 Jul 21 j 04:29	0° \mathfrak{Q}	
direct	153 Mar 07 j 02:02	16° \mathfrak{A} 58'01		evening rise	155 Aug 11 j 10:11	26° \mathfrak{Q} 19'55	
greatest brilliancy	153 Mar 18 j 01:43	19° \mathfrak{A} 10'24	-4.5m		155 Aug 14 j 09:04	0° \mathfrak{M}	
	153 Apr 05 j 07:04	0° \mathfrak{H}			155 Sep 07 j 12:27	0° \mathfrak{A}	
desc. node	153 Apr 14 j 13:41	7° \mathfrak{H} 37'13		desc. node	155 Sep 30 j 08:58	28° \mathfrak{A} 23'21	
morning max el	153 Apr 25 j 04:25	17° \mathfrak{H} 22'37	45°55'28		155 Oct 01 j 16:08	0° \mathfrak{M}	
	153 May 07 j 19:54	0° \mathfrak{Y}			155 Oct 25 j 21:18	0° \mathfrak{X}	
	153 Jun 04 j 14:51	0° \mathfrak{B}			155 Nov 19 j 05:40	0° \mathfrak{C}	
	153 Jun 30 j 20:48	0° \mathfrak{I}			155 Dec 13 j 21:06	0° \approx	
	153 Jul 26 j 05:53	0° \mathfrak{S}			156 Jan 08 j 04:40	0° \mathfrak{H}	
asc. node	153 Aug 05 j 16:58	12° \mathfrak{S} 36'00		asc. node	156 Jan 21 j 11:56	15° \mathfrak{H} 10'26	
	153 Aug 19 j 23:56	0° \mathfrak{Q}			156 Feb 04 j 02:19	0° \mathfrak{Y}	
	153 Sep 13 j 06:54	0° \mathfrak{M}		evening max el	156 Feb 14 j 13:07	10° \mathfrak{Y} 44'05	46°10'06
	153 Oct 07 j 06:46	0° \mathfrak{A}			156 Mar 07 j 06:06	0° \mathfrak{B}	
morning set	153 Oct 19 j 23:52	15° \mathfrak{A} 58'40		greatest brilliancy	156 Mar 20 j 07:47	8° \mathfrak{B} 14'49	-4.5m
	153 Oct 31 j 03:11	0° \mathfrak{M}		retrograde	156 Apr 04 j 00:21	12° \mathfrak{B} 03'30	
	153 Nov 23 j 22:47	0° \mathfrak{X}		evening set	156 Apr 19 j 20:04	7° \mathfrak{B} 12'10	

inferior conj	156 Apr 25 j 10:10	3°♄47'04	3°45'59		158 Sep 22 j 02:24	0°♊	
minimum elong	156 Apr 25 j 17:36	3°♄35'19	3°44'01		158 Oct 16 j 00:12	0°♋	
min. Earth dist.	156 Apr 25 j 14:39	3°♄39'59	0.28953 AU	evening rise	158 Oct 22 j 17:40	8°♋26'38	
morning rise	156 May 01 j 15:21	0°♄01'09		desc. node	158 Oct 27 j 20:54	14°♋53'10	
	156 May 01 j 16:11	30°♋			158 Nov 08 j 22:06	0°♌	
desc. node	156 May 12 j 01:27	25°♋57'56			158 Dec 02 j 21:07	0°♍	
direct	156 May 17 j 00:32	25°♋28'54			158 Dec 26 j 22:44	0°♎	
greatest brilliancy	156 May 30 j 02:17	28°♋29'02	-4.5m		159 Jan 20 j 05:51	0°♏	
	156 Jun 02 j 07:07	0°♌			159 Feb 13 j 23:22	0°♐	
morning max el	156 Jul 04 j 19:00	25°♌13'43	45°47'06	asc. node	159 Feb 17 j 23:51	4°♐48'15	
	156 Jul 09 j 16:50	0°♍			159 Mar 11 j 11:27	0°♑	
	156 Aug 07 j 01:26	0°♎			159 Apr 07 j 10:35	0°♒	
asc. node	156 Sep 02 j 04:48	0°♏02'10		evening max el	159 Apr 26 j 02:42	18°♒59'21	45°19'43
	156 Sep 02 j 04:04	0°♏			159 May 08 j 05:59	0°♓	
	156 Sep 27 j 03:34	0°♐		greatest brilliancy	159 May 30 j 21:46	15°♓18'35	-4.5m
	156 Oct 21 j 11:44	0°♑		desc. node	159 Jun 09 j 13:35	18°♓17'00	
	156 Nov 14 j 12:09	0°♒		retrograde	159 Jun 13 j 15:04	18°♓35'44	
	156 Dec 08 j 09:50	0°♓		evening set	159 Jun 29 j 06:02	13°♓56'50	
desc. node	156 Dec 22 j 18:32	18°♓01'38		inferior conj	159 Jul 05 j 01:31	10°♓28'57	-5°-31'-36
	157 Jan 01 j 07:36	0°♔		minimum elong	159 Jul 04 j 15:45	10°♓44'04	5°29'25
morning set	157 Jan 04 j 19:49	4°♔23'55		min. Earth dist.	159 Jul 05 j 04:42	10°♓24'00	0.28822 AU
	157 Jan 25 j 06:50	0°♕		morning rise	159 Jul 10 j 01:08	7°♓27'55	
				direct	159 Jul 26 j 16:01	2°♓13'09	
superior conj	157 Feb 14 j 21:11	25°♕41'23	-1°-25'-16	greatest brilliancy	159 Aug 10 j 03:32	5°♓52'32	-4.5m
minimum elong	157 Feb 14 j 19:38	25°♕36'34	1°25'17		159 Sep 10 j 20:03	0°♎	
	157 Feb 18 j 08:20	0°♏		morning max el	159 Sep 14 j 08:58	3°♎26'45	46°20'55
max. Earth dist.	157 Feb 19 j 01:15	0°♏52'34	1.72224 AU	asc. node	159 Sep 30 j 16:37	20°♎26'32	
	157 Mar 14 j 12:53	0°♐			159 Oct 09 j 08:07	0°♏	
evening rise	157 Mar 25 j 23:52	14°♐08'35			159 Nov 04 j 03:41	0°♐	
	157 Apr 07 j 21:10	0°♑			159 Nov 28 j 22:18	0°♑	
asc. node	157 Apr 14 j 21:37	8°♑36'33			159 Dec 23 j 06:46	0°♒	
	157 May 02 j 09:35	0°♒			160 Jan 16 j 11:55	0°♓	
	157 May 27 j 02:35	0°♓		desc. node	160 Jan 20 j 06:21	4°♓40'20	
	157 Jun 21 j 01:26	0°♔			160 Feb 09 j 16:48	0°♕	
	157 Jul 16 j 09:13	0°♕			160 Mar 04 j 22:43	0°♏	
desc. node	157 Aug 04 j 11:09	22°♕08'58		morning set	160 Mar 20 j 11:08	19°♏09'15	
	157 Aug 11 j 08:19	0°♖			160 Mar 29 j 06:15	0°♐	
	157 Sep 07 j 14:12	0°♗			160 Apr 22 j 15:23	0°♑	
evening max el	157 Sep 20 j 12:50	13°♗17'13	47°01'06				
	157 Oct 08 j 18:03	0°♒		superior conj	160 Apr 26 j 21:28	5°♒13'42	0°-35'-37
greatest brilliancy	157 Oct 29 j 13:58	13°♒23'56	-4.7m	minimum elong	160 Apr 27 j 04:22	5°♒34'54	0°35'19
retrograde	157 Nov 09 j 22:07	15°♒48'26		max. Earth dist.	160 Apr 27 j 15:01	6°♒07'36	1.73532 AU
evening set	157 Nov 24 j 05:50	11°♒44'26		asc. node	160 May 12 j 09:35	24°♒16'15	
asc. node	157 Nov 25 j 14:14	11°♒00'05			160 May 17 j 01:35	0°♒	
inferior conj	157 Nov 30 j 11:14	8°♒06'00	1°15'51	evening rise	160 Jun 02 j 08:00	19°♒58'12	
minimum elong	157 Nov 30 j 08:23	8°♒10'22	1°14'56		160 Jun 10 j 12:10	0°♓	
min. Earth dist.	157 Nov 30 j 02:44	8°♒19'01	0.26373 AU		160 Jul 04 j 23:01	0°♔	
morning rise	157 Dec 06 j 11:04	4°♒35'21			160 Jul 29 j 10:59	0°♕	
direct	157 Dec 20 j 17:46	0°♒30'37			160 Aug 23 j 01:40	0°♖	
greatest brilliancy	158 Jan 01 j 06:58	2°♒59'53	-4.7m	desc. node	160 Aug 31 j 23:04	10°♖47'13	
	158 Feb 05 j 22:20	0°♓			160 Sep 16 j 21:09	0°♗	
morning max el	158 Feb 08 j 20:21	2°♓52'23	46°37'57		160 Oct 12 j 00:55	0°♘	
	158 Mar 06 j 12:30	0°♔			160 Nov 06 j 21:55	0°♙	
desc. node	158 Mar 17 j 04:03	11°♔53'19		evening max el	160 Dec 01 j 19:14	27°♙00'34	47°18'25
	158 Apr 02 j 00:54	0°♏			160 Dec 04 j 18:08	0°♚	
	158 Apr 27 j 17:57	0°♐		asc. node	160 Dec 23 j 02:11	16°♚48'12	
	158 May 23 j 00:37	0°♑		greatest brilliancy	161 Jan 08 j 04:15	27°♚24'01	-4.6m
	158 Jun 16 j 23:38	0°♒			161 Jan 15 j 05:09	0°♏	
asc. node	158 Jul 08 j 07:12	25°♒54'41		retrograde	161 Jan 21 j 19:55	0°♏51'54	
	158 Jul 11 j 15:25	0°♓			161 Jan 28 j 05:46	30°♒	
	158 Aug 05 j 00:11	0°♔		evening set	161 Feb 08 j 12:26	24°♚43'31	
morning set	158 Aug 06 j 23:34	2°♔26'46		min. Earth dist.	161 Feb 11 j 01:40	23°♚08'14	0.27956 AU
	158 Aug 29 j 03:08	0°♕		inferior conj	161 Feb 11 j 19:43	22°♚39'47	8°37'46
max. Earth dist.	158 Sep 10 j 02:25	14°♕57'57	1.71793 AU	minimum elong	161 Feb 11 j 17:29	22°♚43'18	8°37'43
				morning rise	161 Feb 14 j 22:47	20°♚43'02	
superior conj	158 Sep 13 j 05:19	18°♕52'24	1°20'31	direct	161 Mar 04 j 16:36	14°♚39'29	
minimum elong	158 Sep 13 j 11:13	19°♕10'55	1°20'25	greatest brilliancy	161 Mar 15 j 13:31	16°♚49'56	-4.5m

	161 Apr 05 j 19:25	0° H			163 Oct 01 j 03:35	0° M	
desc. node	161 Apr 13 j 15:42	6° H 39'11			163 Oct 25 j 09:10	0° J	
morning max el	161 Apr 22 j 20:06	15° H 09'53	45°56'38		163 Nov 18 j 18:05	0° Z	
	161 May 07 j 14:37	0° Y			163 Dec 13 j 10:22	0° \approx	
	161 Jun 04 j 05:25	0° B			164 Jan 07 j 19:30	0° H	
	161 Jun 30 j 09:36	0° II		asc. node	164 Jan 20 j 13:57	14° H 30'31	
	161 Jul 25 j 17:47	0° S			164 Feb 03 j 21:11	0° Y	
asc. node	161 Aug 04 j 18:58	12° S 06'40		evening max el	164 Feb 12 j 03:18	8° Y 26'13	46°12'39
	161 Aug 19 j 11:23	0° Q			164 Mar 07 j 22:09	0° B	
	161 Sep 12 j 18:10	0° M		greatest brilliancy	164 Mar 18 j 01:00	6° B 05'46	-4.5m
	161 Oct 06 j 17:57	0° A		retrograde	164 Apr 01 j 16:27	9° B 54'12	
morning set	161 Oct 17 j 12:23	13° A 32'02		evening set	164 Apr 17 j 14:49	4° B 59'33	
	161 Oct 30 j 14:20	0° M		inferior conj	164 Apr 23 j 02:40	1° B 37'45	4°03'31
	161 Nov 23 j 09:56	0° J		minimum elong	164 Apr 23 j 10:32	1° B 25'19	4°01'30
desc. node	161 Nov 24 j 08:48	1° J 11'59		min. Earth dist.	164 Apr 23 j 07:26	1° B 30'12	0.28942 AU
					164 Apr 25 j 16:54	30° R Y	
superior conj	161 Nov 27 j 07:20	4° J 54'00	0°-7'00	morning rise	164 Apr 29 j 06:22	27° Y 53'30	
minimum elong	161 Nov 27 j 05:26	4° J 48'01	0°06'56	desc. node	164 May 11 j 03:40	23° Y 34'13	
behind sun begin	161 Nov 26 j 05:01	3° J 31'08		direct	164 May 14 j 16:09	23° Y 19'39	
behind sun end	161 Nov 28 j 05:52	6° J 04'53		greatest brilliancy	164 May 27 j 17:06	26° Y 18'17	-4.5m
max. Earth dist.	161 Nov 29 j 02:42	7° J 10'27	1.71032 AU		164 Jun 03 j 20:14	0° B	
	161 Dec 17 j 06:16	0° Z		morning max el	164 Jul 02 j 10:06	23° B 01'58	45°46'46
evening rise	162 Jan 08 j 02:05	27° Z 22'28			164 Jul 09 j 13:00	0° II	
	162 Jan 10 j 04:26	0° \approx			164 Aug 06 j 16:21	0° S	
	162 Feb 03 j 05:45	0° H		asc. node	164 Sep 01 j 06:53	29° S 30'03	
	162 Feb 27 j 12:07	0° Y			164 Sep 01 j 17:01	0° Q	
asc. node	162 Mar 17 j 11:48	22° Y 00'13			164 Sep 26 j 15:36	0° M	
	162 Mar 24 j 01:55	0° B			164 Oct 20 j 23:18	0° A	
	162 Apr 18 j 02:07	0° II			164 Nov 13 j 23:29	0° M	
	162 May 13 j 17:33	0° S			164 Dec 07 j 21:02	0° J	
	162 Jun 09 j 11:14	0° Q		desc. node	164 Dec 21 j 20:34	17° J 33'02	
evening max el	162 Jul 06 j 16:49	28° Q 03'46	45°44'50		164 Dec 31 j 18:43	0° Z	
desc. node	162 Jul 07 j 01:21	28° Q 24'10		morning set	165 Jan 02 j 05:24	1° Z 48'44	
	162 Jul 08 j 17:47	0° M			165 Jan 24 j 17:50	0° \approx	
greatest brilliancy	162 Aug 13 j 22:07	25° M 58'35	-4.5m				
retrograde	162 Aug 24 j 15:52	28° M 02'12		superior conj	165 Feb 12 j 09:34	23° \approx 16'38	-1°-24'-57
evening set	162 Sep 11 j 07:57	22° M 13'21		minimum elong	165 Feb 12 j 07:04	23° \approx 08'50	1°24'57
inferior conj	162 Sep 14 j 14:02	20° M 15'26	-8°-23'-3	max. Earth dist.	165 Feb 16 j 12:48	28° \approx 25'23	1.72165 AU
minimum elong	162 Sep 14 j 20:39	20° M 05'18	8°22'25		165 Feb 17 j 19:13	0° H	
min. Earth dist.	162 Sep 15 j 09:26	19° M 45'44	0.27533 AU		165 Mar 13 j 23:43	0° Y	
morning rise	162 Sep 18 j 09:06	17° M 58'02		evening rise	165 Mar 23 j 14:43	11° Y 52'57	
direct	162 Oct 05 j 14:06	12° M 20'00			165 Apr 07 j 08:02	0° B	
greatest brilliancy	162 Oct 19 j 11:14	15° M 51'42	-4.6m	asc. node	165 Apr 13 j 23:47	8° B 09'48	
asc. node	162 Oct 28 j 04:26	20° M 58'09			165 May 01 j 20:39	0° II	
	162 Nov 08 j 18:12	0° A			165 May 26 j 14:00	0° S	
morning max el	162 Nov 25 j 08:44	15° A 48'52	46°54'51		165 Jun 20 j 13:29	0° Q	
	162 Dec 08 j 17:33	0° M			165 Jul 15 j 22:19	0° M	
	163 Jan 04 j 02:32	0° J		desc. node	165 Aug 03 j 13:09	21° M 33'25	
	163 Jan 29 j 09:59	0° Z			165 Aug 10 j 23:23	0° A	
desc. node	163 Feb 16 j 18:13	22° Z 03'48			165 Sep 07 j 09:43	0° M	
	163 Feb 23 j 07:49	0° \approx		evening max el	165 Sep 18 j 01:16	10° M 51'20	46°58'58
	163 Mar 20 j 01:44	0° H			165 Oct 09 j 07:56	0° J	
	163 Apr 13 j 17:52	0° Y		greatest brilliancy	165 Oct 27 j 03:38	10° J 56'09	-4.7m
	163 May 08 j 08:43	0° B		retrograde	165 Nov 07 j 10:14	13° J 19'25	
morning set	163 May 28 j 22:20	25° B 07'59		evening set	165 Nov 21 j 18:12	9° J 15'00	
	163 Jun 01 j 21:45	0° II		asc. node	165 Nov 24 j 16:18	7° J 36'35	
asc. node	163 Jun 09 j 21:26	9° II 47'23		inferior conj	165 Nov 27 j 23:26	5° J 37'26	0°51'26
	163 Jun 26 j 08:03	0° S		minimum elong	165 Nov 27 j 21:29	5° J 40'25	0°50'48
max. Earth dist.	163 Jul 01 j 01:40	5° S 49'54	1.73308 AU	min. Earth dist.	165 Nov 27 j 16:33	5° J 47'56	0.26365 AU
				morning rise	165 Dec 04 j 00:49	2° J 05'02	
superior conj	163 Jul 04 j 04:40	9° S 41'05	0°53'18		165 Dec 08 j 11:19	30° R M	
minimum elong	163 Jul 03 j 20:12	9° S 15'00	0°53'00	direct	165 Dec 18 j 05:47	28° M 01'45	
	163 Jul 20 j 15:14	0° Q			165 Dec 28 j 10:46	0° J	
evening rise	163 Aug 09 j 03:38	24° Q 11'25		greatest brilliancy	165 Dec 29 j 22:20	0° J 34'49	-4.7m
	163 Aug 13 j 19:57	0° M			166 Feb 05 j 22:15	0° Z	
	163 Sep 06 j 23:35	0° A		morning max el	166 Feb 06 j 10:06	0° Z 29'27	46°39'18
desc. node	163 Sep 29 j 11:05	27° A 54'27			166 Mar 06 j 05:05	0° \approx	

desc. node	166 Mar 16 j 06:07	11° \approx 15'58		evening max el	168 Nov 29 j 11:22	24° \approx 43'09	47°19'38
	166 Apr 01 j 14:45	0° \approx			168 Dec 04 j 17:38	0° \approx	
	166 Apr 27 j 06:23	0° \approx		asc. node	168 Dec 22 j 04:09	15° \approx 37'49	
	166 May 22 j 12:15	0° \approx		greatest brilliancy	169 Jan 05 j 21:03	25° \approx 06'55	-4.7m
	166 Jun 16 j 10:48	0° \approx		retrograde	169 Jan 19 j 11:30	28° \approx 32'49	
asc. node	166 Jul 07 j 09:08	25° \approx 27'15		evening set	169 Feb 06 j 01:34	22° \approx 27'51	
	166 Jul 11 j 02:18	0° \approx		min. Earth dist.	169 Feb 08 j 15:16	20° \approx 51'48	0.27894 AU
	166 Aug 04 j 10:55	0° \approx		inferior conj	169 Feb 09 j 10:32	20° \approx 21'25	8°35'33
morning set	166 Aug 04 j 16:20	0° \approx 16'45		minimum elong	169 Feb 09 j 07:30	20° \approx 26'12	8°35'25
	166 Aug 28 j 13:51	0° \approx		morning rise	169 Feb 12 j 13:43	18° \approx 24'33	
max. Earth dist.	166 Sep 07 j 17:16	12° \approx 40'34	1.71840 AU	direct	169 Mar 02 j 07:23	12° \approx 22'27	
				greatest brilliancy	169 Mar 13 j 01:14	14° \approx 30'24	-4.6m
superior conj	166 Sep 10 j 20:20	16° \approx 35'29	1°21'31		169 Apr 06 j 04:08	0° \approx	
minimum elong	166 Sep 11 j 01:32	16° \approx 51'45	1°21'27	desc. node	169 Apr 12 j 17:55	5° \approx 43'44	
	166 Sep 21 j 13:10	0° \approx		morning max el	169 Apr 20 j 10:59	12° \approx 55'54	45°57'32
	166 Oct 15 j 11:05	0° \approx			169 May 07 j 08:36	0° \approx	
evening rise	166 Oct 20 j 05:14	5° \approx 58'07			169 Jun 03 j 19:38	0° \approx	
desc. node	166 Oct 26 j 23:03	14° \approx 25'38			169 Jun 29 j 22:09	0° \approx	
	166 Nov 08 j 09:07	0° \approx			169 Jul 25 j 05:29	0° \approx	
	166 Dec 02 j 08:18	0° \approx		asc. node	169 Aug 03 j 21:04	11° \approx 38'11	
	166 Dec 26 j 10:09	0° \approx			169 Aug 18 j 22:38	0° \approx	
	167 Jan 19 j 17:38	0° \approx			169 Sep 12 j 05:12	0° \approx	
	167 Feb 13 j 11:51	0° \approx		greatest brilliancy	169 Sep 15 j 20:44	4° \approx 32'39	-3.9m
asc. node	167 Feb 17 j 01:54	4° \approx 16'43			169 Oct 06 j 04:55	0° \approx	
	167 Mar 11 j 01:19	0° \approx		morning set	169 Oct 15 j 00:52	11° \approx 05'56	
	167 Apr 07 j 03:47	0° \approx			169 Oct 30 j 01:17	0° \approx	
evening max el	167 Apr 23 j 18:59	16° \approx 50'19	45°20'24		169 Nov 22 j 20:53	0° \approx	
	167 May 08 j 12:14	0° \approx		desc. node	169 Nov 23 j 10:47	0° \approx 43'45	
greatest brilliancy	167 May 28 j 11:06	13° \approx 06'16	-4.5m				
desc. node	167 Jun 08 j 15:33	16° \approx 17'55		superior conj	169 Nov 24 j 16:55	2° \approx 18'37	0°-3'00
retrograde	167 Jun 11 j 07:16	16° \approx 25'59		minimum elong	169 Nov 24 j 16:06	2° \approx 16'00	0°02'58
evening set	167 Jun 26 j 19:36	11° \approx 49'54		behind sun begin	169 Nov 23 j 13:48	0° \approx 53'15	
inferior conj	167 Jul 02 j 17:18	8° \approx 18'33	-5°-15'-45	behind sun end	169 Nov 25 j 18:23	3° \approx 38'46	
minimum elong	167 Jul 02 j 07:44	8° \approx 33'22	5°13'32	max. Earth dist.	169 Nov 26 j 06:52	4° \approx 18'04	1.71019 AU
min. Earth dist.	167 Jul 02 j 19:51	8° \approx 14'37	0.28841 AU		169 Dec 16 j 17:13	0° \approx	
morning rise	167 Jul 07 j 19:39	5° \approx 13'44		evening rise	170 Jan 05 j 12:22	24° \approx 50'07	
direct	167 Jul 24 j 08:40	0° \approx 02'33			170 Jan 09 j 15:23	0° \approx	
greatest brilliancy	167 Aug 07 j 19:12	3° \approx 41'25	-4.5m		170 Feb 02 j 16:44	0° \approx	
	167 Sep 10 j 18:52	0° \approx			170 Feb 26 j 23:15	0° \approx	
morning max el	167 Sep 12 j 01:01	1° \approx 14'00	46°19'27	asc. node	170 Mar 16 j 13:58	21° \approx 32'19	
asc. node	167 Sep 29 j 18:45	19° \approx 45'09			170 Mar 23 j 13:23	0° \approx	
	167 Oct 09 j 00:01	0° \approx			170 Apr 17 j 14:15	0° \approx	
	167 Nov 03 j 17:16	0° \approx			170 May 13 j 07:01	0° \approx	
	167 Nov 28 j 10:47	0° \approx			170 Jun 09 j 03:33	0° \approx	
	167 Dec 22 j 18:36	0° \approx		evening max el	170 Jul 04 j 06:00	25° \approx 44'53	45°42'39
	168 Jan 15 j 23:20	0° \approx		desc. node	170 Jul 06 j 03:24	27° \approx 32'42	
desc. node	168 Jan 19 j 08:21	4° \approx 11'17			170 Jul 08 j 18:35	0° \approx	
	168 Feb 09 j 03:55	0° \approx		greatest brilliancy	170 Aug 11 j 10:38	23° \approx 38'08	-4.5m
	168 Mar 04 j 09:38	0° \approx		retrograde	170 Aug 22 j 04:08	25° \approx 41'51	
morning set	168 Mar 18 j 02:21	16° \approx 54'48		evening set	170 Sep 08 j 23:11	19° \approx 49'59	
	168 Mar 28 j 17:00	0° \approx		inferior conj	170 Sep 12 j 03:35	17° \approx 54'31	-8°-29'-18
	168 Apr 22 j 02:02	0° \approx		minimum elong	170 Sep 12 j 09:25	17° \approx 45'34	8°28'49
				min. Earth dist.	170 Sep 12 j 23:01	17° \approx 24'44	0.27598 AU
superior conj	168 Apr 24 j 14:38	3° \approx 06'12	0°-38'-32	morning rise	170 Sep 15 j 19:24	15° \approx 41'38	
minimum elong	168 Apr 24 j 22:00	3° \approx 28'52	0°38'14	direct	170 Oct 03 j 03:52	9° \approx 57'58	
max. Earth dist.	168 Apr 25 j 13:33	4° \approx 16'41	1.73510 AU	greatest brilliancy	170 Oct 17 j 02:59	13° \approx 30'57	-4.6m
asc. node	168 May 11 j 11:38	23° \approx 49'56		asc. node	170 Oct 27 j 06:30	19° \approx 37'37	
	168 May 16 j 12:13	0° \approx			170 Nov 09 j 01:23	0° \approx	
evening rise	168 May 31 j 02:48	17° \approx 55'52		morning max el	170 Nov 22 j 21:23	13° \approx 21'08	46°54'23
	168 Jun 09 j 22:53	0° \approx			170 Dec 08 j 11:56	0° \approx	
	168 Jul 04 j 09:59	0° \approx			171 Jan 03 j 17:24	0° \approx	
	168 Jul 28 j 22:21	0° \approx			171 Jan 28 j 23:12	0° \approx	
	168 Aug 22 j 13:37	0° \approx		desc. node	171 Feb 15 j 20:19	21° \approx 32'28	
desc. node	168 Aug 31 j 01:12	10° \approx 16'44			171 Feb 22 j 20:03	0° \approx	
	168 Sep 16 j 09:57	0° \approx			171 Mar 19 j 13:19	0° \approx	
	168 Oct 11 j 15:00	0° \approx			171 Apr 13 j 05:01	0° \approx	
	168 Nov 06 j 14:29	0° \approx			171 May 07 j 19:34	0° \approx	

morning set	171 May 26 j 16:49	23°♄04'49		evening set	173 Nov 19 j 06:39	6°♂43'56	
	171 Jun 01 j 08:27	0°♂		asc. node	173 Nov 23 j 18:15	4°♂09'45	
asc. node	171 Jun 08 j 23:23	9°♂20'35		inferior conj	173 Nov 25 j 11:26	3°♂07'21	0°26'47
	171 Jun 25 j 18:44	0°♂		minimum elong	173 Nov 25 j 10:25	3°♂08'54	0°26'26
max. Earth dist.	171 Jun 28 j 21:06	3°♂48'59	1.73348 AU	min. Earth dist.	173 Nov 25 j 05:54	3°♂15'46	0.26358 AU
					173 Nov 30 j 18:44	30°♂	
superior conj	171 Jul 01 j 23:14	7°♂37'25	0°50'52	morning rise	173 Dec 01 j 14:14	29°♂33'38	
minimum elong	171 Jul 01 j 14:57	7°♂11'53	0°50'32	direct	173 Dec 15 j 18:13	25°♂31'36	
	171 Jul 20 j 02:00	0°♂		greatest brilliancy	173 Dec 27 j 12:45	28°♂07'32	-4.7m
evening rise	171 Aug 06 j 20:58	22°♂02'36			173 Dec 31 j 11:55	0°♂	
	171 Aug 13 j 06:52	0°♂		morning max el	174 Feb 04 j 00:17	28°♂06'48	46°40'40
	171 Sep 06 j 10:44	0°♂			174 Feb 05 j 21:26	0°♂	
desc. node	171 Sep 28 j 13:11	27°♂25'31			174 Mar 05 j 21:36	0°♂	
	171 Sep 30 j 15:03	0°♂		desc. node	174 Mar 15 j 08:15	10°♂38'24	
	171 Oct 24 j 21:04	0°♂			174 Apr 01 j 04:41	0°♂	
	171 Nov 18 j 06:33	0°♂			174 Apr 26 j 18:59	0°♂	
	171 Dec 12 j 23:42	0°♂			174 May 22 j 00:04	0°♂	
	172 Jan 07 j 10:31	0°♂			174 Jun 15 j 22:07	0°♂	
asc. node	172 Jan 19 j 16:05	13°♂50'36		asc. node	174 Jul 06 j 11:19	25°♂00'05	
	172 Feb 03 j 16:30	0°♂			174 Jul 10 j 13:21	0°♂	
evening max el	172 Feb 09 j 17:21	6°♂08'08	46°15'26	morning set	174 Aug 02 j 09:30	28°♂07'29	
	172 Mar 08 j 19:39	0°♂			174 Aug 03 j 21:52	0°♂	
greatest brilliancy	172 Mar 15 j 17:22	3°♂56'04	-4.5m		174 Aug 28 j 00:49	0°♂	
retrograde	172 Mar 30 j 08:59	7°♂45'46		max. Earth dist.	174 Sep 05 j 07:12	10°♂19'33	1.71896 AU
evening set	172 Apr 15 j 09:48	2°♂47'23					
	172 Apr 19 j 23:48	30°♂		superior conj	174 Sep 08 j 11:36	14°♂18'32	1°22'22
inferior conj	172 Apr 20 j 19:22	29°♂29'05	4°20'35	minimum elong	174 Sep 08 j 16:04	14°♂32'30	1°22'20
minimum elong	172 Apr 21 j 03:36	29°♂16'04	4°18'31		174 Sep 21 j 00:16	0°♂	
min. Earth dist.	172 Apr 21 j 00:12	29°♂21'27	0.28932 AU		174 Oct 14 j 22:20	0°♂	
morning rise	172 Apr 26 j 21:29	25°♂46'58		evening rise	174 Oct 17 j 16:41	3°♂28'06	
desc. node	172 May 10 j 05:35	21°♂16'08		desc. node	174 Oct 26 j 01:03	13°♂56'25	
direct	172 May 12 j 07:56	21°♂10'59			174 Nov 07 j 20:32	0°♂	
greatest brilliancy	172 May 25 j 08:49	24°♂09'15	-4.5m		174 Dec 01 j 19:53	0°♂	
	172 Jun 04 j 22:03	0°♂			174 Dec 25 j 21:57	0°♂	
morning max el	172 Jun 30 j 01:54	20°♂52'00	45°46'16		175 Jan 19 j 05:49	0°♂	
	172 Jul 09 j 08:32	0°♂			175 Feb 13 j 00:44	0°♂	
	172 Aug 06 j 07:09	0°♂		asc. node	175 Feb 16 j 04:02	3°♂44'22	
asc. node	172 Aug 31 j 09:00	28°♂57'46			175 Mar 10 j 15:39	0°♂	
	172 Sep 01 j 06:02	0°♂			175 Apr 06 j 21:40	0°♂	
	172 Sep 26 j 03:45	0°♂		evening max el	175 Apr 21 j 11:48	14°♂41'47	45°21'11
	172 Oct 20 j 11:00	0°♂			175 May 08 j 21:14	0°♂	
	172 Nov 13 j 10:56	0°♂		greatest brilliancy	175 May 26 j 02:01	10°♂55'41	-4.5m
	172 Dec 07 j 08:20	0°♂		desc. node	175 Jun 07 j 17:37	14°♂14'37	
desc. node	172 Dec 20 j 22:32	17°♂04'00		retrograde	175 Jun 08 j 23:34	14°♂16'24	
morning set	172 Dec 30 j 14:52	29°♂12'50		evening set	175 Jun 24 j 09:45	9°♂43'14	
	172 Dec 31 j 05:55	0°♂		inferior conj	175 Jun 30 j 09:27	6°♂08'36	-4°-59'-39
	173 Jan 24 j 04:56	0°♂		minimum elong	175 Jun 30 j 00:09	6°♂23'02	4°57'26
				min. Earth dist.	175 Jun 30 j 11:29	6°♂05'27	0.28855 AU
superior conj	173 Feb 09 j 21:51	20°♂51'06	-1°-24'-28	morning rise	175 Jul 05 j 14:23	2°♂59'57	
minimum elong	173 Feb 09 j 18:23	20°♂40'15	1°24'27		175 Jul 11 j 16:13	30°♂	
max. Earth dist.	173 Feb 13 j 22:34	25°♂52'11	1.72106 AU	direct	175 Jul 22 j 01:33	27°♂52'36	
	173 Feb 17 j 06:14	0°♂			175 Aug 01 j 21:34	0°♂	
	173 Mar 13 j 10:40	0°♂		greatest brilliancy	175 Aug 05 j 09:50	1°♂29'04	-4.5m
evening rise	173 Mar 21 j 05:37	9°♂37'09		morning max el	175 Sep 09 j 16:25	28°♂59'18	46°17'45
	173 Apr 06 j 19:02	0°♂			175 Sep 10 j 16:58	0°♂	
asc. node	173 Apr 13 j 01:50	7°♂42'25		asc. node	175 Sep 28 j 20:49	19°♂03'24	
	173 May 01 j 07:48	0°♂			175 Oct 08 j 15:56	0°♂	
	173 May 26 j 01:31	0°♂			175 Nov 03 j 07:06	0°♂	
	173 Jun 20 j 01:40	0°♂			175 Nov 27 j 23:37	0°♂	
	173 Jul 15 j 11:42	0°♂			175 Dec 22 j 06:52	0°♂	
desc. node	173 Aug 02 j 15:16	20°♂57'12		desc. node	176 Jan 15 j 11:11	0°♂	
	173 Aug 10 j 14:57	0°♂			176 Jan 18 j 10:34	3°♂41'31	
	173 Sep 07 j 06:15	0°♂			176 Feb 08 j 15:27	0°♂	
evening max el	173 Sep 15 j 14:29	8°♂26'35	46°56'41		176 Mar 03 j 20:55	0°♂	
	173 Oct 10 j 03:08	0°♂		morning set	176 Mar 15 j 17:18	14°♂38'21	
greatest brilliancy	173 Oct 24 j 16:36	8°♂26'23	-4.7m		176 Mar 28 j 04:07	0°♂	
retrograde	173 Nov 04 j 22:43	10°♂49'00			176 Apr 21 j 13:02	0°♂	

superior conj	176 Apr 22 j 07:44	0°♄57'29	0°-41'-25	morning rise	178 Sep 13 j 06:14	13°♎25'28	
minimum elong	176 Apr 22 j 15:32	1°♄21'28	0°41'06	direct	178 Sep 30 j 17:45	7°♎36'13	
max. Earth dist.	176 Apr 23 j 12:19	2°♄25'20	1.73482 AU	greatest brilliancy	178 Oct 14 j 19:32	11°♎11'35	-4.6m
asc. node	176 May 10 j 13:37	23°♄22'25		asc. node	178 Oct 26 j 08:27	18°♎19'17	
	176 May 15 j 23:11	0°♄			178 Nov 09 j 06:27	0°♄	
evening rise	176 May 28 j 21:44	15°♄52'52		morning max el	178 Nov 20 j 10:47	10°♄55'12	46°53'56
	176 Jun 09 j 09:57	0°♄			178 Dec 08 j 06:00	0°♄	
	176 Jul 03 j 21:16	0°♄			179 Jan 03 j 08:14	0°♄	
	176 Jul 28 j 10:01	0°♄			179 Jan 28 j 12:33	0°♄	
	176 Aug 22 j 01:53	0°♄		desc. node	179 Feb 14 j 22:23	21°♄00'22	
desc. node	176 Aug 30 j 03:19	9°♄45'21			179 Feb 22 j 08:32	0°♄	
	176 Sep 15 j 23:05	0°♄			179 Mar 19 j 01:12	0°♄	
	176 Oct 11 j 05:35	0°♄			179 Apr 12 j 16:27	0°♄	
	176 Nov 06 j 07:51	0°♄			179 May 07 j 06:42	0°♄	
evening max el	176 Nov 27 j 02:37	22°♄21'45	47°20'24	morning set	179 May 24 j 10:59	20°♄59'54	
	176 Dec 04 j 18:58	0°♄			179 May 31 j 19:24	0°♄	
asc. node	176 Dec 21 j 06:19	14°♄23'42		asc. node	179 Jun 08 j 01:32	8°♄53'44	
greatest brilliancy	177 Jan 03 j 14:47	22°♄48'29	-4.7m		179 Jun 25 j 05:37	0°♄	
retrograde	177 Jan 17 j 02:23	26°♄10'51		max. Earth dist.	179 Jun 26 j 18:26	1°♄53'21	1.73383 AU
evening set	177 Feb 03 j 14:04	20°♄10'09					
min. Earth dist.	177 Feb 06 j 05:01	18°♄32'08	0.27828 AU	superior conj	179 Jun 29 j 17:41	5°♄32'48	0°48'19
inferior conj	177 Feb 07 j 01:03	18°♄00'30	8°32'25	minimum elong	179 Jun 29 j 09:35	5°♄07'53	0°48'00
minimum elong	177 Feb 06 j 21:14	18°♄06'32	8°32'11		179 Jul 19 j 12:57	0°♄	
morning rise	177 Feb 10 j 04:43	16°♄02'49		evening rise	179 Aug 04 j 14:33	19°♄54'07	
direct	177 Feb 27 j 21:24	10°♄02'55			179 Aug 12 j 17:58	0°♄	
greatest brilliancy	177 Mar 10 j 13:19	12°♄08'55	-4.6m		179 Sep 05 j 22:03	0°♄	
	177 Apr 06 j 11:05	0°♄		desc. node	179 Sep 27 j 15:10	26°♄55'42	
desc. node	177 Apr 11 j 19:54	4°♄47'28			179 Sep 30 j 02:41	0°♄	
morning max el	177 Apr 18 j 00:37	10°♄37'21	45°58'39		179 Oct 24 j 09:06	0°♄	
	177 May 07 j 02:36	0°♄			179 Nov 17 j 19:08	0°♄	
	177 Jun 03 j 10:03	0°♄			179 Dec 12 j 13:10	0°♄	
	177 Jun 29 j 10:57	0°♄			180 Jan 07 j 01:47	0°♄	
	177 Jul 24 j 17:26	0°♄		asc. node	180 Jan 18 j 18:09	13°♄09'48	
asc. node	177 Aug 02 j 23:11	11°♄09'00			180 Feb 03 j 12:34	0°♄	
	177 Aug 18 j 10:07	0°♄		evening max el	180 Feb 07 j 07:52	3°♄50'37	46°17'59
	177 Sep 11 j 16:28	0°♄			180 Mar 10 j 02:14	0°♄	
greatest brilliancy	177 Sep 19 j 06:37	9°♄27'53	-3.9m	greatest brilliancy	180 Mar 13 j 09:08	1°♄44'28	-4.5m
	177 Oct 05 j 16:06	0°♄		retrograde	180 Mar 28 j 01:48	5°♄35'56	
morning set	177 Oct 12 j 14:00	8°♄41'08		evening set	180 Apr 13 j 04:39	0°♄33'32	
	177 Oct 29 j 12:28	0°♄			180 Apr 14 j 03:36	30°♄	
				inferior conj	180 Apr 18 j 11:48	27°♄18'51	4°37'30
superior conj	177 Nov 22 j 02:53	29°♄43'36	0°01'00	minimum elong	180 Apr 18 j 20:24	27°♄05'18	4°35'23
minimum elong	177 Nov 22 j 03:08	29°♄44'22	0°01'00	min. Earth dist.	180 Apr 18 j 16:27	27°♄11'31	0.28924 AU
behind sun begin	177 Nov 21 j 00:39	28°♄21'01		morning rise	180 Apr 24 j 12:14	23°♄39'21	
behind sun end	177 Nov 23 j 05:36	1°♄07'42		desc. node	180 May 09 j 07:41	19°♄01'17	
	177 Nov 22 j 08:06	0°♄		direct	180 May 09 j 23:47	19°♄00'46	
desc. node	177 Nov 22 j 12:51	0°♄14'59		greatest brilliancy	180 May 23 j 00:37	21°♄59'13	-4.5m
max. Earth dist.	177 Nov 23 j 09:09	1°♄18'50	1.71017 AU		180 Jun 05 j 17:31	0°♄	
	177 Dec 16 j 04:29	0°♄		morning max el	180 Jun 27 j 18:23	18°♄43'07	45°45'57
evening rise	178 Jan 02 j 22:26	22°♄15'50			180 Jul 09 j 03:45	0°♄	
	178 Jan 09 j 02:43	0°♄			180 Aug 05 j 21:54	0°♄	
	178 Feb 02 j 04:09	0°♄		asc. node	180 Aug 30 j 11:02	28°♄25'12	
	178 Feb 26 j 10:48	0°♄			180 Aug 31 j 19:01	0°♄	
asc. node	178 Mar 15 j 15:57	21°♄02'36			180 Sep 25 j 15:53	0°♄	
	178 Mar 23 j 01:16	0°♄			180 Oct 19 j 22:41	0°♄	
	178 Apr 17 j 02:49	0°♄			180 Nov 12 j 22:22	0°♄	
	178 May 12 j 20:58	0°♄			180 Dec 06 j 19:38	0°♄	
	178 Jun 08 j 20:31	0°♄		desc. node	180 Dec 20 j 00:45	16°♄35'49	
evening max el	178 Jul 01 j 18:46	23°♄24'24	45°40'41	morning set	180 Dec 28 j 00:49	26°♄38'28	
desc. node	178 Jul 05 j 05:34	26°♄39'46			180 Dec 30 j 17:04	0°♄	
	178 Jul 08 j 21:02	0°♄			181 Jan 23 j 15:57	0°♄	
greatest brilliancy	178 Aug 08 j 22:49	21°♄17'13	-4.5m				
retrograde	178 Aug 19 j 17:01	23°♄22'03		superior conj	181 Feb 07 j 10:15	18°♄25'56	-1°23'-49
evening set	178 Sep 06 j 14:23	17°♄27'17		minimum elong	181 Feb 07 j 05:48	18°♄12'06	1°23'48
inferior conj	178 Sep 09 j 17:23	15°♄33'59	-8°-34'-40	max. Earth dist.	181 Feb 11 j 09:49	23°♄23'42	1.72054 AU
minimum elong	178 Sep 09 j 22:26	15°♄26'15	8°34'19		181 Feb 16 j 17:10	0°♄	
min. Earth dist.	178 Sep 10 j 12:49	15°♄04'14	0.27660 AU		181 Mar 12 j 21:36	0°♄	

evening rise	181 Mar 18 j 20:29	7° Υ 21'13	direct	183 Jul 19 j 17:59	25° Π 42'54	
	181 Apr 06 j 06:03	0° \mathcal{B}	greatest brilliancy	183 Aug 03 j 00:18	29° Π 16'40	-4.5m
asc. node	181 Apr 12 j 03:50	7° \mathcal{B} 14'42		183 Aug 04 j 11:55	0° \mathcal{E}	
	181 Apr 30 j 19:01	0° Π	morning max el	183 Sep 07 j 06:55	26° \mathcal{E} 42'52	46°16'12
	181 May 25 j 13:07	0° \mathcal{E}		183 Sep 10 j 14:06	0° Ω	
	181 Jun 19 j 13:57	0° Ω	asc. node	183 Sep 27 j 22:50	18° Ω 22'33	
	181 Jul 15 j 01:11	0° \mathcal{M}		183 Oct 08 j 07:24	0° \mathcal{M}	
desc. node	181 Aug 01 j 17:21	20° \mathcal{M} 20'44		183 Nov 02 j 20:32	0° \mathcal{A}	
	181 Aug 10 j 06:43	0° \mathcal{A}		183 Nov 27 j 12:05	0° \mathcal{M}	
	181 Sep 07 j 03:23	0° \mathcal{M}		183 Dec 21 j 18:45	0° \mathcal{J}	
evening max el	181 Sep 13 j 04:32	6° \mathcal{M} 04'24 46°54'25		184 Jan 14 j 22:40	0° \mathcal{C}	
	181 Oct 11 j 04:50	0° \mathcal{J}	desc. node	184 Jan 17 j 12:32	3° \mathcal{C} 12'05	
greatest brilliancy	181 Oct 22 j 05:30	5° \mathcal{J} 57'12 -4.7m		184 Feb 08 j 02:38	0° \approx	
retrograde	181 Nov 02 j 11:29	8° \mathcal{J} 18'57		184 Mar 03 j 07:52	0° \mathcal{K}	
evening set	181 Nov 16 j 19:26	4° \mathcal{J} 13'16	morning set	184 Mar 13 j 08:17	12° \mathcal{K} 22'58	
inferior conj	181 Nov 22 j 23:26	0° \mathcal{J} 37'39 0°01'55		184 Mar 27 j 14:52	0° Υ	
minimum elong	181 Nov 22 j 23:21	0° \mathcal{J} 37'46 0°01'54				
transit middle	181 Nov 22 j 23:21	0° \mathcal{J} 37'46 0°01'54	superior conj	184 Apr 20 j 01:00	28° Υ 50'18 0°-44'-14	
transit begin	181 Nov 22 j 19:18	0° \mathcal{J} 43'55	minimum elong	184 Apr 20 j 09:11	29° Υ 15'28 0°43'53	
transit end	181 Nov 23 j 03:24	0° \mathcal{J} 31'37		184 Apr 20 j 23:40	0° \mathcal{B}	
asc. node	181 Nov 22 j 20:28	0° \mathcal{J} 42'09	max. Earth dist.	184 Apr 21 j 10:23	0° \mathcal{B} 32'57 1.73452 AU	
min. Earth dist.	181 Nov 22 j 19:04	0° \mathcal{J} 44'18 0.26351 AU	asc. node	184 May 09 j 15:49	22° \mathcal{B} 56'34	
	181 Nov 24 j 00:16	30° \mathcal{R} \mathcal{M}		184 May 15 j 09:48	0° Π	
morning rise	181 Nov 29 j 03:24	27° \mathcal{M} 02'53	evening rise	184 May 26 j 16:44	13° Π 51'06	
direct	181 Dec 13 j 06:56	23° \mathcal{M} 02'07		184 Jun 08 j 20:42	0° \mathcal{E}	
greatest brilliancy	181 Dec 25 j 02:13	25° \mathcal{M} 39'33 -4.7m		184 Jul 03 j 08:17	0° Ω	
	182 Jan 02 j 07:19	0° \mathcal{J}		184 Jul 27 j 21:28	0° \mathcal{M}	
morning max el	182 Feb 01 j 14:27	25° \mathcal{J} 44'41 46°42'01		184 Aug 21 j 13:57	0° \mathcal{A}	
	182 Feb 05 j 19:25	0° \mathcal{C}	desc. node	184 Aug 29 j 05:16	9° \mathcal{A} 14'03	
	182 Mar 05 j 13:34	0° \approx		184 Sep 15 j 12:03	0° \mathcal{M}	
desc. node	182 Mar 14 j 10:15	10° \approx 01'33		184 Oct 10 j 20:00	0° \mathcal{J}	
	182 Mar 31 j 18:16	0° \mathcal{K}		184 Nov 06 j 01:11	0° \mathcal{C}	
	182 Apr 26 j 07:20	0° Υ	evening max el	184 Nov 24 j 16:48	19° \mathcal{C} 58'36 47°21'14	
	182 May 21 j 11:42	0° \mathcal{B}		184 Dec 04 j 21:11	0° \approx	
	182 Jun 15 j 09:20	0° Π	asc. node	184 Dec 20 j 08:23	13° \approx 08'27	
asc. node	182 Jul 05 j 13:25	24° Π 32'56	greatest brilliancy	185 Jan 01 j 08:37	20° \approx 31'08 -4.7m	
	182 Jul 10 j 00:18	0° \mathcal{E}	retrograde	185 Jan 14 j 16:54	23° \approx 50'03	
morning set	182 Jul 31 j 02:29	25° \mathcal{E} 58'05	evening set	185 Feb 01 j 02:16	17° \approx 54'04	
	182 Aug 03 j 08:41	0° Ω	min. Earth dist.	185 Feb 03 j 19:09	16° \approx 13'08 0.27762 AU	
	182 Aug 27 j 11:38	0° \mathcal{M}	inferior conj	185 Feb 04 j 15:37	15° \approx 40'48 8°28'18	
max. Earth dist.	182 Sep 02 j 19:14	7° \mathcal{M} 53'18 1.71947 AU	minimum elong	185 Feb 04 j 11:02	15° \approx 48'03 8°27'59	
			morning rise	185 Feb 07 j 20:07	13° \approx 41'45	
superior conj	182 Sep 06 j 02:51	12° \mathcal{M} 02'10 1°23'06	direct	185 Feb 25 j 10:57	7° \approx 44'21	
minimum elong	182 Sep 06 j 06:33	12° \mathcal{M} 13'44 1°23'04	greatest brilliancy	185 Mar 08 j 02:30	9° \approx 49'38 -4.6m	
	182 Sep 20 j 11:10	0° \mathcal{A}		185 Apr 06 j 15:27	0° \mathcal{K}	
	182 Oct 14 j 09:23	0° \mathcal{M}	desc. node	185 Apr 10 j 21:57	3° \mathcal{K} 53'40	
evening rise	182 Oct 15 j 04:11	0° \mathcal{M} 58'57	morning max el	185 Apr 15 j 13:51	8° \mathcal{K} 18'46 45°59'55	
desc. node	182 Oct 25 j 03:07	13° \mathcal{M} 28'05		185 May 06 j 19:45	0° Υ	
	182 Nov 07 j 07:44	0° \mathcal{J}		185 Jun 02 j 23:53	0° \mathcal{B}	
	182 Dec 01 j 07:15	0° \mathcal{C}		185 Jun 28 j 23:16	0° Π	
	182 Dec 25 j 09:33	0° \approx		185 Jul 24 j 04:59	0° \mathcal{E}	
	183 Jan 18 j 17:46	0° \mathcal{K}	asc. node	185 Aug 02 j 01:11	10° \mathcal{E} 40'35	
	183 Feb 12 j 13:24	0° Υ		185 Aug 17 j 21:18	0° Ω	
asc. node	183 Feb 15 j 06:03	3° Υ 12'22		185 Sep 11 j 03:29	0° \mathcal{M}	
	183 Mar 10 j 05:49	0° \mathcal{B}	greatest brilliancy	185 Sep 22 j 01:43	13° \mathcal{M} 38'16 -3.9m	
	183 Apr 06 j 15:39	0° Π		185 Oct 05 j 03:03	0° \mathcal{A}	
evening max el	183 Apr 19 j 04:05	12° Π 32'40 45°21'49	morning set	185 Oct 10 j 02:54	6° \mathcal{A} 16'26	
	183 May 09 j 09:03	0° \mathcal{E}		185 Oct 28 j 23:24	0° \mathcal{M}	
greatest brilliancy	183 May 23 j 17:15	8° \mathcal{E} 45'54 -4.5m				
retrograde	183 Jun 06 j 15:11	12° \mathcal{E} 07'02	superior conj	185 Nov 19 j 12:35	27° \mathcal{M} 08'37 0°05'02	
desc. node	183 Jun 06 j 19:47	12° \mathcal{E} 06'59	minimum elong	185 Nov 19 j 13:55	27° \mathcal{M} 12'50 0°04'57	
evening set	183 Jun 21 j 23:55	7° \mathcal{E} 36'36	behind sun begin	185 Nov 18 j 12:25	25° \mathcal{M} 52'34	
inferior conj	183 Jun 28 j 01:29	3° \mathcal{E} 59'00 -4°-42'-58	behind sun end	185 Nov 20 j 15:24	28° \mathcal{M} 33'05	
minimum elong	183 Jun 27 j 16:31	4° \mathcal{E} 12'58 4°40'46	max. Earth dist.	185 Nov 20 j 11:15	28° \mathcal{M} 19'59 1.71015 AU	
min. Earth dist.	183 Jun 28 j 03:26	3° \mathcal{E} 55'58 0.28872 AU	desc. node	185 Nov 21 j 15:02	29° \mathcal{M} 47'26	
morning rise	183 Jul 03 j 08:56	0° \mathcal{E} 46'23		185 Nov 21 j 19:02	0° \mathcal{J}	
	183 Jul 04 j 18:26	30° \mathcal{R} Π		185 Dec 15 j 15:26	0° \mathcal{C}	

evening rise	185 Dec 31 j 08:21	19° $\overline{3}$ 42'11			188 Jul 08 j 22:09	0° Π	
	186 Jan 08 j 13:42	0° \approx			188 Aug 05 j 12:12	0° $\overline{5}$	
	186 Feb 01 j 15:13	0° \mathcal{H}		asc. node	188 Aug 29 j 13:06	27° $\overline{5}$ 53'41	
	186 Feb 25 j 22:02	0° \mathcal{V}			188 Aug 31 j 07:40	0° Ω	
asc. node	186 Mar 14 j 18:01	20° \mathcal{V} 34'05			188 Sep 25 j 03:44	0° \mathcal{M}	
	186 Mar 22 j 12:50	0° \mathcal{B}			188 Oct 19 j 10:09	0° \underline{A}	
	186 Apr 16 j 15:06	0° Π			188 Nov 12 j 09:39	0° \mathcal{M}	
	186 May 12 j 10:39	0° $\overline{5}$			188 Dec 06 j 06:48	0° \mathcal{Z}	
	186 Jun 08 j 13:23	0° Ω		desc. node	188 Dec 19 j 02:46	16° \mathcal{Z} 07'16	
evening max el	186 Jun 29 j 07:49	21° Ω 05'57	45°38'45	morning set	188 Dec 25 j 10:22	24° \mathcal{Z} 03'04	
desc. node	186 Jul 04 j 07:35	25° Ω 46'37			188 Dec 30 j 04:09	0° $\overline{5}$	
	186 Jul 09 j 00:33	0° \mathcal{M}			189 Jan 23 j 02:56	0° \approx	
greatest brilliancy	186 Aug 06 j 09:34	18° \mathcal{M} 55'59	-4.5m				
retrograde	186 Aug 17 j 06:19	21° \mathcal{M} 03'22		superior conj	189 Feb 04 j 21:58	15° \approx 58'44	-1°-22'-59
evening set	186 Sep 04 j 05:08	15° \mathcal{M} 05'55		minimum elong	189 Feb 04 j 16:36	15° \approx 41'59	1°22'57
inferior conj	186 Sep 07 j 07:08	13° \mathcal{M} 14'14	-8°-39'00	max. Earth dist.	189 Feb 08 j 21:47	20° \approx 57'26	1.71999 AU
minimum elong	186 Sep 07 j 11:23	13° \mathcal{M} 07'44	8°38'45		189 Feb 16 j 04:04	0° \mathcal{H}	
min. Earth dist.	186 Sep 08 j 02:17	12° \mathcal{M} 44'57	0.27729 AU		189 Mar 12 j 08:28	0° \mathcal{V}	
morning rise	186 Sep 10 j 17:22	11° \mathcal{M} 09'41		evening rise	189 Mar 16 j 10:55	5° \mathcal{V} 04'09	
direct	186 Sep 28 j 08:00	5° \mathcal{M} 15'10			189 Apr 05 j 16:58	0° \mathcal{B}	
greatest brilliancy	186 Oct 12 j 12:32	8° \mathcal{M} 53'39	-4.6m	asc. node	189 Apr 11 j 06:02	6° \mathcal{B} 47'55	
asc. node	186 Oct 25 j 10:41	17° \mathcal{M} 04'19			189 Apr 30 j 06:08	0° Π	
	186 Nov 09 j 09:34	0° \underline{A}			189 May 25 j 00:38	0° $\overline{5}$	
morning max el	186 Nov 18 j 01:15	8° \underline{A} 32'32	46°53'25		189 Jun 19 j 02:10	0° Ω	
	186 Dec 07 j 23:30	0° \mathcal{M}			189 Jul 14 j 14:39	0° \mathcal{M}	
	187 Jan 02 j 22:43	0° \mathcal{Z}		desc. node	189 Jul 31 j 19:23	19° \mathcal{M} 44'15	
	187 Jan 28 j 01:33	0° $\overline{5}$			189 Aug 09 j 22:34	0° \underline{A}	
desc. node	187 Feb 14 j 00:26	20° $\overline{5}$ 29'13			189 Sep 07 j 01:03	0° \mathcal{M}	
	187 Feb 21 j 20:38	0° \approx		evening max el	189 Sep 10 j 19:01	3° \mathcal{M} 44'02	46°52'03
	187 Mar 18 j 12:43	0° \mathcal{H}			189 Oct 12 j 16:17	0° \mathcal{Z}	
	187 Apr 12 j 03:33	0° \mathcal{V}		greatest brilliancy	189 Oct 19 j 18:58	3° \mathcal{Z} 29'37	-4.7m
	187 May 06 j 17:31	0° \mathcal{B}		retrograde	189 Oct 31 j 00:05	5° \mathcal{Z} 49'31	
morning set	187 May 22 j 05:22	18° \mathcal{B} 56'29		evening set	189 Nov 14 j 08:34	1° \mathcal{Z} 43'12	
	187 May 31 j 06:03	0° Π			189 Nov 17 j 09:39	30° $\mathcal{R}\mathcal{M}$	
asc. node	187 Jun 07 j 03:39	8° Π 27'39		inferior conj	189 Nov 20 j 11:33	28° \mathcal{M} 08'43	0°-22'-45
max. Earth dist.	187 Jun 24 j 17:20	0° $\overline{5}$ 03'26	1.73414 AU	minimum elong	189 Nov 20 j 12:25	28° \mathcal{M} 07'24	0°22'29
	187 Jun 24 j 16:13	0° $\overline{5}$		min. Earth dist.	189 Nov 20 j 08:27	28° \mathcal{M} 13'25	0.26351 AU
				asc. node	189 Nov 21 j 22:31	27° \mathcal{M} 15'43	
superior conj	187 Jun 27 j 12:22	3° $\overline{5}$ 29'52	0°45'44	morning rise	189 Nov 26 j 16:25	24° \mathcal{M} 32'51	
minimum elong	187 Jun 27 j 04:32	3° $\overline{5}$ 05'43	0°45'25	direct	189 Dec 10 j 19:47	20° \mathcal{M} 33'22	
	187 Jul 18 j 23:36	0° Ω		greatest brilliancy	189 Dec 22 j 15:31	23° \mathcal{M} 11'29	-4.7m
evening rise	187 Aug 02 j 08:29	17° Ω 47'44			190 Jan 03 j 13:04	0° \mathcal{Z}	
	187 Aug 12 j 04:46	0° \mathcal{M}		morning max el	190 Jan 30 j 04:06	23° \mathcal{Z} 20'56	46°43'07
	187 Sep 05 j 09:07	0° \underline{A}			190 Feb 05 j 16:41	0° $\overline{5}$	
desc. node	187 Sep 26 j 17:19	26° \underline{A} 27'06			190 Mar 05 j 05:23	0° \approx	
	187 Sep 29 j 14:06	0° \mathcal{M}		desc. node	190 Mar 13 j 12:22	9° \approx 24'58	
	187 Oct 23 j 20:59	0° \mathcal{Z}			190 Mar 31 j 07:49	0° \mathcal{H}	
	187 Nov 17 j 07:37	0° $\overline{5}$			190 Apr 25 j 19:41	0° \mathcal{V}	
	187 Dec 12 j 02:36	0° \approx			190 May 20 j 23:19	0° \mathcal{B}	
	188 Jan 06 j 17:06	0° \mathcal{H}			190 Jun 14 j 20:30	0° Π	
asc. node	188 Jan 17 j 20:10	12° \mathcal{H} 28'53		asc. node	190 Jul 04 j 15:23	24° Π 05'30	
	188 Feb 03 j 09:04	0° \mathcal{V}			190 Jul 09 j 11:13	0° $\overline{5}$	
evening max el	188 Feb 04 j 23:12	1° \mathcal{V} 35'42	46°20'48	morning set	190 Jul 28 j 19:40	23° $\overline{5}$ 49'21	
greatest brilliancy	188 Mar 11 j 01:14	29° \mathcal{V} 34'07	-4.5m		190 Aug 02 j 19:31	0° Ω	
	188 Mar 11 j 22:53	0° \mathcal{B}			190 Aug 26 j 22:28	0° \mathcal{M}	
retrograde	188 Mar 25 j 19:07	3° \mathcal{B} 26'49		max. Earth dist.	190 Aug 31 j 06:00	5° \mathcal{M} 23'07	1.71998 AU
	188 Apr 07 j 22:13	30° $\mathcal{R}\mathcal{V}$					
evening set	188 Apr 10 j 23:38	28° \mathcal{V} 20'24		superior conj	190 Sep 03 j 18:36	9° \mathcal{M} 47'22	1°23'41
inferior conj	188 Apr 16 j 04:17	25° \mathcal{V} 09'17	4°53'58	minimum elong	190 Sep 03 j 21:31	9° \mathcal{M} 56'31	1°23'39
minimum elong	188 Apr 16 j 13:10	24° \mathcal{V} 55'15	4°51'50		190 Sep 19 j 22:06	0° \underline{A}	
min. Earth dist.	188 Apr 16 j 08:22	25° \mathcal{V} 02'50	0.28912 AU	evening rise	190 Oct 12 j 16:13	28° \underline{A} 31'30	
morning rise	188 Apr 22 j 02:51	21° \mathcal{V} 32'40			190 Oct 13 j 20:26	0° \mathcal{M}	
direct	188 May 07 j 16:04	16° \mathcal{V} 51'21		desc. node	190 Oct 24 j 05:17	13° \mathcal{M} 00'04	
desc. node	188 May 08 j 09:53	16° \mathcal{V} 52'00			190 Nov 06 j 18:56	0° \mathcal{Z}	
greatest brilliancy	188 May 20 j 15:29	19° \mathcal{V} 48'57	-4.5m		190 Nov 30 j 18:38	0° $\overline{5}$	
	188 Jun 06 j 07:37	0° \mathcal{B}			190 Dec 24 j 21:13	0° \approx	
morning max el	188 Jun 25 j 11:32	16° \mathcal{B} 36'42	45°45'40		191 Jan 18 j 05:53	0° \mathcal{H}	

	191 Feb 12 j 02:18	0°♄			193 Aug 17 j 08:43	0°♌	
asc. node	191 Feb 14 j 08:08	2°♄39'56			193 Sep 10 j 14:43	0°♍	
	191 Mar 09 j 20:19	0°♄		greatest brilliancy	193 Sep 23 j 20:00	16°♍30'40	-3.9m
	191 Apr 06 j 10:18	0°♄			193 Oct 04 j 14:14	0°♎	
evening max el	191 Apr 16 j 19:41	10°♄21'18	45°22'39	morning set	193 Oct 07 j 15:55	3°♎51'25	
	191 May 10 j 01:10	0°♄			193 Oct 28 j 10:35	0°♏	
greatest brilliancy	191 May 21 j 08:29	6°♄35'49	-4.5m				
retrograde	191 Jun 04 j 06:39	9°♄57'50		superior conj	193 Nov 16 j 22:23	24°♏33'02	0°09'00
desc. node	191 Jun 05 j 21:45	9°♄54'46		minimum elong	193 Nov 17 j 00:47	24°♏40'35	0°08'53
evening set	191 Jun 19 j 14:23	5°♄29'42		behind sun begin	193 Nov 16 j 02:16	23°♏29'42	
inferior conj	191 Jun 25 j 17:42	1°♄49'36	-4°-26'-1	behind sun end	193 Nov 17 j 23:17	25°♏51'28	
minimum elong	191 Jun 25 j 09:05	2°♄03'02	4°23'51	max. Earth dist.	193 Nov 17 j 15:56	25°♏28'18	1.71018 AU
min. Earth dist.	191 Jun 25 j 19:52	1°♄46'12	0.28885 AU	desc. node	193 Nov 20 j 17:00	29°♏18'19	
	191 Jun 28 j 16:35	30°♌			193 Nov 21 j 06:15	0°♐	
morning rise	191 Jul 01 j 03:31	28°♌33'09			193 Dec 15 j 02:42	0°♑	
direct	191 Jul 17 j 10:04	23°♌33'15		evening rise	193 Dec 28 j 18:23	17°♑08'00	
greatest brilliancy	191 Jul 31 j 15:15	27°♌04'50	-4.5m		194 Jan 08 j 00:59	0°♒	
	191 Aug 06 j 02:52	0°♄			194 Feb 01 j 02:32	0°♓	
morning max el	191 Sep 04 j 21:07	24°♄25'32	46°14'42		194 Feb 25 j 09:30	0°♄	
	191 Sep 10 j 10:39	0°♌		asc. node	194 Mar 13 j 20:12	20°♄05'04	
asc. node	191 Sep 27 j 01:00	17°♌42'12			194 Mar 22 j 00:41	0°♄	
	191 Oct 07 j 22:47	0°♍			194 Apr 16 j 03:44	0°♌	
	191 Nov 02 j 10:00	0°♎			194 May 12 j 00:49	0°♄	
	191 Nov 27 j 00:36	0°♏			194 Jun 08 j 07:01	0°♌	
	191 Dec 21 j 06:42	0°♐		evening max el	194 Jun 26 j 22:02	18°♌49'33	45°36'59
desc. node	192 Jan 14 j 10:14	0°♑		desc. node	194 Jul 03 j 09:39	24°♌51'32	
	192 Jan 16 j 14:36	2°♑42'38			194 Jul 09 j 06:24	0°♍	
	192 Feb 07 j 13:57	0°♒		greatest brilliancy	194 Aug 03 j 19:36	16°♍33'33	-4.5m
	192 Mar 02 j 18:59	0°♓		retrograde	194 Aug 14 j 20:13	18°♍44'18	
morning set	192 Mar 10 j 23:03	10°♓06'15		evening set	194 Sep 01 j 19:40	12°♍44'50	
	192 Mar 27 j 01:50	0°♄		inferior conj	194 Sep 04 j 21:02	10°♍54'06	-8°-42'-21
				minimum elong	194 Sep 05 j 00:27	10°♍48'54	8°42'13
superior conj	192 Apr 17 j 18:03	26°♄41'44	0°-46'-59	min. Earth dist.	194 Sep 05 j 15:27	10°♍25'59	0.27794 AU
minimum elong	192 Apr 18 j 02:35	27°♄07'58	0°46'39	morning rise	194 Sep 08 j 05:00	8°♍53'03	
max. Earth dist.	192 Apr 19 j 05:58	28°♄32'08	1.73421 AU	direct	194 Sep 25 j 22:52	2°♍54'00	
	192 Apr 20 j 10:33	0°♄		greatest brilliancy	194 Oct 10 j 04:53	6°♍34'37	-4.6m
asc. node	192 May 08 j 17:52	22°♄29'33		asc. node	194 Oct 24 j 12:44	15°♍50'43	
	192 May 14 j 20:40	0°♌			194 Nov 09 j 11:30	0°♎	
evening rise	192 May 24 j 11:26	11°♌47'49		morning max el	194 Nov 15 j 16:36	6°♎11'37	46°52'41
	192 Jun 08 j 07:40	0°♄			194 Dec 07 j 16:54	0°♏	
	192 Jul 02 j 19:31	0°♌			195 Jan 02 j 13:20	0°♐	
	192 Jul 27 j 09:09	0°♍			195 Jan 27 j 14:46	0°♑	
desc. node	192 Aug 21 j 02:16	0°♎		desc. node	195 Feb 13 j 02:32	19°♑57'26	
	192 Aug 28 j 07:25	8°♎42'34			195 Feb 21 j 09:01	0°♒	
	192 Sep 15 j 01:20	0°♏			195 Mar 18 j 00:29	0°♓	
	192 Oct 10 j 10:50	0°♐			195 Apr 11 j 14:53	0°♄	
	192 Nov 05 j 19:08	0°♑			195 May 06 j 04:35	0°♄	
evening max el	192 Nov 22 j 06:33	17°♑33'45	47°22'03	morning set	195 May 19 j 23:50	16°♒52'31	
	192 Dec 05 j 01:11	0°♒			195 May 30 j 16:59	0°♌	
asc. node	192 Dec 19 j 10:24	11°♒50'20		asc. node	195 Jun 06 j 05:38	8°♌00'14	
greatest brilliancy	192 Dec 30 j 01:42	18°♒12'15	-4.7m	max. Earth dist.	195 Jun 22 j 16:32	28°♌13'28	1.73445 AU
retrograde	193 Jan 12 j 07:26	21°♒29'00			195 Jun 24 j 03:09	0°♄	
evening set	193 Jan 29 j 14:12	15°♒37'52					
min. Earth dist.	193 Feb 01 j 09:25	13°♒53'37	0.27697 AU	superior conj	195 Jun 25 j 07:01	1°♄25'49	0°43'05
inferior conj	193 Feb 02 j 06:16	13°♒20'44	8°23'20	minimum elong	195 Jun 24 j 23:28	1°♄02'36	0°42'46
minimum elong	193 Feb 02 j 00:55	13°♒29'10	8°22'54		195 Jul 18 j 10:35	0°♌	
morning rise	193 Feb 05 j 11:55	11°♒19'59		evening rise	195 Jul 31 j 02:23	15°♌40'13	
direct	193 Feb 23 j 00:16	5°♒25'12			195 Aug 11 j 15:54	0°♍	
greatest brilliancy	193 Mar 05 j 16:26	7°♒30'42	-4.6m		195 Sep 04 j 20:31	0°♎	
	193 Apr 06 j 18:21	0°♓		desc. node	195 Sep 25 j 19:24	25°♎57'17	
desc. node	193 Apr 10 j 00:10	3°♓00'44			195 Sep 29 j 01:52	0°♏	
morning max el	193 Apr 13 j 03:38	6°♓00'39	46°01'08		195 Oct 23 j 09:12	0°♐	
	193 May 06 j 12:51	0°♄			195 Nov 16 j 20:29	0°♑	
	193 Jun 02 j 13:54	0°♄			195 Dec 11 j 16:29	0°♒	
	193 Jun 28 j 11:51	0°♌			196 Jan 06 j 09:01	0°♓	
	193 Jul 23 j 16:48	0°♄		asc. node	196 Jan 16 j 22:19	11°♓46'47	
asc. node	193 Aug 01 j 03:19	10°♄11'46		evening max el	196 Feb 02 j 15:28	29°♓21'55	46°23'34

	196 Feb 03 j 06:44	0° Υ		morning set	198 Jul 26 j 12:58	21° ♄ 40'44	
greatest brilliancy	196 Mar 08 j 18:19	27° Υ 23'57	-4.5m		198 Aug 02 j 06:26	0° Ω	
	196 Mar 15 j 07:13	0° ♄			198 Aug 26 j 09:26	0° ♁	
retrograde	196 Mar 23 j 12:20	1° ♄ 16'20		max. Earth dist.	198 Aug 28 j 18:33	2° ♁ 58'14	1.72058 AU
	196 Mar 31 j 09:43	30° ♁ Υ					
evening set	196 Apr 08 j 18:39	26° Υ 06'11		superior conj	198 Sep 01 j 10:28	7° ♁ 32'42	1°24'06
inferior conj	196 Apr 13 j 20:41	22° Υ 58'35	5°10'00	minimum elong	198 Sep 01 j 12:37	7° ♁ 39'27	1°24'07
minimum elong	196 Apr 14 j 05:48	22° Υ 44'11	5°07'53		198 Sep 19 j 09:11	0° ♄	
min. Earth dist.	196 Apr 14 j 00:01	22° Υ 53'18	0.28895 AU	evening rise	198 Oct 10 j 04:12	26° ♄ 03'28	
morning rise	196 Apr 19 j 17:13	19° Υ 25'01			198 Oct 13 j 07:40	0° ♁	
direct	196 May 05 j 08:33	14° Υ 41'06		desc. node	198 Oct 23 j 07:15	12° ♁ 30'47	
desc. node	196 May 07 j 11:47	14° Υ 46'23			198 Nov 06 j 06:20	0° ♄	
greatest brilliancy	196 May 18 j 04:58	17° Υ 36'11	-4.5m		198 Nov 30 j 06:14	0° ♄	
	196 Jun 06 j 18:29	0° ♄			198 Dec 24 j 09:03	0° \approx	
morning max el	196 Jun 23 j 04:23	14° ♄ 28'50	45°45'19		199 Jan 17 j 18:09	0° ♁	
	196 Jul 08 j 16:25	0° ♁			199 Feb 11 j 15:23	0° Υ	
	196 Aug 05 j 02:40	0° ♄		asc. node	199 Feb 13 j 10:16	2° Υ 07'13	
asc. node	196 Aug 28 j 15:15	27° ♄ 21'34			199 Mar 09 j 11:06	0° ♄	
	196 Aug 30 j 20:34	0° Ω			199 Apr 06 j 05:34	0° ♁	
	196 Sep 24 j 15:52	0° ♁		evening max el	199 Apr 14 j 10:34	8° ♁ 07'49	45°23'35
	196 Oct 18 j 21:53	0° ♄			199 May 10 j 23:08	0° ♄	
	196 Nov 11 j 21:11	0° ♁		greatest brilliancy	199 May 18 j 22:52	4° ♄ 24'21	-4.5m
	196 Dec 05 j 18:13	0° ♄		retrograde	199 Jun 01 j 22:12	7° ♄ 48'38	
desc. node	196 Dec 18 j 04:47	15° ♄ 38'00		desc. node	199 Jun 04 j 23:51	7° ♄ 37'39	
morning set	196 Dec 22 j 19:55	21° ♄ 26'53		evening set	199 Jun 17 j 04:57	3° ♄ 22'15	
	196 Dec 29 j 15:27	0° ♄			199 Jun 22 j 21:08	30° ♁ ♁	
	197 Jan 22 j 14:09	0° \approx		inferior conj	199 Jun 23 j 09:53	29° ♁ 40'07	-4°-8'-43
				minimum elong	199 Jun 23 j 01:40	29° ♁ 52'57	4°06'36
superior conj	197 Feb 02 j 09:31	13° \approx 30'06	-1°-22'00	min. Earth dist.	199 Jun 23 j 12:27	29° ♁ 36'07	0.28897 AU
minimum elong	197 Feb 02 j 03:15	13° \approx 10'32	1°21'56	morning rise	199 Jun 28 j 22:02	26° ♁ 20'07	
max. Earth dist.	197 Feb 06 j 11:07	18° \approx 34'30	1.71946 AU	direct	199 Jul 15 j 01:45	21° ♁ 23'25	
	197 Feb 15 j 15:13	0° ♁		greatest brilliancy	199 Jul 29 j 07:01	24° ♁ 54'08	-4.5m
	197 Mar 11 j 19:36	0° Υ			199 Aug 07 j 06:02	0° ♄	
evening rise	197 Mar 14 j 01:11	2° Υ 45'37		morning max el	199 Sep 02 j 11:24	22° ♄ 08'38	46°13'17
	197 Apr 05 j 04:09	0° ♄			199 Sep 10 j 06:30	0° Ω	
asc. node	197 Apr 10 j 08:04	6° ♄ 19'49		asc. node	199 Sep 26 j 03:03	17° Ω 02'07	
	197 Apr 29 j 17:30	0° ♁			199 Oct 07 j 13:55	0° ♁	
	197 May 24 j 12:23	0° ♄			199 Nov 01 j 23:22	0° ♄	
	197 Jun 18 j 14:40	0° Ω			199 Nov 26 j 13:06	0° ♁	
	197 Jul 14 j 04:29	0° ♁			199 Dec 20 j 18:41	0° ♄	
desc. node	197 Jul 30 j 21:29	19° ♁ 06'57			200 Jan 13 j 21:52	0° ♄	
	197 Aug 09 j 15:00	0° ♄		desc. node	200 Jan 15 j 16:47	2° ♄ 13'23	
	197 Sep 07 j 00:00	0° ♁			200 Feb 07 j 01:17	0° \approx	
evening max el	197 Sep 08 j 09:05	1° ♁ 21'41	46°49'27		200 Mar 02 j 06:05	0° ♁	
	197 Oct 14 j 23:12	0° ♄		morning set	200 Mar 08 j 13:17	7° ♁ 47'45	
greatest brilliancy	197 Oct 17 j 09:19	1° ♄ 01'53	-4.7m		200 Mar 26 j 12:46	0° Υ	
retrograde	197 Oct 28 j 11:58	3° ♄ 18'43					
	197 Nov 10 j 08:16	30° ♁ ♁		superior conj	200 Apr 15 j 10:49	24° Υ 32'23	0°-49'-42
evening set	197 Nov 11 j 21:48	29° ♁ 11'42		minimum elong	200 Apr 15 j 19:40	24° Υ 59'35	0°49'22
inferior conj	197 Nov 17 j 23:33	25° ♁ 38'45	0°-47'-25	max. Earth dist.	200 Apr 17 j 00:19	26° Υ 27'42	1.73389 AU
minimum elong	197 Nov 18 j 01:22	25° ♁ 35'59	0°46'52		200 Apr 19 j 21:23	0° ♄	
min. Earth dist.	197 Nov 17 j 22:07	25° ♁ 40'56	0.26352 AU	asc. node	200 May 07 j 19:51	22° ♄ 02'25	
asc. node	197 Nov 21 j 00:30	23° ♁ 48'59			200 May 14 j 07:30	0° ♁	
morning rise	197 Nov 24 j 05:02	22° ♁ 01'48		evening rise	200 May 22 j 06:02	9° ♁ 44'20	
direct	197 Dec 08 j 08:08	18° ♁ 03'30			200 Jun 07 j 18:37	0° ♄	
greatest brilliancy	197 Dec 20 j 05:15	20° ♁ 42'49	-4.7m		200 Jul 02 j 06:44	0° Ω	
	198 Jan 04 j 11:06	0° ♄			200 Jul 26 j 20:46	0° ♁	
morning max el	198 Jan 27 j 16:36	20° ♄ 53'27	46°44'11		200 Aug 20 j 14:30	0° ♄	
	198 Feb 05 j 13:27	0° ♄		desc. node	200 Aug 27 j 09:31	8° ♄ 11'19	
	198 Mar 04 j 21:09	0° \approx			200 Sep 14 j 14:33	0° ♁	
desc. node	198 Mar 12 j 14:28	8° \approx 48'11			200 Oct 10 j 01:42	0° ♄	
	198 Mar 30 j 21:27	0° ♁			200 Nov 05 j 13:27	0° ♄	
	198 Apr 25 j 08:09	0° Υ		evening max el	200 Nov 19 j 20:12	15° ♄ 08'41	47°22'37
	198 May 20 j 11:05	0° ♄			200 Dec 05 j 07:11	0° \approx	
	198 Jun 14 j 07:48	0° ♁		asc. node	200 Dec 18 j 12:33	10° \approx 29'34	
asc. node	198 Jul 03 j 17:34	23° ♁ 38'19		greatest brilliancy	200 Dec 27 j 17:37	15° \approx 50'56	-4.7m
	198 Jul 08 j 22:15	0° ♄		retrograde	201 Jan 09 j 21:57	19° \approx 06'46	

evening set	201 Jan 27 j 01:27	13° 20 35		superior conj	203 Jun 23 j 01:25	29° II 22'02	0°40'22
min. Earth dist.	201 Jan 29 j 23:15	11° 32 47	0.27634 AU	minimum elong	203 Jun 22 j 18:13	28° II 59'51	0°40'03
inferior conj	201 Jan 30 j 20:31	10° 59 20	8°17'22		203 Jun 23 j 13:45	0° III	
minimum elong	201 Jan 30 j 14:27	11° 08 53	8°16'47		203 Jul 17 j 21:16	0° II	
morning rise	201 Feb 03 j 03:43	8° 56 27		evening rise	203 Jul 28 j 20:14	13° II 33'31	
direct	201 Feb 20 j 13:12	3° 04 36			203 Aug 11 j 02:46	0° III	
greatest brilliancy	201 Mar 03 j 06:15	5° 10 54	-4.6m		203 Sep 04 j 07:39	0° II	
	201 Apr 06 j 19:50	0° III		desc. node	203 Sep 24 j 21:23	25° II 28'03	
desc. node	201 Apr 09 j 02:07	2° III 08'15			203 Sep 28 j 13:21	0° III	
morning max el	201 Apr 10 j 17:58	3° III 43'51	46°02'30		203 Oct 22 j 21:08	0° III	
	201 May 06 j 05:30	0° III			203 Nov 16 j 09:00	0° III	
	201 Jun 02 j 03:38	0° III			203 Dec 11 j 06:00	0° III	
	201 Jun 28 j 00:13	0° II			204 Jan 06 j 00:41	0° III	
	201 Jul 23 j 04:25	0° III		asc. node	204 Jan 16 j 00:23	11° III 05'23	
asc. node	201 Jul 31 j 05:24	9° III 43'19		evening max el	204 Jan 31 j 07:51	27° III 09'32	46°26'07
	201 Aug 16 j 19:57	0° II			204 Feb 03 j 04:42	0° III	
	201 Sep 10 j 01:44	0° III		greatest brilliancy	204 Mar 06 j 12:22	25° III 16'01	-4.6m
greatest brilliancy	201 Sep 25 j 12:15	19° III 17'29	-3.9m	retrograde	204 Mar 21 j 05:08	29° III 06'35	
	201 Oct 04 j 01:10	0° II		evening set	204 Apr 06 j 13:45	23° III 52'52	
morning set	201 Oct 05 j 05:28	1° II 28'51		inferior conj	204 Apr 11 j 13:06	20° III 48'47	5°25'43
	201 Oct 27 j 21:31	0° III		minimum elong	204 Apr 11 j 22:24	20° III 34'04	5°23'37
				min. Earth dist.	204 Apr 11 j 15:48	20° III 44'30	0.28878 AU
superior conj	201 Nov 14 j 08:31	21° III 59'18	0°12'55	morning rise	204 Apr 17 j 07:22	17° III 18'17	
minimum elong	201 Nov 14 j 11:56	22° III 10'03	0°12'46	direct	204 May 03 j 01:07	12° III 31'50	
behind sun begin	201 Nov 13 j 19:12	21° III 17'21		desc. node	204 May 06 j 13:54	12° III 46'10	
behind sun end	201 Nov 15 j 04:41	23° III 02'46		greatest brilliancy	204 May 15 j 17:52	15° III 23'28	-4.5m
max. Earth dist.	201 Nov 15 j 00:30	22° III 49'38	1.71024 AU		204 Jun 07 j 02:05	0° III	
desc. node	201 Nov 19 j 19:05	28° III 50'21		morning max el	204 Jun 20 j 20:34	12° III 20'14	45°44'57
	201 Nov 20 j 17:13	0° III			204 Jul 08 j 09:53	0° II	
	201 Dec 14 j 13:43	0° III			204 Aug 04 j 16:36	0° III	
evening rise	201 Dec 26 j 04:26	14° III 34'28		asc. node	204 Aug 27 j 17:15	26° III 50'16	
	202 Jan 07 j 12:04	0° III			204 Aug 30 j 09:01	0° II	
	202 Jan 31 j 13:42	0° III			204 Sep 24 j 03:36	0° III	
	202 Feb 24 j 20:50	0° III			204 Oct 18 j 09:16	0° II	
asc. node	202 Mar 12 j 22:11	19° III 35'55			204 Nov 11 j 08:22	0° III	
	202 Mar 21 j 12:25	0° III			204 Dec 05 j 05:15	0° III	
	202 Apr 15 j 16:15	0° II		desc. node	204 Dec 17 j 06:58	15° III 10'27	
	202 May 11 j 14:56	0° III		morning set	204 Dec 20 j 05:47	18° III 52'51	
	202 Jun 08 j 00:49	0° II			204 Dec 29 j 02:21	0° III	
evening max el	202 Jun 24 j 12:58	16° II 35'33	45°35'16		205 Jan 22 j 00:56	0° III	
desc. node	202 Jul 02 j 11:47	23° II 56'07					
	202 Jul 09 j 14:14	0° III		superior conj	205 Jan 30 j 21:20	11° III 03'32	-1°-20'-52
greatest brilliancy	202 Aug 01 j 05:49	14° III 12'11	-4.5m	minimum elong	205 Jan 30 j 14:12	10° III 41'16	1°20'46
retrograde	202 Aug 12 j 10:10	16° III 25'54		max. Earth dist.	205 Feb 04 j 01:49	16° III 17'07	1.71890 AU
evening set	202 Aug 30 j 09:50	10° III 25'12			205 Feb 15 j 01:56	0° III	
inferior conj	202 Sep 02 j 10:54	8° III 34'49	-8°-44'-57		205 Mar 11 j 06:18	0° III	
minimum elong	202 Sep 02 j 13:27	8° III 30'55	8°44'53	evening rise	205 Mar 11 j 15:33	0° III 28'34	
min. Earth dist.	202 Sep 03 j 04:21	8° III 08'09	0.27854 AU		205 Apr 04 j 14:56	0° III	
morning rise	202 Sep 05 j 16:52	6° III 36'44		asc. node	205 Apr 09 j 10:05	5° III 52'50	
direct	202 Sep 23 j 14:03	0° III 33'56			205 Apr 29 j 04:30	0° II	
greatest brilliancy	202 Oct 07 j 20:00	4° III 15'03	-4.6m		205 May 23 j 23:50	0° III	
asc. node	202 Oct 23 j 14:42	14° III 39'59			205 Jun 18 j 02:53	0° II	
	202 Nov 09 j 11:43	0° II			205 Jul 13 j 18:06	0° III	
morning max el	202 Nov 13 j 07:53	3° II 51'50	46°52'01	desc. node	205 Jul 29 j 23:34	18° III 30'16	
	202 Dec 07 j 09:34	0° III			205 Aug 09 j 07:21	0° II	
	203 Jan 02 j 03:25	0° III		evening max el	205 Sep 05 j 22:08	28° II 57'55	46°46'47
	203 Jan 27 j 03:33	0° III			205 Sep 06 j 23:31	0° III	
desc. node	203 Feb 12 j 04:35	19° III 26'35		greatest brilliancy	205 Oct 15 j 00:01	28° III 35'32	-4.7m
	203 Feb 20 j 21:01	0° III			205 Oct 19 j 10:31	0° III	
	203 Mar 17 j 11:56	0° III		retrograde	205 Oct 25 j 23:14	0° III 48'59	
	203 Apr 11 j 01:58	0° III			205 Nov 01 j 07:30	30° III	
	203 May 05 j 15:23	0° III		evening set	205 Nov 09 j 11:10	26° III 40'45	
morning set	203 May 17 j 18:01	14° III 48'34		inferior conj	205 Nov 15 j 11:32	23° III 09'46	-1°-12'-6
	203 May 30 j 03:38	0° II		minimum elong	205 Nov 15 j 14:17	23° III 05'36	1°11'14
asc. node	203 Jun 05 j 07:48	7° II 34'20		min. Earth dist.	205 Nov 15 j 12:05	23° III 08'56	0.26358 AU
max. Earth dist.	203 Jun 20 j 14:58	26° II 22'09	1.73472 AU	asc. node	205 Nov 20 j 02:43	20° III 24'44	
				morning rise	205 Nov 21 j 17:21	19° III 32'00	

direct	205 Dec 05 j 19:59	15° \mathbb{M} 34'18		208 Jun 07 j 05:26	0° \mathfrak{S}	
greatest brilliancy	205 Dec 17 j 20:01	18° \mathbb{M} 16'09	-4.7m	208 Jul 01 j 17:50	0° \mathcal{O}	
	206 Jan 05 j 03:05	0° \mathfrak{A}		208 Jul 26 j 08:20	0° \mathfrak{M}	
morning max el	206 Jan 25 j 04:38	18° \mathfrak{A} 25'35	46°45'32	208 Aug 20 j 02:46	0° \mathfrak{L}	
	206 Feb 05 j 09:10	0° \mathfrak{Z}		208 Aug 26 j 11:28	7° \mathfrak{L} 39'34	
	206 Mar 04 j 12:16	0° \approx		208 Sep 14 j 03:50	0° \mathbb{M}	
desc. node	206 Mar 11 j 16:28	8° \approx 12'35		208 Oct 09 j 16:46	0° \mathfrak{A}	
	206 Mar 30 j 10:33	0° \mathfrak{H}		208 Nov 05 j 08:12	0° \mathfrak{Z}	
	206 Apr 24 j 20:10	0° \mathfrak{Y}		208 Nov 17 j 10:35	12° \mathfrak{Z} 45'41	47°23'11
	206 May 19 j 22:26	0° \mathfrak{B}		208 Dec 05 j 15:30	0° \approx	
	206 Jun 13 j 18:46	0° \mathbb{I}		208 Dec 17 j 14:36	9° \approx 06'02	
asc. node	206 Jul 02 j 19:38	23° \mathbb{I} 11'44		208 Dec 25 j 08:35	13° \approx 28'18	-4.7m
	206 Jul 08 j 08:59	0° \mathfrak{S}		retrograde	209 Jan 07 j 12:50	16° \approx 44'17
morning set	206 Jul 24 j 06:15	19° \mathfrak{S} 32'53		evening set	209 Jan 24 j 12:26	11° \approx 03'07
	206 Aug 01 j 17:06	0° \mathcal{O}		min. Earth dist.	209 Jan 27 j 12:44	9° \approx 11'55 0.27570 AU
	206 Aug 25 j 20:07	0° \mathfrak{M}		inferior conj	209 Jan 28 j 10:40	8° \approx 37'30 8°10'25
max. Earth dist.	206 Aug 26 j 09:14	0° \mathfrak{M} 40'55	1.72116 AU	minimum elong	209 Jan 28 j 03:56	8° \approx 48'04 8°09'41
				morning rise	209 Jan 31 j 19:44	6° \approx 32'10
superior conj	206 Aug 30 j 02:22	5° \mathfrak{M} 19'05	1°24'25	direct	209 Feb 18 j 02:36	0° \approx 43'35
minimum elong	206 Aug 30 j 03:45	5° \mathfrak{M} 23'25	1°24'24	greatest brilliancy	209 Feb 28 j 19:36	2° \approx 50'19 -4.6m
	206 Sep 18 j 19:59	0° \mathfrak{L}			209 Apr 06 j 20:05	0° \mathfrak{H}
evening rise	206 Oct 07 j 16:23	23° \mathfrak{L} 37'02		desc. node	209 Apr 08 j 04:13	1° \mathfrak{H} 17'05
	206 Oct 12 j 18:38	0° \mathbb{M}		morning max el	209 Apr 08 j 09:09	1° \mathfrak{H} 29'01 46°03'57
desc. node	206 Oct 22 j 09:21	12° \mathbb{M} 02'45			209 May 05 j 21:50	0° \mathfrak{Y}
	206 Nov 05 j 17:29	0° \mathfrak{A}			209 Jun 01 j 17:13	0° \mathfrak{B}
	206 Nov 29 j 17:36	0° \mathfrak{Z}			209 Jun 27 j 12:28	0° \mathbb{I}
	206 Dec 23 j 20:42	0° \approx			209 Jul 22 j 15:59	0° \mathfrak{S}
	207 Jan 17 j 06:13	0° \mathfrak{H}		asc. node	209 Jul 30 j 07:25	9° \mathfrak{S} 14'49
	207 Feb 11 j 04:14	0° \mathfrak{Y}			209 Aug 16 j 07:10	0° \mathcal{O}
asc. node	207 Feb 12 j 12:16	1° \mathfrak{Y} 34'51			209 Sep 09 j 12:49	0° \mathfrak{M}
	207 Mar 09 j 01:42	0° \mathfrak{B}		greatest brilliancy	209 Sep 27 j 02:21	21° \mathfrak{M} 57'26 -3.9m
	207 Apr 06 j 00:58	0° \mathbb{I}		morning set	209 Oct 02 j 19:05	29° \mathfrak{M} 06'13
evening max el	207 Apr 12 j 01:21	5° \mathbb{I} 55'19	45°24'41		209 Oct 03 j 12:13	0° \mathfrak{L}
	207 May 12 j 04:41	0° \mathfrak{S}			209 Oct 27 j 08:35	0° \mathbb{M}
greatest brilliancy	207 May 16 j 12:18	2° \mathfrak{S} 13'01	-4.5m			
retrograde	207 May 30 j 14:17	5° \mathfrak{S} 41'01		superior conj	209 Nov 11 j 18:33	19° \mathbb{M} 24'46 0°16'50
desc. node	207 Jun 04 j 01:59	5° \mathfrak{S} 17'18		minimum elong	209 Nov 11 j 22:57	19° \mathbb{M} 38'36 0°16'37
evening set	207 Jun 14 j 19:52	1° \mathfrak{S} 15'46		max. Earth dist.	209 Nov 12 j 09:08	20° \mathbb{M} 10'40 1.71030 AU
	207 Jun 17 j 01:17	30° \mathfrak{R} \mathbb{I}		desc. node	209 Nov 18 j 21:15	28° \mathbb{M} 22'10
inferior conj	207 Jun 21 j 02:15	27° \mathbb{I} 31'55	-3°-51'-6		209 Nov 20 j 04:20	0° \mathfrak{A}
minimum elong	207 Jun 20 j 18:28	27° \mathbb{I} 44'01	3°49'04		209 Dec 14 j 00:53	0° \mathfrak{Z}
min. Earth dist.	207 Jun 21 j 05:01	27° \mathbb{I} 27'35	0.28914 AU	evening rise	209 Dec 23 j 14:14	11° \mathfrak{Z} 59'43
morning rise	207 Jun 26 j 16:42	24° \mathbb{I} 08'39			210 Jan 06 j 23:17	0° \approx
direct	207 Jul 12 j 17:44	19° \mathbb{I} 14'40			210 Jan 31 j 01:00	0° \mathfrak{H}
greatest brilliancy	207 Jul 27 j 00:10	22° \mathbb{I} 46'12	-4.5m		210 Feb 24 j 08:21	0° \mathfrak{Y}
	207 Aug 08 j 01:28	0° \mathfrak{S}		asc. node	210 Mar 12 j 00:15	19° \mathfrak{Y} 06'30
morning max el	207 Aug 31 j 02:43	19° \mathfrak{S} 55'00	46°11'52		210 Mar 21 j 00:21	0° \mathfrak{B}
	207 Sep 10 j 01:36	0° \mathcal{O}			210 Apr 15 j 05:00	0° \mathbb{I}
asc. node	207 Sep 25 j 05:05	16° \mathcal{O} 22'56			210 May 11 j 05:19	0° \mathfrak{S}
	207 Oct 07 j 04:43	0° \mathfrak{M}			210 Jun 07 j 19:06	0° \mathcal{O}
	207 Nov 01 j 12:29	0° \mathfrak{L}		evening max el	210 Jun 22 j 04:19	14° \mathcal{O} 22'35 45°33'38
	207 Nov 26 j 01:22	0° \mathbb{M}		desc. node	210 Jul 01 j 13:48	22° \mathcal{O} 59'16
	207 Dec 20 j 06:28	0° \mathfrak{A}			210 Jul 10 j 00:52	0° \mathfrak{M}
	208 Jan 13 j 09:19	0° \mathfrak{Z}		greatest brilliancy	210 Jul 29 j 16:50	11° \mathfrak{M} 52'14 -4.5m
desc. node	208 Jan 14 j 18:45	1° \mathfrak{Z} 43'59		retrograde	210 Aug 09 j 23:57	14° \mathfrak{M} 07'58
	208 Feb 06 j 12:29	0° \approx		evening set	210 Aug 27 j 23:52	8° \mathfrak{M} 06'54
	208 Mar 01 j 17:04	0° \mathfrak{H}		inferior conj	210 Aug 31 j 01:01	6° \mathfrak{M} 16'05 -8°-46'-37
morning set	208 Mar 06 j 03:28	5° \mathfrak{H} 29'20		minimum elong	210 Aug 31 j 02:43	6° \mathfrak{M} 13'30 8°46'35
	208 Mar 25 j 23:34	0° \mathfrak{Y}		min. Earth dist.	210 Aug 31 j 17:28	5° \mathfrak{M} 50'53 0.27916 AU
				morning rise	210 Sep 03 j 05:24	4° \mathfrak{M} 20'13
superior conj	208 Apr 13 j 03:45	22° \mathfrak{Y} 23'56	0°-52'-20		210 Sep 11 j 21:34	30° \mathfrak{R} \mathcal{O}
minimum elong	208 Apr 13 j 12:51	22° \mathfrak{Y} 51'56	0°51'59	direct	210 Sep 21 j 05:35	28° \mathcal{O} 14'33
max. Earth dist.	208 Apr 14 j 18:50	24° \mathfrak{Y} 24'09	1.73353 AU		210 Sep 30 j 21:00	0° \mathfrak{M}
	208 Apr 19 j 08:03	0° \mathfrak{B}		greatest brilliancy	210 Oct 05 j 10:40	1° \mathfrak{M} 54'47 -4.6m
asc. node	208 May 06 j 22:03	21° \mathfrak{B} 36'24		asc. node	210 Oct 22 j 16:55	13° \mathfrak{M} 31'18
	208 May 13 j 18:10	0° \mathbb{I}			210 Nov 09 j 11:10	0° \mathfrak{L}
evening rise	208 May 20 j 00:55	7° \mathbb{I} 42'14		morning max el	210 Nov 10 j 22:31	1° \mathfrak{L} 29'40 46°51'02

	210 Dec 07 j 02:17	0°♌			213 Aug 09 j 00:25	0°♎	
	211 Jan 01 j 17:42	0°♊		evening max el	213 Sep 03 j 10:20	26°♎31'26	46°44'17
	211 Jan 26 j 16:35	0°♈			213 Sep 07 j 00:30	0°♌	
desc. node	211 Feb 11 j 06:38	18°♈54'56		greatest brilliancy	213 Oct 12 j 14:30	26°♌08'43	-4.6m
	211 Feb 20 j 09:15	0°♍		retrograde	213 Oct 23 j 10:41	28°♌19'35	
	211 Mar 16 j 23:38	0°♋		evening set	213 Nov 07 j 00:54	24°♌09'21	
	211 Apr 10 j 13:16	0°♐		inferior conj	213 Nov 12 j 23:46	20°♌40'51	-1°-36'-25
	211 May 05 j 02:27	0°♉		minimum elong	213 Nov 13 j 03:25	20°♌35'18	1°35'15
morning set	211 May 15 j 12:15	12°♉43'53		min. Earth dist.	213 Nov 13 j 02:17	20°♌37'02	0.26373 AU
	211 May 29 j 14:34	0°♊		morning rise	213 Nov 19 j 05:43	17°♌02'40	
asc. node	211 Jun 04 j 09:51	7°♊07'13		asc. node	213 Nov 19 j 04:42	17°♌04'01	
max. Earth dist.	211 Jun 18 j 11:49	24°♊25'16	1.73492 AU	direct	213 Dec 03 j 07:51	13°♌04'49	
				greatest brilliancy	213 Dec 15 j 11:50	15°♌50'22	-4.7m
superior conj	211 Jun 20 j 20:04	27°♊18'17	0°37'36		214 Jan 05 j 15:23	0°♊	
minimum elong	211 Jun 20 j 13:14	26°♊57'15	0°37'18	morning max el	214 Jan 22 j 17:06	15°♊57'31	46°46'34
	211 Jun 23 j 00:37	0°♊			214 Feb 05 j 04:46	0°♈	
	211 Jul 17 j 08:10	0°♏			214 Mar 04 j 03:41	0°♍	
evening rise	211 Jul 26 j 14:27	11°♏27'22		desc. node	214 Mar 10 j 18:35	7°♍36'08	
	211 Aug 10 j 13:50	0°♎			214 Mar 30 j 00:05	0°♋	
	211 Sep 03 j 19:00	0°♎			214 Apr 24 j 08:37	0°♐	
desc. node	211 Sep 23 j 23:31	24°♎58'34			214 May 19 j 10:13	0°♉	
	211 Sep 28 j 01:06	0°♌			214 Jun 13 j 06:07	0°♊	
	211 Oct 22 j 09:23	0°♊		asc. node	214 Jul 01 j 21:36	22°♊43'32	
	211 Nov 15 j 21:56	0°♈			214 Jul 07 j 20:07	0°♊	
	211 Dec 10 j 20:05	0°♍		morning set	214 Jul 21 j 23:27	17°♊23'37	
	212 Jan 05 j 17:05	0°♋			214 Aug 01 j 04:09	0°♏	
asc. node	212 Jan 15 j 02:24	10°♋21'58		max. Earth dist.	214 Aug 24 j 01:37	28°♏27'43	1.72170 AU
evening max el	212 Jan 28 j 23:18	24°♋53'11	46°28'44		214 Aug 25 j 07:12	0°♎	
	212 Feb 03 j 04:12	0°♐					
greatest brilliancy	212 Mar 04 j 06:54	23°♐07'02	-4.6m	superior conj	214 Aug 27 j 18:26	3°♎04'48	1°24'35
retrograde	212 Mar 18 j 21:23	26°♐55'06		minimum elong	214 Aug 27 j 19:03	3°♎06'42	1°24'34
evening set	212 Apr 04 j 08:48	21°♐37'48			214 Sep 18 j 07:09	0°♎	
inferior conj	212 Apr 09 j 05:24	18°♐37'24	5°41'01	evening rise	214 Oct 05 j 05:02	21°♎11'08	
minimum elong	212 Apr 09 j 14:51	18°♐22'26	5°38'57		214 Oct 12 j 05:55	0°♌	
min. Earth dist.	212 Apr 09 j 07:43	18°♐33'43	0.28858 AU	desc. node	214 Oct 21 j 11:29	11°♌33'55	
morning rise	212 Apr 14 j 21:12	15°♐10'02			214 Nov 05 j 04:54	0°♊	
direct	212 Apr 30 j 17:14	10°♐20'58			214 Nov 29 j 05:13	0°♈	
desc. node	212 May 05 j 16:05	10°♐48'47			214 Dec 23 j 08:38	0°♍	
greatest brilliancy	212 May 13 j 06:52	13°♐09'14	-4.5m		215 Jan 16 j 18:39	0°♋	
	212 Jun 07 j 08:00	0°♉			215 Feb 10 j 17:34	0°♐	
morning max el	212 Jun 18 j 11:49	10°♉08'07	45°44'47	asc. node	215 Feb 11 j 14:20	1°♐01'24	
	212 Jul 08 j 03:24	0°♊			215 Mar 08 j 16:59	0°♉	
	212 Aug 04 j 06:45	0°♊			215 Apr 05 j 21:36	0°♊	
asc. node	212 Aug 26 j 19:19	26°♊18'21		evening max el	215 Apr 09 j 16:30	3°♊42'09	45°25'53
	212 Aug 29 j 21:43	0°♏		greatest brilliancy	215 May 14 j 01:31	29°♊59'43	-4.5m
	212 Sep 23 j 15:35	0°♎			215 May 14 j 01:45	0°♊	
	212 Oct 17 j 20:54	0°♎		retrograde	215 May 28 j 06:42	3°♊31'31	
	212 Nov 10 j 19:51	0°♌		desc. node	215 Jun 03 j 03:56	2°♊50'25	
	212 Dec 04 j 16:38	0°♊			215 Jun 10 j 18:20	30°♊	
desc. node	212 Dec 16 j 08:57	14°♊41'02		evening set	215 Jun 12 j 10:46	29°♊07'13	
morning set	212 Dec 17 j 15:23	16°♊16'37		inferior conj	215 Jun 18 j 18:23	25°♊21'46	-3°-33'00
	212 Dec 28 j 13:40	0°♈		minimum elong	215 Jun 18 j 11:06	25°♊33'05	3°31'04
	213 Jan 21 j 12:11	0°♍		min. Earth dist.	215 Jun 18 j 21:04	25°♊17'35	0.28928 AU
				morning rise	215 Jun 24 j 11:06	21°♊55'34	
superior conj	213 Jan 28 j 08:32	8°♍33'33	-1°-19'-32	direct	215 Jul 10 j 09:53	17°♊04'05	
minimum elong	213 Jan 28 j 00:35	8°♍08'44	1°19'25	greatest brilliancy	215 Jul 24 j 17:09	20°♊36'45	-4.5m
max. Earth dist.	213 Feb 01 j 13:53	13°♍49'59	1.71834 AU		215 Aug 08 j 16:35	0°♊	
	213 Feb 14 j 13:07	0°♋		morning max el	215 Aug 28 j 18:43	17°♊42'06	46°10'30
evening rise	213 Mar 09 j 05:09	28°♋07'40			215 Sep 09 j 20:36	0°♏	
	213 Mar 10 j 17:29	0°♐		asc. node	215 Sep 24 j 07:15	15°♏43'28	
	213 Apr 04 j 02:12	0°♉			215 Oct 06 j 19:39	0°♎	
asc. node	213 Apr 08 j 12:15	5°♉24'54			215 Nov 01 j 01:47	0°♎	
	213 Apr 28 j 15:59	0°♊			215 Nov 25 j 13:49	0°♌	
	213 May 23 j 11:46	0°♊			215 Dec 19 j 18:24	0°♊	
	213 Jun 17 j 15:38	0°♏			216 Jan 12 j 20:54	0°♈	
	213 Jul 13 j 08:17	0°♎		desc. node	216 Jan 13 j 20:49	1°♈14'25	
desc. node	213 Jul 29 j 01:35	17°♎52'03			216 Feb 05 j 23:50	0°♍	

	216 Mar 01 j 04:13	0° Υ		retrograde	218 Aug 07 j 13:18	11° Υ 49'49	
morning set	216 Mar 03 j 17:31	3° Υ 09'47		evening set	218 Aug 25 j 13:25	5° Υ 49'19	
	216 Mar 25 j 10:35	0° Υ		inferior conj	218 Aug 28 j 15:07	3° Υ 57'24	-8°-47'-18
				minimum elong	218 Aug 28 j 15:56	3° Υ 56'09	8°47'19
superior conj	216 Apr 10 j 20:21	20° Υ 13'32	0°-54'-54	min. Earth dist.	218 Aug 29 j 06:52	3° Υ 33'14	0.27973 AU
minimum elong	216 Apr 11 j 05:40	20° Υ 42'13	0°54'34	morning rise	218 Aug 31 j 18:18	2° Υ 03'03	
max. Earth dist.	216 Apr 12 j 13:48	22° Υ 21'06	1.73324 AU		218 Sep 04 j 09:13	30° Υ 0	
	216 Apr 18 j 19:00	0° Υ		direct	218 Sep 18 j 20:32	25° Υ 55'15	
asc. node	216 May 06 j 00:04	21° Υ 08'55		greatest brilliancy	218 Oct 03 j 01:03	29° Υ 34'12	-4.6m
	216 May 13 j 05:08	0° Υ			218 Oct 03 j 21:55	0° Υ	
evening rise	216 May 17 j 19:23	5° Υ 38'02		asc. node	218 Oct 21 j 18:57	12° Υ 24'09	
	216 Jun 06 j 16:33	0° Υ		morning max el	218 Nov 08 j 12:01	29° Υ 04'49	46°50'05
	216 Jul 01 j 05:14	0° Υ			218 Nov 09 j 09:37	0° Υ	
	216 Jul 25 j 20:12	0° Υ			218 Dec 06 j 18:37	0° Υ	
	216 Aug 19 j 15:20	0° Υ			219 Jan 01 j 07:44	0° Υ	
desc. node	216 Aug 25 j 13:37	7° Υ 07'35			219 Jan 26 j 05:24	0° Υ	
	216 Sep 13 j 17:29	0° Υ		desc. node	219 Feb 10 j 08:45	18° Υ 24'02	
	216 Oct 09 j 08:15	0° Υ			219 Feb 19 j 21:16	0° Υ	
	216 Nov 05 j 03:38	0° Υ			219 Mar 16 j 11:06	0° Υ	
evening max el	216 Nov 15 j 02:05	10° Υ 25'12	47°23'49		219 Apr 10 j 00:21	0° Υ	
	216 Dec 06 j 02:47	0° Υ			219 May 04 j 13:18	0° Υ	
asc. node	216 Dec 16 j 16:37	7° Υ 39'40		morning set	219 May 13 j 06:44	10° Υ 40'40	
greatest brilliancy	216 Dec 22 j 23:38	11° Υ 05'52	-4.7m		219 May 29 j 01:17	0° Υ	
retrograde	217 Jan 05 j 04:08	14° Υ 21'50		asc. node	219 Jun 03 j 11:52	6° Υ 40'35	
evening set	217 Jan 21 j 23:24	8° Υ 46'01		max. Earth dist.	219 Jun 16 j 07:47	22° Υ 26'12	1.73519 AU
min. Earth dist.	217 Jan 25 j 01:59	6° Υ 51'39	0.27503 AU				
inferior conj	217 Jan 26 j 00:55	6° Υ 15'46	8°02'37	superior conj	219 Jun 18 j 14:52	25° Υ 15'37	0°34'48
minimum elong	217 Jan 25 j 17:33	6° Υ 27'17	8°01'44	minimum elong	219 Jun 18 j 08:27	24° Υ 55'51	0°34'32
morning rise	217 Jan 29 j 12:03	4° Υ 07'41			219 Jun 22 j 11:19	0° Υ	
	217 Feb 06 j 19:50	30° Υ 0			219 Jul 16 j 18:57	0° Υ	
direct	217 Feb 15 j 16:38	28° Υ 23'00		evening rise	219 Jul 24 j 08:42	9° Υ 21'43	
	217 Feb 24 j 23:19	0° Υ			219 Aug 10 j 00:49	0° Υ	
greatest brilliancy	217 Feb 26 j 07:57	0° Υ 28'54	-4.6m		219 Sep 03 j 06:17	0° Υ	
morning max el	217 Apr 06 j 00:32	29° Υ 14'41	46°05'08	desc. node	219 Sep 23 j 01:36	24° Υ 29'14	
	217 Apr 06 j 19:14	0° Υ			219 Sep 27 j 12:45	0° Υ	
desc. node	217 Apr 07 j 06:23	0° Υ 27'08			219 Oct 21 j 21:31	0° Υ	
	217 May 05 j 13:57	0° Υ			219 Nov 15 j 10:46	0° Υ	
	217 Jun 01 j 06:48	0° Υ			219 Dec 10 j 10:04	0° Υ	
	217 Jun 27 j 00:50	0° Υ			220 Jan 05 j 09:33	0° Υ	
	217 Jul 22 j 03:42	0° Υ		asc. node	220 Jan 14 j 04:33	9° Υ 39'11	
asc. node	217 Jul 29 j 09:33	8° Υ 46'14		evening max el	220 Jan 26 j 14:02	22° Υ 35'36	46°31'24
	217 Aug 15 j 18:31	0° Υ			220 Feb 03 j 04:26	0° Υ	
	217 Sep 08 j 23:59	0° Υ		greatest brilliancy	220 Mar 02 j 01:26	20° Υ 59'00	-4.6m
greatest brilliancy	217 Sep 28 j 04:11	23° Υ 58'50	-3.9m	retrograde	220 Mar 16 j 13:37	24° Υ 45'08	
morning set	217 Sep 30 j 08:38	26° Υ 43'19		evening set	220 Apr 02 j 04:03	19° Υ 24'11	
	217 Oct 02 j 23:19	0° Υ		inferior conj	220 Apr 06 j 21:57	16° Υ 27'38	5°55'39
	217 Oct 26 j 19:42	0° Υ		minimum elong	220 Apr 07 j 07:27	16° Υ 12'33	5°53'39
				min. Earth dist.	220 Apr 07 j 00:03	16° Υ 24'17	0.28835 AU
superior conj	217 Nov 09 j 04:42	16° Υ 50'28	0°20'42	morning rise	220 Apr 12 j 11:08	13° Υ 03'38	
minimum elong	217 Nov 09 j 10:01	17° Υ 07'12	0°20'26	direct	220 Apr 28 j 09:02	8° Υ 11'43	
max. Earth dist.	217 Nov 09 j 16:08	17° Υ 26'29	1.71035 AU	desc. node	220 May 04 j 17:59	8° Υ 57'07	
desc. node	217 Nov 17 j 23:13	27° Υ 53'12		greatest brilliancy	220 May 10 j 20:47	10° Υ 57'33	-4.5m
	217 Nov 19 j 15:30	0° Υ			220 Jun 07 j 11:24	0° Υ	
	217 Dec 13 j 12:05	0° Υ		morning max el	220 Jun 16 j 02:38	7° Υ 56'08	45°44'37
evening rise	217 Dec 21 j 00:04	9° Υ 24'56			220 Jul 07 j 20:07	0° Υ	
	218 Jan 06 j 10:29	0° Υ			220 Aug 03 j 20:26	0° Υ	
	218 Jan 30 j 12:15	0° Υ		asc. node	220 Aug 25 j 21:29	25° Υ 47'35	
	218 Feb 23 j 19:48	0° Υ			220 Aug 29 j 10:06	0° Υ	
asc. node	218 Mar 11 j 02:25	18° Υ 37'38			220 Sep 23 j 03:20	0° Υ	
	218 Mar 20 j 12:14	0° Υ			220 Oct 17 j 08:20	0° Υ	
	218 Apr 14 j 17:44	0° Υ			220 Nov 10 j 07:06	0° Υ	
	218 May 10 j 19:50	0° Υ			220 Dec 04 j 03:45	0° Υ	
	218 Jun 07 j 13:56	0° Υ		morning set	220 Dec 15 j 00:51	13° Υ 40'48	
evening max el	218 Jun 19 j 19:17	12° Υ 08'27	45°31'51	desc. node	220 Dec 15 j 11:02	14° Υ 12'46	
desc. node	218 Jun 30 j 15:52	22° Υ 01'01			220 Dec 28 j 00:41	0° Υ	
	218 Jul 10 j 15:17	0° Υ			221 Jan 20 j 23:07	0° Υ	
greatest brilliancy	218 Jul 27 j 05:04	9° Υ 33'20	-4.5m				

superior conj	221 Jan 25 j 19:40	6°≈04'19	-1°-18'-3	direct	223 Jul 08 j 02:40	14°II55'41	
minimum elong	221 Jan 25 j 10:59	5°≈37'10	1°17'54	greatest brilliancy	223 Jul 22 j 09:24	18°II28'22	-4.5m
max. Earth dist.	221 Jan 29 j 23:39	11°≈16'34	1.71779 AU		223 Aug 09 j 03:04	0°☿	
	221 Feb 14 j 00:01	0°☿		morning max el	223 Aug 26 j 11:11	15°☿32'14	46°09'05
evening rise	221 Mar 06 j 18:49	25°☿47'50			223 Sep 09 j 14:32	0°♌	
	221 Mar 10 j 04:22	0°♌		asc. node	223 Sep 23 j 09:17	15°♌05'33	
	221 Apr 03 j 13:07	0°♌			223 Oct 06 j 09:57	0°♍	
asc. node	221 Apr 07 j 14:17	4°♌57'37			223 Oct 31 j 14:37	0°♎	
	221 Apr 28 j 03:06	0°♎			223 Nov 25 j 01:55	0°♏	
	221 May 22 j 23:19	0°☿			223 Dec 19 j 06:04	0°♐	
	221 Jun 17 j 04:01	0°♌			224 Jan 12 j 08:17	0°♑	
	221 Jul 12 j 22:13	0°♍		desc. node	224 Jan 12 j 23:00	0°♑45'51	
desc. node	221 Jul 28 j 03:43	17°♍14'53			224 Feb 05 j 10:57	0°≈	
	221 Aug 08 j 17:28	0°♎			224 Feb 29 j 15:07	0°♌	
evening max el	221 Aug 31 j 22:12	24°♎05'06	46°41'32	morning set	224 Mar 01 j 07:07	0°♌49'33	
	221 Sep 07 j 02:30	0°♏			224 Mar 24 j 21:18	0°♌	
greatest brilliancy	221 Oct 10 j 04:09	23°♏41'15	-4.6m				
retrograde	221 Oct 20 j 22:15	25°♏50'28		superior conj	224 Apr 08 j 12:43	18°♌03'15	0°-57'-24
evening set	221 Nov 04 j 14:37	21°♏37'38		minimum elong	224 Apr 08 j 22:12	18°♌32'29	0°57'05
inferior conj	221 Nov 10 j 11:47	18°♏11'58	-2°00'-35	max. Earth dist.	224 Apr 10 j 10:30	20°♌24'16	1.73288 AU
minimum elong	221 Nov 10 j 16:19	18°♏05'05	1°59'10		224 Apr 18 j 05:38	0°♌	
min. Earth dist.	221 Nov 10 j 16:09	18°♏05'21	0.26392 AU	asc. node	224 May 05 j 02:06	20°♌42'26	
morning rise	221 Nov 16 j 17:42	14°♏33'59			224 May 12 j 15:49	0°♎	
asc. node	221 Nov 18 j 06:44	13°♏46'51		evening rise	224 May 15 j 13:54	3°♎34'56	
direct	221 Nov 30 j 19:46	10°♏35'13			224 Jun 06 j 03:22	0°☿	
greatest brilliancy	221 Dec 13 j 03:42	13°♏25'06	-4.7m		224 Jun 30 j 16:19	0°♌	
	222 Jan 06 j 00:17	0°♐			224 Jul 25 j 07:43	0°♍	
morning max el	222 Jan 20 j 06:13	13°♐31'49	46°47'46		224 Aug 19 j 03:32	0°♎	
	222 Feb 04 j 23:29	0°♑		desc. node	224 Aug 24 j 15:43	6°♎36'37	
	222 Mar 03 j 18:31	0°≈			224 Sep 13 j 06:49	0°♏	
desc. node	222 Mar 09 j 20:42	7°≈01'07			224 Oct 08 j 23:33	0°♐	
	222 Mar 29 j 13:06	0°♌			224 Nov 04 j 23:19	0°♑	
	222 Apr 23 j 20:36	0°♌		evening max el	224 Nov 12 j 17:49	8°♑05'56	47°23'54
	222 May 18 j 21:33	0°♌			224 Dec 06 j 17:45	0°≈	
	222 Jun 12 j 17:02	0°♎		asc. node	224 Dec 15 j 18:48	6°≈10'28	
asc. node	222 Jun 30 j 23:49	22°♎17'30		greatest brilliancy	224 Dec 20 j 15:23	8°≈44'01	-4.7m
	222 Jul 07 j 06:48	0°☿		retrograde	225 Jan 02 j 19:03	11°≈58'16	
morning set	222 Jul 19 j 17:12	15°☿17'31		evening set	225 Jan 19 j 09:54	6°≈28'21	
	222 Jul 31 j 14:46	0°♌		min. Earth dist.	225 Jan 22 j 15:03	4°≈30'11	0.27437 AU
max. Earth dist.	222 Aug 21 j 20:05	26°♌22'24	1.72229 AU	inferior conj	225 Jan 23 j 14:47	3°≈53'03	7°53'50
	222 Aug 24 j 17:52	0°♍		minimum elong	225 Jan 23 j 06:51	4°≈05'28	7°52'46
				morning rise	225 Jan 27 j 04:14	1°≈41'45	
superior conj	222 Aug 25 j 10:53	0°♍53'02	1°24'36		225 Jan 30 j 04:09	30°♌	
minimum elong	222 Aug 25 j 10:44	0°♍52'34	1°24'37	direct	225 Feb 13 j 06:33	26°♑01'38	
	222 Sep 17 j 17:57	0°♎		greatest brilliancy	225 Feb 23 j 19:43	28°♑06'05	-4.6m
evening rise	222 Oct 02 j 17:53	18°♎46'51			225 Feb 28 j 04:23	0°≈	
	222 Oct 11 j 16:54	0°♏		morning max el	225 Apr 03 j 15:05	26°≈58'18	46°06'27
desc. node	222 Oct 20 j 13:28	11°♏05'28		desc. node	225 Apr 06 j 08:21	29°≈37'43	
	222 Nov 04 j 16:05	0°♐			225 Apr 06 j 17:23	0°♌	
	222 Nov 28 j 16:38	0°♑			225 May 05 j 05:39	0°♌	
	222 Dec 22 j 20:21	0°≈			225 May 31 j 20:05	0°♌	
	223 Jan 16 j 06:50	0°♌			225 Jun 26 j 12:54	0°♎	
	223 Feb 10 j 06:39	0°♌			225 Jul 21 j 15:07	0°☿	
asc. node	223 Feb 10 j 16:29	0°♌29'00		asc. node	225 Jul 28 j 11:37	8°☿18'16	
	223 Mar 08 j 08:04	0°♌			225 Aug 15 j 05:35	0°♌	
	223 Apr 05 j 18:26	0°♎			225 Sep 08 j 10:53	0°♍	
evening max el	223 Apr 07 j 08:35	1°♎32'33	45°27'15	morning set	225 Sep 27 j 22:48	24°♍23'13	
greatest brilliancy	223 May 11 j 15:39	27°♎49'17	-4.5m		225 Oct 02 j 10:09	0°♎	
	223 May 17 j 05:56	0°☿			225 Oct 26 j 06:34	0°♏	
retrograde	223 May 25 j 23:38	1°☿23'53					
desc. node	223 Jun 02 j 06:04	0°☿20'54		superior conj	225 Nov 06 j 15:29	14°♏19'03	0°24'27
	223 Jun 03 j 09:01	30°♌II		minimum elong	225 Nov 06 j 21:39	14°♏38'29	0°24'10
evening set	223 Jun 10 j 02:08	27°♎00'33		max. Earth dist.	225 Nov 06 j 21:59	14°♏39'32	1.71045 AU
inferior conj	223 Jun 16 j 10:44	23°♎13'31	-3°-14'-47	desc. node	225 Nov 17 j 01:20	22°♏25'28	
minimum elong	223 Jun 16 j 03:58	23°♎24'02	3°12'57		225 Nov 19 j 02:25	0°♐	
min. Earth dist.	223 Jun 16 j 13:04	23°♎09'53	0.28937 AU		225 Dec 12 j 23:05	0°♑	
morning rise	223 Jun 22 j 05:35	19°♎44'36		evening rise	225 Dec 18 j 09:59	6°♑50'53	

	226 Jan 05 j 21:33	0°♊			228 Aug 03 j 10:10	0°♋	
	226 Jan 29 j 23:27	0°♋		asc. node	228 Aug 24 j 23:29	25°♋16'04	
	226 Feb 23 j 07:13	0°♌			228 Aug 28 j 22:32	0°♌	
asc. node	226 Mar 10 j 04:23	18°♌08'16			228 Sep 22 j 15:09	0°♍	
	226 Mar 20 j 00:07	0°♍			228 Oct 16 j 19:50	0°♎	
	226 Apr 14 j 06:31	0°♎			228 Nov 09 j 18:26	0°♏	
	226 May 10 j 10:26	0°♏			228 Dec 03 j 14:58	0°♐	
	226 Jun 07 j 09:08	0°♐		morning set	228 Dec 12 j 10:37	11°♐05'26	
evening max el	226 Jun 17 j 09:28	9°♐52'58	45°30'16	desc. node	228 Dec 14 j 13:11	13°♐44'23	
desc. node	226 Jun 29 j 18:01	21°♐02'06			228 Dec 27 j 11:47	0°♑	
	226 Jul 11 j 10:12	0°♑			229 Jan 20 j 10:09	0°♒	
greatest brilliancy	226 Jul 24 j 18:05	7°♑16'10	-4.5m				
retrograde	226 Aug 05 j 02:35	9°♑33'04		superior conj	229 Jan 23 j 06:59	3°♒35'15	-1°-16'-25
evening set	226 Aug 23 j 02:49	3°♑33'42		minimum elong	229 Jan 22 j 21:35	3°♒05'52	1°16'13
inferior conj	226 Aug 26 j 05:29	1°♑40'11	-8°-47'-11	max. Earth dist.	229 Jan 27 j 07:50	8°♒37'54	1.71724 AU
minimum elong	226 Aug 26 j 05:24	1°♑40'19	8°47'13		229 Feb 13 j 10:59	0°♋	
min. Earth dist.	226 Aug 26 j 20:50	1°♑16'34	0.28026 AU	evening rise	229 Mar 04 j 08:34	23°♋27'52	
	226 Aug 28 j 23:01	30°♌0			229 Mar 09 j 15:21	0°♌	
morning rise	226 Aug 29 j 07:49	29°♌46'47			229 Apr 03 j 00:13	0°♍	
direct	226 Sep 16 j 11:08	23°♌37'12		asc. node	229 Apr 06 j 16:19	4°♍29'47	
greatest brilliancy	226 Sep 30 j 16:09	27°♌15'38	-4.6m		229 Apr 27 j 14:27	0°♎	
	226 Oct 05 j 16:40	0°♍			229 May 22 j 11:10	0°♏	
asc. node	226 Oct 20 j 20:57	11°♍19'32			229 Jun 16 j 16:46	0°♐	
morning max el	226 Nov 06 j 01:04	26°♍39'35	46°49'14		229 Jul 12 j 12:34	0°♑	
	226 Nov 09 j 06:56	0°♎		desc. node	229 Jul 27 j 05:46	16°♑36'25	
	226 Dec 06 j 10:26	0°♏			229 Aug 08 j 11:09	0°♒	
	226 Dec 31 j 21:27	0°♐		evening max el	229 Aug 29 j 10:38	21°♒39'49	46°39'00
	227 Jan 25 j 18:01	0°♑			229 Sep 07 j 06:17	0°♓	
desc. node	227 Feb 09 j 10:47	17°♑53'12		greatest brilliancy	229 Oct 07 j 16:47	21°♓12'20	-4.6m
	227 Feb 19 j 09:12	0°♒		retrograde	229 Oct 18 j 10:22	23°♓21'03	
	227 Mar 15 j 22:33	0°♋		evening set	229 Nov 02 j 04:32	19°♓05'09	
	227 Apr 09 j 11:29	0°♌		inferior conj	229 Nov 07 j 23:46	15°♓42'24	-2°-24'-31
	227 May 04 j 00:12	0°♍		minimum elong	229 Nov 08 j 05:10	15°♓34'14	2°22'51
morning set	227 May 11 j 00:44	8°♍35'45		min. Earth dist.	229 Nov 08 j 05:35	15°♓33'35	0.26415 AU
	227 May 28 j 12:02	0°♎		morning rise	229 Nov 14 j 05:27	12°♓05'08	
asc. node	227 Jun 02 j 14:02	6°♎14'17		asc. node	229 Nov 17 j 08:58	10°♓33'22	
max. Earth dist.	227 Jun 14 j 03:13	20°♎25'32	1.73540 AU	direct	229 Nov 28 j 08:12	8°♓04'58	
				greatest brilliancy	229 Dec 10 j 18:54	10°♓58'27	-4.7m
superior conj	227 Jun 16 j 09:23	23°♎12'01	0°31'57		230 Jan 06 j 06:59	0°♐	
minimum elong	227 Jun 16 j 03:24	22°♎53'37	0°31'40	morning max el	230 Jan 17 j 20:27	11°♐08'12	46°48'57
	227 Jun 21 j 22:01	0°♏			230 Feb 04 j 17:58	0°♑	
	227 Jul 16 j 05:45	0°♐			230 Mar 03 j 09:22	0°♒	
evening rise	227 Jul 22 j 02:54	7°♐16'05		desc. node	230 Mar 08 j 22:40	6°♒25'15	
	227 Aug 09 j 11:49	0°♑			230 Mar 29 j 02:14	0°♋	
	227 Sep 02 j 17:35	0°♒			230 Apr 23 j 08:46	0°♌	
desc. node	227 Sep 22 j 03:35	23°♒59'32			230 May 18 j 09:08	0°♍	
	227 Sep 27 j 00:26	0°♓			230 Jun 12 j 04:15	0°♎	
	227 Oct 21 j 09:41	0°♐		asc. node	230 Jun 30 j 01:51	21°♓49'50	
	227 Nov 14 j 23:37	0°♑			230 Jul 06 j 17:50	0°♏	
	227 Dec 10 j 00:09	0°♒		morning set	230 Jul 17 j 10:43	13°♏09'43	
	228 Jan 05 j 02:17	0°♋			230 Jul 31 j 01:44	0°♐	
asc. node	228 Jan 13 j 06:38	8°♋55'42		max. Earth dist.	230 Aug 19 j 12:49	24°♐10'45	1.72281 AU
evening max el	228 Jan 24 j 03:48	20°♋15'21	46°33'53				
	228 Feb 03 j 06:00	0°♌		superior conj	230 Aug 23 j 03:07	28°♌39'40	1°24'30
greatest brilliancy	228 Feb 28 j 18:40	18°♌48'24	-4.6m	minimum elong	230 Aug 23 j 02:13	28°♌36'53	1°24'30
retrograde	228 Mar 14 j 05:37	22°♌34'08			230 Aug 24 j 04:53	0°♍	
evening set	228 Mar 30 j 23:02	17°♌09'06			230 Sep 17 j 05:03	0°♎	
inferior conj	228 Apr 04 j 14:15	14°♌16'38	6°09'54	evening rise	230 Sep 30 j 06:37	16°♎21'26	
minimum elong	228 Apr 04 j 23:46	14°♌01'31	6°07'58		230 Oct 11 j 04:09	0°♏	
min. Earth dist.	228 Apr 04 j 16:13	14°♌13'30	0.28817 AU	desc. node	230 Oct 19 j 15:34	10°♓36'32	
morning rise	228 Apr 10 j 00:42	10°♌56'19			230 Nov 04 j 03:33	0°♐	
direct	228 Apr 26 j 00:18	6°♌00'54			230 Nov 28 j 04:22	0°♑	
desc. node	228 May 03 j 20:08	7°♌08'25			230 Dec 22 j 08:23	0°♒	
greatest brilliancy	228 May 08 j 11:38	8°♌45'49	-4.5m		231 Jan 15 j 19:22	0°♋	
	228 Jun 07 j 13:39	0°♍		asc. node	231 Feb 09 j 18:29	29°♋55'11	
morning max el	228 Jun 13 j 17:45	5°♍43'59	45°44'37		231 Feb 09 j 20:07	0°♌	
	228 Jul 07 j 12:46	0°♎			231 Mar 07 j 23:39	0°♍	

evening max el	231 Apr 05 j 01:13	29° ♄ 23'27	45°28'37		233 Oct 01 j 21:21	0° ♄	
	231 Apr 05 j 16:24	0° ♄			233 Oct 25 j 17:49	0° ♄	
greatest brilliancy	231 May 09 j 06:33	25° ♄ 38'55	-4.5m				
retrograde	231 May 23 j 16:22	29° ♄ 14'56		superior conj	233 Nov 04 j 01:59	11° ♄ 45'35	0°28'11
desc. node	231 Jun 01 j 08:10	27° ♄ 45'35		minimum elong	233 Nov 04 j 08:58	12° ♄ 07'33	0°27'52
evening set	231 Jun 07 j 17:39	24° ♄ 52'39		max. Earth dist.	233 Nov 04 j 00:30	11° ♄ 40'54	1.71057 AU
inferior conj	231 Jun 14 j 03:00	21° ♄ 04'04	-2°-56'-18	desc. node	233 Nov 16 j 03:28	26° ♄ 56'41	
minimum elong	231 Jun 13 j 20:49	21° ♄ 13'42	2°54'36		233 Nov 18 j 13:43	0° ♄	
min. Earth dist.	231 Jun 14 j 05:00	21° ♄ 00'58	0.28948 AU		233 Dec 12 j 10:24	0° ♄	
morning rise	231 Jun 19 j 23:52	17° ♄ 32'23		evening rise	233 Dec 15 j 19:27	4° ♄ 14'24	
direct	231 Jul 05 j 19:37	12° ♄ 46'10			234 Jan 05 j 08:55	0° ♄	
greatest brilliancy	231 Jul 20 j 00:39	16° ♄ 17'26	-4.5m		234 Jan 29 j 10:56	0° ♄	
	231 Aug 09 j 11:21	0° ♄			234 Feb 22 j 18:57	0° ♄	
morning max el	231 Aug 24 j 03:26	13° ♄ 20'34	46°07'36	asc. node	234 Mar 09 j 06:28	17° ♄ 38'19	
	231 Sep 09 j 08:35	0° ♄			234 Mar 19 j 12:19	0° ♄	
asc. node	231 Sep 22 j 11:20	14° ♄ 26'39			234 Apr 13 j 19:38	0° ♄	
	231 Oct 06 j 00:32	0° ♄			234 May 10 j 01:29	0° ♄	
	231 Oct 31 j 03:45	0° ♄			234 Jun 07 j 05:09	0° ♄	
	231 Nov 24 j 14:18	0° ♄		evening max el	234 Jun 14 j 23:03	7° ♄ 35'28	45°28'50
	231 Dec 18 j 18:01	0° ♄		desc. node	234 Jun 28 j 20:01	20° ♄ 00'55	
	232 Jan 11 j 19:56	0° ♄			234 Jul 12 j 12:14	0° ♄	
desc. node	232 Jan 12 j 00:57	0° ♄ 15'38		greatest brilliancy	234 Jul 22 j 06:12	4° ♄ 57'38	-4.5m
	232 Feb 04 j 22:22	0° ♄		retrograde	234 Aug 02 j 15:52	7° ♄ 16'15	
morning set	232 Feb 27 j 20:39	28° ♄ 27'59		evening set	234 Aug 20 j 15:47	1° ♄ 18'16	
	232 Feb 29 j 02:20	0° ♄			234 Aug 22 j 19:37	30° ♄	
	232 Mar 24 j 08:21	0° ♄		inferior conj	234 Aug 23 j 19:55	29° ♄ 22'39	-8°-46'-10
				minimum elong	234 Aug 23 j 18:57	29° ♄ 24'09	8°46'10
superior conj	232 Apr 06 j 05:03	15° ♄ 51'51	0°-59'-50	min. Earth dist.	234 Aug 24 j 11:00	28° ♄ 59'26	0.28084 AU
minimum elong	232 Apr 06 j 14:39	16° ♄ 21'25	0°59'31	morning rise	234 Aug 26 j 21:54	27° ♄ 29'39	
max. Earth dist.	232 Apr 08 j 08:06	18° ♄ 29'05	1.73248 AU	direct	234 Sep 14 j 01:37	21° ♄ 18'34	
	232 Apr 17 j 16:36	0° ♄		greatest brilliancy	234 Sep 28 j 08:26	24° ♄ 58'03	-4.6m
asc. node	232 May 04 j 04:18	20° ♄ 15'30			234 Oct 06 j 22:26	0° ♄	
	232 May 12 j 02:48	0° ♄		asc. node	234 Oct 19 j 23:11	10° ♄ 16'06	
evening rise	232 May 13 j 08:24	1° ♄ 30'48		morning max el	234 Nov 03 j 14:24	24° ♄ 14'05	46°48'15
	232 Jun 05 j 14:30	0° ♄			234 Nov 09 j 03:56	0° ♄	
	232 Jun 30 j 03:46	0° ♄			234 Dec 06 j 02:25	0° ♄	
	232 Jul 24 j 19:40	0° ♄			234 Dec 31 j 11:25	0° ♄	
	232 Aug 18 j 16:15	0° ♄			235 Jan 25 j 06:51	0° ♄	
desc. node	232 Aug 23 j 17:40	6° ♄ 03'42		desc. node	235 Feb 08 j 12:52	17° ♄ 21'44	
	232 Sep 12 j 20:44	0° ♄			235 Feb 18 j 21:19	0° ♄	
	232 Oct 08 j 15:34	0° ♄			235 Mar 15 j 10:11	0° ♄	
	232 Nov 04 j 20:06	0° ♄			235 Apr 08 j 22:46	0° ♄	
evening max el	232 Nov 10 j 09:10	5° ♄ 44'30	47°24'02		235 May 03 j 11:15	0° ♄	
	232 Dec 07 j 14:28	0° ♄		morning set	235 May 08 j 18:44	6° ♄ 30'14	
asc. node	232 Dec 14 j 20:49	4° ♄ 36'42			235 May 27 j 22:56	0° ♄	
greatest brilliancy	232 Dec 18 j 07:58	6° ♄ 22'00	-4.7m	asc. node	235 Jun 01 j 16:05	5° ♄ 47'05	
retrograde	232 Dec 31 j 09:33	9° ♄ 33'14		max. Earth dist.	235 Jun 11 j 23:33	18° ♄ 27'06	1.73561 AU
evening set	233 Jan 16 j 20:20	4° ♄ 09'36					
min. Earth dist.	233 Jan 20 j 04:25	2° ♄ 06'59	0.27368 AU	superior conj	235 Jun 14 j 04:04	21° ♄ 08'30	0°29'03
inferior conj	233 Jan 21 j 04:36	1° ♄ 29'08	7°44'13	minimum elong	235 Jun 13 j 22:32	20° ♄ 51'31	0°28'48
minimum elong	233 Jan 20 j 20:10	1° ♄ 42'20	7°42'59		235 Jun 21 j 08:53	0° ♄	
	233 Jan 23 j 14:05	30° ♄			235 Jul 15 j 16:41	0° ♄	
morning rise	233 Jan 24 j 20:29	29° ♄ 14'13		evening rise	235 Jul 19 j 21:28	5° ♄ 11'17	
direct	233 Feb 10 j 20:08	23° ♄ 39'07			235 Aug 08 j 22:57	0° ♄	
greatest brilliancy	233 Feb 21 j 07:42	25° ♄ 42'09	-4.6m		235 Sep 02 j 05:01	0° ♄	
	233 Mar 02 j 01:59	0° ♄		desc. node	235 Sep 21 j 05:45	23° ♄ 30'01	
morning max el	233 Apr 01 j 04:44	24° ♄ 38'34	46°07'49		235 Sep 26 j 12:17	0° ♄	
desc. node	233 Apr 05 j 10:28	28° ♄ 48'31			235 Oct 20 j 22:04	0° ♄	
	233 Apr 06 j 15:05	0° ♄			235 Nov 14 j 12:47	0° ♄	
	233 May 04 j 21:25	0° ♄			235 Dec 09 j 14:38	0° ♄	
	233 May 31 j 09:33	0° ♄			236 Jan 04 j 19:39	0° ♄	
	233 Jun 26 j 01:13	0° ♄		asc. node	236 Jan 12 j 08:38	8° ♄ 10'37	
	233 Jul 21 j 02:49	0° ♄		evening max el	236 Jan 21 j 17:43	17° ♄ 54'40	46°36'39
asc. node	233 Jul 27 j 13:39	7° ♄ 49'17			236 Feb 03 j 09:23	0° ♄	
	233 Aug 14 j 16:57	0° ♄		greatest brilliancy	236 Feb 26 j 10:59	16° ♄ 35'54	-4.6m
	233 Sep 07 j 22:06	0° ♄		retrograde	236 Mar 11 j 22:02	20° ♄ 22'38	
morning set	233 Sep 25 j 12:40	22° ♄ 01'03		evening set	236 Mar 28 j 18:02	14° ♄ 53'13	

inferior conj	236 Apr 02 j 06:31	12° Υ 05'00	6°23'41	evening rise	238 Sep 27 j 19:47	13° Ω 58'00	
minimum elong	236 Apr 02 j 16:01	11° Υ 49'58	6°21'50		238 Oct 10 j 15:12	0° \mathbb{M}	
min. Earth dist.	236 Apr 02 j 08:09	12° Υ 02'26	0.28795 AU	desc. node	238 Oct 18 j 17:41	10° \mathbb{M} 08'23	
morning rise	236 Apr 07 j 14:10	8° Υ 48'49			238 Nov 03 j 14:47	0° \mathcal{A}	
direct	236 Apr 23 j 15:31	3° Υ 49'29			238 Nov 27 j 15:49	0° \mathcal{Z}	
desc. node	236 May 02 j 22:17	5° Υ 23'20			238 Dec 21 j 20:10	0° \approx	
greatest brilliancy	236 May 06 j 02:41	6° Υ 34'06	-4.5m		239 Jan 15 j 07:40	0° \mathcal{H}	
	236 Jun 07 j 14:35	0° \mathcal{B}		asc. node	239 Feb 08 j 20:34	29° \mathcal{H} 22'08	
morning max el	236 Jun 11 j 09:43	3° \mathcal{B} 33'48	45°44'43		239 Feb 09 j 09:27	0° Υ	
	236 Jul 07 j 05:07	0° \mathbb{I}			239 Mar 07 j 15:17	0° \mathcal{B}	
	236 Aug 02 j 23:47	0° \mathcal{S}		evening max el	239 Apr 02 j 18:00	27° \mathcal{B} 15'06	45°30'01
asc. node	236 Aug 24 j 01:34	24° \mathcal{S} 44'55			239 Apr 05 j 15:03	0° \mathbb{I}	
	236 Aug 28 j 10:55	0° Ω		greatest brilliancy	239 May 06 j 22:44	23° \mathbb{I} 30'41	-4.5m
	236 Sep 22 j 02:55	0° \mathbb{M}		retrograde	239 May 21 j 08:46	27° \mathbb{I} 06'38	
	236 Oct 16 j 07:18	0° Ω		desc. node	239 May 31 j 10:07	25° \mathbb{I} 06'44	
	236 Nov 09 j 05:45	0° \mathbb{M}		evening set	239 Jun 05 j 09:26	22° \mathbb{I} 45'26	
	236 Dec 03 j 02:12	0° \mathcal{A}		inferior conj	239 Jun 11 j 19:21	18° \mathbb{I} 55'35	-2°-37'-34
morning set	236 Dec 09 j 20:19	8° \mathcal{A} 29'47		minimum elong	239 Jun 11 j 13:46	19° \mathbb{I} 04'18	2°36'01
desc. node	236 Dec 13 j 15:10	13° \mathcal{A} 15'25		min. Earth dist.	239 Jun 11 j 21:16	18° \mathbb{I} 52'36	0.28953 AU
	236 Dec 26 j 22:57	0° \mathcal{Z}		morning rise	239 Jun 17 j 18:03	15° \mathbb{I} 21'04	
	237 Jan 19 j 21:15	0° \approx		direct	239 Jul 03 j 12:25	10° \mathbb{I} 37'47	
				greatest brilliancy	239 Jul 17 j 14:43	14° \mathbb{I} 05'58	-4.5m
superior conj	237 Jan 20 j 17:43	1° \approx 04'00	-1°-14'-35		239 Aug 09 j 16:51	0° \mathcal{S}	
minimum elong	237 Jan 20 j 07:40	0° \approx 32'35	1°14'22	morning max el	239 Aug 21 j 18:54	11° \mathcal{S} 08'09	46°06'05
max. Earth dist.	237 Jan 24 j 14:14	5° \approx 53'17	1.71674 AU		239 Sep 09 j 01:51	0° Ω	
	237 Feb 12 j 22:03	0° \mathcal{H}		asc. node	239 Sep 21 j 13:29	13° Ω 49'25	
evening rise	237 Mar 01 j 21:45	21° \mathcal{H} 05'58			239 Oct 05 j 14:36	0° \mathbb{M}	
	237 Mar 09 j 02:23	0° Υ			239 Oct 30 j 16:28	0° Ω	
	237 Apr 02 j 11:19	0° \mathcal{B}			239 Nov 24 j 02:18	0° \mathbb{M}	
asc. node	237 Apr 05 j 18:29	4° \mathcal{B} 02'21			239 Dec 18 j 05:35	0° \mathcal{A}	
	237 Apr 27 j 01:48	0° \mathbb{I}		desc. node	240 Jan 11 j 03:02	29° \mathcal{A} 47'02	
	237 May 21 j 23:02	0° \mathcal{S}			240 Jan 11 j 07:12	0° \mathcal{Z}	
	237 Jun 16 j 05:32	0° Ω			240 Feb 04 j 09:24	0° \approx	
	237 Jul 12 j 03:00	0° \mathbb{M}		morning set	240 Feb 25 j 10:11	26° \approx 07'34	
desc. node	237 Jul 26 j 07:48	15° \mathbb{M} 57'52			240 Feb 28 j 13:11	0° \mathcal{H}	
	237 Aug 08 j 05:06	0° Ω			240 Mar 23 j 19:04	0° Υ	
evening max el	237 Aug 27 j 00:17	19° Ω 18'15	46°36'31				
	237 Sep 07 j 11:37	0° \mathbb{M}		superior conj	240 Apr 03 j 21:14	13° Υ 40'54	-1°-2'-11
greatest brilliancy	237 Oct 05 j 04:57	18° \mathbb{M} 44'12	-4.6m	minimum elong	240 Apr 04 j 06:52	14° Υ 10'36	1°01'52
retrograde	237 Oct 15 j 23:02	20° \mathbb{M} 52'47		max. Earth dist.	240 Apr 06 j 05:16	16° Υ 33'31	1.73210 AU
evening set	237 Oct 30 j 18:48	16° \mathbb{M} 33'51			240 Apr 17 j 03:15	0° \mathcal{B}	
inferior conj	237 Nov 05 j 11:54	13° \mathbb{M} 13'59	-2°-48'-1	asc. node	240 May 03 j 06:17	19° \mathcal{B} 48'51	
minimum elong	237 Nov 05 j 18:06	13° \mathbb{M} 04'36	2°46'07	evening rise	240 May 11 j 02:34	29° \mathcal{B} 26'31	
min. Earth dist.	237 Nov 05 j 18:50	13° \mathbb{M} 03'29	0.26442 AU		240 May 11 j 13:29	0° \mathbb{I}	
morning rise	237 Nov 11 j 17:06	9° \mathbb{M} 37'45			240 Jun 05 j 01:20	0° \mathcal{S}	
asc. node	237 Nov 16 j 10:55	7° \mathbb{M} 26'35			240 Jun 29 j 14:54	0° Ω	
direct	237 Nov 25 j 21:16	5° \mathbb{M} 36'07			240 Jul 24 j 07:17	0° \mathbb{M}	
greatest brilliancy	237 Dec 08 j 09:15	8° \mathbb{M} 31'42	-4.7m		240 Aug 18 j 04:40	0° Ω	
	238 Jan 06 j 11:25	0° \mathcal{A}		desc. node	240 Aug 22 j 19:49	5° Ω 32'29	
morning max el	238 Jan 15 j 11:07	8° \mathcal{A} 46'10	46°49'48		240 Sep 12 j 10:24	0° \mathbb{M}	
	238 Feb 04 j 11:54	0° \mathcal{Z}			240 Oct 08 j 07:27	0° \mathcal{A}	
	238 Mar 03 j 00:00	0° \approx			240 Nov 04 j 17:09	0° \mathcal{Z}	
desc. node	238 Mar 08 j 00:49	5° \approx 50'16		evening max el	240 Nov 07 j 23:56	3° \mathcal{Z} 22'32	47°23'59
	238 Mar 28 j 15:14	0° \mathcal{H}			240 Dec 08 j 17:56	0° \approx	
	238 Apr 22 j 20:48	0° Υ		asc. node	240 Dec 13 j 22:51	3° \approx 00'45	
	238 May 17 j 20:32	0° \mathcal{B}		greatest brilliancy	240 Dec 16 j 01:16	4° \approx 01'57	-4.7m
	238 Jun 11 j 15:16	0° \mathbb{I}		retrograde	240 Dec 28 j 23:38	7° \approx 09'26	
asc. node	238 Jun 29 j 03:50	21° \mathbb{I} 22'39		evening set	241 Jan 14 j 06:46	1° \approx 52'18	
	238 Jul 06 j 04:39	0° \mathcal{S}			241 Jan 17 j 08:27	30° \mathcal{R} \mathcal{Z}	
morning set	238 Jul 15 j 04:19	11° \mathcal{S} 02'55		min. Earth dist.	241 Jan 17 j 18:17	29° \mathcal{Z} 44'39	0.27298 AU
	238 Jul 30 j 12:30	0° Ω		inferior conj	241 Jan 18 j 18:28	29° \mathcal{Z} 06'45	7°33'38
max. Earth dist.	238 Aug 17 j 03:47	21° Ω 54'19	1.72334 AU	minimum elong	241 Jan 18 j 09:36	29° \mathcal{Z} 20'39	7°32'15
				morning rise	241 Jan 22 j 12:54	26° \mathcal{Z} 47'58	
superior conj	238 Aug 20 j 19:38	26° Ω 27'54	1°24'16	direct	241 Feb 08 j 09:12	21° \mathcal{Z} 18'03	
minimum elong	238 Aug 20 j 18:01	26° Ω 22'50	1°24'15	greatest brilliancy	241 Feb 18 j 20:29	23° \mathcal{Z} 20'25	-4.6m
	238 Aug 23 j 15:41	0° \mathbb{M}			241 Mar 03 j 08:10	0° \approx	
	238 Sep 16 j 15:58	0° Ω		morning max el	241 Mar 29 j 17:42	22° \approx 18'26	46°09'10

desc. node	241 Apr 04 j 12:36	28° \approx 01'39			243 Oct 20 j 10:13	0° \mathcal{Z}	
	241 Apr 06 j 11:29	0° \mathcal{H}			243 Nov 14 j 01:44	0° \mathcal{Z}	
	241 May 04 j 12:31	0° \mathcal{Y}			243 Dec 09 j 04:59	0° \approx	
	241 May 30 j 22:32	0° \mathcal{B}			244 Jan 04 j 13:06	0° \mathcal{H}	
	241 Jun 25 j 13:08	0° Π		asc. node	244 Jan 11 j 10:46	7° \mathcal{H} 26'02	
	241 Jul 20 j 14:07	0° \mathcal{S}		evening max el	244 Jan 19 j 08:39	15° \mathcal{H} 37'13	46°39'19
asc. node	241 Jul 26 j 15:46	7° \mathcal{S} 21'43			244 Feb 03 j 14:15	0° \mathcal{Y}	
	241 Aug 14 j 03:55	0° \mathcal{Q}		greatest brilliancy	244 Feb 24 j 02:53	14° \mathcal{Y} 23'25	-4.6m
	241 Sep 07 j 08:55	0° \mathcal{M}		retrograde	244 Mar 09 j 14:51	18° \mathcal{Y} 11'34	
morning set	241 Sep 23 j 02:42	19° \mathcal{M} 40'41		evening set	244 Mar 26 j 12:57	12° \mathcal{Y} 37'42	
	241 Oct 01 j 08:09	0° \mathcal{L}		inferior conj	244 Mar 30 j 22:43	9° \mathcal{Y} 53'43	6°36'50
	241 Oct 25 j 04:40	0° \mathcal{M}		minimum elong	244 Mar 31 j 08:07	9° \mathcal{Y} 38'49	6°35'05
max. Earth dist.	241 Nov 01 j 03:56	8° \mathcal{M} 46'27	1.71077 AU	min. Earth dist.	244 Mar 30 j 23:40	9° \mathcal{Y} 52'12	0.28772 AU
				morning rise	244 Apr 05 j 03:29	6° \mathcal{Y} 41'59	
superior conj	241 Nov 01 j 12:45	9° \mathcal{M} 14'12	0°31'51	direct	244 Apr 21 j 07:04	1° \mathcal{Y} 38'30	
minimum elong	241 Nov 01 j 20:28	9° \mathcal{M} 38'30	0°31'29	desc. node	244 May 02 j 00:11	3° \mathcal{Y} 42'23	
desc. node	241 Nov 15 j 05:25	26° \mathcal{M} 28'28		greatest brilliancy	244 May 03 j 17:10	4° \mathcal{Y} 22'26	-4.5m
	241 Nov 18 j 00:39	0° \mathcal{Z}			244 Jun 07 j 14:01	0° \mathcal{B}	
	241 Dec 11 j 21:23	0° \mathcal{Z}		morning max el	244 Jun 09 j 02:25	1° \mathcal{B} 26'10	45°44'50
evening rise	241 Dec 13 j 05:06	1° \mathcal{Z} 39'35			244 Jul 06 j 20:55	0° Π	
	242 Jan 04 j 19:57	0° \approx			244 Aug 02 j 13:04	0° \mathcal{S}	
	242 Jan 28 j 22:03	0° \mathcal{H}		asc. node	244 Aug 23 j 03:41	24° \mathcal{S} 14'27	
	242 Feb 22 j 06:18	0° \mathcal{Y}			244 Aug 27 j 23:05	0° \mathcal{Q}	
asc. node	242 Mar 08 j 08:38	17° \mathcal{Y} 09'51			244 Sep 21 j 14:33	0° \mathcal{M}	
	242 Mar 19 j 00:08	0° \mathcal{B}			244 Oct 15 j 18:39	0° \mathcal{L}	
	242 Apr 13 j 08:25	0° Π			244 Nov 08 j 16:55	0° \mathcal{M}	
	242 May 09 j 16:20	0° \mathcal{S}			244 Dec 02 j 13:16	0° \mathcal{Z}	
	242 Jun 07 j 01:25	0° \mathcal{Q}		morning set	244 Dec 07 j 06:04	5° \mathcal{Z} 54'43	
evening max el	242 Jun 12 j 12:43	5° \mathcal{Q} 19'17	45°27'28	desc. node	244 Dec 12 j 17:15	12° \mathcal{Z} 47'11	
desc. node	242 Jun 27 j 22:06	18° \mathcal{Q} 59'21			244 Dec 26 j 09:57	0° \mathcal{Z}	
	242 Jul 14 j 00:16	0° \mathcal{M}					
greatest brilliancy	242 Jul 19 j 17:25	2° \mathcal{M} 39'16	-4.5m	superior conj	245 Jan 18 j 04:12	28° \mathcal{Z} 32'22	-1°-12'-35
retrograde	242 Jul 31 j 05:44	5° \mathcal{M} 00'54		minimum elong	245 Jan 17 j 17:37	27° \mathcal{Z} 59'13	1°12'21
	242 Aug 16 j 14:06	30° \mathcal{R} \mathcal{Q}			245 Jan 19 j 08:12	0° \approx	
evening set	242 Aug 18 j 04:25	29° \mathcal{Q} 04'38		max. Earth dist.	245 Jan 21 j 22:49	3° \approx 15'51	1.71629 AU
inferior conj	242 Aug 21 j 10:26	27° \mathcal{Q} 06'25	-8°-44'-11		245 Feb 12 j 08:58	0° \mathcal{H}	
minimum elong	242 Aug 21 j 08:37	27° \mathcal{Q} 09'13	8°44'09	evening rise	245 Feb 27 j 10:50	18° \mathcal{H} 43'57	
min. Earth dist.	242 Aug 22 j 01:06	26° \mathcal{Q} 43'52	0.28141 AU		245 Mar 08 j 13:19	0° \mathcal{Y}	
morning rise	242 Aug 24 j 12:34	25° \mathcal{Q} 13'16			245 Apr 01 j 22:20	0° \mathcal{B}	
direct	242 Sep 11 j 16:15	19° \mathcal{Q} 01'15		asc. node	245 Apr 04 j 20:28	3° \mathcal{B} 34'37	
greatest brilliancy	242 Sep 26 j 01:22	22° \mathcal{Q} 42'52	-4.6m		245 Apr 26 j 13:04	0° Π	
	242 Oct 07 j 19:24	0° \mathcal{M}			245 May 21 j 10:49	0° \mathcal{S}	
asc. node	242 Oct 19 j 01:09	9° \mathcal{M} 14'51			245 Jun 15 j 18:17	0° \mathcal{Q}	
morning max el	242 Nov 01 j 04:36	21° \mathcal{M} 52'13	46°47'14		245 Jul 11 j 17:30	0° \mathcal{M}	
	242 Nov 08 j 23:49	0° \mathcal{L}		desc. node	245 Jul 25 j 09:56	15° \mathcal{M} 19'23	
	242 Dec 05 j 17:46	0° \mathcal{M}			245 Aug 07 j 23:26	0° \mathcal{L}	
	242 Dec 31 j 00:53	0° \mathcal{Z}		evening max el	245 Aug 24 j 14:32	16° \mathcal{L} 58'18	46°33'45
	243 Jan 24 j 19:18	0° \mathcal{Z}			245 Sep 07 j 19:13	0° \mathcal{M}	
desc. node	243 Feb 07 j 14:57	16° \mathcal{Z} 51'21		greatest brilliancy	245 Oct 02 j 17:14	16° \mathcal{M} 15'52	-4.6m
	243 Feb 18 j 09:05	0° \approx		retrograde	245 Oct 13 j 11:17	18° \mathcal{M} 23'36	
	243 Mar 14 j 21:28	0° \mathcal{H}		evening set	245 Oct 28 j 09:07	14° \mathcal{M} 01'45	
	243 Apr 08 j 09:43	0° \mathcal{Y}		inferior conj	245 Nov 02 j 23:51	10° \mathcal{M} 44'50	-3°-11'-16
	243 May 02 j 21:57	0° \mathcal{B}		minimum elong	245 Nov 03 j 06:48	10° \mathcal{M} 34'18	3°09'09
morning set	243 May 06 j 12:50	4° \mathcal{B} 26'00		min. Earth dist.	245 Nov 03 j 07:53	10° \mathcal{M} 32'39	0.26471 AU
	243 May 27 j 09:31	0° Π		morning rise	245 Nov 09 j 04:14	7° \mathcal{M} 09'45	
asc. node	243 May 31 j 18:05	5° \mathcal{I} 20'49		asc. node	245 Nov 15 j 12:57	4° \mathcal{M} 24'04	
max. Earth dist.	243 Jun 09 j 21:48	16° \mathcal{I} 35'31	1.73583 AU	direct	245 Nov 23 j 10:20	3° \mathcal{M} 06'40	
				greatest brilliancy	245 Dec 05 j 22:50	6° \mathcal{M} 03'21	-4.7m
superior conj	243 Jun 11 j 22:47	19° \mathcal{I} 06'03	0°26'07		246 Jan 06 j 14:17	0° \mathcal{Z}	
minimum elong	243 Jun 11 j 17:45	18° \mathcal{I} 50'35	0°25'53	morning max el	246 Jan 13 j 01:02	6° \mathcal{Z} 22'00	46°50'39
	243 Jun 20 j 19:27	0° \mathcal{S}			246 Feb 04 j 05:28	0° \mathcal{Z}	
	243 Jul 15 j 03:22	0° \mathcal{Q}			246 Mar 02 j 14:27	0° \approx	
evening rise	243 Jul 17 j 16:07	3° \mathcal{Q} 07'35		desc. node	246 Mar 07 j 02:54	5° \approx 15'22	
	243 Aug 08 j 09:50	0° \mathcal{M}			246 Mar 28 j 04:09	0° \mathcal{H}	
	243 Sep 01 j 16:13	0° \mathcal{L}			246 Apr 22 j 08:48	0° \mathcal{Y}	
desc. node	243 Sep 20 j 07:48	23° \mathcal{L} 00'55			246 May 17 j 07:57	0° \mathcal{B}	
	243 Sep 25 j 23:53	0° \mathcal{M}			246 Jun 11 j 02:19	0° Π	

asc. node	246 Jun 28 j 06:02	20°II55'57			249 Jan 10 j 22:12	30°R3	
	246 Jul 05 j 15:30	0°☿		evening set	249 Jan 11 j 16:55	29°33'02	
morning set	246 Jul 12 j 22:11	8°☿56'52		min. Earth dist.	249 Jan 15 j 08:20	27°319'54	0.27233 AU
	246 Jul 29 j 23:18	0°♊		inferior conj	249 Jan 16 j 08:11	26°342'33	7°22'05
max. Earth dist.	246 Aug 14 j 18:07	19°♊35'54	1.72390 AU	minimum elong	249 Jan 15 j 22:54	26°357'06	7°20'31
				morning rise	249 Jan 20 j 05:19	24°319'43	
superior conj	246 Aug 18 j 12:29	24°♊17'08	1°23'54	direct	249 Feb 05 j 21:45	18°354'47	
minimum elong	246 Aug 18 j 10:08	24°♊09'50	1°23'54	greatest brilliancy	249 Feb 16 j 10:30	20°358'06	-4.6m
	246 Aug 23 j 02:32	0°♋			249 Mar 04 j 06:51	0°≈	
	246 Sep 16 j 02:57	0°♌		morning max el	249 Mar 27 j 06:32	19°≈56'15	46°10'39
evening rise	246 Sep 25 j 09:08	11°♌34'54		desc. node	249 Apr 03 j 14:34	27°≈13'38	
	246 Oct 10 j 02:23	0°♍			249 Apr 06 j 07:46	0°♎	
desc. node	246 Oct 17 j 19:40	9°♍39'23			249 May 04 j 03:51	0°♏	
	246 Nov 03 j 02:11	0°♐			249 May 30 j 11:49	0°♑	
	246 Nov 27 j 03:29	0°♑			249 Jun 25 j 01:22	0°♒	
	246 Dec 21 j 08:10	0°≈			249 Jul 20 j 01:46	0°☿	
	247 Jan 14 j 20:12	0°♋		asc. node	249 Jul 25 j 17:50	6°☿52'51	
asc. node	247 Feb 07 j 22:40	28°♋48'30			249 Aug 13 j 15:14	0°♊	
	247 Feb 08 j 23:03	0°♌			249 Sep 06 j 20:05	0°♋	
	247 Mar 07 j 07:22	0°♍		morning set	249 Sep 20 j 17:06	17°♋20'30	
evening max el	247 Mar 31 j 10:04	25°♍04'21	45°31'26		249 Sep 30 j 19:18	0°♌	
	247 Apr 05 j 14:58	0°♍			249 Oct 24 j 15:50	0°♍	
greatest brilliancy	247 May 04 j 15:10	21°♍22'05	-4.5m				
retrograde	247 May 19 j 00:35	24°♍57'46		superior conj	249 Oct 29 j 23:59	6°♍43'23	0°35'23
desc. node	247 May 30 j 12:17	22°♍22'42		minimum elong	249 Oct 30 j 08:22	7°♍09'45	0°35'00
evening set	247 Jun 03 j 01:20	20°♍37'22		max. Earth dist.	249 Oct 29 j 10:47	6°♍01'49	1.71096 AU
inferior conj	247 Jun 09 j 11:42	16°♍46'38	-2°-18'-34	desc. node	249 Nov 14 j 07:34	25°♍59'59	
minimum elong	247 Jun 09 j 06:45	16°♍54'22	2°17'11		249 Nov 17 j 11:51	0°♎	
min. Earth dist.	247 Jun 09 j 13:54	16°♍43'12	0.28957 AU	evening rise	249 Dec 10 j 15:05	29°♎04'52	
morning rise	247 Jun 15 j 12:04	13°♍09'20			249 Dec 11 j 08:39	0°3	
direct	247 Jul 01 j 04:51	8°♍28'49			250 Jan 04 j 07:18	0°≈	
greatest brilliancy	247 Jul 15 j 04:50	11°♍53'55	-4.5m		250 Jan 28 j 09:34	0°♋	
	247 Aug 09 j 20:42	0°☿			250 Feb 21 j 18:05	0°♌	
morning max el	247 Aug 19 j 09:30	8°☿53'10	46°04'45	asc. node	250 Mar 07 j 10:35	16°♌39'24	
	247 Sep 08 j 18:55	0°♊			250 Mar 18 j 12:26	0°♍	
asc. node	247 Sep 20 j 15:29	13°♊11'37			250 Apr 12 j 21:44	0°♍	
	247 Oct 05 j 04:42	0°♋			250 May 09 j 07:51	0°☿	
	247 Oct 30 j 05:17	0°♌			250 Jun 06 j 22:55	0°♊	
	247 Nov 23 j 14:29	0°♍		evening max el	250 Jun 10 j 02:47	3°♊03'02	45°26'15
	247 Dec 17 j 17:25	0°♎		desc. node	250 Jun 27 j 00:14	17°♊54'59	
desc. node	248 Jan 10 j 05:13	29°♎17'45			250 Jul 16 j 09:08	0°♋	
	248 Jan 10 j 18:46	0°3		greatest brilliancy	250 Jul 17 j 03:34	0°♋18'38	-4.5m
	248 Feb 03 j 20:44	0°≈		retrograde	250 Jul 28 j 20:04	2°♋44'23	
morning set	248 Feb 22 j 23:10	23°≈44'24			250 Aug 09 j 16:44	30°♋♊	
	248 Feb 28 j 00:18	0°♋		evening set	250 Aug 15 j 16:38	26°♊50'14	
	248 Mar 23 j 06:02	0°♌		inferior conj	250 Aug 19 j 00:52	24°♊48'50	-8°-41'-21
				minimum elong	250 Aug 18 j 22:12	24°♊52'56	8°41'17
superior conj	248 Apr 01 j 13:07	11°♌28'09	-1°-4'-27	min. Earth dist.	250 Aug 19 j 14:47	24°♊27'28	0.28196 AU
minimum elong	248 Apr 01 j 22:45	11°♌57'49	1°04'10	morning rise	250 Aug 22 j 03:33	22°♊55'01	
max. Earth dist.	248 Apr 04 j 01:33	14°♌34'23	1.73166 AU	direct	250 Sep 09 j 07:18	16°♊42'38	
	248 Apr 16 j 14:11	0°♍		greatest brilliancy	250 Sep 23 j 18:16	20°♊26'37	-4.6m
asc. node	248 May 02 j 08:19	19°♍21'31			250 Oct 08 j 11:35	0°♋	
evening rise	248 May 08 j 20:34	27°♍20'50		asc. node	250 Oct 18 j 03:12	8°♋13'59	
	248 May 11 j 00:28	0°♍		morning max el	250 Oct 29 j 19:42	19°♋31'43	46°46'24
	248 Jun 04 j 12:29	0°☿			250 Nov 08 j 19:32	0°♌	
	248 Jun 29 j 02:21	0°♊			250 Dec 05 j 09:13	0°♍	
	248 Jul 23 j 19:15	0°♋			250 Dec 30 j 14:32	0°♎	
	248 Aug 17 j 17:26	0°♌			251 Jan 24 j 07:57	0°3	
desc. node	248 Aug 21 j 21:54	5°♌00'06		desc. node	251 Feb 06 j 17:00	16°320'05	
	248 Sep 12 j 00:27	0°♍			251 Feb 17 j 21:06	0°≈	
	248 Oct 07 j 23:50	0°♎			251 Mar 14 j 09:05	0°♋	
	248 Nov 04 j 15:17	0°3			251 Apr 07 j 21:01	0°♌	
evening max el	248 Nov 05 j 13:35	0°356'54	47°23'41		251 May 02 j 09:02	0°♍	
	248 Dec 10 j 10:17	0°≈		morning set	251 May 04 j 06:41	2°♍19'47	
asc. node	248 Dec 13 j 01:00	1°≈19'52			251 May 26 j 20:27	0°♍	
greatest brilliancy	248 Dec 13 j 18:05	1°≈39'41	-4.7m	asc. node	251 May 30 j 20:16	4°♍53'57	
retrograde	248 Dec 26 j 13:10	4°≈43'54		max. Earth dist.	251 Jun 07 j 21:00	14°♍45'46	1.73601 AU

superior conj	251 Jun 09 j 17:14	17°II01'41	0°23'08	direct	253 Nov 20 j 23:18	0°ML37'12	
minimum elong	251 Jun 09 j 12:43	16°II47'49	0°22'55	greatest brilliancy	253 Dec 03 j 12:42	3°ML34'51	-4.7m
	251 Jun 20 j 06:23	0°☿			254 Jan 06 j 15:55	0°♂	
	251 Jul 14 j 14:24	0°♂		morning max el	254 Jan 10 j 14:15	3°♂55'23	46°51'32
evening rise	251 Jul 15 j 10:42	1°♂02'40			254 Feb 03 j 22:49	0°☿	
	251 Aug 07 j 21:07	0°♂			254 Mar 02 j 04:50	0°≈	
	251 Sep 01 j 03:49	0°♂		desc. node	254 Mar 06 j 04:53	4°≈40'09	
desc. node	251 Sep 19 j 09:47	22°♂30'23			254 Mar 27 j 17:01	0°♂	
	251 Sep 25 j 11:54	0°ML			254 Apr 21 j 20:46	0°♀	
	251 Oct 19 j 22:46	0°♂			254 May 16 j 19:22	0°♂	
	251 Nov 13 j 15:05	0°☿			254 Jun 10 j 13:25	0°II	
	251 Dec 08 j 19:45	0°≈		asc. node	254 Jun 27 j 08:04	20°II28'36	
	252 Jan 04 j 07:09	0°♂			254 Jul 05 j 02:27	0°☿	
asc. node	252 Jan 10 j 12:50	6°♂40'04		morning set	254 Jul 10 j 16:08	6°☿50'53	
evening max el	252 Jan 17 j 00:29	13°♂21'28	46°41'59		254 Jul 29 j 10:11	0°♂	
	252 Feb 03 j 21:28	0°♀		max. Earth dist.	254 Aug 12 j 08:06	17°♂16'16	1.72446 AU
greatest brilliancy	252 Feb 21 j 19:15	12°♀11'04	-4.6m				
retrograde	252 Mar 07 j 08:00	15°♀59'52		superior conj	254 Aug 16 j 05:27	22°♂06'36	1°23'24
evening set	252 Mar 24 j 07:58	10°♀21'42		minimum elong	254 Aug 16 j 02:26	21°♂57'13	1°23'24
inferior conj	252 Mar 28 j 15:00	7°♀41'45	6°49'24		254 Aug 22 j 13:28	0°♂	
minimum elong	252 Mar 29 j 00:16	7°♀27'06	6°47'47		254 Sep 15 j 13:59	0°♂	
min. Earth dist.	252 Mar 28 j 14:56	7°♀41'51	0.28750 AU	evening rise	254 Sep 22 j 22:35	9°♂12'06	
morning rise	252 Apr 02 j 16:48	4°♀34'36			254 Oct 09 j 13:36	0°ML	
	252 Apr 13 j 17:38	30°♂		desc. node	254 Oct 16 j 21:48	9°ML10'44	
direct	252 Apr 18 j 23:11	29°♂26'59			254 Nov 02 j 13:39	0°♂	
	252 Apr 24 j 08:35	0°♀			254 Nov 26 j 15:14	0°☿	
desc. node	252 May 01 j 02:23	2°♀04'31			254 Dec 20 j 20:15	0°≈	
greatest brilliancy	252 May 01 j 06:58	2°♀09'13	-4.5m		255 Jan 14 j 08:50	0°♂	
morning max el	252 Jun 06 j 19:33	29°♀18'42	45°44'52	asc. node	255 Feb 07 j 00:41	28°♂14'20	
	252 Jun 07 j 12:51	0°♂			255 Feb 08 j 12:47	0°♀	
	252 Jul 06 j 12:49	0°II			255 Mar 06 j 23:39	0°♂	
	252 Aug 02 j 02:34	0°☿		evening max el	255 Mar 29 j 01:23	22°♂52'03	45°33'01
asc. node	252 Aug 22 j 05:42	23°☿42'58			255 Apr 05 j 15:53	0°II	
	252 Aug 27 j 11:29	0°♂		greatest brilliancy	255 May 02 j 07:08	19°II13'38	-4.5m
	252 Sep 21 j 02:24	0°♂		retrograde	255 May 16 j 16:32	22°II50'11	
	252 Oct 15 j 06:13	0°♂		desc. node	255 May 29 j 14:21	19°II36'06	
	252 Nov 08 j 04:21	0°ML		evening set	255 May 31 j 17:39	18°II30'03	
	252 Dec 02 j 00:35	0°♂		inferior conj	255 Jun 07 j 04:20	14°II38'51	-1°-59'-39
morning set	252 Dec 04 j 16:02	3°♂19'33		minimum elong	255 Jun 07 j 00:02	14°II45'36	1°58'25
desc. node	252 Dec 11 j 19:24	12°♂18'28		min. Earth dist.	255 Jun 07 j 06:58	14°II34'44	0.28964 AU
	252 Dec 25 j 21:11	0°☿		morning rise	255 Jun 13 j 06:14	10°II59'00	
				direct	255 Jun 28 j 21:07	6°II20'53	
superior conj	253 Jan 15 j 14:51	26°☿00'30	-1°-10'-28	greatest brilliancy	255 Jul 12 j 20:15	9°II44'13	-4.5m
minimum elong	253 Jan 15 j 03:49	25°☿25'56	1°10'10		255 Aug 09 j 22:49	0°☿	
	253 Jan 18 j 19:21	0°≈		morning max el	255 Aug 17 j 00:06	6°☿38'27	46°03'22
max. Earth dist.	253 Jan 19 j 10:14	0°≈46'33	1.71578 AU		255 Sep 08 j 11:37	0°♂	
	253 Feb 11 j 20:04	0°♂		asc. node	255 Sep 19 j 17:35	12°♂34'25	
evening rise	253 Feb 25 j 00:10	16°♂22'12			255 Oct 04 j 18:38	0°♂	
	253 Mar 08 j 00:24	0°♀			255 Oct 29 j 18:00	0°♂	
	253 Apr 01 j 09:32	0°♂			255 Nov 23 j 02:34	0°ML	
asc. node	253 Apr 03 j 22:33	3°♂06'42			255 Dec 17 j 05:07	0°♂	
	253 Apr 26 j 00:34	0°II		desc. node	256 Jan 09 j 07:10	28°♂48'07	
	253 May 20 j 22:52	0°☿			256 Jan 10 j 06:12	0°☿	
	253 Jun 15 j 07:19	0°♂			256 Feb 03 j 07:57	0°≈	
	253 Jul 11 j 08:25	0°♂		morning set	256 Feb 20 j 11:57	21°≈20'45	
desc. node	253 Jul 24 j 11:59	14°♂39'41			256 Feb 27 j 11:19	0°♂	
	253 Aug 07 j 18:28	0°♂			256 Mar 22 j 16:55	0°♀	
evening max el	253 Aug 22 j 04:40	14°♂37'39	46°30'59				
	253 Sep 08 j 05:44	0°ML		superior conj	256 Mar 30 j 05:06	9°♀16'02	-1°-6'-37
greatest brilliancy	253 Sep 30 j 06:16	13°ML48'21	-4.6m	minimum elong	256 Mar 30 j 14:39	9°♀45'29	1°06'20
retrograde	253 Oct 10 j 23:07	15°ML54'19		max. Earth dist.	256 Apr 01 j 19:50	12°♀29'27	1.73117 AU
evening set	253 Oct 25 j 23:43	11°ML29'34			256 Apr 16 j 00:59	0°♂	
inferior conj	253 Oct 31 j 11:55	8°ML15'44	-3°-33'-56	asc. node	256 May 01 j 10:31	18°♂55'13	
minimum elong	253 Oct 31 j 19:34	8°ML04'08	3°31'40	evening rise	256 May 06 j 14:44	25°♂16'13	
min. Earth dist.	253 Oct 31 j 21:13	8°ML01'38	0.26502 AU		256 May 10 j 11:17	0°II	
morning rise	253 Nov 06 j 15:11	4°ML41'52			256 Jun 03 j 23:26	0°☿	
asc. node	253 Nov 14 j 15:11	1°ML26'57			256 Jun 28 j 13:37	0°♂	

	256 Jul 23 j 07:04	0°♍			258 Dec 30 j 03:50	0°♏		
	256 Aug 17 j 06:07	0°♌			259 Jan 23 j 20:19	0°♏		
desc. node	256 Aug 20 j 23:52	4°♌27'39		desc. node	259 Feb 05 j 19:04	15°♏49'35		
	256 Sep 11 j 14:31	0°♍			259 Feb 17 j 08:51	0°♎		
	256 Oct 07 j 16:25	0°♏			259 Mar 13 j 20:23	0°♏		
evening max el	256 Nov 03 j 02:48	28°♏30'32	47°23'24		259 Apr 07 j 08:00	0°♐		
	256 Nov 04 j 14:11	0°♏			259 May 01 j 19:48	0°♏		
greatest brilliancy	256 Dec 11 j 09:55	29°♏16'14	-4.7m	morning set	259 May 02 j 00:24	0°♏14'05		
asc. node	256 Dec 12 j 03:02	29°♏35'07			259 May 26 j 07:06	0°♐		
	256 Dec 13 j 02:56	0°♎		asc. node	259 May 29 j 22:17	4°♐27'29		
retrograde	256 Dec 24 j 02:41	2°♎18'37		max. Earth dist.	259 Jun 05 j 20:12	12°♐56'53	1.73612 AU	
	257 Jan 03 j 16:28	30°♏♏						
evening set	257 Jan 09 j 02:57	27°♏13'31		superior conj	259 Jun 07 j 11:44	14°♐58'20	0°20'07	
min. Earth dist.	257 Jan 12 j 22:12	24°♏55'11	0.27170 AU	minimum elong	259 Jun 07 j 07:46	14°♐46'08	0°19'55	
inferior conj	257 Jan 13 j 21:46	24°♏18'23	7°09'40		259 Jun 19 j 17:00	0°♑		
minimum elong	257 Jan 13 j 12:09	24°♏33'26	7°07'55	evening rise	259 Jul 13 j 05:31	28°♑59'33		
morning rise	257 Jan 17 j 21:45	21°♏51'33			259 Jul 14 j 01:06	0°♑		
direct	257 Feb 03 j 10:07	16°♏31'21			259 Aug 07 j 08:00	0°♍		
greatest brilliancy	257 Feb 14 j 00:59	18°♏36'31	-4.6m		259 Aug 31 j 15:01	0°♌		
	257 Mar 04 j 23:30	0°♎		desc. node	259 Sep 18 j 11:58	22°♌01'45		
morning max el	257 Mar 24 j 20:00	17°♎36'02	46°12'14		259 Sep 24 j 23:32	0°♍		
desc. node	257 Apr 02 j 16:43	26°♎27'21			259 Oct 19 j 11:00	0°♏		
	257 Apr 06 j 03:13	0°♏			259 Nov 13 j 04:14	0°♏		
	257 May 03 j 18:44	0°♐			259 Dec 08 j 10:29	0°♎		
	257 May 30 j 00:44	0°♏			260 Jan 04 j 01:31	0°♏		
	257 Jun 24 j 13:15	0°♐		asc. node	260 Jan 09 j 14:52	5°♏53'35		
	257 Jul 19 j 13:03	0°♑		evening max el	260 Jan 14 j 16:39	11°♏06'38	46°44'30	
asc. node	257 Jul 24 j 19:52	6°♑24'55			260 Feb 04 j 07:20	0°♐		
	257 Aug 13 j 02:14	0°♑		greatest brilliancy	260 Feb 19 j 12:39	9°♐59'50	-4.6m	
	257 Sep 06 j 06:59	0°♍		retrograde	260 Mar 05 j 00:41	13°♐47'21		
morning set	257 Sep 18 j 07:39	15°♍01'38		evening set	260 Mar 22 j 02:42	8°♐05'14		
	257 Sep 30 j 06:12	0°♌		inferior conj	260 Mar 26 j 06:56	5°♐29'15	7°01'36	
	257 Oct 24 j 02:48	0°♍		minimum elong	260 Mar 26 j 16:00	5°♐14'55	7°00'04	
				min. Earth dist.	260 Mar 26 j 05:47	5°♐31'04	0.28722 AU	
superior conj	257 Oct 27 j 11:05	4°♍12'38	0°38'51	morning rise	260 Mar 31 j 05:35	2°♐26'45		
minimum elong	257 Oct 27 j 20:03	4°♍40'52	0°38'28		260 Apr 04 j 21:38	30°♏♏		
max. Earth dist.	257 Oct 26 j 19:16	3°♍22'53	1.71122 AU	direct	260 Apr 16 j 15:13	27°♏15'11		
desc. node	257 Nov 13 j 09:41	25°♍32'01		greatest brilliancy	260 Apr 28 j 19:29	29°♏54'29	-4.5m	
	257 Nov 16 j 22:53	0°♏			260 Apr 29 j 00:49	0°♐		
evening rise	257 Dec 08 j 00:41	26°♏29'35		desc. node	260 Apr 30 j 04:29	0°♐29'55		
	257 Dec 10 j 19:44	0°♏		morning max el	260 Jun 04 j 11:49	27°♐09'44	45°44'59	
	258 Jan 03 j 18:28	0°♎			260 Jun 07 j 10:32	0°♏		
	258 Jan 27 j 20:52	0°♏			260 Jul 06 j 04:10	0°♐		
	258 Feb 21 j 05:40	0°♐			260 Aug 01 j 15:38	0°♑		
asc. node	258 Mar 06 j 12:42	16°♐10'09		asc. node	260 Aug 21 j 07:47	23°♑12'44		
	258 Mar 18 j 00:32	0°♏			260 Aug 26 j 23:29	0°♑		
	258 Apr 12 j 10:53	0°♐			260 Sep 20 j 13:51	0°♍		
	258 May 08 j 23:15	0°♑			260 Oct 14 j 17:23	0°♌		
	258 Jun 06 j 20:44	0°♑			260 Nov 07 j 15:22	0°♍		
evening max el	258 Jun 07 j 17:59	0°♑50'50	45°25'18		260 Dec 01 j 11:33	0°♏		
desc. node	258 Jun 26 j 02:14	16°♑50'09		morning set	260 Dec 02 j 02:10	0°♏46'00		
greatest brilliancy	258 Jul 14 j 13:48	28°♑00'11	-4.5m	desc. node	260 Dec 10 j 21:22	11°♏50'13		
	258 Jul 21 j 06:46	0°♍			260 Dec 25 j 08:07	0°♏		
retrograde	258 Jul 26 j 10:57	0°♍30'06						
	258 Jul 31 j 12:01	30°♏♏		superior conj	261 Jan 13 j 01:06	23°♏28'05	-1°-8'-10	
evening set	258 Aug 13 j 04:54	24°♑38'39		minimum elong	261 Jan 12 j 13:42	22°♏52'23	1°07'50	
inferior conj	258 Aug 16 j 15:36	22°♑33'34	-8°-37'-48	max. Earth dist.	261 Jan 16 j 21:50	28°♏18'27	1.71535 AU	
minimum elong	258 Aug 16 j 12:08	22°♑38'53	8°37'38		261 Jan 18 j 06:16	0°♎		
min. Earth dist.	258 Aug 17 j 04:19	22°♑14'03	0.28248 AU		261 Feb 11 j 06:56	0°♏		
morning rise	258 Aug 19 j 19:11	20°♑38'31		evening rise	261 Feb 22 j 12:45	13°♏58'37		
direct	258 Sep 06 j 23:10	14°♑26'39			261 Mar 07 j 11:17	0°♐		
greatest brilliancy	258 Sep 21 j 10:34	18°♑11'42	-4.6m		261 Mar 31 j 20:31	0°♏		
	258 Oct 08 j 22:57	0°♍		asc. node	261 Apr 03 j 00:42	2°♏39'36		
asc. node	258 Oct 17 j 05:25	7°♍16'14			261 Apr 25 j 11:51	0°♐		
morning max el	258 Oct 27 j 11:18	17°♍13'56	46°45'07		261 May 20 j 10:45	0°♑		
	258 Nov 08 j 14:18	0°♌			261 Jun 14 j 20:13	0°♑		
	258 Dec 05 j 00:11	0°♍			261 Jul 10 j 23:14	0°♍		

desc. node	261 Jul 23 j 14:01	14° \cap 00'18			264 Feb 02 j 18:58	0° \approx	
	261 Aug 07 j 13:40	0° $\underline{\Delta}$		morning set	264 Feb 18 j 00:47	18° \approx 57'40	
evening max el	261 Aug 19 j 18:02	12° $\underline{\Delta}$ 16'14	46°28'19		264 Feb 26 j 22:10	0° H	
	261 Sep 08 j 19:05	0° \mathbb{M}			264 Mar 22 j 03:41	0° Υ	
greatest brilliancy	261 Sep 27 j 20:13	11° \mathbb{M} 23'33	-4.6m				
retrograde	261 Oct 08 j 10:40	13° \mathbb{M} 27'04		superior conj	264 Mar 27 j 21:00	7° Υ 03'51	-1°-8'-41
evening set	261 Oct 23 j 14:38	8° \mathbb{M} 59'12		minimum elong	264 Mar 28 j 06:24	7° Υ 32'53	1°08'25
inferior conj	261 Oct 29 j 00:15	5° \mathbb{M} 48'47	-3°-55'-59	max. Earth dist.	264 Mar 30 j 12:43	10° Υ 20'24	1.73075 AU
minimum elong	261 Oct 29 j 08:31	5° \mathbb{M} 36'12	3°53'35		264 Apr 15 j 11:44	0° B	
min. Earth dist.	261 Oct 29 j 10:58	5° \mathbb{M} 32'28	0.26535 AU	asc. node	264 Apr 30 j 12:30	18° B 28'16	
morning rise	261 Nov 04 j 02:06	2° \mathbb{M} 16'20		evening rise	264 May 04 j 08:35	23° B 10'44	
	261 Nov 09 j 00:12	30° R $\underline{\Delta}$			264 May 09 j 22:05	0° Π	
asc. node	261 Nov 13 j 17:07	28° $\underline{\Delta}$ 37'58			264 Jun 03 j 10:25	0° S	
direct	261 Nov 18 j 11:57	28° $\underline{\Delta}$ 09'46			264 Jun 28 j 00:56	0° Ω	
	261 Nov 28 j 07:06	0° \mathbb{M}			264 Jul 22 j 18:58	0° \cap	
greatest brilliancy	261 Dec 01 j 03:17	1° \mathbb{M} 08'58	-4.7m		264 Aug 16 j 18:54	0° $\underline{\Delta}$	
	262 Jan 06 j 15:50	0° X		desc. node	264 Aug 20 j 02:02	3° $\underline{\Delta}$ 55'34	
morning max el	262 Jan 08 j 02:30	1° X 27'19	46°52'09		264 Sep 11 j 04:45	0° \mathbb{M}	
	262 Feb 03 j 15:29	0° Z			264 Oct 07 j 09:19	0° X	
	262 Mar 01 j 18:51	0° \approx		evening max el	264 Oct 31 j 16:27	26° X 05'22	47°23'10
desc. node	262 Mar 05 j 07:01	4° \approx 06'07			264 Nov 04 j 14:05	0° Z	
	262 Mar 27 j 05:39	0° H		greatest brilliancy	264 Dec 09 j 00:59	26° Z 51'50	-4.7m
	262 Apr 21 j 08:33	0° Υ		asc. node	264 Dec 11 j 05:05	27° Z 46'22	
	262 May 16 j 06:36	0° B		retrograde	264 Dec 21 j 16:41	29° Z 53'29	
	262 Jun 10 j 00:20	0° Π		evening set	265 Jan 06 j 13:00	24° Z 53'46	
asc. node	262 Jun 26 j 10:04	20° Π 01'43		min. Earth dist.	265 Jan 10 j 11:46	22° Z 30'51	0.27105 AU
	262 Jul 04 j 13:11	0° S		inferior conj	265 Jan 11 j 11:19	21° Z 54'12	6°56'18
morning set	262 Jul 08 j 09:44	4° S 44'24		minimum elong	265 Jan 11 j 01:26	22° Z 09'35	6°54'24
	262 Jul 28 j 20:54	0° Ω		morning rise	265 Jan 15 j 14:16	19° Z 23'26	
max. Earth dist.	262 Aug 09 j 23:39	15° Ω 02'05	1.72503 AU	direct	265 Jan 31 j 22:45	14° Z 07'56	
				greatest brilliancy	265 Feb 11 j 14:48	16° Z 14'33	-4.6m
superior conj	262 Aug 13 j 22:19	19° Ω 56'25	1°22'48		265 Mar 05 j 11:45	0° \approx	
minimum elong	262 Aug 13 j 18:38	19° Ω 44'59	1°22'46	morning max el	265 Mar 22 j 10:16	15° \approx 18'01	46°13'47
	262 Aug 22 j 00:13	0° \cap		desc. node	265 Apr 01 j 18:50	25° \approx 41'59	
	262 Sep 15 j 00:51	0° $\underline{\Delta}$			265 Apr 05 j 22:02	0° H	
evening rise	262 Sep 20 j 12:16	6° $\underline{\Delta}$ 50'40			265 May 03 j 09:24	0° Υ	
	262 Oct 09 j 00:38	0° \mathbb{M}			265 May 29 j 13:38	0° B	
desc. node	262 Oct 15 j 23:52	8° \mathbb{M} 42'37			265 Jun 24 j 01:12	0° Π	
	262 Nov 02 j 00:53	0° X			265 Jul 19 j 00:28	0° S	
	262 Nov 26 j 02:42	0° Z		asc. node	265 Jul 23 j 22:01	5° S 56'56	
	262 Dec 20 j 08:04	0° \approx			265 Aug 12 j 13:22	0° Ω	
	263 Jan 13 j 21:16	0° H			265 Sep 05 j 18:00	0° \cap	
asc. node	263 Feb 06 j 02:47	27° H 40'48		morning set	265 Sep 15 j 22:06	12° \cap 42'14	
	263 Feb 08 j 02:27	0° Υ			265 Sep 29 j 17:13	0° $\underline{\Delta}$	
	263 Mar 06 j 16:08	0° B			265 Oct 23 j 13:53	0° \mathbb{M}	
evening max el	263 Mar 26 j 15:52	20° B 37'41	45°34'34	max. Earth dist.	265 Oct 24 j 05:04	0° \mathbb{M} 47'49	1.71146 AU
	263 Apr 05 j 18:13	0° Π					
greatest brilliancy	263 Apr 29 j 22:09	17° Π 03'27	-4.5m	superior conj	265 Oct 24 j 22:09	1° \mathbb{M} 41'32	0°42'16
retrograde	263 May 14 j 08:32	20° Π 42'04		minimum elong	265 Oct 25 j 07:37	2° \mathbb{M} 11'22	0°41'51
desc. node	263 May 28 j 16:19	16° Π 45'00		desc. node	265 Nov 12 j 11:38	25° \mathbb{M} 03'08	
evening set	263 May 29 j 09:49	16° Π 21'39			265 Nov 16 j 10:02	0° X	
inferior conj	263 Jun 04 j 20:43	12° Π 30'24	-1°-40'-21	evening rise	265 Dec 05 j 10:18	23° X 54'00	
minimum elong	263 Jun 04 j 17:04	12° Π 36'06	1°39'18		265 Dec 10 j 06:56	0° Z	
min. Earth dist.	263 Jun 04 j 23:51	12° Π 25'29	0.28971 AU		266 Jan 03 j 05:44	0° \approx	
morning rise	263 Jun 11 j 00:04	8° Π 48'18			266 Jan 27 j 08:16	0° H	
direct	263 Jun 26 j 12:52	4° Π 12'07			266 Feb 20 j 17:19	0° Υ	
greatest brilliancy	263 Jul 10 j 12:29	7° Π 35'16	-4.5m	asc. node	266 Mar 05 j 14:50	15° Υ 40'42	
	263 Aug 09 j 23:34	0° S			266 Mar 17 j 12:43	0° B	
morning max el	263 Aug 14 j 14:52	4° S 24'21	46°02'07		266 Apr 12 j 00:10	0° Π	
	263 Sep 08 j 03:56	0° Ω			266 May 08 j 15:00	0° S	
asc. node	263 Sep 18 j 19:44	11° Ω 57'56		evening max el	266 Jun 05 j 09:43	28° S 39'24	45°24'09
	263 Oct 04 j 08:20	0° \cap			266 Jun 06 j 19:43	0° Ω	
	263 Oct 29 j 06:32	0° $\underline{\Delta}$		desc. node	266 Jun 25 j 04:19	15° Ω 42'54	
	263 Nov 22 j 14:30	0° \mathbb{M}		greatest brilliancy	266 Jul 12 j 01:05	25° Ω 42'01	-4.5m
	263 Dec 16 j 16:40	0° X		retrograde	266 Jul 24 j 01:38	28° Ω 14'37	
desc. node	264 Jan 08 j 09:15	28° X 19'31		evening set	266 Aug 10 j 16:49	22° Ω 26'37	
	264 Jan 09 j 17:28	0° Z		inferior conj	266 Aug 14 j 06:14	20° Ω 17'15	-8°-33'-23

minimum elong	266 Aug 14 j 02:01	20°♌23'45	8°33'08		269 Jan 17 j 17:30	0°♊	
min. Earth dist.	266 Aug 14 j 17:44	19°♌59'34	0.28298 AU		269 Feb 10 j 18:08	0°♋	
morning rise	266 Aug 17 j 11:02	18°♌20'20		evening rise	269 Feb 20 j 01:13	11°♋33'36	
direct	266 Sep 04 j 15:03	12°♌09'51			269 Mar 06 j 22:29	0°♌	
greatest brilliancy	266 Sep 19 j 01:42	15°♌54'19	-4.6m		269 Mar 31 j 07:51	0°♍	
	266 Oct 09 j 07:46	0°♎		asc. node	269 Apr 02 j 02:41	2°♍11'00	
asc. node	266 Oct 16 j 07:23	6°♎18'17			269 Apr 24 j 23:28	0°♎	
morning max el	266 Oct 25 j 02:25	14°♎54'17	46°43'50		269 May 19 j 22:55	0°♏	
	266 Nov 08 j 08:53	0°♐			269 Jun 14 j 09:27	0°♑	
	266 Dec 04 j 15:11	0°♑			269 Jul 10 j 14:31	0°♒	
	266 Dec 29 j 17:15	0°♒		desc. node	269 Jul 22 j 16:09	13°♒19'59	
	267 Jan 23 j 08:49	0°♓			269 Aug 07 j 09:48	0°♓	
desc. node	267 Feb 04 j 21:10	15°♓18'43		evening max el	269 Aug 17 j 06:17	9°♓51'11	46°25'23
	267 Feb 16 j 20:46	0°♊			269 Sep 09 j 13:37	0°♔	
	267 Mar 13 j 07:52	0°♋		greatest brilliancy	269 Sep 25 j 10:08	8°♔57'13	-4.6m
	267 Apr 06 j 19:09	0°♌		retrograde	269 Oct 05 j 21:50	10°♔58'20	
morning set	267 Apr 29 j 18:25	28°♌08'47		evening set	269 Oct 21 j 05:29	6°♔26'44	
	267 May 01 j 06:43	0°♍		inferior conj	269 Oct 26 j 12:26	3°♔20'09	-4°-17'-36
	267 May 25 j 17:54	0°♎		minimum elong	269 Oct 26 j 21:16	3°♔06'42	4°15'06
asc. node	267 May 29 j 00:19	4°♎00'36		min. Earth dist.	269 Oct 27 j 00:51	3°♔01'16	0.26576 AU
max. Earth dist.	267 Jun 03 j 19:36	11°♎08'09	1.73624 AU		269 Nov 01 j 04:51	30°♒♊	
				morning rise	269 Nov 01 j 12:37	29°♊49'31	
superior conj	267 Jun 05 j 06:24	12°♎55'01	0°17'05	asc. node	269 Nov 12 j 19:12	25°♊52'48	
minimum elong	267 Jun 05 j 03:00	12°♎44'35	0°16'56	direct	269 Nov 16 j 00:04	25°♊40'13	
	267 Jun 19 j 03:49	0°♋		greatest brilliancy	269 Nov 28 j 18:55	28°♊42'34	-4.7m
evening rise	267 Jul 11 j 00:23	26°♋55'54			269 Dec 01 j 10:32	0°♌	
	267 Jul 13 j 12:04	0°♌		morning max el	270 Jan 05 j 14:35	28°♌57'07	46°52'57
	267 Aug 06 j 19:13	0°♍			270 Jan 06 j 15:19	0°♍	
	267 Aug 31 j 02:34	0°♎			270 Feb 03 j 08:19	0°♏	
desc. node	267 Sep 17 j 13:59	21°♎31'27			270 Mar 01 j 09:05	0°♐	
	267 Sep 24 j 11:32	0°♏		desc. node	270 Mar 04 j 09:07	3°♐31'06	
	267 Oct 18 j 23:37	0°♑			270 Mar 26 j 18:32	0°♑	
	267 Nov 12 j 17:47	0°♒			270 Apr 20 j 20:36	0°♒	
	267 Dec 08 j 01:43	0°♓			270 May 15 j 18:08	0°♓	
	268 Jan 03 j 20:40	0°♊		asc. node	270 Jun 09 j 11:32	0°♔	
asc. node	268 Jan 08 j 17:00	5°♋05'49			270 Jun 25 j 12:16	19°♔34'37	
evening max el	268 Jan 12 j 08:33	8°♋50'07	46°46'58		270 Jul 04 j 00:12	0°♕	
	268 Feb 04 j 21:05	0°♌		morning set	270 Jul 06 j 03:48	2°♕38'34	
greatest brilliancy	268 Feb 17 j 07:15	7°♌49'19	-4.6m		270 Jul 28 j 07:50	0°♎	
retrograde	268 Mar 02 j 17:06	11°♌34'01		max. Earth dist.	270 Aug 07 j 18:21	12°♌57'04	1.72559 AU
evening set	268 Mar 19 j 21:31	5°♌48'16					
inferior conj	268 Mar 23 j 22:58	3°♌16'10	7°13'10	superior conj	270 Aug 11 j 15:40	17°♌47'04	1°22'04
minimum elong	268 Mar 24 j 07:46	3°♌02'12	7°11'46	minimum elong	270 Aug 11 j 11:22	17°♌33'40	1°22'01
min. Earth dist.	268 Mar 23 j 20:52	3°♌19'29	0.28687 AU		270 Aug 21 j 11:12	0°♍	
morning rise	268 Mar 28 j 18:21	0°♌18'18			270 Sep 14 j 12:00	0°♎	
	268 Mar 29 j 07:00	30°♒♋		evening rise	270 Sep 18 j 02:29	4°♎30'10	
direct	268 Apr 14 j 07:14	25°♋02'59			270 Oct 08 j 12:00	0°♏	
greatest brilliancy	268 Apr 26 j 07:42	27°♋38'45	-4.5m	desc. node	270 Oct 15 j 01:51	8°♏13'08	
desc. node	268 Apr 29 j 06:24	28°♋57'45			270 Nov 01 j 12:31	0°♑	
	268 May 01 j 07:17	0°♌			270 Nov 25 j 14:37	0°♒	
morning max el	268 Jun 02 j 03:12	24°♌58'06	45°45'12		270 Dec 19 j 20:21	0°♓	
	268 Jun 07 j 07:37	0°♍			271 Jan 13 j 10:11	0°♔	
	268 Jul 05 j 19:30	0°♎		asc. node	271 Feb 05 j 04:53	27°♋05'54	
	268 Aug 01 j 04:51	0°♏			271 Feb 07 j 16:38	0°♌	
asc. node	268 Aug 20 j 09:54	22°♏41'53			271 Mar 06 j 09:20	0°♍	
	268 Aug 26 j 11:44	0°♑		evening max el	271 Mar 24 j 06:29	18°♍22'47	45°36'23
	268 Sep 20 j 01:38	0°♒			271 Apr 05 j 22:34	0°♎	
	268 Oct 14 j 04:56	0°♓		greatest brilliancy	271 Apr 27 j 12:31	14°♎51'54	-4.5m
	268 Nov 07 j 02:46	0°♔		retrograde	271 May 12 j 01:08	18°♎33'41	
morning set	268 Nov 29 j 12:07	28°♎10'39		evening set	271 May 27 j 02:19	14°♎12'36	
	268 Nov 30 j 22:52	0°♍		desc. node	271 May 27 j 18:29	13°♎50'22	
desc. node	268 Dec 09 j 23:29	11°♍21'18		inferior conj	271 Jun 02 j 13:13	10°♎21'33	-1°-20'-54
	268 Dec 24 j 19:23	0°♏		minimum elong	271 Jun 02 j 10:16	10°♎26'10	1°20'04
				min. Earth dist.	271 Jun 02 j 16:38	10°♎16'13	0.28975 AU
superior conj	269 Jan 10 j 11:11	20°♏54'06	-1°-5'-42	morning rise	271 Jun 08 j 17:58	6°♎37'39	
minimum elong	269 Jan 09 j 23:32	20°♏17'36	1°05'21	direct	271 Jun 24 j 04:52	2°♎02'57	
max. Earth dist.	269 Jan 14 j 08:29	25°♏46'22	1.71487 AU	greatest brilliancy	271 Jul 08 j 05:25	5°♎26'56	-4.5m

	271 Aug 09 j 23:20	0°☿			274 Mar 17 j 01:04	0°♄	
morning max el	271 Aug 12 j 06:43	2°☿12'38	46°01'02		274 Apr 11 j 13:41	0°♄	
	271 Sep 07 j 20:05	0°♄			274 May 08 j 07:08	0°☿	
asc. node	271 Sep 17 j 21:42	11°♄20'50		evening max el	274 Jun 03 j 01:24	26°☿27'42	45°23'12
	271 Oct 03 j 22:03	0°♄			274 Jun 06 j 19:48	0°♄	
	271 Oct 28 j 19:11	0°♄		desc. node	274 Jun 24 j 06:25	14°♄33'49	
	271 Nov 22 j 02:38	0°♄		greatest brilliancy	274 Jul 09 j 13:29	23°♄25'28	-4.5m
	271 Dec 16 j 04:29	0°♄		retrograde	274 Jul 21 j 16:01	25°♄59'31	
desc. node	272 Jan 07 j 11:24	27°♄50'04		evening set	274 Aug 08 j 04:40	20°♄15'37	
	272 Jan 09 j 05:02	0°♄		inferior conj	274 Aug 11 j 21:00	18°♄01'36	-8°-28'-12
	272 Feb 02 j 06:20	0°♄		minimum elong	274 Aug 11 j 16:02	18°♄09'15	8°27'52
morning set	272 Feb 15 j 12:57	16°♄31'18		min. Earth dist.	274 Aug 12 j 07:34	17°♄45'18	0.28342 AU
	272 Feb 26 j 09:21	0°♄		morning rise	274 Aug 15 j 03:14	16°♄02'16	
	272 Mar 21 j 14:44	0°♄		direct	274 Sep 02 j 06:45	9°♄53'46	
				greatest brilliancy	274 Sep 16 j 16:00	13°♄36'21	-4.6m
superior conj	272 Mar 25 j 12:24	4°♄49'16	-1°-10'-40		274 Oct 09 j 13:57	0°♄	
minimum elong	272 Mar 25 j 21:37	5°♄17'44	1°10'26	asc. node	274 Oct 15 j 09:26	5°♄22'04	
max. Earth dist.	272 Mar 28 j 05:17	8°♄09'32	1.73028 AU	morning max el	274 Oct 22 j 16:48	12°♄33'20	46°42'39
	272 Apr 14 j 22:43	0°♄			274 Nov 08 j 02:50	0°♄	
asc. node	272 Apr 29 j 14:33	18°♄00'52			274 Dec 04 j 05:49	0°♄	
evening rise	272 May 02 j 02:16	21°♄04'02			274 Dec 29 j 06:22	0°♄	
	272 May 09 j 09:07	0°♄			275 Jan 22 j 21:05	0°♄	
	272 Jun 02 j 21:37	0°☿		desc. node	275 Feb 03 j 23:11	14°♄48'12	
	272 Jun 27 j 12:28	0°♄			275 Feb 16 j 08:30	0°♄	
	272 Jul 22 j 07:03	0°♄			275 Mar 12 j 19:13	0°♄	
	272 Aug 16 j 07:53	0°♄			275 Apr 06 j 06:13	0°♄	
desc. node	272 Aug 19 j 04:05	3°♄22'43		morning set	275 Apr 27 j 11:59	26°♄02'15	
	272 Sep 10 j 19:11	0°♄			275 Apr 30 j 17:34	0°♄	
	272 Oct 07 j 02:36	0°♄			275 May 25 j 04:38	0°♄	
evening max el	272 Oct 29 j 06:44	23°♄41'42	47°22'37	asc. node	275 May 28 j 02:30	3°♄34'19	
	272 Nov 04 j 15:15	0°♄		max. Earth dist.	275 Jun 01 j 17:01	9°♄13'35	1.73631 AU
greatest brilliancy	272 Dec 06 j 15:14	24°♄25'30	-4.7m				
asc. node	272 Dec 10 j 07:12	25°♄52'19		superior conj	275 Jun 03 j 00:41	10°♄50'48	0°14'00
retrograde	272 Dec 19 j 06:52	27°♄26'53		minimum elong	275 Jun 02 j 21:53	10°♄42'11	0°13'52
evening set	273 Jan 03 j 22:51	22°♄32'23		behind sun begin	275 Jun 02 j 11:03	10°♄08'56	
min. Earth dist.	273 Jan 08 j 00:53	20°♄05'06	0.27046 AU	behind sun end	275 Jun 03 j 08:42	11°♄15'26	
inferior conj	273 Jan 09 j 00:34	19°♄28'21	6°41'52		275 Jun 18 j 14:33	0°☿	
minimum elong	273 Jan 08 j 14:30	19°♄43'58	6°39'50	evening rise	275 Jul 08 j 19:00	24°☿51'53	
morning rise	273 Jan 13 j 06:37	16°♄53'34			275 Jul 12 j 22:55	0°♄	
direct	273 Jan 29 j 11:47	11°♄42'54			275 Aug 06 j 06:18	0°♄	
greatest brilliancy	273 Feb 09 j 03:56	13°♄50'19	-4.6m		275 Aug 30 j 13:59	0°♄	
	273 Mar 05 j 21:21	0°♄		desc. node	275 Sep 16 j 15:59	21°♄01'32	
morning max el	273 Mar 20 j 00:58	12°♄59'57	46°15'20		275 Sep 23 j 23:24	0°♄	
desc. node	273 Mar 31 j 20:47	24°♄55'53			275 Oct 18 j 12:06	0°♄	
	273 Apr 05 j 16:43	0°♄			275 Nov 12 j 07:11	0°♄	
	273 May 03 j 00:08	0°♄			275 Dec 07 j 16:49	0°♄	
	273 May 29 j 02:35	0°♄			276 Jan 03 j 15:56	0°♄	
	273 Jun 23 j 13:11	0°♄		asc. node	276 Jan 07 j 19:03	4°♄18'05	
asc. node	273 Jul 18 j 11:54	0°☿		evening max el	276 Jan 09 j 23:30	6°♄32'02	46°49'19
	273 Jul 23 j 00:02	5°☿28'27			276 Feb 05 j 14:54	0°♄	
	273 Aug 12 j 00:31	0°♄		greatest brilliancy	276 Feb 15 j 01:53	5°♄39'36	-4.6m
	273 Sep 05 j 05:02	0°♄		retrograde	276 Feb 29 j 09:06	9°♄21'29	
morning set	273 Sep 13 j 13:05	10°♄24'35		evening set	276 Mar 17 j 16:16	3°♄32'14	
	273 Sep 29 j 04:14	0°♄		inferior conj	276 Mar 21 j 15:02	1°♄03'55	7°23'59
max. Earth dist.	273 Oct 21 j 14:56	28°♄13'07	1.71168 AU	minimum elong	276 Mar 21 j 23:31	0°♄50'28	7°22'44
				min. Earth dist.	276 Mar 21 j 12:15	1°♄08'22	0.28657 AU
superior conj	273 Oct 22 j 09:58	29°♄12'58	0°45'31		276 Mar 23 j 07:27	30°♄	
minimum elong	273 Oct 22 j 19:50	29°♄44'02	0°45'05	morning rise	276 Mar 26 j 07:05	28°♄10'40	
	273 Oct 23 j 00:55	0°♄		direct	276 Apr 11 j 22:47	22°♄51'30	
desc. node	273 Nov 11 j 13:47	24°♄35'06		greatest brilliancy	276 Apr 23 j 20:41	25°♄24'21	-4.5m
	273 Nov 15 j 21:07	0°♄		desc. node	276 Apr 28 j 08:36	27°♄29'34	
evening rise	273 Dec 02 j 20:22	21°♄19'52			276 May 02 j 18:22	0°♄	
	273 Dec 09 j 18:06	0°♄		morning max el	276 May 30 j 17:58	22°♄45'15	45°45'23
	274 Jan 02 j 17:01	0°♄			276 Jun 07 j 03:51	0°♄	
	274 Jan 26 j 19:44	0°♄			276 Jul 05 j 10:28	0°♄	
	274 Feb 20 j 05:05	0°♄			276 Jul 31 j 17:49	0°☿	
asc. node	274 Mar 04 j 16:46	15°♄10'14		asc. node	276 Aug 19 j 11:54	22°☿11'25	

	276 Aug 25 j 23:43	0°♈	evening max el	279 Mar 21 j 21:55	16°♌11'11	45°38'20
	276 Sep 19 j 13:07	0°♍		279 Apr 06 j 04:16	0°♊	
	276 Oct 13 j 16:09	0°♎	greatest brilliancy	279 Apr 25 j 02:44	12°♊41'35	-4.5m
	276 Nov 06 j 13:52	0°♏	retrograde	279 May 09 j 18:08	16°♊26'36	
morning set	276 Nov 26 j 22:14	25°♏36'41	evening set	279 May 24 j 19:00	12°♊04'40	
	276 Nov 30 j 09:54	0°♐	desc. node	279 May 26 j 20:31	10°♊54'38	
desc. node	276 Dec 09 j 01:36	10°♐53'24	inferior conj	279 May 31 j 05:43	8°♊13'50	-1°-1'-29
	276 Dec 24 j 06:21	0°♑	minimum elong	279 May 31 j 03:28	8°♊17'21	1°00'50
			min. Earth dist.	279 May 31 j 09:04	8°♊08'36	0.28983 AU
superior conj	277 Jan 07 j 21:27	18°♑21'44	morning rise	279 Jun 06 j 11:44	4°♊28'27	
minimum elong	277 Jan 07 j 09:39	17°♑44'45		279 Jun 19 j 19:40	30°♋	
max. Earth dist.	277 Jan 11 j 16:23	23°♑06'40	direct	279 Jun 21 j 21:22	29°♋54'58	
	277 Jan 17 j 04:23	0°♌		279 Jun 23 j 23:38	0°♊	
	277 Feb 10 j 04:58	0°♍	greatest brilliancy	279 Jul 05 j 21:59	3°♊19'25	-4.5m
evening rise	277 Feb 17 j 13:48	9°♍09'55		279 Aug 09 j 21:45	0°♎	
	277 Mar 06 j 09:19	0°♎	morning max el	279 Aug 09 j 23:27	0°♎04'08	45°59'46
	277 Mar 30 j 18:50	0°♏		279 Sep 07 j 11:43	0°♈	
asc. node	277 Apr 01 j 04:46	1°♏43'45	asc. node	279 Sep 16 j 23:48	10°♈45'02	
	277 Apr 24 j 10:48	0°♊		279 Oct 03 j 11:26	0°♍	
	277 May 19 j 10:53	0°♎		279 Oct 28 j 07:32	0°♎	
	277 Jun 13 j 22:31	0°♈		279 Nov 21 j 14:26	0°♏	
	277 Jul 10 j 05:45	0°♍		279 Dec 15 j 15:56	0°♐	
desc. node	277 Jul 21 j 18:10	12°♍39'36	desc. node	280 Jan 06 j 13:22	27°♐21'13	
	277 Aug 07 j 06:16	0°♎		280 Jan 08 j 16:14	0°♑	
evening max el	277 Aug 14 j 17:59	7°♎25'51		280 Feb 01 j 17:19	0°♌	
	277 Sep 10 j 13:56	0°♏	morning set	280 Feb 13 j 00:59	14°♌05'29	
greatest brilliancy	277 Sep 22 j 23:29	6°♏31'29		280 Feb 25 j 20:11	0°♍	
retrograde	277 Oct 03 j 09:16	8°♏31'12		280 Mar 21 j 01:27	0°♎	
evening set	277 Oct 18 j 20:28	3°♏55'16				
inferior conj	277 Oct 24 j 00:40	0°♏52'50	superior conj	280 Mar 23 j 03:46	2°♎35'26	-1°-12'-32
minimum elong	277 Oct 24 j 10:00	0°♏38'37	minimum elong	280 Mar 23 j 12:44	3°♎03'10	1°12'20
min. Earth dist.	277 Oct 24 j 14:38	0°♏31'36	max. Earth dist.	280 Mar 25 j 22:28	6°♎01'26	1.72981 AU
	277 Oct 25 j 11:29	30°♋		280 Apr 14 j 09:23	0°♍	
morning rise	277 Oct 29 j 23:01	27°♋24'33	asc. node	280 Apr 28 j 16:44	17°♋34'52	
asc. node	277 Nov 11 j 21:23	23°♋14'58	evening rise	280 Apr 29 j 20:01	18°♋58'34	
direct	277 Nov 13 j 12:13	23°♋11'45	greatest brilliancy	280 Apr 30 j 04:29	19°♋24'32	-3.9m
greatest brilliancy	277 Nov 26 j 10:59	26°♋18'05		280 May 08 j 19:48	0°♊	
	277 Dec 03 j 06:26	0°♏		280 Jun 02 j 08:29	0°♎	
morning max el	278 Jan 03 j 03:41	26°♏30'37		280 Jun 26 j 23:43	0°♈	
	278 Jan 06 j 13:25	0°♐		280 Jul 21 j 18:55	0°♍	
	278 Feb 03 j 00:25	0°♑		280 Aug 15 j 20:44	0°♎	
	278 Feb 28 j 22:46	0°♌	desc. node	280 Aug 18 j 06:03	2°♎50'04	
desc. node	278 Mar 03 j 11:05	2°♌57'11		280 Sep 10 j 09:37	0°♏	
	278 Mar 26 j 06:54	0°♍		280 Oct 06 j 20:05	0°♐	
	278 Apr 20 j 08:11	0°♎	evening max el	280 Oct 26 j 21:59	21°♐21'01	47°22'06
	278 May 15 j 05:14	0°♏		280 Nov 04 j 17:35	0°♑	
	278 Jun 08 j 22:21	0°♊	greatest brilliancy	280 Dec 04 j 05:52	22°♑00'16	-4.7m
asc. node	278 Jun 24 j 14:16	19°♊07'58	asc. node	280 Dec 09 j 09:13	23°♑54'07	
	278 Jul 03 j 10:53	0°♎	retrograde	280 Dec 16 j 21:10	25°♑00'35	
morning set	278 Jul 03 j 21:42	0°♎33'15	evening set	281 Jan 01 j 08:52	20°♑11'25	
	278 Jul 27 j 18:29	0°♈	min. Earth dist.	281 Jan 05 j 13:51	17°♑39'58	0.26983 AU
max. Earth dist.	278 Aug 05 j 13:18	10°♈53'40	inferior conj	281 Jan 06 j 13:46	17°♑02'55	6°26'47
			minimum elong	281 Jan 06 j 03:35	17°♑18'41	6°24'35
superior conj	278 Aug 09 j 08:48	15°♈37'54	morning rise	281 Jan 10 j 22:53	14°♑24'07	
minimum elong	278 Aug 09 j 03:53	15°♈22'38	direct	281 Jan 27 j 01:03	9°♑18'38	
	278 Aug 20 j 21:54	0°♍	greatest brilliancy	281 Feb 06 j 16:02	11°♑25'35	-4.6m
	278 Sep 13 j 22:50	0°♎		281 Mar 06 j 03:59	0°♌	
evening rise	278 Sep 15 j 16:34	2°♎10'21	morning max el	281 Mar 17 j 15:31	10°♌42'21	46°16'46
	278 Oct 07 j 23:03	0°♏	desc. node	281 Mar 30 j 22:58	24°♌11'57	
desc. node	278 Oct 14 j 04:00	7°♏45'12		281 Apr 05 j 10:36	0°♍	
	278 Oct 31 j 23:48	0°♐		281 May 02 j 14:25	0°♎	
	278 Nov 25 j 02:10	0°♑		281 May 28 j 15:11	0°♏	
	278 Dec 19 j 08:18	0°♌		281 Jun 23 j 00:52	0°♊	
	279 Jan 12 j 22:48	0°♍		281 Jul 17 j 23:05	0°♎	
asc. node	279 Feb 04 j 06:52	26°♍31'38	asc. node	281 Jul 22 j 02:05	5°♎00'52	
	279 Feb 07 j 06:33	0°♎		281 Aug 11 j 11:26	0°♈	
	279 Mar 06 j 02:25	0°♏		281 Sep 04 j 15:53	0°♍	

morning set	281 Sep 11 j 04:03	8° \cap 07'26		evening set	284 Mar 15 j 10:51	1° Υ 15'15	
	281 Sep 28 j 15:07	0° $\underline{\Delta}$			284 Mar 17 j 11:25	30° \mathbb{R} \mathbb{H}	
max. Earth dist.	281 Oct 18 j 21:07	25° $\underline{\Delta}$ 27'09	1.71196 AU	inferior conj	284 Mar 19 j 07:03	28° \mathbb{H} 50'49	7°34'16
				minimum elong	284 Mar 19 j 15:08	28° \mathbb{H} 37'58	7°33'09
superior conj	281 Oct 19 j 21:39	26° $\underline{\Delta}$ 44'16	0°48'41	min. Earth dist.	284 Mar 19 j 03:47	28° \mathbb{H} 56'00	0.28621 AU
minimum elong	281 Oct 20 j 07:50	27° $\underline{\Delta}$ 16'19	0°48'16	morning rise	284 Mar 23 j 19:41	26° \mathbb{H} 02'20	
	281 Oct 22 j 11:52	0° \mathbb{M}		direct	284 Apr 09 j 13:41	20° \mathbb{H} 39'00	
desc. node	281 Nov 10 j 15:54	24° \mathbb{M} 07'06		greatest brilliancy	284 Apr 21 j 10:21	23° \mathbb{H} 10'02	-4.5m
	281 Nov 15 j 08:09	0° \mathbb{X}		desc. node	284 Apr 27 j 10:42	26° \mathbb{H} 03'37	
evening rise	281 Nov 30 j 05:54	18° \mathbb{X} 44'13			284 May 03 j 19:32	0° Υ	
	281 Dec 09 j 05:12	0° \mathbb{Z}		morning max el	284 May 28 j 08:33	20° Υ 31'33	45°45'45
	282 Jan 02 j 04:13	0° \approx			284 Jun 06 j 23:35	0° \mathbb{B}	
	282 Jan 26 j 07:05	0° \mathbb{H}			284 Jul 05 j 01:20	0° \mathbb{H}	
	282 Feb 19 j 16:43	0° Υ			284 Jul 31 j 06:46	0° \mathbb{S}	
asc. node	282 Mar 03 j 18:55	14° Υ 40'46		asc. node	284 Aug 18 j 14:00	21° \mathbb{S} 41'04	
	282 Mar 16 j 13:18	0° \mathbb{B}			284 Aug 25 j 11:46	0° \mathbb{Q}	
	282 Apr 11 j 03:09	0° \mathbb{H}			284 Sep 19 j 00:40	0° \cap	
	282 May 07 j 23:22	0° \mathbb{S}			284 Oct 13 j 03:28	0° $\underline{\Delta}$	
evening max el	282 May 31 j 16:47	24° \mathbb{S} 15'53	45°22'18		284 Nov 06 j 01:04	0° \mathbb{M}	
	282 Jun 06 j 20:50	0° \mathbb{Q}		morning set	284 Nov 24 j 08:36	23° \mathbb{M} 03'03	
desc. node	282 Jun 23 j 08:27	13° \mathbb{Q} 23'25			284 Nov 29 j 21:04	0° \mathbb{X}	
greatest brilliancy	282 Jul 07 j 02:32	21° \mathbb{Q} 10'36	-4.5m	desc. node	284 Dec 08 j 03:35	10° \mathbb{X} 24'32	
retrograde	282 Jul 19 j 06:06	23° \mathbb{Q} 45'46			284 Dec 23 j 17:31	0° \mathbb{Z}	
evening set	282 Aug 05 j 16:31	18° \mathbb{Q} 06'19					
inferior conj	282 Aug 09 j 12:00	15° \mathbb{Q} 47'26	-8°-22'-15	superior conj	285 Jan 05 j 07:28	15° \mathbb{Z} 47'45	-1°00'-22
minimum elong	282 Aug 09 j 06:19	15° \mathbb{Q} 56'13	8°21'48	minimum elong	285 Jan 04 j 19:36	15° \mathbb{Z} 10'34	0°59'58
min. Earth dist.	282 Aug 09 j 21:58	15° \mathbb{Q} 32'02	0.28386 AU	max. Earth dist.	285 Jan 08 j 20:28	20° \mathbb{Z} 14'14	1.71397 AU
morning rise	282 Aug 12 j 19:57	13° \mathbb{Q} 45'14			285 Jan 16 j 15:31	0° \approx	
direct	282 Aug 30 j 22:12	7° \mathbb{Q} 39'03			285 Feb 09 j 16:04	0° \mathbb{H}	
greatest brilliancy	282 Sep 14 j 06:33	11° \mathbb{Q} 19'37	-4.6m	evening rise	285 Feb 15 j 01:52	6° \mathbb{H} 43'42	
	282 Oct 09 j 17:59	0° \cap			285 Mar 05 j 20:27	0° Υ	
asc. node	282 Oct 14 j 11:39	4° \cap 27'46			285 Mar 30 j 06:07	0° \mathbb{B}	
morning max el	282 Oct 20 j 06:25	10° \cap 10'44	46°41'13	asc. node	285 Mar 31 j 06:54	1° \mathbb{B} 15'48	
	282 Nov 07 j 20:22	0° $\underline{\Delta}$			285 Apr 23 j 22:24	0° \mathbb{H}	
	282 Dec 03 j 20:20	0° \mathbb{M}			285 May 18 j 23:07	0° \mathbb{S}	
	282 Dec 28 j 19:29	0° \mathbb{X}			285 Jun 13 j 11:55	0° \mathbb{Q}	
	283 Jan 22 j 09:24	0° \mathbb{Z}			285 Jul 09 j 21:27	0° \cap	
desc. node	283 Feb 03 j 01:17	14° \mathbb{Z} 17'46		desc. node	285 Jul 20 j 20:15	11° \cap 58'19	
	283 Feb 15 j 20:15	0° \approx			285 Aug 07 j 03:39	0° $\underline{\Delta}$	
	283 Mar 12 j 06:33	0° \mathbb{H}		evening max el	285 Aug 12 j 06:24	5° $\underline{\Delta}$ 02'03	46°20'07
	283 Apr 05 j 17:15	0° Υ			285 Sep 11 j 23:53	0° \mathbb{M}	
morning set	283 Apr 25 j 05:33	23° Υ 55'46		greatest brilliancy	285 Sep 20 j 12:01	4° \mathbb{M} 05'04	-4.6m
	283 Apr 30 j 04:24	0° \mathbb{B}		retrograde	285 Sep 30 j 21:27	6° \mathbb{M} 04'35	
	283 May 24 j 15:22	0° \mathbb{H}		evening set	285 Oct 16 j 11:45	1° \mathbb{M} 23'58	
asc. node	283 May 27 j 04:29	3° \mathbb{H} 07'33			285 Oct 18 j 22:23	30° \mathbb{R} $\underline{\Delta}$	
max. Earth dist.	283 May 30 j 13:17	7° \mathbb{H} 15'30	1.73637 AU	inferior conj	285 Oct 21 j 13:06	28° $\underline{\Delta}$ 25'47	-4°-58'-38
				minimum elong	285 Oct 21 j 22:53	28° $\underline{\Delta}$ 10'57	4°56'02
superior conj	283 May 31 j 19:12	8° \mathbb{H} 47'23	0°10'56	min. Earth dist.	285 Oct 22 j 04:17	28° $\underline{\Delta}$ 02'46	0.26668 AU
minimum elong	283 May 31 j 17:00	8° \mathbb{H} 40'37	0°10'49	morning rise	285 Oct 27 j 09:26	25° $\underline{\Delta}$ 00'26	
behind sun begin	283 May 31 j 00:30	7° \mathbb{H} 49'57		asc. node	285 Nov 10 j 23:19	20° $\underline{\Delta}$ 43'37	
behind sun end	283 Jun 01 j 09:30	9° \mathbb{H} 31'18		direct	285 Nov 11 j 01:07	20° $\underline{\Delta}$ 43'37	
	283 Jun 18 j 01:17	0° \mathbb{S}		greatest brilliancy	285 Nov 24 j 02:56	23° $\underline{\Delta}$ 53'43	-4.7m
evening rise	283 Jul 06 j 13:59	22° \mathbb{S} 49'05			285 Dec 04 j 12:33	0° \mathbb{M}	
	283 Jul 12 j 09:46	0° \mathbb{Q}		morning max el	285 Dec 31 j 17:53	24° \mathbb{M} 06'25	46°54'22
	283 Aug 05 j 17:23	0° \cap			286 Jan 06 j 10:52	0° \mathbb{X}	
	283 Aug 30 j 01:24	0° $\underline{\Delta}$			286 Feb 02 j 16:31	0° \mathbb{Z}	
desc. node	283 Sep 15 j 18:11	20° $\underline{\Delta}$ 32'14			286 Feb 28 j 12:39	0° \approx	
	283 Sep 23 j 11:17	0° \mathbb{M}		desc. node	286 Mar 02 j 13:14	2° \approx 23'04	
	283 Oct 18 j 00:41	0° \mathbb{X}			286 Mar 25 j 19:34	0° \mathbb{H}	
	283 Nov 11 j 20:50	0° \mathbb{Z}			286 Apr 19 j 20:06	0° Υ	
	283 Dec 07 j 08:19	0° \approx			286 May 14 j 16:40	0° \mathbb{B}	
	284 Jan 03 j 12:05	0° \mathbb{H}			286 Jun 08 j 09:28	0° \mathbb{H}	
asc. node	284 Jan 06 j 21:05	3° \mathbb{H} 28'45		asc. node	286 Jun 23 j 16:18	18° \mathbb{H} 40'33	
evening max el	284 Jan 07 j 13:44	4° \mathbb{H} 11'05	46°51'42	morning set	286 Jul 01 j 15:42	28° \mathbb{H} 27'26	
	284 Feb 06 j 15:48	0° Υ			286 Jul 02 j 21:50	0° \mathbb{S}	
greatest brilliancy	284 Feb 12 j 20:02	3° Υ 28'04	-4.6m		286 Jul 27 j 05:24	0° \mathbb{Q}	
retrograde	284 Feb 27 j 00:53	7° Υ 07'59		max. Earth dist.	286 Aug 03 j 08:52	8° \mathbb{Q} 51'28	1.72668 AU

superior conj	286 Aug 07 j 02:07	13°♈28'32	1°20'14	morning rise	289 Jan 08 j 15:06	11°♊53'27	
minimum elong	286 Aug 06 j 20:39	13°♈11'35	1°20'09	direct	289 Jan 24 j 14:11	6°♊53'31	
	286 Aug 20 j 08:54	0°♎		greatest brilliancy	289 Feb 04 j 04:05	8°♊59'38	-4.6m
evening rise	286 Sep 13 j 07:05	29°♎50'56			289 Mar 06 j 08:52	0°♋	
	286 Sep 13 j 09:59	0°♌		morning max el	289 Mar 15 j 05:18	8°♋22'00	46°18'15
	286 Oct 07 j 10:24	0°♍		desc. node	289 Mar 30 j 01:02	23°♋27'38	
desc. node	286 Oct 13 j 06:04	7°♍16'04			289 Apr 05 j 04:21	0°♌	
	286 Oct 31 j 11:22	0°♍			289 May 02 j 04:48	0°♌	
	286 Nov 24 j 14:00	0°♎			289 May 28 j 04:00	0°♌	
	286 Dec 18 j 20:32	0°♋			289 Jun 22 j 12:49	0°♍	
	287 Jan 12 j 11:45	0°♌			289 Jul 17 j 10:33	0°♎	
asc. node	287 Feb 03 j 09:01	25°♌56'38		asc. node	289 Jul 21 j 04:14	4°♎32'39	
	287 Feb 06 j 20:56	0°♍			289 Aug 10 j 22:39	0°♏	
	287 Mar 05 j 20:18	0°♎			289 Sep 04 j 03:00	0°♐	
evening max el	287 Mar 19 j 14:18	14°♎00'41	45°40'13	morning set	289 Sep 08 j 19:04	5°♐49'44	
	287 Apr 06 j 13:01	0°♑			289 Sep 28 j 02:15	0°♑	
greatest brilliancy	287 Apr 22 j 18:04	10°♑31'25	-4.5m	max. Earth dist.	289 Oct 16 j 01:57	22°♑36'21	1.71227 AU
retrograde	287 May 07 j 11:17	14°♑18'01					
evening set	287 May 22 j 11:54	9°♑55'23		superior conj	289 Oct 17 j 09:35	24°♑15'47	0°51'44
desc. node	287 May 25 j 22:31	7°♑55'42		minimum elong	289 Oct 17 j 20:00	24°♑48'33	0°51'20
inferior conj	287 May 28 j 22:12	6°♑04'47	0°-41'-56		289 Oct 21 j 23:03	0°♒	
minimum elong	287 May 28 j 20:39	6°♑07'12	0°41'29	desc. node	289 Nov 09 j 17:50	23°♒37'52	
min. Earth dist.	287 May 29 j 01:22	5°♑59'51	0.28986 AU		289 Nov 14 j 19:24	0°♓	
morning rise	287 Jun 04 j 05:21	2°♑18'04		evening rise	289 Nov 27 j 15:32	16°♓08'05	
	287 Jun 08 j 22:53	30°♒♎			289 Dec 08 j 16:34	0°♓	
direct	287 Jun 19 j 14:12	27°♒45'55			290 Jan 01 j 15:42	0°♋	
	287 Jun 30 j 18:51	0°♑			290 Jan 25 j 18:43	0°♌	
greatest brilliancy	287 Jul 03 j 13:22	1°♑09'23	-4.5m		290 Feb 19 j 04:38	0°♍	
morning max el	287 Aug 07 j 16:17	27°♑55'04	45°58'32	asc. node	290 Mar 02 j 21:03	14°♍10'28	
	287 Aug 09 j 19:40	0°♎			290 Mar 16 j 01:49	0°♎	
	287 Sep 07 j 03:26	0°♏			290 Apr 10 j 16:57	0°♑	
asc. node	287 Sep 16 j 01:58	10°♏08'51			290 May 07 j 16:09	0°♒	
	287 Oct 03 j 01:00	0°♐		evening max el	290 May 29 j 07:20	22°♒01'22	45°21'21
	287 Oct 27 j 20:08	0°♑			290 Jun 06 j 23:37	0°♒	
	287 Nov 21 j 02:30	0°♒		desc. node	290 Jun 22 j 10:32	12°♒10'17	
	287 Dec 15 j 03:39	0°♓		greatest brilliancy	290 Jul 04 j 15:27	18°♒54'45	-4.5m
desc. node	288 Jan 05 j 15:28	26°♓51'55		retrograde	290 Jul 16 j 20:01	21°♒31'32	
	288 Jan 08 j 03:41	0°♓		evening set	290 Aug 03 j 04:14	15°♒56'30	
	288 Feb 01 j 04:35	0°♋		inferior conj	290 Aug 07 j 03:04	13°♒32'45	-8°-15'-33
morning set	288 Feb 10 j 13:15	11°♋39'29		minimum elong	290 Aug 06 j 20:43	13°♒42'34	8°14'58
	288 Feb 25 j 07:18	0°♌		min. Earth dist.	290 Aug 07 j 12:45	13°♒17'46	0.28429 AU
				morning rise	290 Aug 10 j 12:56	11°♒27'27	
superior conj	288 Mar 20 j 19:08	0°♍20'36	-1°-14'-18	direct	290 Aug 28 j 13:17	5°♒23'38	
minimum elong	288 Mar 21 j 03:48	0°♍47'21	1°14'06	greatest brilliancy	290 Sep 11 j 22:06	9°♒03'37	-4.6m
	288 Mar 20 j 12:28	0°♎			290 Oct 09 j 20:39	0°♐	
max. Earth dist.	288 Mar 23 j 17:28	3°♎57'53	1.72938 AU	asc. node	290 Oct 13 j 13:35	3°♐33'19	
	288 Apr 13 j 20:22	0°♏		morning max el	290 Oct 17 j 19:46	7°♐47'00	46°39'55
evening rise	288 Apr 27 j 13:40	16°♏51'42			290 Nov 07 j 13:42	0°♑	
asc. node	288 Apr 27 j 18:42	17°♏07'09			290 Dec 03 j 10:50	0°♒	
greatest brilliancy	288 May 02 j 18:29	23°♏14'28	-3.9m		290 Dec 28 j 08:39	0°♓	
	288 May 08 j 06:52	0°♑			291 Jan 21 j 21:47	0°♓	
	288 Jun 01 j 19:43	0°♒		desc. node	291 Feb 02 j 03:22	13°♓47'00	
	288 Jun 26 j 11:20	0°♒			291 Feb 15 j 08:08	0°♋	
	288 Jul 21 j 07:10	0°♓			291 Mar 11 j 18:02	0°♌	
	288 Aug 15 j 09:58	0°♑			291 Apr 05 j 04:24	0°♍	
desc. node	288 Aug 17 j 08:14	2°♑17'01		morning set	291 Apr 22 j 23:08	21°♍48'51	
	288 Sep 10 j 00:31	0°♒			291 Apr 29 j 15:20	0°♎	
	288 Oct 06 j 14:16	0°♓			291 May 24 j 02:12	0°♑	
evening max el	288 Oct 24 j 13:32	19°♓00'09	47°21'19	asc. node	291 May 26 j 06:34	2°♑40'42	
	288 Nov 04 j 21:52	0°♓		max. Earth dist.	291 May 28 j 09:40	5°♑17'31	1.73643 AU
greatest brilliancy	288 Dec 01 j 21:27	19°♓35'14	-4.7m				
asc. node	288 Dec 08 j 11:19	21°♓50'11		superior conj	291 May 29 j 13:48	6°♑43'54	0°07'50
retrograde	288 Dec 14 j 11:17	22°♓32'59		minimum elong	291 May 29 j 12:13	6°♑39'01	0°07'46
evening set	288 Dec 29 j 19:01	17°♓49'22		behind sun begin	291 May 28 j 16:31	5°♑38'33	
min. Earth dist.	289 Jan 03 j 03:10	15°♓13'18	0.26919 AU	behind sun end	291 May 30 j 07:55	7°♑39'31	
inferior conj	289 Jan 04 j 02:55	14°♓36'30	6°10'48		291 Jun 17 j 12:09	0°♒	
minimum elong	289 Jan 03 j 16:45	14°♓52'16	6°08'30	evening rise	291 Jul 04 j 09:04	20°♒46'17	

	291 Jul 11 j 20:47	0°♈		morning max el	293 Dec 29 j 08:37	21°♈43'36	46°54'55
	291 Aug 05 j 04:37	0°♍			294 Jan 06 j 07:35	0°♈	
	291 Aug 29 j 12:59	0°♊			294 Feb 02 j 08:17	0°♈	
desc. node	291 Sep 14 j 20:10	20°♊01'45			294 Feb 28 j 02:16	0°♈	
	291 Sep 22 j 23:22	0°♈		desc. node	294 Mar 01 j 15:18	1°♈49'16	
	291 Oct 17 j 13:28	0°♈			294 Mar 25 j 08:01	0°♈	
	291 Nov 11 j 10:40	0°♈			294 Apr 19 j 07:50	0°♈	
	291 Dec 07 j 00:08	0°♈			294 May 14 j 03:56	0°♈	
	292 Jan 03 j 09:00	0°♈			294 Jun 07 j 20:26	0°♈	
evening max el	292 Jan 05 j 03:31	1°♈48'37	46°54'00	asc. node	294 Jun 22 j 18:30	18°♈14'09	
asc. node	292 Jan 05 j 23:14	2°♈38'33		morning set	294 Jun 29 j 09:52	26°♈22'43	
	292 Feb 08 j 03:25	0°♈			294 Jul 02 j 08:37	0°♈	
greatest brilliancy	292 Feb 10 j 12:58	1°♈14'12	-4.6m		294 Jul 26 j 16:07	0°♈	
retrograde	292 Feb 24 j 16:37	4°♈53'46		max. Earth dist.	294 Aug 01 j 03:46	6°♈47'53	1.72716 AU
	292 Mar 11 j 10:48	30°♈					
evening set	292 Mar 13 j 05:10	28°♈57'19		superior conj	294 Aug 04 j 19:39	11°♈20'33	1°19'09
inferior conj	292 Mar 16 j 22:54	26°♈36'50	7°43'54	minimum elong	294 Aug 04 j 13:40	11°♈02'00	1°19'03
minimum elong	292 Mar 17 j 06:33	26°♈24'41	7°42'55		294 Aug 19 j 19:41	0°♈	
min. Earth dist.	292 Mar 16 j 19:11	26°♈42'44	0.28586 AU	evening rise	294 Sep 10 j 21:50	27°♈32'58	
morning rise	292 Mar 21 j 08:08	23°♈53'20			294 Sep 12 j 20:56	0°♈	
direct	292 Apr 07 j 04:16	18°♈25'27			294 Oct 06 j 21:34	0°♈	
greatest brilliancy	292 Apr 19 j 00:38	20°♈55'52	-4.5m	desc. node	294 Oct 12 j 08:04	6°♈47'17	
desc. node	292 Apr 26 j 12:37	24°♈39'43			294 Oct 30 j 22:48	0°♈	
	292 May 04 j 14:15	0°♈			294 Nov 24 j 01:44	0°♈	
morning max el	292 May 25 j 23:41	18°♈18'54	45°46'20		294 Dec 18 j 08:42	0°♈	
	292 Jun 06 j 18:47	0°♈			295 Jan 12 j 00:39	0°♈	
	292 Jul 04 j 16:01	0°♈		asc. node	295 Feb 02 j 11:05	25°♈21'42	
	292 Jul 30 j 19:40	0°♈			295 Feb 06 j 11:20	0°♈	
asc. node	292 Aug 17 j 16:08	21°♈10'53			295 Mar 05 j 14:25	0°♈	
	292 Aug 24 j 23:47	0°♈		evening max el	295 Mar 17 j 06:56	11°♈51'14	45°42'11
	292 Sep 18 j 12:15	0°♈			295 Apr 07 j 00:36	0°♈	
	292 Oct 12 j 14:49	0°♈		greatest brilliancy	295 Apr 20 j 10:27	8°♈23'02	-4.5m
	292 Nov 05 j 12:19	0°♈		retrograde	295 May 05 j 04:02	12°♈09'37	
morning set	292 Nov 21 j 18:52	20°♈29'00		evening set	295 May 20 j 04:53	7°♈46'22	
	292 Nov 29 j 08:15	0°♈		desc. node	295 May 25 j 00:41	4°♈55'14	
desc. node	292 Dec 07 j 05:43	9°♈56'10		inferior conj	295 May 26 j 14:34	3°♈56'06	0°-22'-10
	292 Dec 23 j 04:39	0°♈		minimum elong	295 May 26 j 13:45	3°♈57'22	0°21'57
				min. Earth dist.	295 May 26 j 17:36	3°♈51'21	0.28986 AU
superior conj	293 Jan 02 j 17:12	13°♈12'56	0°-57'-28	morning rise	295 Jun 01 j 22:39	0°♈08'02	
minimum elong	293 Jan 02 j 05:22	12°♈35'49	0°57'03		295 Jun 02 j 04:32	30°♈	
max. Earth dist.	293 Jan 06 j 00:52	17°♈22'48	1.71358 AU	direct	295 Jun 17 j 07:05	25°♈37'21	
	293 Jan 16 j 02:36	0°♈		greatest brilliancy	295 Jul 01 j 03:39	28°♈58'26	-4.5m
	293 Feb 09 j 03:07	0°♈			295 Jul 03 j 07:03	0°♈	
evening rise	293 Feb 12 j 13:50	4°♈17'16		morning max el	295 Aug 05 j 08:29	25°♈45'17	45°57'25
	293 Mar 05 j 07:34	0°♈			295 Aug 09 j 16:30	0°♈	
	293 Mar 29 j 17:24	0°♈			295 Sep 06 j 18:36	0°♈	
asc. node	293 Mar 30 j 08:53	0°♈47'22		asc. node	295 Sep 15 j 03:55	9°♈33'20	
	293 Apr 23 j 10:00	0°♈			295 Oct 02 j 14:08	0°♈	
	293 May 18 j 11:20	0°♈			295 Oct 27 j 08:22	0°♈	
	293 Jun 13 j 01:19	0°♈			295 Nov 20 j 14:14	0°♈	
	293 Jul 09 j 13:15	0°♈			295 Dec 14 j 15:06	0°♈	
desc. node	293 Jul 19 j 22:22	11°♈17'03		desc. node	296 Jan 04 j 17:36	26°♈23'28	
	293 Aug 07 j 01:44	0°♈			296 Jan 07 j 14:55	0°♈	
evening max el	293 Aug 09 j 19:36	2°♈40'40	46°17'26		296 Jan 31 j 15:37	0°♈	
	293 Sep 14 j 02:33	0°♈		morning set	296 Feb 08 j 00:54	9°♈12'11	
greatest brilliancy	293 Sep 17 j 23:16	1°♈37'28	-4.6m		296 Feb 24 j 18:11	0°♈	
retrograde	293 Sep 28 j 09:50	3°♈37'45					
	293 Oct 12 j 00:02	30°♈		superior conj	296 Mar 18 j 09:56	28°♈04'40	-1°-15'-58
evening set	293 Oct 14 j 03:00	28°♈52'19		minimum elong	296 Mar 18 j 18:12	28°♈30'12	1°15'48
inferior conj	293 Oct 19 j 01:22	25°♈58'19	-5°-18'-18		296 Mar 19 j 23:15	0°♈	
minimum elong	293 Oct 19 j 11:30	25°♈42'59	5°15'41	max. Earth dist.	296 Mar 21 j 13:12	1°♈57'18	1.72888 AU
min. Earth dist.	293 Oct 19 j 17:22	25°♈34'06	0.26722 AU		296 Apr 13 j 07:06	0°♈	
morning rise	293 Oct 24 j 19:28	22°♈36'19		evening rise	296 Apr 25 j 06:52	14°♈44'11	
direct	293 Nov 08 j 14:27	18°♈15'14		asc. node	296 Apr 26 j 20:47	16°♈40'33	
asc. node	293 Nov 10 j 01:26	18°♈17'50		greatest brilliancy	296 May 06 j 08:25	28°♈18'16	-3.9m
greatest brilliancy	293 Nov 21 j 18:13	21°♈28'19	-4.7m		296 May 07 j 17:39	0°♈	
	293 Dec 05 j 10:32	0°♈			296 Jun 01 j 06:43	0°♈	

	296 Jun 25 j 22:43	0°♌			299 Feb 14 j 19:36	0°♊		
	296 Jul 20 j 19:11	0°♍			299 Mar 11 j 05:08	0°♈		
	296 Aug 14 j 22:57	0°♊			299 Apr 04 j 15:15	0°♍		
desc. node	296 Aug 16 j 10:15	1°♊44'18		morning set	299 Apr 20 j 16:28	19°♍41'57		
	296 Sep 09 j 15:12	0°♍			299 Apr 29 j 02:00	0°♈		
	296 Oct 06 j 08:26	0°♈			299 May 23 j 12:47	0°♊		
evening max el	296 Oct 22 j 04:16	16°♈38'30	47°20'20	asc. node	299 May 25 j 08:43	2°♊14'51		
	296 Nov 05 j 03:30	0°♊		max. Earth dist.	299 May 26 j 06:01	3°♊20'13	1.73648 AU	
greatest brilliancy	296 Nov 29 j 13:27	17°♊11'33	-4.7m					
asc. node	296 Dec 07 j 13:25	19°♊42'01		superior conj	299 May 27 j 08:09	4°♊40'26	0°04'43	
retrograde	296 Dec 12 j 00:39	20°♊05'52		minimum elong	299 May 27 j 07:12	4°♊37'29	0°04'41	
evening set	296 Dec 27 j 05:11	15°♊27'43		behind sun begin	299 May 26 j 09:38	3°♊31'19		
min. Earth dist.	296 Dec 31 j 16:50	12°♊46'38	0.26860 AU	behind sun end	299 May 28 j 04:45	5°♊43'40		
inferior conj	297 Jan 01 j 15:58	12°♊10'45	5°53'54		299 Jun 16 j 22:45	0°♊		
minimum elong	297 Jan 01 j 05:52	12°♊26'25	5°51'31	evening rise	299 Jul 02 j 04:00	18°♊43'55		
morning rise	297 Jan 06 j 07:11	9°♊23'16			299 Jul 11 j 07:31	0°♌		
direct	297 Jan 22 j 02:55	4°♊28'52			299 Aug 04 j 15:37	0°♍		
greatest brilliancy	297 Feb 01 j 17:13	6°♊35'10	-4.6m		299 Aug 29 j 00:22	0°♊		
	297 Mar 06 j 11:46	0°♊		desc. node	299 Sep 13 j 22:11	19°♊31'57		
morning max el	297 Mar 12 j 18:06	5°♊59'34	46°19'41		299 Sep 22 j 11:17	0°♍		
desc. node	297 Mar 29 j 03:00	22°♊44'19			299 Oct 17 j 02:05	0°♈		
	297 Apr 04 j 21:29	0°♈			299 Nov 11 j 00:22	0°♊		
	297 May 01 j 18:46	0°♍			299 Dec 06 j 15:52	0°♊		
	297 May 27 j 16:26	0°♈		evening max el	300 Jan 02 j 17:48	29°♊28'31	46°56'27	
	297 Jun 22 j 00:25	0°♊			300 Jan 03 j 06:12	0°♈		
	297 Jul 16 j 21:41	0°♊		asc. node	300 Jan 05 j 01:17	1°♈48'26		
asc. node	297 Jul 20 j 06:15	4°♊05'02		greatest brilliancy	300 Feb 08 j 04:58	29°♈00'23	-4.6m	
	297 Aug 10 j 09:34	0°♌			300 Feb 10 j 09:21	0°♍		
	297 Sep 03 j 13:49	0°♍		retrograde	300 Feb 22 j 08:53	2°♍41'02		
morning set	297 Sep 06 j 10:11	3°♍33'17			300 Mar 04 j 20:08	30°♈		
	297 Sep 27 j 13:03	0°♊		evening set	300 Mar 10 j 23:26	26°♈40'48		
max. Earth dist.	297 Oct 13 j 07:18	19°♊48'17	1.71257 AU	inferior conj	300 Mar 14 j 14:52	24°♈24'05	7°52'42	
				minimum elong	300 Mar 14 j 22:02	24°♈12'42	7°51'51	
superior conj	297 Oct 14 j 21:56	21°♊49'43	0°54'40	min. Earth dist.	300 Mar 14 j 10:21	24°♈31'13	0.28552 AU	
minimum elong	297 Oct 15 j 08:31	22°♊22'57	0°54'15	morning rise	300 Mar 18 j 20:49	21°♈45'40		
	297 Oct 21 j 09:53	0°♍		direct	300 Apr 04 j 19:15	16°♈13'05		
desc. node	297 Nov 08 j 20:01	23°♍10'28		greatest brilliancy	300 Apr 16 j 15:07	18°♈43'08	-4.5m	
	297 Nov 14 j 06:18	0°♈		desc. node	300 Apr 25 j 14:50	23°♈20'03		
evening rise	297 Nov 25 j 01:32	13°♈34'23			300 May 05 j 03:44	0°♍		
	297 Dec 08 j 03:33	0°♊		morning max el	300 May 23 j 15:50	16°♍09'25	45°46'47	
	298 Jan 01 j 02:48	0°♊			300 Jun 06 j 13:14	0°♈		
	298 Jan 25 j 06:00	0°♈			300 Jul 04 j 06:21	0°♊		
	298 Feb 18 j 16:15	0°♍			300 Jul 30 j 08:17	0°♊		
asc. node	298 Mar 01 j 22:59	13°♍40'26		asc. node	300 Aug 16 j 18:07	20°♊40'58		
	298 Mar 15 j 14:06	0°♈			300 Aug 24 j 11:34	0°♌		
	298 Apr 10 j 06:36	0°♊			300 Sep 17 j 23:36	0°♍		
	298 May 07 j 08:58	0°♊			300 Oct 12 j 01:58	0°♊		
evening max el	298 May 26 j 21:15	19°♊46'11	45°20'39		300 Nov 04 j 23:23	0°♍		
	298 Jun 07 j 03:41	0°♌		morning set	300 Nov 19 j 05:17	17°♍55'52		
desc. node	298 Jun 21 j 12:38	10°♌55'55			300 Nov 28 j 19:18	0°♈		
greatest brilliancy	298 Jul 02 j 03:20	16°♌38'40	-4.5m	desc. node	300 Dec 06 j 07:48	9°♈28'06		
retrograde	298 Jul 14 j 10:14	19°♌18'32			300 Dec 22 j 15:38	0°♊		
evening set	298 Jul 31 j 15:48	13°♌47'40						
inferior conj	298 Aug 04 j 18:07	11°♌18'59	-8°-8'-2	superior conj	300 Dec 31 j 02:57	10°♊38'29	0°-54'-27	
minimum elong	298 Aug 04 j 11:08	11°♌29'45	8°07'19	minimum elong	300 Dec 30 j 15:15	10°♊01'48	0°54'02	
min. Earth dist.	298 Aug 05 j 03:30	11°♌04'29	0.28473 AU	max. Earth dist.	301 Jan 03 j 07:13	14°♊37'51	1.71318 AU	
morning rise	298 Aug 08 j 06:12	9°♌10'23			301 Jan 15 j 13:31	0°♊		
direct	298 Aug 26 j 04:17	3°♌08'57			301 Feb 08 j 14:00	0°♈		
greatest brilliancy	298 Sep 09 j 14:51	6°♌50'11	-4.6m	evening rise	301 Feb 10 j 01:59	1°♈51'57		
	298 Oct 09 j 21:35	0°♍			301 Mar 04 j 18:29	0°♍		
asc. node	298 Oct 12 j 15:42	2°♍41'09		asc. node	301 Mar 29 j 11:01	0°♈20'01		
morning max el	298 Oct 15 j 09:40	5°♍25'38	46°38'46		301 Mar 29 j 04:28	0°♈		
	298 Nov 07 j 06:23	0°♊			301 Apr 22 j 21:26	0°♊		
	298 Dec 03 j 00:49	0°♍			301 May 17 j 23:27	0°♊		
	298 Dec 27 j 21:22	0°♈			301 Jun 12 j 14:42	0°♌		
	299 Jan 21 j 09:45	0°♊			301 Jul 09 j 05:14	0°♍		
desc. node	299 Feb 01 j 05:23	13°♊17'16		desc. node	301 Jul 19 j 00:23	10°♍35'16		

	301 Aug 07 j 00:37	0°♄				303 Nov 20 j 02:09	0°♍	
evening max el	301 Aug 07 j 09:36	0°♄21'42	46°14'49			303 Dec 14 j 02:42	0°♈	
greatest brilliancy	301 Sep 15 j 10:24	29°♄10'33	-4.6m	desc. node		304 Jan 03 j 19:34	25°♈53'55	
	301 Sep 17 j 22:48	0°♍				304 Jan 07 j 02:18	0°♈	
retrograde	301 Sep 25 j 22:22	1°♍11'26				304 Jan 31 j 02:51	0°≈	
	301 Oct 03 j 14:48	30°♍♄		morning set		304 Feb 05 j 12:21	6°≈43'33	
evening set	301 Oct 11 j 18:28	26°♄21'22				304 Feb 24 j 05:17	0°♈	
inferior conj	301 Oct 16 j 13:43	23°♄31'27	-5°-37'-6					
minimum elong	301 Oct 17 j 00:07	23°♄15'41	5°34'31	superior conj		304 Mar 16 j 00:42	25°♈47'50	-1°-17'-30
min. Earth dist.	301 Oct 17 j 06:12	23°♄06'28	0.26776 AU	minimum elong		304 Mar 16 j 08:31	26°♈12'01	1°17'22
morning rise	301 Oct 22 j 05:20	20°♄12'56				304 Mar 19 j 10:14	0°♍	
direct	301 Nov 06 j 04:11	15°♄47'37		max. Earth dist.		304 Mar 19 j 08:14	29°♈53'49	1.72834 AU
asc. node	301 Nov 09 j 03:36	15°♄58'22				304 Apr 12 j 18:02	0°♄	
greatest brilliancy	301 Nov 19 j 08:39	19°♄02'10	-4.7m	evening rise		304 Apr 23 j 00:03	12°♄35'59	
	301 Dec 06 j 02:47	0°♍		asc. node		304 Apr 25 j 22:57	16°♄13'35	
morning max el	301 Dec 26 j 23:13	19°♍20'34	46°55'19			304 May 07 j 04:37	0°♍	
	302 Jan 06 j 03:37	0°♈				304 May 31 j 17:53	0°♄	
	302 Feb 01 j 23:46	0°♈				304 Jun 25 j 10:18	0°♍	
	302 Feb 27 j 15:44	0°≈				304 Jul 20 j 07:26	0°♍	
desc. node	302 Feb 28 j 17:16	1°≈15'30				304 Aug 14 j 12:18	0°♄	
	302 Mar 24 j 20:20	0°♈		desc. node		304 Aug 15 j 12:15	1°♄10'37	
	302 Apr 18 j 19:27	0°♍				304 Sep 09 j 06:23	0°♍	
	302 May 13 j 15:06	0°♄				304 Oct 06 j 03:29	0°♈	
	302 Jun 07 j 07:19	0°♍		evening max el		304 Oct 19 j 18:05	14°♈13'17	47°19'12
asc. node	302 Jun 21 j 20:28	17°♍47'10				304 Nov 05 j 12:01	0°♈	
morning set	302 Jun 27 j 04:10	24°♍18'33		greatest brilliancy		304 Nov 27 j 05:41	14°♈46'38	-4.7m
	302 Jul 01 j 19:22	0°♄		asc. node		304 Dec 06 j 15:25	17°♈27'03	
	302 Jul 26 j 02:52	0°♍		retrograde		304 Dec 09 j 13:19	17°♈37'17	
max. Earth dist.	302 Jul 29 j 20:42	4°♍38'13	1.72767 AU	evening set		304 Dec 24 j 15:21	13°♈04'11	
				min. Earth dist.		304 Dec 29 j 06:43	10°♈18'02	0.26803 AU
superior conj	302 Aug 02 j 13:15	9°♍12'47	1°17'57	inferior conj		304 Dec 30 j 04:55	9°♈43'36	5°36'15
minimum elong	302 Aug 02 j 06:48	8°♍52'47	1°17'50	minimum elong		304 Dec 29 j 18:57	9°♈59'04	5°33'48
	302 Aug 19 j 06:31	0°♍		morning rise		305 Jan 03 j 23:06	6°♈51'47	
evening rise	302 Sep 08 j 12:34	25°♍14'54		direct		305 Jan 19 j 15:04	2°♈02'36	
	302 Sep 12 j 07:56	0°♄		greatest brilliancy		305 Jan 30 j 07:14	4°♈10'17	-4.6m
	302 Oct 06 j 08:48	0°♍				305 Mar 06 j 13:38	0°≈	
desc. node	302 Oct 11 j 10:12	6°♍18'47		morning max el		305 Mar 10 j 06:19	3°≈34'26	46°21'13
	302 Oct 30 j 10:17	0°♈		desc. node		305 Mar 28 j 05:12	22°≈01'11	
	302 Nov 23 j 13:34	0°♈				305 Apr 04 j 14:38	0°♈	
	302 Dec 17 j 21:00	0°≈				305 May 01 j 08:55	0°♍	
	303 Jan 11 j 13:45	0°♈				305 May 27 j 05:07	0°♄	
asc. node	303 Feb 01 j 13:05	24°♈46'01				305 Jun 21 j 12:16	0°♍	
	303 Feb 06 j 01:58	0°♍				305 Jul 16 j 09:03	0°♄	
	303 Mar 05 j 09:02	0°♄		asc. node		305 Jul 19 j 08:18	3°♄36'49	
evening max el	303 Mar 14 j 23:23	9°♄41'06	45°44'16			305 Aug 09 j 20:42	0°♍	
	303 Apr 07 j 16:04	0°♍				305 Sep 03 j 00:54	0°♍	
greatest brilliancy	303 Apr 18 j 03:56	6°♍16'21	-4.5m	morning set		305 Sep 04 j 01:36	1°♍17'03	
retrograde	303 May 02 j 20:35	10°♍01'50				305 Sep 27 j 00:09	0°♄	
evening set	303 May 17 j 22:18	5°♍37'54		max. Earth dist.		305 Oct 10 j 15:17	17°♄07'26	1.71298 AU
inferior conj	303 May 24 j 07:13	1°♍48'11	0°-2'-38					
minimum elong	303 May 24 j 07:08	1°♍48'20	0°02'38	superior conj		305 Oct 12 j 10:25	19°♄23'00	0°57'27
transit middle	303 May 24 j 07:08	1°♍48'20	0°02'38	minimum elong		305 Oct 12 j 21:03	19°♄56'27	0°57'04
transit begin	303 May 24 j 03:07	1°♍54'37				305 Oct 20 j 21:04	0°♍	
transit end	303 May 24 j 11:08	1°♍42'03		desc. node		305 Nov 07 j 22:05	22°♍41'32	
desc. node	303 May 24 j 02:42	1°♍55'17				305 Nov 13 j 17:35	0°♈	
min. Earth dist.	303 May 24 j 10:16	1°♍43'24	0.28984 AU	evening rise		305 Nov 22 j 11:20	10°♈58'51	
	303 May 27 j 04:51	30°♍♄				305 Dec 07 j 14:57	0°♈	
morning rise	303 May 30 j 16:02	27°♄58'48				305 Dec 31 j 14:19	0°≈	
direct	303 Jun 15 j 00:01	23°♄29'38				306 Jan 24 j 17:42	0°♈	
greatest brilliancy	303 Jun 28 j 17:35	26°♄47'21	-4.5m			306 Feb 18 j 04:18	0°♍	
	303 Jul 04 j 20:46	0°♍		asc. node		306 Mar 01 j 01:08	13°♍09'44	
morning max el	303 Aug 02 j 23:57	23°♍33'40	45°56'09			306 Mar 15 j 02:52	0°♄	
	303 Aug 09 j 12:43	0°♄				306 Apr 09 j 20:49	0°♍	
	303 Sep 06 j 09:42	0°♍				306 May 07 j 02:35	0°♄	
asc. node	303 Sep 14 j 06:02	8°♍57'59		evening max el		306 May 24 j 11:36	17°♄31'12	45°20'13
	303 Oct 02 j 03:24	0°♍				306 Jun 07 j 10:11	0°♍	
	303 Oct 26 j 20:45	0°♄		desc. node		306 Jun 20 j 14:38	9°♍38'29	

greatest brilliancy	306 Jun 29 j 14:32	14°Ω21'23	-4.5m	desc. node	308 Dec 05 j 09:47	8°♂59'00	
retrograde	306 Jul 12 j 01:19	17°Ω05'30			308 Dec 22 j 02:51	0°♂	
evening set	306 Jul 29 j 03:30	11°Ω38'44					
inferior conj	306 Aug 02 j 09:22	9°Ω05'05	-7°-59'-47	superior conj	308 Dec 28 j 12:38	8°♂03'00	0°-51'-19
minimum elong	306 Aug 02 j 01:49	9°Ω16'43	7°58'55	minimum elong	308 Dec 28 j 01:13	7°♂27'10	0°50'52
min. Earth dist.	306 Aug 02 j 18:04	8°Ω51'38	0.28513 AU	max. Earth dist.	308 Dec 31 j 16:19	12°♂00'33	1.71288 AU
morning rise	306 Aug 05 j 23:50	6°Ω53'05			309 Jan 15 j 00:43	0°≈	
direct	306 Aug 23 j 19:40	0°Ω54'16		evening rise	309 Feb 07 j 13:42	29°≈24'11	
greatest brilliancy	306 Sep 07 j 08:07	4°Ω37'25	-4.6m		309 Feb 08 j 01:13	0°✕	
	306 Oct 09 j 21:35	0°♍			309 Mar 04 j 05:45	0°♀	
asc. node	306 Oct 11 j 17:51	1°♍49'28		asc. node	309 Mar 28 j 13:06	29°♀51'25	
morning max el	306 Oct 13 j 00:27	3°♍06'03	46°37'24		309 Mar 28 j 15:54	0°♂	
	306 Nov 06 j 23:03	0°♂			309 Apr 22 j 09:15	0°♂	
	306 Dec 02 j 15:05	0°♂			309 May 17 j 11:58	0°♂	
	306 Dec 27 j 10:27	0°♂			309 Jun 12 j 04:34	0°Ω	
	307 Jan 20 j 22:10	0°♂			309 Jul 08 j 21:51	0°♍	
desc. node	307 Jan 31 j 07:29	12°♂46'20		desc. node	309 Jul 18 j 02:26	9°♍52'12	
	307 Feb 14 j 07:30	0°≈		evening max el	309 Aug 04 j 23:53	28°♍02'39	46°12'12
	307 Mar 10 j 16:40	0°✕			309 Aug 07 j 00:54	0°♂	
	307 Apr 04 j 02:29	0°♀		greatest brilliancy	309 Sep 12 j 22:32	26°♂44'31	-4.6m
morning set	307 Apr 18 j 09:25	17°♀32'31		retrograde	309 Sep 23 j 10:43	28°♂44'55	
	307 Apr 28 j 13:03	0°♂		evening set	309 Oct 09 j 10:08	23°♂50'32	
	307 May 22 j 23:46	0°♂		inferior conj	309 Oct 14 j 02:12	21°♂04'43	-5°-55'-8
max. Earth dist.	307 May 24 j 03:28	1°♂24'59	1.73652 AU	minimum elong	309 Oct 14 j 12:47	20°♂48'40	5°52'38
asc. node	307 May 24 j 10:41	1°♂47'09		min. Earth dist.	309 Oct 14 j 19:11	20°♂38'57	0.26825 AU
				morning rise	309 Oct 19 j 15:02	17°♂49'48	
superior conj	307 May 25 j 02:20	2°♂35'13	0°01'34	direct	309 Nov 03 j 17:53	13°♂20'24	
minimum elong	307 May 25 j 02:00	2°♂34'11	0°01'33	asc. node	309 Nov 08 j 05:30	13°♂44'30	
behind sun begin	307 May 24 j 03:41	1°♂25'40		greatest brilliancy	309 Nov 16 j 22:26	16°♂35'12	-4.7m
behind sun end	307 May 26 j 00:19	3°♂42'43			309 Dec 06 j 14:58	0°♂	
	307 Jun 16 j 09:46	0°♂		morning max el	309 Dec 24 j 12:49	16°♂54'52	46°55'38
evening rise	307 Jun 29 j 23:02	16°♂40'46			310 Jan 05 j 23:05	0°♂	
	307 Jul 10 j 18:38	0°Ω			310 Feb 01 j 15:07	0°♂	
	307 Aug 04 j 02:57	0°♍			310 Feb 27 j 05:14	0°≈	
	307 Aug 28 j 12:04	0°♂		desc. node	310 Feb 27 j 19:27	0°≈42'07	
desc. node	307 Sep 13 j 00:22	19°♂01'50			310 Mar 24 j 08:48	0°✕	
	307 Sep 21 j 23:30	0°♂			310 Apr 18 j 07:16	0°♀	
	307 Oct 16 j 15:04	0°♂			310 May 13 j 02:28	0°♂	
	307 Nov 10 j 14:32	0°♂			310 Jun 06 j 18:24	0°♂	
	307 Dec 06 j 08:18	0°≈		asc. node	310 Jun 20 j 22:32	17°♂19'53	
evening max el	307 Dec 31 j 08:55	27°≈08'54	46°58'41	morning set	310 Jun 24 j 22:10	22°♂13'02	
	308 Jan 03 j 04:51	0°✕			310 Jul 01 j 06:17	0°♂	
asc. node	308 Jan 04 j 03:17	0°✕55'42			310 Jul 25 j 13:46	0°Ω	
greatest brilliancy	308 Feb 05 j 20:47	26°✕44'06	-4.6m	max. Earth dist.	310 Jul 27 j 12:57	2°Ω26'07	1.72819 AU
	308 Feb 15 j 10:12	0°♀					
retrograde	308 Feb 20 j 01:18	0°♀25'33		superior conj	310 Jul 31 j 06:45	7°Ω04'23	1°16'38
	308 Feb 24 j 14:05	30°♂		minimum elong	310 Jul 30 j 23:53	6°Ω43'05	1°16'30
evening set	308 Mar 08 j 17:15	24°✕21'46			310 Aug 18 j 17:30	0°♍	
inferior conj	308 Mar 12 j 06:28	22°✕08'35	8°00'53	evening rise	310 Sep 06 j 03:26	22°♍56'50	
minimum elong	308 Mar 12 j 13:06	21°✕58'04	8°00'11		310 Sep 11 j 19:06	0°♂	
min. Earth dist.	308 Mar 12 j 00:48	22°✕17'33	0.28516 AU		310 Oct 05 j 20:09	0°♂	
morning rise	308 Mar 16 j 09:10	19°✕35'22		desc. node	310 Oct 10 j 12:14	5°♂49'33	
direct	308 Apr 02 j 10:21	13°✕58'11			310 Oct 29 j 21:51	0°♂	
greatest brilliancy	308 Apr 14 j 04:37	16°✕27'17	-4.5m		310 Nov 23 j 01:25	0°♂	
desc. node	308 Apr 24 j 16:53	22°✕00'55			310 Dec 17 j 09:18	0°≈	
	308 May 05 j 14:31	0°♀			311 Jan 11 j 02:51	0°✕	
morning max el	308 May 21 j 08:08	13°♀58'59	45°47'17	asc. node	311 Jan 31 j 15:13	24°✕10'39	
	308 Jun 06 j 07:41	0°♂			311 Feb 05 j 16:45	0°♀	
	308 Jul 03 j 20:55	0°♂			311 Mar 05 j 04:13	0°♂	
	308 Jul 29 j 21:12	0°♂		evening max el	311 Mar 12 j 14:51	7°♂28'10	45°46'08
asc. node	308 Aug 15 j 20:13	20°♂10'27			311 Apr 08 j 13:19	0°♂	
	308 Aug 23 j 23:37	0°Ω		greatest brilliancy	311 Apr 15 j 21:16	4°♂08'41	-4.5m
	308 Sep 17 j 11:12	0°♍		retrograde	311 Apr 30 j 12:38	7°♂53'14	
	308 Oct 11 j 13:20	0°♂		evening set	311 May 15 j 15:41	3°♂28'18	
	308 Nov 04 j 10:40	0°♂			311 May 21 j 10:43	30°♂	
morning set	308 Nov 16 j 16:15	15°♂23'56		inferior conj	311 May 21 j 23:45	29°♂39'32	0°16'58
	308 Nov 28 j 06:32	0°♂		minimum elong	311 May 22 j 00:22	29°♂38'33	0°16'47

min. Earth dist.	311 May 22 j 03:10	29°♄34'09	0.28984 AU	desc. node	313 Nov 07 j 00:03	22°♑13'03	
desc. node	311 May 23 j 04:42	28°♄54'06			313 Nov 13 j 04:37	0°♄	
morning rise	311 May 28 j 09:06	25°♄48'56		evening rise	313 Nov 19 j 21:10	8°♄24'17	
direct	311 Jun 12 j 16:21	21°♄21'04			313 Dec 07 j 02:05	0°♄	
greatest brilliancy	311 Jun 26 j 08:02	24°♄36'12	-4.5m		313 Dec 31 j 01:35	0°♄	
	311 Jul 05 j 23:32	0°♄			314 Jan 24 j 05:06	0°♄	
morning max el	311 Jul 31 j 14:29	21°♄19'29	45°55'01		314 Feb 17 j 16:02	0°♄	
	311 Aug 09 j 08:25	0°♄		asc. node	314 Feb 28 j 03:14	12°♄39'59	
	311 Sep 06 j 00:39	0°♄			314 Mar 14 j 15:16	0°♄	
asc. node	311 Sep 13 j 08:11	8°♄23'01			314 Apr 09 j 10:43	0°♄	
	311 Oct 01 j 16:33	0°♄			314 May 06 j 20:07	0°♄	
	311 Oct 26 j 09:03	0°♄		evening max el	314 May 22 j 02:40	15°♄19'13	45°19'41
	311 Nov 19 j 13:58	0°♄			314 Jun 07 j 18:36	0°♄	
	311 Dec 13 j 14:12	0°♄		desc. node	314 Jun 19 j 16:45	8°♄19'51	
desc. node	312 Jan 02 j 21:41	25°♄25'15		greatest brilliancy	314 Jun 27 j 01:22	12°♄04'45	-4.5m
	312 Jan 06 j 13:33	0°♄		retrograde	314 Jul 09 j 16:44	14°♄53'20	
	312 Jan 30 j 13:54	0°♄		evening set	314 Jul 26 j 15:08	9°♄30'46	
morning set	312 Feb 03 j 00:02	4°♄16'03		inferior conj	314 Jul 31 j 00:34	6°♄51'58	-7°-50'-48
	312 Feb 23 j 16:12	0°♄		minimum elong	314 Jul 30 j 16:30	7°♄04'24	7°49'48
				min. Earth dist.	314 Jul 31 j 08:21	6°♄39'56	0.28556 AU
superior conj	312 Mar 13 j 15:39	23°♄32'08	-1°-18'-55	morning rise	314 Aug 03 j 17:36	4°♄36'19	
minimum elong	312 Mar 13 j 22:57	23°♄54'43	1°18'47		314 Aug 13 j 08:26	30°♄	
max. Earth dist.	312 Mar 17 j 02:53	27°♄49'37	1.72783 AU	direct	314 Aug 21 j 11:31	28°♄40'27	
	312 Mar 18 j 21:03	0°♄			314 Aug 29 j 22:06	0°♄	
	312 Apr 12 j 04:49	0°♄		greatest brilliancy	314 Sep 05 j 01:06	2°♄25'13	-4.6m
evening rise	312 Apr 20 j 17:10	10°♄27'57			314 Oct 09 j 20:16	0°♄	
asc. node	312 Apr 25 j 00:54	15°♄46'19		morning max el	314 Oct 10 j 16:02	0°♄49'28	46°36'02
	312 May 06 j 15:30	0°♄		asc. node	314 Oct 10 j 19:48	0°♄58'57	
	312 May 31 j 05:00	0°♄			314 Nov 06 j 15:09	0°♄	
	312 Jun 24 j 21:51	0°♄			314 Dec 02 j 04:53	0°♄	
	312 Jul 19 j 19:40	0°♄			314 Dec 26 j 23:08	0°♄	
	312 Aug 14 j 01:38	0°♄			315 Jan 20 j 10:09	0°♄	
desc. node	312 Aug 14 j 14:25	0°♄37'36		desc. node	315 Jan 30 j 09:34	12°♄16'36	
	312 Sep 08 j 21:40	0°♄			315 Feb 13 j 19:01	0°♄	
	312 Oct 05 j 22:54	0°♄			315 Mar 10 j 03:47	0°♄	
evening max el	312 Oct 17 j 06:53	11°♄46'00	47°18'02		315 Apr 03 j 13:19	0°♄	
	312 Nov 05 j 23:14	0°♄		morning set	315 Apr 16 j 02:40	15°♄25'15	
greatest brilliancy	312 Nov 24 j 21:40	12°♄21'40	-4.7m		315 Apr 27 j 23:41	0°♄	
asc. node	312 Dec 05 j 17:31	15°♄07'03		max. Earth dist.	315 May 22 j 03:08	29°♄37'58	1.73652 AU
retrograde	312 Dec 07 j 02:01	15°♄09'17			315 May 22 j 10:19	0°♄	
evening set	312 Dec 22 j 01:37	10°♄40'38					
min. Earth dist.	312 Dec 26 j 20:42	7°♄49'39	0.26746 AU	superior conj	315 May 22 j 20:48	0°♄32'10	0°-1'-35
inferior conj	312 Dec 27 j 17:49	7°♄16'58	5°17'52	minimum elong	315 May 22 j 21:08	0°♄33'12	0°01'35
minimum elong	312 Dec 27 j 08:04	7°♄32'05	5°15'21	behind sun begin	315 May 21 j 22:46	29°♄24'33	
morning rise	313 Jan 01 j 14:59	4°♄21'02		behind sun end	315 May 23 j 19:29	1°♄41'50	
	313 Jan 12 j 18:05	30°♄		asc. node	315 May 23 j 12:47	1°♄21'17	
direct	313 Jan 17 j 02:52	29°♄36'39			315 Jun 15 j 20:20	0°♄	
	313 Jan 21 j 13:55	0°♄		evening rise	315 Jun 27 j 18:25	14°♄40'00	
greatest brilliancy	313 Jan 27 j 21:50	1°♄46'43	-4.6m		315 Jul 10 j 05:22	0°♄	
	313 Mar 06 j 13:48	0°♄			315 Aug 03 j 13:58	0°♄	
morning max el	313 Mar 07 j 18:51	1°♄10'56	46°22'56		315 Aug 27 j 23:29	0°♄	
desc. node	313 Mar 27 j 07:15	21°♄19'22		desc. node	315 Sep 12 j 02:22	18°♄31'55	
	313 Apr 04 j 07:02	0°♄			315 Sep 21 j 11:29	0°♄	
	313 Apr 30 j 22:33	0°♄			315 Oct 16 j 03:50	0°♄	
	313 May 26 j 17:24	0°♄			315 Nov 10 j 04:30	0°♄	
	313 Jun 20 j 23:49	0°♄			315 Dec 06 j 00:38	0°♄	
	313 Jul 15 j 20:12	0°♄		evening max el	315 Dec 29 j 00:50	24°♄52'19	47°00'56
asc. node	313 Jul 18 j 10:27	3°♄09'30		asc. node	316 Jan 03 j 05:27	0°♄03'34	
	313 Aug 09 j 07:38	0°♄			316 Jan 03 j 04:00	0°♄	
morning set	313 Sep 01 j 16:55	29°♄01'16		greatest brilliancy	316 Feb 03 j 13:35	24°♄30'18	-4.6m
	313 Sep 02 j 11:45	0°♄		retrograde	316 Feb 17 j 17:57	28°♄11'08	
	313 Sep 26 j 11:01	0°♄		evening set	316 Mar 06 j 11:02	22°♄04'14	
max. Earth dist.	313 Oct 08 j 02:18	14°♄36'56	1.71337 AU	inferior conj	316 Mar 09 j 22:07	19°♄54'16	8°08'29
				minimum elong	316 Mar 10 j 04:12	19°♄44'39	8°07'54
superior conj	313 Oct 09 j 22:50	16°♄56'54	1°00'08	min. Earth dist.	316 Mar 09 j 15:03	20°♄05'27	0.28473 AU
minimum elong	313 Oct 10 j 09:28	17°♄30'19	0°59'46	morning rise	316 Mar 13 j 21:36	17°♄26'06	
	313 Oct 20 j 08:00	0°♄		direct	316 Mar 31 j 01:55	11°♄44'44	

greatest brilliancy	316 Apr 11 j 17:08	14° Υ 11'36	-4.5m		318 Nov 22 j 13:12	0° Θ	
desc. node	316 Apr 23 j 18:50	20° Υ 45'26			318 Dec 16 j 21:37	0° \approx	
	316 May 05 j 21:49	0° Υ			319 Jan 10 j 16:01	0° Υ	
morning max el	316 May 19 j 00:30	11° Υ 50'09	45°47'55	asc. node	319 Jan 30 j 17:17	23° Υ 35'02	
	316 Jun 06 j 01:10	0° Υ			319 Feb 05 j 07:40	0° Υ	
	316 Jul 03 j 10:48	0° Π			319 Mar 04 j 23:51	0° Υ	
	316 Jul 29 j 09:33	0° Θ		evening max el	319 Mar 10 j 05:25	5° Υ 13'09	45°48'18
asc. node	316 Aug 14 j 22:20	19° Θ 41'24			319 Apr 09 j 18:26	0° Π	
	316 Aug 23 j 11:14	0° Ω		greatest brilliancy	319 Apr 13 j 13:47	2° Π 00'20	-4.5m
	316 Sep 16 j 22:27	0° Υ		retrograde	319 Apr 28 j 04:46	5° Π 45'24	
	316 Oct 11 j 00:25	0° Ω		evening set	319 May 13 j 09:14	1° Π 18'57	
	316 Nov 03 j 21:42	0° Π			319 May 15 j 16:14	30° Υ	
morning set	316 Nov 14 j 03:04	12° Π 52'14		inferior conj	319 May 19 j 16:21	27° Υ 31'32	0°36'35
	316 Nov 27 j 17:32	0° Υ		minimum elong	319 May 19 j 17:41	27° Υ 29'26	0°36'12
desc. node	316 Dec 04 j 11:56	8° Υ 31'16		min. Earth dist.	319 May 19 j 20:18	27° Υ 25'20	0.28981 AU
	316 Dec 21 j 13:48	0° Θ		desc. node	319 May 22 j 06:53	25° Υ 53'52	
				morning rise	319 May 26 j 02:05	23° Υ 40'00	
superior conj	316 Dec 25 j 22:00	5° Θ 27'18	0°-48'-2	direct	319 Jun 10 j 08:17	19° Υ 12'58	
minimum elong	316 Dec 25 j 10:57	4° Θ 52'38	0°47'35	greatest brilliancy	319 Jun 23 j 23:29	22° Υ 26'51	-4.5m
max. Earth dist.	316 Dec 29 j 02:13	9° Θ 26'40	1.71252 AU		319 Jul 06 j 18:49	0° Π	
	317 Jan 14 j 11:37	0° \approx		morning max el	319 Jul 29 j 05:20	19° Π 06'41	45°54'10
evening rise	317 Feb 05 j 01:12	26° \approx 56'35			319 Aug 09 j 03:19	0° Θ	
	317 Feb 07 j 12:06	0° Υ			319 Sep 05 j 15:11	0° Ω	
	317 Mar 03 j 16:43	0° Υ		asc. node	319 Sep 12 j 10:07	7° Ω 48'20	
asc. node	317 Mar 27 j 15:06	29° Υ 23'32			319 Oct 01 j 05:24	0° Υ	
	317 Mar 28 j 03:02	0° Υ			319 Oct 25 j 21:07	0° Ω	
	317 Apr 21 j 20:44	0° Π			319 Nov 19 j 01:37	0° Π	
	317 May 17 j 00:09	0° Θ			319 Dec 13 j 01:36	0° Υ	
	317 Jun 11 j 18:06	0° Ω		desc. node	320 Jan 01 j 23:48	24° Υ 56'37	
	317 Jul 08 j 14:17	0° Υ			320 Jan 06 j 00:47	0° Θ	
desc. node	317 Jul 17 j 04:36	9° Υ 10'18			320 Jan 30 j 01:00	0° \approx	
evening max el	317 Aug 02 j 13:36	25° Υ 43'44	46°09'25	morning set	320 Jan 31 j 10:59	1° \approx 45'58	
	317 Aug 07 j 01:49	0° Ω			320 Feb 23 j 03:10	0° Υ	
greatest brilliancy	317 Sep 10 j 11:20	24° Ω 20'40	-4.6m				
retrograde	317 Sep 20 j 22:32	26° Ω 19'44		superior conj	320 Mar 11 j 06:00	21° Υ 14'20	-1°-20'-13
evening set	317 Oct 07 j 01:54	21° Ω 21'00		minimum elong	320 Mar 11 j 12:42	21° Υ 35'06	1°20'06
inferior conj	317 Oct 11 j 14:48	18° Ω 39'18	-6°-12'-23	max. Earth dist.	320 Mar 14 j 18:36	25° Υ 36'09	1.72726 AU
minimum elong	317 Oct 12 j 01:27	18° Ω 23'06	6°09'58		320 Mar 18 j 07:55	0° Υ	
min. Earth dist.	317 Oct 12 j 08:30	18° Ω 12'23	0.26883 AU		320 Apr 11 j 15:38	0° Υ	
morning rise	317 Oct 17 j 00:37	15° Ω 28'05		evening rise	320 Apr 18 j 09:52	8° Υ 18'31	
direct	317 Nov 01 j 07:13	10° Ω 54'12		asc. node	320 Apr 24 j 03:01	15° Υ 19'29	
asc. node	317 Nov 07 j 07:40	11° Ω 36'54			320 May 06 j 02:24	0° Π	
greatest brilliancy	317 Nov 14 j 12:54	14° Ω 09'42	-4.7m		320 May 30 j 16:09	0° Θ	
	317 Dec 06 j 23:50	0° Π			320 Jun 24 j 09:25	0° Ω	
morning max el	317 Dec 22 j 01:40	14° Π 27'27	46°55'52		320 Jul 19 j 07:55	0° Υ	
	318 Jan 05 j 17:55	0° Υ		desc. node	320 Aug 13 j 16:26	0° Ω 04'12	
	318 Feb 01 j 06:06	0° Θ			320 Aug 13 j 15:00	0° Ω	
desc. node	318 Feb 26 j 21:29	0° \approx 09'04			320 Sep 08 j 13:01	0° Π	
	318 Feb 26 j 18:26	0° \approx			320 Oct 05 j 18:42	0° Υ	
	318 Mar 23 j 20:58	0° Υ		evening max el	320 Oct 14 j 19:38	9° Υ 19'17	47°16'50
	318 Apr 17 j 18:46	0° Υ			320 Nov 06 j 13:54	0° Θ	
	318 May 12 j 13:32	0° Υ		greatest brilliancy	320 Nov 22 j 12:31	9° Θ 55'40	-4.7m
	318 Jun 06 j 05:11	0° Π		retrograde	320 Dec 04 j 15:01	12° Θ 41'43	
asc. node	318 Jun 20 j 00:42	16° Π 53'48		asc. node	320 Dec 04 j 19:37	12° Θ 41'41	
morning set	318 Jun 22 j 16:35	20° Π 09'35		evening set	320 Dec 19 j 12:05	8° Θ 16'41	
	318 Jun 30 j 16:55	0° Θ		min. Earth dist.	320 Dec 24 j 10:33	5° Θ 21'27	0.26702 AU
	318 Jul 25 j 00:22	0° Ω		inferior conj	320 Dec 25 j 06:44	4° Θ 50'18	4°58'38
max. Earth dist.	318 Jul 25 j 06:15	0° Ω 18'12	1.72867 AU	minimum elong	320 Dec 24 j 21:17	5° Θ 04'54	4°56'07
				morning rise	320 Dec 30 j 06:54	1° Θ 50'27	
superior conj	318 Jul 29 j 00:52	4° Ω 58'51	1°15'15		321 Jan 02 j 20:18	30° Υ	
minimum elong	318 Jul 28 j 17:36	4° Ω 36'22	1°15'05	direct	321 Jan 14 j 14:57	27° Υ 10'19	
	318 Aug 18 j 04:12	0° Υ		greatest brilliancy	321 Jan 25 j 12:42	29° Υ 23'09	-4.6m
evening rise	318 Sep 03 j 18:59	20° Υ 41'58			321 Jan 27 j 00:47	0° Θ	
	318 Sep 11 j 05:58	0° Ω		morning max el	321 Mar 05 j 08:25	28° Θ 49'10	46°24'28
	318 Oct 05 j 07:16	0° Π			321 Mar 06 j 13:10	0° \approx	
desc. node	318 Oct 09 j 14:16	5° Π 21'03		desc. node	321 Mar 26 j 09:13	20° \approx 37'07	
	318 Oct 29 j 09:16	0° Υ			321 Apr 03 j 23:25	0° Υ	

	321 Apr 30 j 12:19	0°♄			323 Oct 15 j 16:58	0°♂	
	321 May 26 j 05:50	0°♂			323 Nov 09 j 18:53	0°♂	
	321 Jun 20 j 11:29	0°♂			323 Dec 05 j 17:31	0°♂	
	321 Jul 15 j 07:27	0°♂		evening max el	323 Dec 26 j 16:55	22°♂35'25	47°03'05
asc. node	321 Jul 17 j 12:28	2°♂41'28		asc. node	324 Jan 02 j 07:30	29°♂09'30	
	321 Aug 08 j 18:41	0°♂			324 Jan 03 j 04:28	0°♂	
morning set	321 Aug 30 j 08:35	26°♂46'19		greatest brilliancy	324 Feb 01 j 07:10	22°♂16'47	-4.6m
	321 Sep 01 j 22:43	0°♂		retrograde	324 Feb 15 j 10:20	25°♂55'41	
	321 Sep 25 j 21:59	0°♂		evening set	324 Mar 04 j 04:38	19°♂46'14	
max. Earth dist.	321 Oct 05 j 14:51	12°♂11'00	1.71372 AU	min. Earth dist.	324 Mar 07 j 05:19	17°♂52'25	0.28431 AU
				inferior conj	324 Mar 07 j 13:46	17°♂39'03	8°15'15
superior conj	321 Oct 07 j 11:48	14°♂32'15	1°02'41	minimum elong	324 Mar 07 j 19:14	17°♂30'23	8°14'46
minimum elong	321 Oct 07 j 22:21	15°♂05'24	1°02'20	morning rise	324 Mar 11 j 10:08	15°♂15'35	
	321 Oct 19 j 19:01	0°♂		direct	324 Mar 28 j 17:35	9°♂30'33	
desc. node	321 Nov 06 j 02:14	21°♂45'04		greatest brilliancy	324 Apr 09 j 04:59	11°♂54'06	-4.5m
	321 Nov 12 j 15:44	0°♂		desc. node	324 Apr 22 j 21:04	19°♂31'42	
evening rise	321 Nov 17 j 07:35	5°♂51'18			324 May 06 j 03:24	0°♂	
	321 Dec 06 j 13:19	0°♂		morning max el	324 May 16 j 16:11	9°♂38'26	45°48'21
	321 Dec 30 j 12:56	0°♂			324 Jun 05 j 18:44	0°♂	
	322 Jan 23 j 16:41	0°♂			324 Jul 03 j 01:02	0°♂	
	322 Feb 17 j 04:02	0°♂			324 Jul 28 j 22:17	0°♂	
asc. node	322 Feb 27 j 05:11	12°♂08'56		asc. node	324 Aug 14 j 00:20	19°♂10'51	
	322 Mar 14 j 04:04	0°♂			324 Aug 22 j 23:11	0°♂	
	322 Apr 09 j 01:08	0°♂			324 Sep 16 j 10:00	0°♂	
	322 May 06 j 14:29	0°♂			324 Oct 10 j 11:49	0°♂	
evening max el	322 May 19 j 18:33	13°♂08'20	45°19'25		324 Nov 03 j 09:01	0°♂	
	322 Jun 08 j 06:33	0°♂		morning set	324 Nov 11 j 13:54	10°♂19'43	
desc. node	322 Jun 18 j 18:49	6°♂57'49			324 Nov 27 j 04:49	0°♂	
greatest brilliancy	322 Jun 24 j 12:52	9°♂48'16	-4.5m	desc. node	324 Dec 03 j 14:00	8°♂02'14	
retrograde	322 Jul 07 j 08:12	12°♂40'25			324 Dec 21 j 01:02	0°♂	
evening set	322 Jul 24 j 02:53	7°♂22'16					
inferior conj	322 Jul 28 j 15:47	4°♂38'14	-7°-41'-15	superior conj	324 Dec 23 j 07:27	2°♂50'57	0°-44'-39
minimum elong	322 Jul 28 j 07:17	4°♂51'21	7°40'05	minimum elong	324 Dec 22 j 20:54	2°♂17'46	0°44'13
min. Earth dist.	322 Jul 28 j 22:31	4°♂27'50	0.28591 AU	max. Earth dist.	324 Dec 26 j 10:21	6°♂46'09	1.71215 AU
morning rise	322 Aug 01 j 11:26	2°♂18'45			325 Jan 13 j 22:49	0°♂	
	322 Aug 05 j 16:06	30°♂♂		evening rise	325 Feb 02 j 12:44	24°♂28'04	
direct	322 Aug 19 j 03:45	26°♂26'15			325 Feb 06 j 23:18	0°♂	
	322 Sep 02 j 07:39	0°♂			325 Mar 03 j 03:58	0°♂	
greatest brilliancy	322 Sep 02 j 16:52	0°♂10'58	-4.6m	asc. node	325 Mar 26 j 17:14	28°♂55'10	
morning max el	322 Oct 08 j 07:50	28°♂33'05	46°34'39		325 Mar 27 j 14:28	0°♂	
asc. node	322 Oct 09 j 21:57	0°♂09'16			325 Apr 21 j 08:35	0°♂	
	322 Oct 09 j 18:18	0°♂			325 May 16 j 12:46	0°♂	
	322 Nov 06 j 07:10	0°♂			325 Jun 11 j 08:13	0°♂	
	322 Dec 01 j 18:44	0°♂			325 Jul 08 j 07:34	0°♂	
	322 Dec 26 j 11:54	0°♂		desc. node	325 Jul 16 j 06:35	8°♂25'58	
	323 Jan 19 j 22:16	0°♂		evening max el	325 Jul 31 j 02:27	23°♂21'21	46°06'44
desc. node	323 Jan 29 j 11:36	11°♂46'14			325 Aug 07 j 04:43	0°♂	
	323 Feb 13 j 06:40	0°♂		greatest brilliancy	325 Sep 08 j 00:49	21°♂56'23	-4.6m
	323 Mar 09 j 15:07	0°♂		retrograde	325 Sep 18 j 10:05	23°♂53'44	
	323 Apr 03 j 00:25	0°♂		evening set	325 Oct 04 j 17:43	18°♂50'24	
morning set	323 Apr 13 j 19:37	13°♂16'02		inferior conj	325 Oct 09 j 03:27	16°♂13'08	-6°-28'-49
	323 Apr 27 j 10:39	0°♂		minimum elong	325 Oct 09 j 14:07	15°♂56'52	6°26'30
max. Earth dist.	323 May 20 j 02:16	27°♂48'06	1.73650 AU	min. Earth dist.	325 Oct 09 j 22:08	15°♂44'40	0.26940 AU
				morning rise	325 Oct 14 j 10:04	13°♂05'50	
superior conj	323 May 20 j 14:51	28°♂26'44	0°-4'-46	direct	325 Oct 29 j 20:00	8°♂26'59	
minimum elong	323 May 20 j 15:49	28°♂29'43	0°04'43	asc. node	325 Nov 06 j 09:49	9°♂33'30	
behind sun begin	323 May 19 j 18:10	27°♂23'15		greatest brilliancy	325 Nov 12 j 04:02	11°♂44'12	-4.7m
behind sun end	323 May 21 j 13:27	29°♂36'10			325 Dec 07 j 06:38	0°♂	
	323 May 21 j 21:13	0°♂		morning max el	325 Dec 19 j 14:07	11°♂57'55	46°56'06
asc. node	323 May 22 j 14:57	0°♂54'25			326 Jan 05 j 12:34	0°♂	
	323 Jun 15 j 07:16	0°♂			326 Jan 31 j 21:12	0°♂	
evening rise	323 Jun 25 j 13:22	12°♂36'51		desc. node	326 Feb 25 j 23:29	29°♂35'11	
	323 Jul 09 j 16:25	0°♂			326 Feb 26 j 07:49	0°♂	
	323 Aug 03 j 01:17	0°♂			326 Mar 23 j 09:22	0°♂	
	323 Aug 27 j 11:14	0°♂			326 Apr 17 j 06:32	0°♂	
desc. node	323 Sep 11 j 04:23	18°♂01'08			326 May 12 j 00:53	0°♂	
	323 Sep 20 j 23:49	0°♂			326 Jun 05 j 16:16	0°♂	

asc. node	326 Jun 19 j 02:42	16° Π 26'08		asc. node	328 Dec 03 j 21:38	10° Ξ 08'54	
morning set	326 Jun 20 j 10:52	18° Π 04'45		evening set	328 Dec 16 j 22:28	5° Ξ 50'51	
	326 Jun 30 j 03:54	0° Ξ		min. Earth dist.	328 Dec 21 j 23:52	2° Ξ 51'59	0.26654 AU
max. Earth dist.	326 Jul 23 j 00:12	28° Ξ 11'15	1.72921 AU	inferior conj	328 Dec 22 j 19:21	2° Ξ 22'00	4°38'35
	326 Jul 24 j 11:21	0° Ω		minimum elong	328 Dec 22 j 10:15	2° Ξ 36'00	4°36'06
					328 Dec 26 j 17:26	30° \mathbb{R} 27	
superior conj	326 Jul 26 j 18:45	2° Ω 51'33	1°13'44	morning rise	328 Dec 27 j 22:29	29° \mathbb{A} 18'35	
minimum elong	326 Jul 26 j 11:08	2° Ω 27'58	1°13'32	direct	329 Jan 12 j 03:12	24° \mathbb{A} 42'34	
	326 Aug 17 j 15:17	0° \mathbb{M}		greatest brilliancy	329 Jan 23 j 02:24	26° \mathbb{A} 57'21	-4.6m
evening rise	326 Sep 01 j 10:22	18° \mathbb{M} 25'29			329 Jan 29 j 11:32	0° Ξ	
	326 Sep 10 j 17:13	0° Ξ		morning max el	329 Mar 02 j 22:42	26° Ξ 28'48	46°26'03
	326 Oct 04 j 18:44	0° \mathbb{M}			329 Mar 06 j 11:41	0° \approx	
desc. node	326 Oct 08 j 16:25	4° \mathbb{M} 51'51		desc. node	329 Mar 25 j 11:27	19° \approx 55'50	
	326 Oct 28 j 21:00	0° \mathbb{A}			329 Apr 03 j 15:33	0° \mathbb{H}	
	326 Nov 22 j 01:18	0° Ξ			329 Apr 30 j 01:59	0° \mathbb{Y}	
	326 Dec 16 j 10:15	0° \approx			329 May 25 j 18:14	0° \mathbb{B}	
	327 Jan 10 j 05:34	0° \mathbb{H}			329 Jun 19 j 23:09	0° Π	
asc. node	327 Jan 29 j 19:18	22° \mathbb{H} 58'07			329 Jul 14 j 18:42	0° Ξ	
	327 Feb 04 j 23:04	0° \mathbb{Y}		asc. node	329 Jul 16 j 14:32	2° Ξ 13'36	
	327 Mar 04 j 20:25	0° \mathbb{B}			329 Aug 08 j 05:43	0° Ω	
evening max el	327 Mar 07 j 19:45	2° \mathbb{B} 56'49	45°50'35	morning set	329 Aug 28 j 00:26	24° Ω 32'02	
greatest brilliancy	327 Apr 11 j 05:15	29° \mathbb{B} 49'56	-4.5m		329 Sep 01 j 09:42	0° \mathbb{M}	
	327 Apr 11 j 13:41	0° Π			329 Sep 25 j 08:59	0° Ξ	
retrograde	327 Apr 25 j 21:16	3° Π 37'10		max. Earth dist.	329 Oct 03 j 01:53	9° Ξ 40'11	1.71414 AU
	327 May 09 j 12:10	30° \mathbb{R} 8					
evening set	327 May 11 j 02:56	29° \mathbb{B} 08'41		superior conj	329 Oct 05 j 00:47	12° Ξ 07'27	1°05'07
inferior conj	327 May 17 j 08:59	25° \mathbb{B} 22'59	0°56'06	minimum elong	329 Oct 05 j 11:08	12° Ξ 39'58	1°04'46
minimum elong	327 May 17 j 11:02	25° \mathbb{B} 19'46	0°55'29		329 Oct 19 j 06:08	0° \mathbb{M}	
min. Earth dist.	327 May 17 j 13:21	25° \mathbb{B} 16'07	0.28980 AU	desc. node	329 Nov 05 j 04:18	21° \mathbb{M} 16'18	
desc. node	327 May 21 j 08:53	22° \mathbb{B} 54'37			329 Nov 12 j 02:58	0° \mathbb{A}	
morning rise	327 May 23 j 19:01	21° \mathbb{B} 30'55		evening rise	329 Nov 14 j 17:34	3° \mathbb{A} 16'36	
direct	327 Jun 08 j 00:03	17° \mathbb{B} 04'13			329 Dec 06 j 00:40	0° Ξ	
greatest brilliancy	327 Jun 21 j 15:36	20° \mathbb{B} 17'53	-4.5m		329 Dec 30 j 00:24	0° \approx	
	327 Jul 07 j 09:28	0° Π			330 Jan 23 j 04:20	0° \mathbb{H}	
morning max el	327 Jul 26 j 20:58	16° Π 55'09	45°53'11		330 Feb 16 j 16:04	0° \mathbb{Y}	
	327 Aug 08 j 22:03	0° Ξ		asc. node	330 Feb 26 j 07:22	11° \mathbb{Y} 38'31	
	327 Sep 05 j 05:53	0° Ω			330 Mar 13 j 16:55	0° \mathbb{B}	
asc. node	327 Sep 11 j 12:17	7° Ω 13'31			330 Apr 08 j 15:39	0° Π	
	327 Sep 30 j 18:32	0° \mathbb{M}			330 May 06 j 09:13	0° Ξ	
	327 Oct 25 j 09:28	0° Ξ		evening max el	330 May 17 j 11:06	10° Ξ 59'22	45°19'11
	327 Nov 18 j 13:31	0° \mathbb{M}			330 Jun 08 j 22:15	0° Ω	
	327 Dec 12 j 13:13	0° \mathbb{A}		desc. node	330 Jun 17 j 20:51	5° Ω 33'37	
desc. node	328 Jan 01 j 01:46	24° \mathbb{A} 26'56		greatest brilliancy	330 Jun 22 j 01:40	7° Ω 34'03	-4.5m
	328 Jan 05 j 12:13	0° Ξ		retrograde	330 Jul 04 j 23:36	10° Ω 28'21	
morning set	328 Jan 28 j 21:46	29° Ξ 14'43		evening set	330 Jul 21 j 14:54	5° Ω 14'58	
	328 Jan 29 j 12:16	0° \approx		inferior conj	330 Jul 26 j 07:12	2° Ω 25'38	-7°-30'-58
	328 Feb 22 j 14:18	0° \mathbb{H}		minimum elong	330 Jul 25 j 22:19	2° Ω 39'21	7°29'41
				min. Earth dist.	330 Jul 26 j 12:59	2° Ω 16'40	0.28622 AU
superior conj	328 Mar 08 j 20:19	18° \mathbb{H} 55'46	-1°-21'-22	morning rise	330 Jul 30 j 05:32	0° Ω 02'02	
minimum elong	328 Mar 09 j 02:23	19° \mathbb{H} 14'37	1°21'18		330 Jul 30 j 06:55	30° \mathbb{R} 26	
max. Earth dist.	328 Mar 12 j 08:20	23° \mathbb{H} 15'57	1.72671 AU	direct	330 Aug 16 j 20:08	24° Ξ 13'26	
	328 Mar 17 j 18:57	0° \mathbb{Y}		greatest brilliancy	330 Aug 31 j 07:21	27° Ξ 56'03	-4.6m
	328 Apr 11 j 02:38	0° \mathbb{B}			330 Sep 04 j 05:18	0° Ω	
evening rise	328 Apr 16 j 02:36	6° \mathbb{B} 08'38		morning max el	330 Oct 05 j 23:02	26° Ω 15'57	46°33'04
asc. node	328 Apr 23 j 05:10	14° \mathbb{B} 52'13		asc. node	330 Oct 09 j 00:05	29° Ω 20'57	
	328 May 05 j 13:28	0° Π			330 Oct 09 j 15:19	0° \mathbb{M}	
	328 May 30 j 03:27	0° Ξ			330 Nov 05 j 22:50	0° Ξ	
	328 Jun 23 j 21:10	0° Ω			330 Dec 01 j 08:25	0° \mathbb{M}	
	328 Jul 18 j 20:24	0° \mathbb{M}			330 Dec 26 j 00:36	0° \mathbb{A}	
desc. node	328 Aug 12 j 18:27	29° \mathbb{M} 30'00		desc. node	331 Jan 19 j 10:20	0° Ξ	
	328 Aug 13 j 04:41	0° Ξ			331 Jan 28 j 13:41	11° Ξ 16'06	
	328 Sep 08 j 04:54	0° \mathbb{M}			331 Feb 12 j 18:16	0° \approx	
	328 Oct 05 j 15:31	0° \mathbb{A}			331 Mar 09 j 02:20	0° \mathbb{H}	
evening max el	328 Oct 12 j 09:13	6° \mathbb{A} 53'49	47°15'32		331 Apr 02 j 11:23	0° \mathbb{Y}	
	328 Nov 07 j 10:11	0° Ξ		morning set	331 Apr 11 j 12:24	11° \mathbb{Y} 06'46	
greatest brilliancy	328 Nov 20 j 02:34	7° Ξ 27'21	-4.7m		331 Apr 26 j 21:27	0° \mathbb{B}	
retrograde	328 Dec 02 j 04:19	10° Ξ 12'36					

superior conj	331 May 18 j 08:53	26°♄21'50	0°-7'-54	morning rise	333 Oct 11 j 19:37	10°♌46'02	
minimum elong	331 May 18 j 10:30	26°♄26'50	0°07'51	direct	333 Oct 27 j 08:54	6°♌01'34	
behind sun begin	331 May 17 j 14:43	25°♄26'04		asc. node	333 Nov 05 j 11:43	7°♌36'35	
behind sun end	331 May 19 j 06:18	27°♄27'35		greatest brilliancy	333 Nov 09 j 20:08	9°♌21'49	-4.7m
max. Earth dist.	331 May 18 j 01:18	25°♄58'33	1.73644 AU		333 Dec 07 j 10:44	0°♌	
	331 May 21 j 07:57	0°♌		morning max el	333 Dec 17 j 03:04	9°♌31'09	46°56'24
asc. node	331 May 21 j 16:54	0°♌27'30			334 Jan 05 j 06:16	0°♌	
	331 Jun 14 j 18:01	0°♌			334 Jan 31 j 11:40	0°♌	
evening rise	331 Jun 23 j 08:29	10°♌34'47		desc. node	334 Feb 25 j 01:39	29°♌03'04	
	331 Jul 09 j 03:18	0°♌			334 Feb 25 j 20:45	0°♌	
	331 Aug 02 j 12:26	0°♌			334 Mar 22 j 21:23	0°♌	
	331 Aug 26 j 22:47	0°♌			334 Apr 16 j 17:58	0°♌	
desc. node	331 Sep 10 j 06:35	17°♌31'41			334 May 11 j 11:53	0°♌	
	331 Sep 20 j 11:56	0°♌			334 Jun 05 j 03:00	0°♌	
	331 Oct 15 j 05:55	0°♌		morning set	334 Jun 18 j 05:01	16°♌00'36	
	331 Nov 09 j 09:12	0°♌		asc. node	334 Jun 18 j 04:46	15°♌59'51	
	331 Dec 05 j 10:35	0°♌			334 Jun 29 j 14:29	0°♌	
evening max el	331 Dec 24 j 08:33	20°♌17'14	47°04'55	max. Earth dist.	334 Jul 20 j 20:25	26°♌12'30	1.72971 AU
asc. node	332 Jan 01 j 09:31	28°♌14'22			334 Jul 23 j 21:56	0°♌	
	332 Jan 03 j 06:10	0°♌					
greatest brilliancy	332 Jan 30 j 01:31	20°♌03'45	-4.6m	superior conj	334 Jul 24 j 12:37	0°♌45'26	1°12'06
retrograde	332 Feb 13 j 02:08	23°♌39'27		minimum elong	334 Jul 24 j 04:42	0°♌20'55	1°11'55
evening set	332 Mar 01 j 21:48	17°♌28'12			334 Aug 17 j 01:59	0°♌	
inferior conj	332 Mar 05 j 05:12	15°♌23'27	8°21'16	evening rise	334 Aug 30 j 02:02	16°♌11'13	
minimum elong	332 Mar 05 j 10:01	15°♌15'49	8°20'56		334 Sep 10 j 04:06	0°♌	
min. Earth dist.	332 Mar 04 j 19:45	15°♌38'26	0.28383 AU		334 Oct 04 j 05:51	0°♌	
morning rise	332 Mar 08 j 22:30	13°♌04'25		desc. node	334 Oct 07 j 18:26	4°♌23'22	
direct	332 Mar 26 j 08:38	7°♌16'06			334 Oct 28 j 08:23	0°♌	
greatest brilliancy	332 Apr 06 j 16:50	9°♌36'28	-4.5m		334 Nov 21 j 13:02	0°♌	
desc. node	332 Apr 21 j 23:04	18°♌20'02			334 Dec 15 j 22:30	0°♌	
	332 May 06 j 06:54	0°♌			335 Jan 09 j 18:44	0°♌	
morning max el	332 May 14 j 06:48	7°♌24'36	45°48'57	asc. node	335 Jan 28 j 21:26	22°♌22'45	
	332 Jun 05 j 11:39	0°♌			335 Feb 04 j 14:12	0°♌	
	332 Jul 02 j 14:48	0°♌			335 Mar 04 j 17:12	0°♌	
	332 Jul 28 j 10:38	0°♌		evening max el	335 Mar 05 j 10:37	0°♌42'53	45°52'49
asc. node	332 Aug 13 j 02:26	18°♌41'34		greatest brilliancy	335 Apr 08 j 20:06	27°♌39'41	-4.5m
	332 Aug 22 j 10:48	0°♌			335 Apr 14 j 14:33	0°♌	
	332 Sep 15 j 21:14	0°♌		retrograde	335 Apr 23 j 14:07	1°♌29'45	
	332 Oct 09 j 22:52	0°♌			335 May 02 j 05:41	30°♌	
	332 Nov 02 j 20:00	0°♌		evening set	335 May 08 j 20:44	26°♌58'57	
morning set	332 Nov 09 j 01:16	7°♌49'55		inferior conj	335 May 15 j 01:34	23°♌15'07	1°15'31
	332 Nov 26 j 15:45	0°♌		minimum elong	335 May 15 j 04:19	23°♌10'49	1°14'43
desc. node	332 Dec 02 j 16:00	7°♌34'05		min. Earth dist.	335 May 15 j 06:09	23°♌07'56	0.28981 AU
	332 Dec 20 j 11:58	0°♌		desc. node	335 May 20 j 10:53	19°♌57'57	
				morning rise	335 May 21 j 11:47	19°♌22'57	
superior conj	332 Dec 20 j 17:08	0°♌16'16	0°-41'-11	direct	335 Jun 05 j 16:08	14°♌56'08	
minimum elong	332 Dec 20 j 07:09	29°♌44'53	0°40'46	greatest brilliancy	335 Jun 19 j 07:59	18°♌10'12	-4.5m
max. Earth dist.	332 Dec 23 j 16:04	3°♌59'03	1.71186 AU		335 Jul 07 j 19:57	0°♌	
	333 Jan 13 j 09:45	0°♌		morning max el	335 Jul 24 j 13:28	14°♌46'52	45°52'18
evening rise	333 Jan 31 j 00:00	21°♌59'22			335 Aug 08 j 15:54	0°♌	
	333 Feb 06 j 10:15	0°♌			335 Sep 04 j 20:01	0°♌	
	333 Mar 02 j 14:59	0°♌		asc. node	335 Sep 10 j 14:23	6°♌39'57	
asc. node	333 Mar 25 j 19:19	28°♌27'25			335 Sep 30 j 07:10	0°♌	
	333 Mar 27 j 01:40	0°♌			335 Oct 24 j 21:22	0°♌	
	333 Apr 20 j 20:10	0°♌			335 Nov 18 j 01:01	0°♌	
	333 May 16 j 01:09	0°♌			335 Dec 12 j 00:28	0°♌	
	333 Jun 10 j 22:08	0°♌		desc. node	335 Dec 31 j 03:53	23°♌58'49	
	333 Jul 08 j 00:49	0°♌			336 Jan 04 j 23:16	0°♌	
desc. node	333 Jul 15 j 08:40	7°♌42'27		morning set	336 Jan 26 j 08:45	26°♌45'08	
evening max el	333 Jul 28 j 14:48	20°♌59'06	46°04'08		336 Jan 28 j 23:10	0°♌	
	333 Aug 07 j 08:44	0°♌			336 Feb 22 j 01:03	0°♌	
greatest brilliancy	333 Sep 05 j 14:02	19°♌33'29	-4.6m				
retrograde	333 Sep 15 j 21:51	21°♌29'56		superior conj	336 Mar 06 j 10:41	16°♌38'30	-1°-22'-23
evening set	333 Oct 02 j 09:40	16°♌21'37		minimum elong	336 Mar 06 j 16:06	16°♌55'16	1°22'20
inferior conj	333 Oct 06 j 16:18	13°♌48'58	-6°-44'-15	max. Earth dist.	336 Mar 09 j 22:51	20°♌59'15	1.72619 AU
minimum elong	333 Oct 07 j 02:54	13°♌32'50	6°42'04		336 Mar 17 j 05:36	0°♌	
min. Earth dist.	333 Oct 07 j 12:01	13°♌18'56	0.26999 AU		336 Apr 10 j 13:17	0°♌	

evening rise	336 Apr 13 j 19:20	3°♄59'54		morning max el	338 Oct 03 j 13:21	23°♌56'46	46°31'31
asc. node	336 Apr 22 j 07:07	14°♄25'26		asc. node	338 Oct 08 j 02:01	28°♌32'58	
	336 May 05 j 00:14	0°♄			338 Oct 09 j 11:37	0°♌	
	336 May 29 j 14:28	0°♄			338 Nov 05 j 14:12	0°♌	
	336 Jun 23 j 08:38	0°♌			338 Nov 30 j 21:55	0°♌	
	336 Jul 18 j 08:37	0°♌			338 Dec 25 j 13:08	0°♌	
desc. node	336 Aug 11 j 20:37	28°♌57'04			339 Jan 18 j 22:17	0°♌	
	336 Aug 12 j 18:10	0°♌		desc. node	339 Jan 27 j 15:47	10°♌46'14	
	336 Sep 07 j 20:40	0°♌			339 Feb 12 j 05:47	0°♌	
	336 Oct 05 j 12:41	0°♌			339 Mar 08 j 13:32	0°♌	
evening max el	336 Oct 09 j 23:40	4°♌31'42	47°14'06		339 Apr 01 j 22:20	0°♌	
	336 Nov 08 j 13:11	0°♌		morning set	339 Apr 09 j 05:09	8°♌57'21	
greatest brilliancy	336 Nov 17 j 16:19	4°♌59'34	-4.7m		339 Apr 26 j 08:14	0°♌	
retrograde	336 Nov 29 j 17:49	7°♌43'58					
asc. node	336 Dec 02 j 23:44	7°♌30'46		superior conj	339 May 16 j 03:01	24°♌17'18	0°-11'-2
evening set	336 Dec 14 j 09:02	3°♌25'23		minimum elong	339 May 16 j 05:17	24°♌24'15	0°10'57
min. Earth dist.	336 Dec 19 j 13:00	0°♌23'05	0.26609 AU	behind sun begin	339 May 15 j 12:47	23°♌33'36	
inferior conj	336 Dec 20 j 07:50	29°♌54'09	4°17'55	behind sun end	339 May 16 j 21:47	25°♌14'54	
minimum elong	336 Dec 19 j 23:12	0°♌07'25	4°15'29	max. Earth dist.	339 May 15 j 23:34	24°♌06'41	1.73633 AU
	336 Dec 20 j 04:02	30°♌		asc. node	339 May 20 j 19:01	0°♌01'06	
morning rise	336 Dec 25 j 13:52	26°♌47'15			339 May 20 j 18:40	0°♌	
direct	337 Jan 09 j 15:53	22°♌15'24			339 Jun 14 j 04:46	0°♌	
greatest brilliancy	337 Jan 20 j 15:23	24°♌31'13	-4.6m	evening rise	339 Jun 21 j 03:41	8°♌33'02	
	337 Jan 31 j 00:45	0°♌			339 Jul 08 j 14:13	0°♌	
morning max el	337 Feb 28 j 13:13	24°♌09'48	46°27'42		339 Aug 01 j 23:39	0°♌	
	337 Mar 06 j 08:59	0°♌			339 Aug 26 j 10:27	0°♌	
desc. node	337 Mar 24 j 13:26	19°♌15'18		desc. node	339 Sep 09 j 08:32	17°♌01'02	
	337 Apr 03 j 07:06	0°♌			339 Sep 20 j 00:14	0°♌	
	337 Apr 29 j 15:13	0°♌			339 Oct 14 j 19:04	0°♌	
	337 May 25 j 06:17	0°♌			339 Nov 08 j 23:46	0°♌	
	337 Jun 19 j 10:32	0°♌			339 Dec 05 j 04:06	0°♌	
	337 Jul 14 j 05:44	0°♌		evening max el	339 Dec 21 j 23:07	17°♌55'59	47°06'45
asc. node	337 Jul 15 j 16:40	1°♌46'31		asc. node	339 Dec 31 j 11:40	27°♌18'08	
	337 Aug 07 j 16:34	0°♌			340 Jan 03 j 09:27	0°♌	
morning set	337 Aug 25 j 16:19	22°♌18'35		greatest brilliancy	340 Jan 27 j 19:42	17°♌49'54	-4.6m
	337 Aug 31 j 20:28	0°♌		retrograde	340 Feb 10 j 17:26	21°♌22'42	
	337 Sep 24 j 19:47	0°♌		evening set	340 Feb 28 j 14:41	15°♌09'57	
max. Earth dist.	337 Sep 30 j 11:00	7°♌04'12	1.71454 AU	inferior conj	340 Mar 02 j 20:37	13°♌07'22	8°26'38
				minimum elong	340 Mar 03 j 00:42	13°♌00'52	8°26'23
superior conj	337 Oct 02 j 13:58	9°♌44'10	1°07'23	min. Earth dist.	340 Mar 02 j 10:28	13°♌23'29	0.28335 AU
minimum elong	337 Oct 03 j 00:03	10°♌15'48	1°07'05	morning rise	340 Mar 06 j 10:59	10°♌52'32	
	337 Oct 18 j 17:01	0°♌		direct	340 Mar 23 j 23:07	5°♌00'55	
desc. node	337 Nov 04 j 06:16	20°♌47'59		greatest brilliancy	340 Apr 04 j 05:39	7°♌19'13	-4.5m
	337 Nov 11 j 13:59	0°♌		desc. node	340 Apr 21 j 01:04	17°♌09'50	
evening rise	337 Nov 12 j 03:41	0°♌43'00			340 May 06 j 09:03	0°♌	
	337 Dec 05 j 11:49	0°♌		morning max el	340 May 11 j 20:59	5°♌09'07	45°49'45
	337 Dec 29 j 11:41	0°♌			340 Jun 05 j 04:22	0°♌	
	338 Jan 22 j 15:50	0°♌			340 Jul 02 j 04:33	0°♌	
	338 Feb 16 j 03:59	0°♌			340 Jul 27 j 23:01	0°♌	
asc. node	338 Feb 25 j 09:25	11°♌08'12		asc. node	340 Aug 12 j 04:32	18°♌11'56	
	338 Mar 13 j 05:39	0°♌			340 Aug 21 j 22:31	0°♌	
	338 Apr 08 j 06:08	0°♌			340 Sep 15 j 08:38	0°♌	
	338 May 06 j 04:15	0°♌			340 Oct 09 j 10:08	0°♌	
evening max el	338 May 15 j 03:13	8°♌49'50	45°18'53		340 Nov 02 j 07:13	0°♌	
	338 Jun 09 j 19:10	0°♌		morning set	340 Nov 06 j 12:24	5°♌18'29	
desc. node	338 Jun 16 j 22:56	4°♌07'01			340 Nov 26 j 02:56	0°♌	
greatest brilliancy	338 Jun 19 j 15:18	5°♌21'12	-4.5m	desc. node	340 Dec 01 j 18:09	7°♌05'38	
retrograde	338 Jul 02 j 14:28	8°♌16'40					
evening set	338 Jul 19 j 02:58	3°♌08'06		superior conj	340 Dec 18 j 02:28	27°♌39'43	0°-37'-36
inferior conj	338 Jul 23 j 22:40	0°♌13'33	-7°-20'-5	minimum elong	340 Dec 17 j 17:08	27°♌10'23	0°37'12
minimum elong	338 Jul 23 j 13:27	0°♌27'50	7°18'40		340 Dec 19 j 23:07	0°♌	
min. Earth dist.	338 Jul 24 j 03:53	0°♌05'27	0.28653 AU	max. Earth dist.	340 Dec 20 j 19:11	1°♌03'02	1.71156 AU
	338 Jul 24 j 07:25	30°♌			341 Jan 12 j 20:53	0°♌	
morning rise	338 Jul 27 j 23:42	27°♌45'39		evening rise	341 Jan 28 j 10:57	19°♌29'03	
direct	338 Aug 14 j 12:16	22°♌01'02			341 Feb 05 j 21:25	0°♌	
greatest brilliancy	338 Aug 28 j 21:38	25°♌41'00	-4.6m		341 Mar 02 j 02:15	0°♌	
	338 Sep 05 j 12:07	0°♌		asc. node	341 Mar 24 j 21:17	27°♌58'29	

	341 Mar 26 j 13:08	0°♄			343 Dec 11 j 12:03	0°♄		
	341 Apr 20 j 08:03	0°♂		desc. node	343 Dec 30 j 05:59	23°♄29'25		
	341 May 15 j 13:51	0°♂			344 Jan 04 j 10:43	0°♂		
	341 Jun 10 j 12:26	0°♂		morning set	344 Jan 23 j 19:17	24°♂12'45		
	341 Jul 07 j 18:42	0°♄			344 Jan 28 j 10:29	0°≈		
desc. node	341 Jul 14 j 10:48	6°♄57'48			344 Feb 21 j 12:14	0°♄		
evening max el	341 Jul 26 j 02:59	18°♄36'04	46°01'38					
	341 Aug 07 j 15:00	0°♂		superior conj	344 Mar 04 j 00:27	14°♄17'47	-1°-23'-17	
greatest brilliancy	341 Sep 03 j 01:44	17°♂08'24	-4.6m	minimum elong	344 Mar 04 j 05:06	14°♄32'15	1°23'14	
retrograde	341 Sep 13 j 09:53	19°♂05'32		max. Earth dist.	344 Mar 07 j 13:53	18°♄42'42	1.72565 AU	
evening set	341 Sep 30 j 01:30	13°♂51'49			344 Mar 16 j 16:41	0°♄		
inferior conj	341 Oct 04 j 05:05	11°♂23'45	-6°-58'-50		344 Apr 10 j 00:21	0°♄		
minimum elong	341 Oct 04 j 15:30	11°♂07'53	6°56'49	evening rise	344 Apr 11 j 11:37	1°♄48'25		
min. Earth dist.	341 Oct 05 j 01:30	10°♂52'41	0.27065 AU	asc. node	344 Apr 21 j 09:13	13°♄57'49		
morning rise	341 Oct 09 j 05:00	8°♂25'39			344 May 04 j 11:25	0°♂		
direct	341 Oct 24 j 22:08	3°♂34'56			344 May 29 j 01:56	0°♂		
asc. node	341 Nov 04 j 13:54	5°♂43'17			344 Jun 22 j 20:34	0°♂		
greatest brilliancy	341 Nov 07 j 12:45	6°♂59'03	-4.7m		344 Jul 17 j 21:20	0°♄		
	341 Dec 07 j 13:46	0°♄		desc. node	344 Aug 10 j 22:36	28°♄22'12		
morning max el	341 Dec 14 j 16:59	7°♄05'29	46°56'35		344 Aug 12 j 08:10	0°♂		
	342 Jan 05 j 00:03	0°♄			344 Sep 07 j 13:05	0°♄		
	342 Jan 31 j 02:24	0°♂			344 Oct 05 j 10:57	0°♄		
desc. node	342 Feb 24 j 03:40	28°♂29'34		evening max el	344 Oct 07 j 14:47	2°♄10'32	47°12'37	
	342 Feb 25 j 09:57	0°≈			344 Nov 10 j 03:56	0°♂		
	342 Mar 22 j 09:41	0°♄		greatest brilliancy	344 Nov 15 j 06:24	2°♂31'45	-4.7m	
	342 Apr 16 j 05:40	0°♄		retrograde	344 Nov 27 j 07:15	5°♂14'34		
	342 May 10 j 23:12	0°♄		asc. node	344 Dec 02 j 01:49	4°♂46'00		
	342 Jun 04 j 14:03	0°♂		evening set	344 Dec 11 j 19:58	0°♂59'09		
morning set	342 Jun 15 j 23:15	13°♂55'40			344 Dec 13 j 14:01	30°♄♄		
asc. node	342 Jun 17 j 06:55	15°♂32'41		min. Earth dist.	344 Dec 17 j 02:16	27°♄53'29	0.26567 AU	
	342 Jun 29 j 01:25	0°♂		inferior conj	344 Dec 17 j 20:24	27°♄25'39	3°56'43	
max. Earth dist.	342 Jul 18 j 17:36	24°♂15'46	1.73016 AU	minimum elong	344 Dec 17 j 12:18	27°♄38'06	3°54'22	
				morning rise	344 Dec 23 j 05:12	24°♄15'15		
superior conj	342 Jul 22 j 06:41	28°♂38'57	1°10'23	direct	345 Jan 07 j 04:53	19°♄47'46		
minimum elong	342 Jul 21 j 22:31	28°♂13'40	1°10'10	greatest brilliancy	345 Jan 18 j 04:11	22°♄03'52	-4.6m	
	342 Jul 23 j 08:52	0°♂			345 Feb 01 j 03:27	0°♂		
	342 Aug 16 j 13:01	0°♄		morning max el	345 Feb 26 j 03:10	21°♂48'08	46°29'04	
evening rise	342 Aug 27 j 18:06	13°♄57'14			345 Mar 06 j 06:00	0°≈		
	342 Sep 09 j 15:18	0°♂		desc. node	345 Mar 23 j 15:27	18°≈34'04		
	342 Oct 03 j 17:17	0°♄			345 Apr 02 j 22:50	0°♄		
desc. node	342 Oct 06 j 20:27	3°♄53'55			345 Apr 29 j 04:46	0°♄		
	342 Oct 27 j 20:09	0°♄			345 May 24 j 18:40	0°♄		
	342 Nov 21 j 01:13	0°♂			345 Jun 18 j 22:16	0°♂		
	342 Dec 15 j 11:16	0°≈			345 Jul 13 j 17:04	0°♂		
	343 Jan 09 j 08:28	0°♄		asc. node	345 Jul 14 j 18:40	1°♂18'03		
asc. node	343 Jan 27 j 23:29	21°♄45'21			345 Aug 07 j 03:43	0°♂		
	343 Feb 04 j 06:03	0°♄		morning set	345 Aug 23 j 08:14	20°♂04'17		
evening max el	343 Mar 03 j 02:11	28°♄29'16	45°55'16		345 Aug 31 j 07:33	0°♄		
	343 Mar 04 j 15:19	0°♄			345 Sep 24 j 06:54	0°♂		
greatest brilliancy	343 Apr 06 j 11:22	25°♄28'41	-4.5m	max. Earth dist.	345 Sep 27 j 17:57	4°♂20'26	1.71493 AU	
retrograde	343 Apr 21 j 07:12	29°♄20'47						
evening set	343 May 06 j 14:37	24°♄47'35		superior conj	345 Sep 30 j 03:32	7°♂21'06	1°09'31	
inferior conj	343 May 12 j 18:03	21°♄05'35	1°34'56	minimum elong	345 Sep 30 j 13:17	7°♂51'43	1°09'15	
minimum elong	343 May 12 j 21:29	21°♄00'13	1°33'57		345 Oct 18 j 04:13	0°♄		
min. Earth dist.	343 May 12 j 22:30	20°♄58'37	0.28980 AU	desc. node	345 Nov 03 j 08:27	20°♄19'32		
morning rise	343 May 19 j 04:19	17°♄13'39		evening rise	345 Nov 09 j 14:07	28°♄09'35		
desc. node	343 May 19 j 13:05	17°♄01'42			345 Nov 11 j 01:17	0°♄		
direct	343 Jun 03 j 08:41	12°♄46'31			345 Dec 04 j 23:11	0°♂		
greatest brilliancy	343 Jun 16 j 23:44	16°♄00'23	-4.5m		345 Dec 28 j 23:12	0°≈		
	343 Jul 08 j 04:15	0°♂			346 Jan 22 j 03:35	0°♄		
morning max el	343 Jul 22 j 06:32	12°♂38'47	45°51'30		346 Feb 15 j 16:12	0°♄		
	343 Aug 08 j 09:48	0°♂		asc. node	346 Feb 24 j 11:23	10°♄36'44		
	343 Sep 04 j 10:24	0°♂			346 Mar 12 j 18:45	0°♄		
asc. node	343 Sep 09 j 16:20	6°♄04'59			346 Apr 07 j 21:08	0°♂		
	343 Sep 29 j 20:05	0°♄			346 May 06 j 00:14	0°♂		
	343 Oct 24 j 09:34	0°♂		evening max el	346 May 12 j 18:35	6°♂37'33	45°18'43	
	343 Nov 17 j 12:50	0°♄			346 Jun 11 j 00:34	0°♂		

desc. node	346 Jun 16 j 01:02	2°♌36'39			348 Nov 25 j 14:04	0°♏	
greatest brilliancy	346 Jun 17 j 05:12	3°♌07'54	-4.5m	desc. node	348 Nov 30 j 20:13	6°♏37'05	
retrograde	346 Jun 30 j 05:04	6°♌04'38					
evening set	346 Jul 16 j 15:13	1°♌00'38		superior conj	348 Dec 15 j 11:49	25°♏03'17	0°-33'-56
	346 Jul 18 j 08:42	30°♌		minimum elong	348 Dec 15 j 03:12	24°♏36'13	0°33'33
inferior conj	346 Jul 21 j 14:15	28°♌01'10	-7°-8'-39	max. Earth dist.	348 Dec 17 j 21:27	28°♏04'28	1.71131 AU
minimum elong	346 Jul 21 j 04:45	28°♌15'54	7°07'04		348 Dec 19 j 10:13	0°♏	
min. Earth dist.	346 Jul 21 j 19:12	27°♌53'27	0.28683 AU		349 Jan 12 j 07:58	0°≈	
morning rise	346 Jul 25 j 18:02	25°♌28'53		evening rise	349 Jan 25 j 22:00	16°≈59'12	
direct	346 Aug 12 j 04:00	19°♌48'12			349 Feb 05 j 08:29	0°♏	
greatest brilliancy	346 Aug 26 j 12:43	23°♌26'27	-4.6m		349 Mar 01 j 13:22	0°♏	
	346 Sep 06 j 10:39	0°♌		asc. node	349 Mar 23 j 23:28	27°♏30'46	
morning max el	346 Oct 01 j 02:56	21°♌35'11	46°29'59		349 Mar 26 j 00:26	0°♏	
asc. node	346 Oct 07 j 04:12	27°♌45'40			349 Apr 19 j 19:48	0°♏	
	346 Oct 09 j 07:33	0°♏			349 May 15 j 02:28	0°♏	
	346 Nov 05 j 05:36	0°♏			349 Jun 10 j 02:46	0°♌	
	346 Nov 30 j 11:30	0°♏			349 Jul 07 j 12:53	0°♏	
	346 Dec 25 j 01:46	0°♏		desc. node	349 Jul 13 j 12:47	6°♏12'27	
	347 Jan 18 j 10:18	0°♏		evening max el	349 Jul 23 j 16:06	16°♏15'52	45°59'12
desc. node	347 Jan 26 j 17:47	10°♏15'50			349 Aug 07 j 23:26	0°♏	
	347 Feb 11 j 17:21	0°≈		greatest brilliancy	349 Aug 31 j 12:38	14°♏43'30	-4.6m
	347 Mar 08 j 00:48	0°♏		retrograde	349 Sep 10 j 22:44	16°♏42'17	
	347 Apr 01 j 09:23	0°♏		evening set	349 Sep 27 j 17:28	11°♏23'11	
morning set	347 Apr 06 j 21:51	6°♏47'20		inferior conj	349 Oct 01 j 18:01	8°♏59'34	-7°-12'-32
	347 Apr 25 j 19:09	0°♏		minimum elong	349 Oct 02 j 04:13	8°♏44'04	7°10'40
				min. Earth dist.	349 Oct 02 j 14:40	8°♏28'11	0.27132 AU
superior conj	347 May 13 j 21:05	22°♏12'07	0°-14'-10	morning rise	349 Oct 06 j 14:29	6°♏06'35	
minimum elong	347 May 13 j 23:59	22°♏21'01	0°14'02	direct	349 Oct 22 j 12:02	1°♏09'35	
behind sun begin	347 May 13 j 13:25	21°♏48'35		asc. node	349 Nov 03 j 16:00	3°♏55'13	
behind sun end	347 May 14 j 10:33	22°♏53'27		greatest brilliancy	349 Nov 05 j 04:58	4°♏36'57	-4.7m
max. Earth dist.	347 May 13 j 19:49	22°♏08'16	1.73623 AU		349 Dec 07 j 15:04	0°♏	
asc. node	347 May 19 j 21:09	29°♏34'22		morning max el	349 Dec 12 j 07:42	4°♏42'42	46°56'35
	347 May 20 j 05:30	0°♏			350 Jan 04 j 17:14	0°♏	
	347 Jun 13 j 15:39	0°♏			350 Jan 30 j 16:46	0°♏	
evening rise	347 Jun 18 j 22:46	6°♏30'34		desc. node	350 Feb 23 j 05:41	27°♏56'45	
	347 Jul 08 j 01:15	0°♌			350 Feb 24 j 22:52	0°≈	
	347 Aug 01 j 11:00	0°♏			350 Mar 21 j 21:43	0°♏	
	347 Aug 25 j 22:16	0°♏			350 Apr 15 j 17:05	0°♏	
desc. node	347 Sep 08 j 10:36	16°♏30'21			350 May 10 j 10:12	0°♏	
	347 Sep 19 j 12:40	0°♏			350 Jun 04 j 00:49	0°♏	
	347 Oct 14 j 08:25	0°♏		morning set	350 Jun 13 j 17:50	11°♏52'44	
	347 Nov 08 j 14:35	0°♏		asc. node	350 Jun 16 j 08:54	15°♏06'00	
	347 Dec 04 j 22:03	0°≈			350 Jun 28 j 12:05	0°♏	
evening max el	347 Dec 19 j 13:07	15°≈33'06	47°08'40	max. Earth dist.	350 Jul 16 j 14:55	22°♏20'15	1.73063 AU
asc. node	347 Dec 30 j 13:43	26°≈20'30					
	348 Jan 03 j 14:27	0°♏		superior conj	350 Jul 20 j 00:57	26°♏33'52	1°08'36
greatest brilliancy	348 Jan 25 j 13:17	15°♏35'29	-4.6m	minimum elong	350 Jul 19 j 16:34	26°♏07'58	1°08'21
retrograde	348 Feb 08 j 08:49	19°♏06'40			350 Jul 22 j 19:34	0°♌	
evening set	348 Feb 26 j 07:26	12°♏52'40			350 Aug 15 j 23:50	0°♏	
min. Earth dist.	348 Feb 29 j 01:28	11°♏09'02	0.28286 AU	evening rise	350 Aug 25 j 10:18	11°♏44'25	
inferior conj	348 Feb 29 j 12:13	10°♏51'59	8°31'08		350 Sep 09 j 02:18	0°♏	
minimum elong	348 Feb 29 j 15:35	10°♏46'38	8°30'58		350 Oct 03 j 04:31	0°♏	
morning rise	348 Mar 03 j 23:56	8°♏41'05		desc. node	350 Oct 05 j 22:38	3°♏25'38	
direct	348 Mar 21 j 13:27	2°♏46'17			350 Oct 27 j 07:42	0°♏	
greatest brilliancy	348 Apr 01 j 19:35	5°♏03'46	-4.5m		350 Nov 20 j 13:11	0°♏	
desc. node	348 Apr 20 j 03:17	16°♏02'25			350 Dec 14 j 23:49	0°≈	
	348 May 06 j 09:43	0°♏			351 Jan 08 j 22:04	0°♏	
morning max el	348 May 09 j 11:27	2°♏54'31	45°50'30	asc. node	351 Jan 27 j 01:30	21°♏08'21	
	348 Jun 04 j 20:43	0°♏			351 Feb 03 j 21:53	0°♏	
	348 Jul 01 j 18:09	0°♏		evening max el	351 Feb 28 j 18:36	26°♏18'32	45°57'46
	348 Jul 27 j 11:21	0°♏			351 Mar 04 j 13:59	0°♏	
asc. node	348 Aug 11 j 06:32	17°♏42'08		greatest brilliancy	351 Apr 04 j 04:11	23°♏20'49	-4.5m
	348 Aug 21 j 10:11	0°♌		retrograde	351 Apr 19 j 00:33	27°♏13'02	
	348 Sep 14 j 19:59	0°♏		evening set	351 May 04 j 08:50	22°♏37'42	
	348 Oct 08 j 21:20	0°♏		inferior conj	351 May 10 j 10:40	18°♏57'31	1°54'09
	348 Nov 01 j 18:22	0°♏		minimum elong	351 May 10 j 14:45	18°♏51'06	1°52'59
morning set	348 Nov 03 j 23:40	2°♏47'48		min. Earth dist.	351 May 10 j 14:45	18°♏51'06	0.28973 AU

morning rise	351 May 16 j 20:47	15°♄05'59		evening rise	353 Nov 07 j 00:30	25°♍36'56	
desc. node	351 May 18 j 15:03	14°♄10'21			353 Nov 10 j 12:18	0°♄	
direct	351 Jun 01 j 01:36	10°♄38'42			353 Dec 04 j 10:20	0°♄	
greatest brilliancy	351 Jun 14 j 14:17	13°♄50'42	-4.5m		353 Dec 28 j 10:30	0°♄	
	351 Jul 08 j 09:32	0°♄			354 Jan 21 j 15:09	0°♄	
morning max el	351 Jul 19 j 23:22	10°♄31'40	45°50'34		354 Feb 15 j 04:13	0°♄	
	351 Aug 08 j 02:51	0°♄		asc. node	354 Feb 23 j 13:34	10°♄06'33	
	351 Sep 04 j 00:17	0°♄			354 Mar 12 j 07:42	0°♄	
asc. node	351 Sep 08 j 18:30	5°♄31'53			354 Apr 07 j 12:03	0°♄	
	351 Sep 29 j 08:38	0°♄			354 May 05 j 20:32	0°♄	
	351 Oct 23 j 21:27	0°♄		evening max el	354 May 10 j 09:13	4°♄24'15	45°18'43
	351 Nov 17 j 00:20	0°♄			354 Jun 12 j 18:29	0°♄	
	351 Dec 10 j 23:20	0°♄		greatest brilliancy	354 Jun 14 j 18:44	0°♄55'11	-4.5m
desc. node	351 Dec 29 j 07:59	23°♄00'45		desc. node	354 Jun 15 j 03:03	1°♄04'03	
	352 Jan 03 j 21:50	0°♄		retrograde	354 Jun 27 j 19:59	3°♄54'08	
morning set	352 Jan 21 j 05:39	21°♄40'49			354 Jul 12 j 03:15	30°♄	
	352 Jan 27 j 21:27	0°♄		evening set	354 Jul 14 j 03:36	28°♄54'17	
	352 Feb 20 j 23:05	0°♄		inferior conj	354 Jul 19 j 05:56	25°♄50'14	-6°-56'-32
				minimum elong	354 Jul 18 j 20:13	26°♄05'19	6°54'50
superior conj	352 Mar 01 j 14:01	11°♄57'21	-1°-24'-2	min. Earth dist.	354 Jul 19 j 10:47	25°♄42'42	0.28709 AU
minimum elong	352 Mar 01 j 17:52	12°♄09'20	1°24'01	morning rise	354 Jul 23 j 12:31	23°♄13'42	
max. Earth dist.	352 Mar 05 j 06:24	16°♄31'35	1.72512 AU	direct	354 Aug 09 j 19:27	17°♄36'46	
	352 Mar 16 j 03:27	0°♄		greatest brilliancy	354 Aug 24 j 04:42	21°♄14'39	-4.6m
evening rise	352 Apr 09 j 03:50	29°♄37'37			354 Sep 07 j 02:40	0°♄	
	352 Apr 09 j 11:07	0°♄		morning max el	354 Sep 28 j 16:36	19°♄15'14	46°28'33
asc. node	352 Apr 20 j 11:23	13°♄31'21		asc. node	354 Oct 06 j 06:19	27°♄00'12	
	352 May 03 j 22:16	0°♄			354 Oct 09 j 02:26	0°♄	
	352 May 28 j 13:02	0°♄			354 Nov 04 j 20:24	0°♄	
	352 Jun 22 j 08:07	0°♄			354 Nov 30 j 00:42	0°♄	
	352 Jul 17 j 09:40	0°♄			354 Dec 24 j 14:07	0°♄	
desc. node	352 Aug 10 j 00:39	27°♄48'33			355 Jan 17 j 22:05	0°♄	
	352 Aug 11 j 21:53	0°♄		desc. node	355 Jan 25 j 19:55	9°♄46'21	
	352 Sep 07 j 05:25	0°♄			355 Feb 11 j 04:45	0°♄	
evening max el	352 Oct 05 j 05:34	29°♄49'23	47°10'48		355 Mar 07 j 11:54	0°♄	
	352 Oct 05 j 09:49	0°♄			355 Mar 31 j 20:15	0°♄	
	352 Nov 12 j 16:18	0°♄		morning set	355 Apr 04 j 14:01	4°♄36'11	
greatest brilliancy	352 Nov 12 j 21:21	0°♄05'23	-4.7m		355 Apr 25 j 05:52	0°♄	
retrograde	352 Nov 24 j 20:04	2°♄45'12					
asc. node	352 Dec 01 j 03:50	1°♄55'20		superior conj	355 May 11 j 14:53	20°♄06'45	0°-17'-18
	352 Dec 06 j 09:55	30°♄		minimum elong	355 May 11 j 18:25	20°♄17'34	0°17'08
evening set	352 Dec 09 j 07:00	28°♄32'58		max. Earth dist.	355 May 11 j 15:09	20°♄07'33	1.73612 AU
min. Earth dist.	352 Dec 14 j 15:46	25°♄23'41	0.26526 AU	asc. node	355 May 18 j 23:07	29°♄07'41	
inferior conj	352 Dec 15 j 08:49	24°♄57'30	3°34'47		355 May 19 j 16:10	0°♄	
minimum elong	352 Dec 15 j 01:19	25°♄09'01	3°32'34		355 Jun 13 j 02:21	0°♄	
morning rise	352 Dec 20 j 20:13	21°♄43'32		evening rise	355 Jun 16 j 17:49	4°♄28'39	
direct	353 Jan 04 j 17:26	17°♄20'29			355 Jul 07 j 12:08	0°♄	
greatest brilliancy	353 Jan 15 j 17:15	19°♄37'05	-4.6m		355 Jul 31 j 22:10	0°♄	
	353 Feb 01 j 22:45	0°♄			355 Aug 25 j 09:51	0°♄	
morning max el	353 Feb 23 j 15:55	19°♄24'10	46°30'27	desc. node	355 Sep 07 j 12:47	16°♄00'53	
	353 Mar 06 j 01:59	0°♄			355 Sep 19 j 00:52	0°♄	
desc. node	353 Mar 22 j 17:41	17°♄54'43			355 Oct 13 j 21:32	0°♄	
	353 Apr 02 j 14:00	0°♄			355 Nov 08 j 05:18	0°♄	
	353 Apr 28 j 17:52	0°♄			355 Dec 04 j 16:14	0°♄	
	353 May 24 j 06:40	0°♄		evening max el	355 Dec 17 j 02:51	13°♄09'50	47°10'18
	353 Jun 18 j 09:36	0°♄		asc. node	355 Dec 29 j 15:46	25°♄21'39	
	353 Jul 13 j 04:02	0°♄			356 Jan 03 j 21:36	0°♄	
asc. node	353 Jul 13 j 20:46	0°♄51'04		greatest brilliancy	356 Jan 23 j 05:40	13°♄18'46	-4.6m
	353 Aug 06 j 14:28	0°♄		retrograde	356 Feb 06 j 00:04	16°♄49'37	
morning set	353 Aug 21 j 00:33	17°♄52'30		evening set	356 Feb 23 j 23:24	10°♄34'37	
	353 Aug 30 j 18:15	0°♄		min. Earth dist.	356 Feb 26 j 15:57	8°♄53'32	0.28239 AU
	353 Sep 23 j 17:39	0°♄		inferior conj	356 Feb 27 j 03:27	8°♄35'20	8°34'42
max. Earth dist.	353 Sep 25 j 02:18	1°♄42'22	1.71543 AU	minimum elong	356 Feb 27 j 06:03	8°♄31'13	8°34'36
				morning rise	356 Mar 01 j 12:51	6°♄28'07	
superior conj	353 Sep 27 j 17:27	5°♄00'25	1°11'31	direct	356 Mar 19 j 03:29	0°♄30'15	
minimum elong	353 Sep 28 j 02:49	5°♄29'46	1°11'16	greatest brilliancy	356 Mar 30 j 09:48	2°♄47'53	-4.5m
	353 Oct 17 j 15:06	0°♄		desc. node	356 Apr 19 j 05:17	14°♄55'58	
desc. node	353 Nov 02 j 10:29	19°♄51'31			356 May 06 j 09:19	0°♄	

morning max el	356 May 07 j 02:16	0° Υ 40'29	45°51'25		358 Dec 14 j 12:29	0° \approx	
	356 Jun 04 j 12:45	0° \mathcal{B}			359 Jan 08 j 11:46	0° \mathcal{H}	
	356 Jul 01 j 07:35	0° Π		asc. node	359 Jan 26 j 03:41	20° \mathcal{H} 31'25	
	356 Jul 26 j 23:32	0° \mathfrak{S}			359 Feb 03 j 13:59	0° Υ	
asc. node	356 Aug 10 j 08:40	17° \mathfrak{S} 13'00		evening max el	359 Feb 26 j 10:57	24° Υ 07'16	46°00'01
	356 Aug 20 j 21:44	0° \mathcal{Q}			359 Mar 04 j 13:46	0° \mathcal{B}	
	356 Sep 14 j 07:12	0° \mathfrak{M}		greatest brilliancy	359 Apr 01 j 21:44	21° \mathcal{B} 13'10	-4.5m
	356 Oct 08 j 08:24	0° \mathfrak{L}		retrograde	359 Apr 16 j 17:22	25° \mathcal{B} 04'06	
morning set	356 Nov 01 j 11:34	0° \mathfrak{M} 19'35		evening set	359 May 02 j 03:04	20° \mathcal{B} 26'40	
	356 Nov 01 j 05:21	0° \mathfrak{M}		inferior conj	359 May 08 j 03:10	16° \mathcal{B} 48'23	2°13'17
	356 Nov 25 j 01:01	0° \mathcal{J}		minimum elong	359 May 08 j 07:53	16° \mathcal{B} 40'57	2°11'57
desc. node	356 Nov 29 j 22:13	6° \mathcal{J} 08'55		min. Earth dist.	359 May 08 j 07:02	16° \mathcal{B} 42'18	0.28969 AU
				morning rise	359 May 14 j 12:55	12° \mathcal{B} 57'14	
superior conj	356 Dec 12 j 21:26	22° \mathcal{J} 28'09	0°-30'-12	desc. node	359 May 17 j 17:06	11° \mathcal{B} 20'48	
minimum elong	356 Dec 12 j 13:37	22° \mathcal{J} 03'36	0°29'52	direct	359 May 29 j 18:30	8° \mathcal{B} 29'50	
max. Earth dist.	356 Dec 15 j 03:16	25° \mathcal{J} 17'26	1.71113 AU	greatest brilliancy	359 Jun 12 j 04:11	11° \mathcal{B} 38'59	-4.5m
	356 Dec 18 j 21:10	0° \mathfrak{Z}			359 Jul 08 j 13:27	0° Π	
	357 Jan 11 j 18:57	0° \approx		morning max el	359 Jul 17 j 15:20	8° Π 21'26	45°49'40
evening rise	357 Jan 23 j 09:03	14° \approx 29'35			359 Aug 07 j 19:54	0° \mathfrak{S}	
	357 Feb 04 j 19:31	0° \mathcal{H}			359 Sep 03 j 14:18	0° \mathcal{Q}	
	357 Mar 01 j 00:30	0° Υ		asc. node	359 Sep 07 j 20:37	4° \mathcal{Q} 58'00	
asc. node	357 Mar 23 j 01:31	27° Υ 02'28			359 Sep 28 j 21:20	0° \mathfrak{M}	
	357 Mar 25 j 11:48	0° \mathcal{B}			359 Oct 23 j 09:30	0° \mathfrak{L}	
	357 Apr 19 j 07:38	0° Π			359 Nov 16 j 12:02	0° \mathfrak{M}	
	357 May 14 j 15:14	0° \mathfrak{S}			359 Dec 10 j 10:49	0° \mathcal{J}	
	357 Jun 09 j 17:20	0° \mathcal{Q}		desc. node	359 Dec 28 j 10:06	22° \mathcal{J} 31'50	
	357 Jul 07 j 07:36	0° \mathfrak{M}			360 Jan 03 j 09:08	0° \mathfrak{Z}	
desc. node	357 Jul 12 j 14:54	5° \mathfrak{M} 26'31		morning set	360 Jan 18 j 16:16	19° \mathfrak{Z} 09'03	
evening max el	357 Jul 21 j 06:00	13° \mathfrak{M} 57'38	45°56'52		360 Jan 27 j 08:35	0° \approx	
	357 Aug 08 j 10:55	0° \mathfrak{L}			360 Feb 20 j 10:04	0° \mathcal{H}	
greatest brilliancy	357 Aug 28 j 23:16	12° \mathfrak{L} 18'29	-4.6m				
retrograde	357 Sep 08 j 11:49	14° \mathfrak{L} 18'57		superior conj	360 Feb 28 j 03:49	9° \mathcal{H} 37'10	-1°-24'-37
evening set	357 Sep 25 j 09:26	8° \mathfrak{L} 54'45		minimum elong	360 Feb 28 j 06:52	9° \mathcal{H} 46'37	1°24'38
inferior conj	357 Sep 29 j 06:54	6° \mathfrak{L} 35'23	-7°-25'-27	max. Earth dist.	360 Mar 03 j 01:10	14° \mathcal{H} 26'55	1.72456 AU
minimum elong	357 Sep 29 j 16:49	6° \mathfrak{L} 20'20	7°23'45		360 Mar 15 j 14:22	0° Υ	
min. Earth dist.	357 Sep 30 j 03:25	6° \mathfrak{L} 04'14	0.27194 AU	evening rise	360 Apr 06 j 20:08	27° Υ 26'27	
morning rise	357 Oct 03 j 23:48	3° \mathfrak{L} 47'38			360 Apr 08 j 22:03	0° \mathcal{B}	
	357 Oct 12 j 06:45	30° \mathfrak{R} \mathfrak{M}		asc. node	360 Apr 19 j 13:20	13° \mathcal{B} 03'43	
direct	357 Oct 20 j 02:14	28° \mathfrak{M} 44'32			360 May 03 j 09:22	0° Π	
	357 Oct 28 j 03:35	0° \mathfrak{L}			360 May 28 j 00:24	0° \mathfrak{S}	
asc. node	357 Nov 02 j 17:57	2° \mathfrak{L} 11'07			360 Jun 21 j 20:00	0° \mathcal{Q}	
greatest brilliancy	357 Nov 02 j 20:04	2° \mathfrak{L} 13'37	-4.7m		360 Jul 16 j 22:24	0° \mathfrak{M}	
	357 Dec 07 j 15:03	0° \mathfrak{M}		desc. node	360 Aug 09 j 02:49	27° \mathfrak{M} 14'00	
morning max el	357 Dec 09 j 22:34	2° \mathfrak{M} 20'36	46°56'38		360 Aug 11 j 12:05	0° \mathfrak{L}	
	358 Jan 04 j 09:58	0° \mathcal{J}			360 Sep 06 j 22:25	0° \mathfrak{M}	
	358 Jan 30 j 06:54	0° \mathfrak{Z}		evening max el	360 Oct 02 j 19:12	27° \mathfrak{M} 24'22	47°08'56
desc. node	358 Feb 22 j 07:51	27° \mathfrak{Z} 24'41			360 Oct 05 j 10:06	0° \mathcal{J}	
	358 Feb 24 j 11:41	0° \approx		greatest brilliancy	360 Nov 10 j 13:02	27° \mathcal{J} 38'49	-4.7m
	358 Mar 21 j 09:44	0° \mathcal{H}			360 Nov 18 j 19:51	0° \mathfrak{Z}	
	358 Apr 15 j 04:35	0° Υ		retrograde	360 Nov 22 j 08:16	0° \mathfrak{Z} 14'46	
	358 May 09 j 21:19	0° \mathcal{B}			360 Nov 25 j 19:19	30° \mathfrak{R} \mathcal{J}	
	358 Jun 03 j 11:43	0° Π		asc. node	360 Nov 30 j 05:59	28° \mathcal{J} 57'25	
morning set	358 Jun 11 j 12:02	9° Π 48'16		evening set	360 Dec 06 j 18:11	26° \mathcal{J} 05'18	
asc. node	358 Jun 15 j 11:00	14° Π 39'11		min. Earth dist.	360 Dec 12 j 05:38	22° \mathcal{J} 52'16	0.26487 AU
	358 Jun 27 j 22:53	0° \mathfrak{S}		inferior conj	360 Dec 12 j 21:11	22° \mathcal{J} 28'21	3°12'21
max. Earth dist.	358 Jul 14 j 11:11	20° \mathfrak{S} 21'15	1.73106 AU	minimum elong	360 Dec 12 j 14:20	22° \mathcal{J} 38'52	3°10'17
				morning rise	360 Dec 18 j 11:00	19° \mathcal{J} 10'53	
superior conj	358 Jul 17 j 18:52	24° \mathfrak{S} 27'27	1°06'40	direct	361 Jan 02 j 05:25	14° \mathcal{J} 51'58	
minimum elong	358 Jul 17 j 10:20	24° \mathfrak{S} 01'04	1°06'25	greatest brilliancy	361 Jan 13 j 07:14	17° \mathcal{J} 10'10	-4.6m
	358 Jul 22 j 06:23	0° \mathcal{Q}			361 Feb 02 j 13:34	0° \mathfrak{Z}	
	358 Aug 15 j 10:46	0° \mathfrak{M}		morning max el	361 Feb 21 j 03:53	16° \mathfrak{Z} 57'12	46°32'05
evening rise	358 Aug 23 j 02:21	9° \mathfrak{M} 30'50			361 Mar 05 j 21:37	0° \approx	
	358 Sep 08 j 13:25	0° \mathfrak{L}		desc. node	361 Mar 21 j 19:39	17° \approx 14'28	
	358 Oct 02 j 15:54	0° \mathfrak{M}			361 Apr 02 j 05:10	0° \mathcal{H}	
desc. node	358 Oct 05 j 00:37	2° \mathfrak{M} 56'20			361 Apr 28 j 07:05	0° Υ	
	358 Oct 26 j 19:23	0° \mathcal{J}			361 May 23 j 18:50	0° \mathcal{B}	
	358 Nov 20 j 01:16	0° \mathfrak{Z}			361 Jun 17 j 21:12	0° Π	

asc. node	361 Jul 12 j 22:54	0°☾23'13			364 Jan 04 j 07:53	0°☿	
	361 Jul 12 j 15:17	0°☾		greatest brilliancy	364 Jan 20 j 21:24	11°☿00'10	-4.6m
	361 Aug 06 j 01:33	0°♌		retrograde	364 Feb 03 j 15:53	14°☿31'29	
morning set	361 Aug 18 j 16:40	15°♌39'00		evening set	364 Feb 21 j 15:01	8°☿15'46	
	361 Aug 30 j 05:18	0°♍		min. Earth dist.	364 Feb 24 j 05:59	6°☿37'21	0.28189 AU
max. Earth dist.	361 Sep 22 j 12:41	29°♍09'35	1.71592 AU	inferior conj	364 Feb 24 j 18:35	6°☿17'26	8°37'33
	361 Sep 23 j 04:46	0°♎		minimum elong	364 Feb 24 j 20:23	6°☿14'35	8°37'31
				morning rise	364 Feb 28 j 01:58	4°☿13'37	
superior conj	361 Sep 25 j 07:15	2°♎38'19	1°13'23		364 Mar 07 j 09:01	30°☿≈	
minimum elong	361 Sep 25 j 16:09	3°♎06'14	1°13'09	direct	364 Mar 16 j 17:46	28°≈13'03	
	361 Oct 17 j 02:19	0°♏			364 Mar 26 j 14:10	0°☿	
desc. node	361 Nov 01 j 12:29	19°♏22'22		greatest brilliancy	364 Mar 27 j 23:22	0°☿30'24	-4.5m
evening rise	361 Nov 04 j 10:52	23°♏03'17		desc. node	364 Apr 18 j 07:19	13°☿50'30	
	361 Nov 09 j 23:38	0°♐		morning max el	364 May 04 j 17:59	28°☿28'00	45°52'28
	361 Dec 03 j 21:49	0°♑			364 May 06 j 08:10	0°♑	
	361 Dec 27 j 22:08	0°≈			364 Jun 04 j 04:43	0°♒	
	362 Jan 21 j 03:03	0°☿			364 Jun 30 j 21:03	0°♓	
	362 Feb 14 j 16:35	0°♑			364 Jul 26 j 11:50	0°☾	
asc. node	362 Feb 22 j 15:38	9°♑35'01		asc. node	364 Aug 09 j 10:45	16°☾43'20	
	362 Mar 11 j 20:59	0°♒			364 Aug 20 j 09:26	0°♌	
	362 Apr 07 j 03:24	0°♓			364 Sep 13 j 18:37	0°♍	
	362 May 05 j 17:46	0°☾			364 Oct 07 j 19:43	0°♎	
evening max el	362 May 07 j 23:34	2°☾09'50	45°18'49	morning set	364 Oct 29 j 23:19	27°♎49'59	
greatest brilliancy	362 Jun 12 j 07:00	28°☾40'26	-4.5m		364 Oct 31 j 16:37	0°♏	
desc. node	362 Jun 14 j 05:09	29°☾27'38			364 Nov 24 j 12:17	0°♐	
	362 Jun 15 j 17:04	0°♌		desc. node	364 Nov 29 j 00:24	5°♐40'19	
retrograde	362 Jun 25 j 11:21	1°♌43'15					
	362 Jul 04 j 20:31	30°♑☾		superior conj	364 Dec 10 j 06:34	19°♐50'28	0°-26'-23
evening set	362 Jul 11 j 16:08	26°☾47'03		minimum elong	364 Dec 09 j 23:39	19°♐28'43	0°26'04
inferior conj	362 Jul 16 j 21:42	23°☾38'37	-6°-43'-45	max. Earth dist.	364 Dec 12 j 10:30	22°♐33'49	1.71094 AU
minimum elong	362 Jul 16 j 11:49	23°☾53'57	6°41'57		364 Dec 18 j 08:26	0°♑	
min. Earth dist.	362 Jul 17 j 02:20	23°☾31'26	0.28741 AU		365 Jan 11 j 06:12	0°≈	
morning rise	362 Jul 21 j 07:09	20°☾57'55		evening rise	365 Jan 20 j 19:44	11°≈57'54	
direct	362 Aug 07 j 11:00	15°☾24'27			365 Feb 04 j 06:48	0°☿	
greatest brilliancy	362 Aug 21 j 21:58	19°☾03'36	-4.5m		365 Feb 28 j 11:51	0°♑	
	362 Sep 07 j 15:09	0°♌		asc. node	365 Mar 22 j 03:31	26°♑33'22	
morning max el	362 Sep 26 j 07:14	16°♌56'37	46°27'05		365 Mar 24 j 23:23	0°♒	
asc. node	362 Oct 05 j 08:16	26°♌13'37			365 Apr 18 j 19:41	0°♓	
	362 Oct 08 j 21:19	0°♍			365 May 14 j 04:13	0°☾	
	362 Nov 04 j 11:28	0°♎			365 Jun 09 j 08:10	0°♌	
	362 Nov 29 j 14:10	0°♏			365 Jul 07 j 02:52	0°♍	
	362 Dec 24 j 02:43	0°♐		desc. node	365 Jul 11 j 17:01	4°♍39'53	
	363 Jan 17 j 10:09	0°♑		evening max el	365 Jul 18 j 20:35	11°♍41'12	45°54'33
desc. node	363 Jan 24 j 22:00	9°♑15'54			365 Aug 09 j 02:08	0°♎	
	363 Feb 10 j 16:25	0°≈		greatest brilliancy	365 Aug 26 j 10:19	9°♎54'34	-4.6m
	363 Mar 06 j 23:16	0°☿		retrograde	365 Sep 06 j 00:50	11°♎56'05	
	363 Mar 31 j 07:24	0°♑		evening set	365 Sep 23 j 01:30	6°♎27'14	
morning set	363 Apr 02 j 06:18	2°♑24'21		inferior conj	365 Sep 26 j 20:02	4°♎11'46	-7°-37'-15
	363 Apr 24 j 16:51	0°♒		minimum elong	365 Sep 27 j 05:33	3°♎57'17	7°35'45
				min. Earth dist.	365 Sep 27 j 16:13	3°♎41'04	0.27261 AU
superior conj	363 May 09 j 08:57	18°♒01'24	0°-20'-23	morning rise	365 Oct 01 j 09:16	1°♎29'03	
minimum elong	363 May 09 j 13:05	18°♒14'07	0°20'12		365 Oct 04 j 03:06	30°♑♍	
max. Earth dist.	363 May 09 j 11:30	18°♒09'14	1.73597 AU	direct	365 Oct 17 j 16:46	26°♍20'07	
asc. node	363 May 18 j 01:16	28°♒40'52		greatest brilliancy	365 Oct 31 j 10:27	29°♍49'18	-4.7m
	363 May 19 j 03:03	0°♓			365 Oct 31 j 19:21	0°♎	
	363 Jun 12 j 13:17	0°☾		asc. node	365 Nov 01 j 20:08	0°♎30'59	
evening rise	363 Jun 14 j 13:12	2°☾27'11		morning max el	365 Dec 07 j 13:09	29°♎57'06	46°56'21
	363 Jul 06 j 23:15	0°♌			365 Dec 07 j 14:17	0°♏	
	363 Jul 31 j 09:37	0°♍			366 Jan 04 j 02:43	0°♐	
	363 Aug 24 j 21:49	0°♎			366 Jan 29 j 21:10	0°♑	
desc. node	363 Sep 06 j 14:44	15°♎29'26		desc. node	366 Feb 21 j 09:51	26°♑51'31	
	363 Sep 18 j 13:31	0°♏			366 Feb 24 j 00:39	0°≈	
	363 Oct 13 j 11:10	0°♐			366 Mar 20 j 21:52	0°☿	
	363 Nov 07 j 20:37	0°♑			366 Apr 14 j 16:09	0°♑	
	363 Dec 04 j 11:17	0°≈			366 May 09 j 08:31	0°♒	
evening max el	363 Dec 14 j 17:10	10°≈47'02	47°12'02		366 Jun 02 j 22:40	0°♓	
asc. node	363 Dec 28 j 17:54	24°≈20'35		morning set	366 Jun 09 j 06:30	7°♓44'25	

asc. node	366 Jun 14 j 13:09	14° Π 12'22		min. Earth dist.	368 Dec 09 j 19:49	20° \mathcal{Z} 21'58	0.26457 AU
	366 Jun 27 j 09:44	0° \mathfrak{G}		morning rise	368 Dec 16 j 01:49	16° \mathcal{Z} 39'56	
max. Earth dist.	366 Jul 12 j 06:16	18° \mathfrak{G} 18'31	1.73143 AU	direct	368 Dec 30 j 17:11	12° \mathcal{Z} 24'31	
				greatest brilliancy	369 Jan 10 j 22:13	14° \mathcal{Z} 45'25	-4.6m
superior conj	366 Jul 15 j 13:15	22° \mathfrak{G} 22'25	1°04'42		369 Feb 03 j 00:17	0° \mathfrak{Z}	
minimum elong	366 Jul 15 j 04:37	21° \mathfrak{G} 55'45	1°04'25	morning max el	369 Feb 18 j 16:04	14° \mathfrak{Z} 31'08	46°33'29
	366 Jul 21 j 17:14	0° \mathcal{Q}			369 Mar 05 j 16:32	0° \approx	
	366 Aug 14 j 21:41	0° \mathfrak{M}		desc. node	369 Mar 20 j 21:41	16° \approx 35'10	
evening rise	366 Aug 20 j 18:59	7° \mathfrak{M} 19'09			369 Apr 01 j 20:01	0° \mathfrak{H}	
	366 Sep 08 j 00:31	0° \mathfrak{L}			369 Apr 27 j 20:05	0° \mathcal{Y}	
	366 Oct 02 j 03:16	0° \mathfrak{L}			369 May 23 j 06:50	0° \mathfrak{B}	
desc. node	366 Oct 04 j 02:41	2° \mathfrak{M} 27'19			369 Jun 17 j 08:34	0° Π	
	366 Oct 26 j 07:08	0° \mathcal{Z}		asc. node	369 Jul 12 j 00:53	29° Π 55'43	
	366 Nov 19 j 13:28	0° \mathfrak{Z}			369 Jul 12 j 02:17	0° \mathfrak{G}	
	366 Dec 14 j 01:20	0° \approx			369 Aug 05 j 12:23	0° \mathcal{Q}	
	367 Jan 08 j 01:47	0° \mathfrak{H}		morning set	369 Aug 16 j 08:50	13° \mathcal{Q} 26'36	
asc. node	367 Jan 25 j 05:42	19° \mathfrak{H} 53'08			369 Aug 29 j 16:05	0° \mathfrak{M}	
	367 Feb 03 j 06:34	0° \mathcal{Y}		max. Earth dist.	369 Sep 20 j 01:10	26° \mathfrak{M} 44'19	1.71640 AU
evening max el	367 Feb 24 j 02:42	21° \mathcal{Y} 53'51	46°02'27				
	367 Mar 04 j 14:57	0° \mathfrak{B}		superior conj	369 Sep 22 j 21:23	0° \mathfrak{L} 18'07	1°15'06
greatest brilliancy	367 Mar 30 j 15:54	19° \mathfrak{B} 05'54	-4.5m	minimum elong	369 Sep 23 j 05:47	0° \mathfrak{L} 44'29	1°14'55
retrograde	367 Apr 14 j 09:47	22° \mathfrak{B} 54'58			369 Sep 22 j 15:36	0° \mathfrak{L}	
evening set	367 Apr 29 j 21:26	18° \mathfrak{B} 15'22			369 Oct 16 j 13:14	0° \mathfrak{M}	
inferior conj	367 May 05 j 19:42	14° \mathfrak{B} 39'15	2°32'10	desc. node	369 Oct 31 j 14:40	18° \mathfrak{M} 54'47	
minimum elong	367 May 06 j 01:01	14° \mathfrak{B} 30'51	2°30'41	evening rise	369 Nov 01 j 21:46	20° \mathfrak{M} 32'23	
min. Earth dist.	367 May 05 j 23:34	14° \mathfrak{B} 33'08	0.28959 AU		369 Nov 09 j 10:39	0° \mathcal{Z}	
morning rise	367 May 12 j 04:51	10° \mathfrak{B} 48'33			369 Dec 03 j 08:56	0° \mathfrak{Z}	
desc. node	367 May 16 j 19:16	8° \mathfrak{B} 34'43			369 Dec 27 j 09:25	0° \approx	
direct	367 May 27 j 11:00	6° \mathfrak{B} 21'02			370 Jan 20 j 14:37	0° \mathfrak{H}	
greatest brilliancy	367 Jun 09 j 17:52	9° \mathfrak{B} 27'00	-4.5m		370 Feb 14 j 04:41	0° \mathcal{Y}	
	367 Jul 08 j 15:41	0° Π		asc. node	370 Feb 21 j 17:35	9° \mathcal{Y} 03'57	
morning max el	367 Jul 15 j 06:38	6° Π 09'51	45°48'57		370 Mar 11 j 10:06	0° \mathfrak{B}	
	367 Aug 07 j 12:30	0° \mathfrak{G}			370 Apr 06 j 18:45	0° Π	
	367 Sep 03 j 04:02	0° \mathcal{Q}		evening max el	370 May 05 j 14:35	29° Π 57'33	45°19'05
asc. node	367 Sep 06 j 22:33	4° \mathcal{Q} 24'14			370 May 05 j 15:36	0° \mathfrak{G}	
	367 Sep 28 j 09:49	0° \mathfrak{M}		greatest brilliancy	370 Jun 09 j 18:37	26° \mathfrak{G} 25'28	-4.5m
	367 Oct 22 j 21:20	0° \mathfrak{L}		desc. node	370 Jun 13 j 07:13	27° \mathfrak{G} 48'08	
	367 Nov 15 j 23:33	0° \mathfrak{M}		retrograde	370 Jun 23 j 03:08	29° \mathfrak{G} 32'55	
	367 Dec 09 j 22:09	0° \mathcal{Z}		evening set	370 Jul 09 j 04:42	24° \mathfrak{G} 40'10	
desc. node	367 Dec 27 j 12:12	22° \mathcal{Z} 03'13		inferior conj	370 Jul 14 j 13:22	21° \mathfrak{G} 27'32	-6°-30'-30
	368 Jan 02 j 20:21	0° \mathfrak{Z}		minimum elong	370 Jul 14 j 03:22	21° \mathfrak{G} 43'00	6°28'34
morning set	368 Jan 16 j 02:28	16° \mathfrak{Z} 36'01		min. Earth dist.	370 Jul 14 j 17:31	21° \mathfrak{G} 21'06	0.28768 AU
	368 Jan 26 j 19:41	0° \approx		morning rise	370 Jul 19 j 01:42	18° \mathfrak{G} 42'48	
	368 Feb 19 j 21:03	0° \mathfrak{H}		direct	370 Aug 05 j 02:46	13° \mathfrak{G} 12'46	
				greatest brilliancy	370 Aug 19 j 15:04	16° \mathfrak{G} 53'26	-4.5m
superior conj	368 Feb 25 j 17:01	7° \mathfrak{H} 15'01	-1°-25'-5		370 Sep 08 j 00:00	0° \mathcal{Q}	
minimum elong	368 Feb 25 j 19:11	7° \mathfrak{H} 21'44	1°25'05	morning max el	370 Sep 23 j 22:46	14° \mathcal{Q} 41'30	46°25'37
max. Earth dist.	368 Feb 29 j 17:31	12° \mathfrak{H} 14'39	1.72398 AU	asc. node	370 Oct 04 j 10:27	25° \mathcal{Q} 29'23	
	368 Mar 15 j 01:17	0° \mathcal{Y}			370 Oct 08 j 15:21	0° \mathfrak{M}	
evening rise	368 Apr 04 j 11:44	25° \mathcal{Y} 13'10			370 Nov 04 j 01:58	0° \mathfrak{L}	
	368 Apr 08 j 08:58	0° \mathfrak{B}			370 Nov 29 j 03:09	0° \mathfrak{M}	
asc. node	368 Apr 18 j 15:28	12° \mathfrak{B} 36'46			370 Dec 23 j 14:53	0° \mathcal{Z}	
	368 May 02 j 20:23	0° Π			371 Jan 16 j 21:45	0° \mathfrak{Z}	
	368 May 27 j 11:42	0° \mathfrak{G}		desc. node	371 Jan 24 j 00:00	8° \mathfrak{Z} 46'31	
	368 Jun 21 j 07:48	0° \mathcal{Q}			371 Feb 10 j 03:39	0° \approx	
	368 Jul 16 j 11:04	0° \mathfrak{M}			371 Mar 06 j 10:14	0° \mathfrak{H}	
desc. node	368 Aug 08 j 04:47	26° \mathfrak{M} 39'11		morning set	371 Mar 30 j 22:21	0° \mathcal{Y} 12'54	
	368 Aug 11 j 02:14	0° \mathfrak{L}			371 Mar 30 j 18:10	0° \mathcal{Y}	
	368 Sep 06 j 15:28	0° \mathfrak{M}			371 Apr 24 j 03:29	0° \mathfrak{B}	
evening max el	368 Sep 30 j 08:01	24° \mathfrak{M} 58'29	47°07'06				
	368 Oct 05 j 11:09	0° \mathcal{Z}		superior conj	371 May 07 j 02:39	15° \mathfrak{B} 55'48	0°-23'-28
greatest brilliancy	368 Nov 08 j 04:37	25° \mathcal{Z} 13'23	-4.7m	minimum elong	371 May 07 j 07:24	16° \mathfrak{B} 10'22	0°23'16
retrograde	368 Nov 19 j 20:19	27° \mathcal{Z} 45'56		max. Earth dist.	371 May 07 j 08:13	16° \mathfrak{B} 12'56	1.73586 AU
asc. node	368 Nov 29 j 08:01	25° \mathcal{Z} 55'20		asc. node	371 May 17 j 03:22	28° \mathfrak{B} 14'46	
evening set	368 Dec 04 j 05:42	23° \mathcal{Z} 38'30			371 May 18 j 13:39	0° Π	
inferior conj	368 Dec 10 j 09:42	20° \mathcal{Z} 00'39	2°49'39		371 Jun 11 j 23:56	0° \mathfrak{G}	
minimum elong	368 Dec 10 j 03:34	20° \mathcal{Z} 10'04	2°47'45	evening rise	371 Jun 12 j 08:13	0° \mathfrak{G} 25'26	

	371 Jul 06 j 10:05	0°♈			373 Dec 07 j 12:16	0°♍		
	371 Jul 30 j 20:48	0°♍			374 Jan 03 j 18:51	0°♈		
	371 Aug 24 j 09:28	0°♊			374 Jan 29 j 11:01	0°♈		
desc. node	371 Sep 05 j 16:48	14°♊59'18		desc. node	374 Feb 20 j 11:53	26°♈19'27		
	371 Sep 18 j 01:51	0°♍			374 Feb 23 j 13:15	0°♍		
	371 Oct 13 j 00:32	0°♈			374 Mar 20 j 09:40	0°♈		
	371 Nov 07 j 11:45	0°♈			374 Apr 14 j 03:24	0°♍		
	371 Dec 04 j 06:24	0°♍			374 May 08 j 19:24	0°♈		
evening max el	371 Dec 12 j 08:40	8°♍28'28	47°13'48		374 Jun 02 j 09:21	0°♊		
asc. node	371 Dec 27 j 19:56	23°♍19'10		morning set	374 Jun 07 j 01:02	5°♊41'40		
	372 Jan 04 j 20:56	0°♈		asc. node	374 Jun 13 j 15:07	13°♊45'50		
greatest brilliancy	372 Jan 18 j 13:16	8°♈43'07	-4.6m		374 Jun 26 j 20:21	0°♍		
retrograde	372 Feb 01 j 08:08	12°♈14'38		max. Earth dist.	374 Jul 10 j 00:24	16°♍13'36	1.73187 AU	
evening set	372 Feb 19 j 06:20	5°♈58'50						
inferior conj	372 Feb 22 j 09:45	4°♈00'52	8°39'37	superior conj	374 Jul 13 j 07:38	20°♍18'10	1°02'38	
minimum elong	372 Feb 22 j 10:47	3°♈59'16	8°39'36	minimum elong	374 Jul 12 j 22:57	19°♍51'21	1°02'20	
min. Earth dist.	372 Feb 21 j 19:45	4°♈22'59	0.28135 AU		374 Jul 21 j 03:53	0°♈		
morning rise	372 Feb 25 j 15:26	1°♈59'54			374 Aug 14 j 08:29	0°♍		
	372 Feb 29 j 02:46	30°♍		evening rise	374 Aug 18 j 11:33	5°♍07'45		
direct	372 Mar 14 j 08:32	25°♍57'25			374 Sep 07 j 11:31	0°♊		
greatest brilliancy	372 Mar 25 j 11:49	28°♍13'11	-4.5m		374 Oct 01 j 14:33	0°♍		
	372 Mar 29 j 12:50	0°♈		desc. node	374 Oct 03 j 04:49	1°♍58'54		
desc. node	372 Apr 17 j 09:31	12°♈48'28			374 Oct 25 j 18:45	0°♈		
morning max el	372 May 02 j 10:03	26°♈17'37	45°53'18		374 Nov 19 j 01:32	0°♈		
	372 May 06 j 05:36	0°♍			374 Dec 13 j 14:04	0°♍		
	372 Jun 03 j 20:02	0°♈			375 Jan 07 j 15:43	0°♈		
	372 Jun 30 j 10:07	0°♊		asc. node	375 Jan 24 j 07:43	19°♈15'06		
	372 Jul 25 j 23:47	0°♍			375 Feb 02 j 23:15	0°♍		
asc. node	372 Aug 08 j 12:45	16°♍14'19		evening max el	375 Feb 21 j 17:42	19°♍38'54	46°04'56	
	372 Aug 19 j 20:49	0°♈			375 Mar 04 j 17:15	0°♈		
	372 Sep 13 j 05:43	0°♍		greatest brilliancy	375 Mar 28 j 09:42	16°♈58'40	-4.5m	
	372 Oct 07 j 06:41	0°♊		retrograde	375 Apr 12 j 02:03	20°♈46'40		
morning set	372 Oct 27 j 11:09	25°♊21'55		evening set	375 Apr 27 j 15:57	16°♈04'35		
	372 Oct 31 j 03:32	0°♍		inferior conj	375 May 03 j 12:20	12°♈30'59	2°50'51	
	372 Nov 23 j 23:11	0°♈		minimum elong	375 May 03 j 18:14	12°♈21'40	2°49'14	
desc. node	372 Nov 28 j 02:24	5°♈12'16		min. Earth dist.	375 May 03 j 16:29	12°♈24'25	0.28949 AU	
				morning rise	375 May 09 j 20:41	8°♈40'55		
superior conj	372 Dec 07 j 15:46	17°♈14'02	0°-22'-30	desc. node	375 May 15 j 21:15	5°♈53'41		
minimum elong	372 Dec 07 j 09:49	16°♈55'16	0°22'13	direct	375 May 25 j 03:01	4°♈12'59		
max. Earth dist.	372 Dec 09 j 18:42	19°♈54'16	1.71077 AU	greatest brilliancy	375 Jun 07 j 08:03	7°♈16'19	-4.5m	
	372 Dec 17 j 19:21	0°♈			375 Jul 08 j 16:18	0°♊		
	373 Jan 10 j 17:08	0°♍		morning max el	375 Jul 12 j 21:32	3°♊57'51	45°48'13	
evening rise	373 Jan 18 j 06:25	9°♍27'11			375 Aug 07 j 04:39	0°♍		
	373 Feb 03 j 17:43	0°♈			375 Sep 02 j 17:34	0°♈		
	373 Feb 27 j 22:51	0°♍		asc. node	375 Sep 06 j 00:44	3°♈51'33		
asc. node	373 Mar 21 j 05:41	26°♍05'54			375 Sep 27 j 22:12	0°♍		
	373 Mar 24 j 10:36	0°♈			375 Oct 22 j 09:10	0°♊		
	373 Apr 18 j 07:26	0°♊			375 Nov 15 j 11:04	0°♍		
	373 May 13 j 16:58	0°♍			375 Dec 09 j 09:28	0°♈		
	373 Jun 08 j 22:55	0°♈		desc. node	375 Dec 26 j 14:11	21°♈34'22		
	373 Jul 06 j 22:28	0°♍			376 Jan 02 j 07:30	0°♈		
desc. node	373 Jul 10 j 19:00	3°♍52'39		morning set	376 Jan 13 j 12:24	14°♈02'15		
evening max el	373 Jul 16 j 11:02	9°♍25'00	45°52'07		376 Jan 26 j 06:42	0°♍		
	373 Aug 09 j 22:14	0°♊			376 Feb 19 j 07:58	0°♈		
greatest brilliancy	373 Aug 23 j 22:27	7°♊32'24	-4.6m					
retrograde	373 Sep 03 j 13:19	9°♊33'42		superior conj	376 Feb 23 j 06:07	4°♈52'45	-1°-25'-23	
evening set	373 Sep 20 j 17:28	4°♊00'38		minimum elong	376 Feb 23 j 07:22	4°♈56'35	1°25'24	
inferior conj	373 Sep 24 j 09:09	1°♊48'58	-7°-48'-17	max. Earth dist.	376 Feb 27 j 07:54	9°♈56'28	1.72339 AU	
minimum elong	373 Sep 24 j 18:11	1°♊35'11	7°46'57		376 Mar 14 j 12:09	0°♍		
min. Earth dist.	373 Sep 25 j 05:16	1°♊18'17	0.27324 AU	evening rise	376 Apr 02 j 03:18	22°♍59'53		
	373 Sep 27 j 09:12	30°♍			376 Apr 07 j 19:51	0°♈		
morning rise	373 Sep 28 j 18:36	29°♍11'15		asc. node	376 Apr 17 j 17:34	12°♈09'48		
direct	373 Oct 15 j 06:53	23°♍56'34			376 May 02 j 07:23	0°♊		
greatest brilliancy	373 Oct 29 j 00:23	27°♍25'09	-4.7m		376 May 26 j 22:58	0°♍		
asc. node	373 Oct 31 j 22:13	28°♍55'00			376 Jun 20 j 19:36	0°♈		
	373 Nov 02 j 19:27	0°♊			376 Jul 15 j 23:47	0°♍		
morning max el	373 Dec 05 j 02:39	27°♊31'40	46°56'01	desc. node	376 Aug 07 j 06:53	26°♍04'30		

	376 Aug 10 j 16:34	0°♄			379 Mar 30 j 05:16	0°♅	
	376 Sep 06 j 09:01	0°♌			379 Apr 23 j 14:26	0°♈	
evening max el	376 Sep 27 j 20:19	22°♌30'48	47°05'00				
	376 Oct 05 j 13:52	0°♏		superior conj	379 May 04 j 20:12	13°♏48'47	0°-26'-33
greatest brilliancy	376 Nov 05 j 19:29	22°♏45'45	-4.7m	minimum elong	379 May 05 j 01:32	14°♏05'09	0°26'18
retrograde	376 Nov 17 j 08:19	25°♏15'43		max. Earth dist.	379 May 05 j 06:53	14°♏21'34	1.73570 AU
asc. node	376 Nov 28 j 10:03	22°♏46'05		asc. node	379 May 16 j 05:20	27°♏47'24	
evening set	376 Dec 01 j 17:05	21°♏09'34			379 May 18 j 00:33	0°♐	
inferior conj	376 Dec 07 j 21:54	17°♏31'22	2°26'12	evening rise	379 Jun 10 j 03:22	28°♐23'13	
minimum elong	376 Dec 07 j 16:32	17°♏39'35	2°24'31		379 Jun 11 j 10:54	0°♑	
min. Earth dist.	376 Dec 07 j 09:45	17°♏49'59	0.26430 AU		379 Jul 05 j 21:15	0°♒	
morning rise	376 Dec 13 j 16:14	14°♏07'48			379 Jul 30 j 08:17	0°♓	
direct	376 Dec 28 j 04:33	9°♏55'15			379 Aug 23 j 21:26	0°♈	
greatest brilliancy	377 Jan 08 j 13:17	12°♏19'38	-4.7m	desc. node	379 Sep 04 j 19:00	14°♈28'42	
	377 Feb 03 j 08:28	0°♉			379 Sep 17 j 14:30	0°♌	
morning max el	377 Feb 16 j 04:58	12°♉06'12	46°35'05		379 Oct 12 j 14:15	0°♍	
	377 Mar 05 j 11:05	0°♊			379 Nov 07 j 03:23	0°♎	
desc. node	377 Mar 19 j 23:54	15°♊56'28			379 Dec 04 j 02:30	0°♏	
	377 Apr 01 j 10:45	0°♋		evening max el	379 Dec 10 j 00:51	6°♊10'26	47°15'07
	377 Apr 27 j 09:05	0°♌		asc. node	379 Dec 26 j 21:59	22°♊14'49	
	377 May 22 j 18:51	0°♍			380 Jan 05 j 15:21	0°♋	
	377 Jun 16 j 20:00	0°♎		greatest brilliancy	380 Jan 16 j 05:46	6°♋25'00	-4.6m
asc. node	377 Jul 11 j 02:59	29°♎28'17		retrograde	380 Jan 30 j 00:04	9°♋55'16	
	377 Jul 11 j 13:22	0°♏		evening set	380 Feb 16 j 21:04	3°♋40'18	
	377 Aug 04 j 23:17	0°♐		min. Earth dist.	380 Feb 19 j 09:20	2°♋06'14	0.28079 AU
morning set	377 Aug 14 j 01:29	11°♐15'28		inferior conj	380 Feb 20 j 00:42	1°♋41'59	8°40'46
	377 Aug 29 j 02:58	0°♑		minimum elong	380 Feb 20 j 00:55	1°♋41'38	8°40'46
max. Earth dist.	377 Sep 17 j 15:46	24°♑25'19	1.71692 AU		380 Feb 22 j 18:01	30°♌	
				morning rise	380 Feb 23 j 05:02	29°♌43'12	
superior conj	377 Sep 20 j 11:50	27°♑58'35	1°16'40	direct	380 Mar 11 j 23:24	23°♌39'41	
minimum elong	377 Sep 20 j 19:42	28°♑23'12	1°16'30	greatest brilliancy	380 Mar 22 j 23:26	25°♌52'57	-4.5m
	377 Sep 22 j 02:35	0°♍			380 Mar 31 j 08:17	0°♎	
	377 Oct 16 j 00:21	0°♌		desc. node	380 Apr 16 j 11:30	11°♎45'55	
evening rise	377 Oct 30 j 08:42	18°♌00'58		morning max el	380 Apr 30 j 01:38	24°♎04'35	45°54'15
desc. node	377 Oct 30 j 16:42	18°♌26'02			380 May 06 j 02:50	0°♏	
	377 Nov 08 j 21:54	0°♍			380 Jun 03 j 11:33	0°♈	
	377 Dec 02 j 20:20	0°♎			380 Jun 29 j 23:25	0°♐	
	377 Dec 26 j 21:01	0°♏			380 Jul 25 j 12:01	0°♑	
	378 Jan 20 j 02:29	0°♋		asc. node	380 Aug 07 j 14:53	15°♑44'49	
	378 Feb 13 j 17:05	0°♌			380 Aug 19 j 08:30	0°♒	
asc. node	378 Feb 20 j 19:48	8°♌32'47			380 Sep 12 j 17:07	0°♓	
	378 Mar 10 j 23:32	0°♍			380 Oct 06 j 17:57	0°♈	
	378 Apr 06 j 10:33	0°♎		morning set	380 Oct 24 j 23:39	22°♈54'57	
evening max el	378 May 03 j 06:36	27°♎47'19	45°19'29		380 Oct 30 j 14:45	0°♌	
	378 May 05 j 14:32	0°♏			380 Nov 23 j 10:23	0°♍	
greatest brilliancy	378 Jun 07 j 06:51	24°♏11'11	-4.5m	desc. node	380 Nov 27 j 04:27	4°♍43'30	
desc. node	378 Jun 12 j 09:16	26°♏04'56					
retrograde	378 Jun 20 j 19:21	27°♏22'38		superior conj	380 Dec 05 j 01:30	14°♍38'23	0°-18'-36
evening set	378 Jul 06 j 17:40	22°♏33'18		minimum elong	380 Dec 04 j 20:32	14°♍22'44	0°18'24
inferior conj	378 Jul 12 j 05:13	19°♏16'31	-6°-16'-41	max. Earth dist.	380 Dec 07 j 03:08	17°♍14'31	1.71061 AU
minimum elong	378 Jul 11 j 19:12	19°♏32'01	6°14'40		380 Dec 17 j 06:34	0°♎	
min. Earth dist.	378 Jul 12 j 08:40	19°♏11'11	0.28791 AU		381 Jan 10 j 04:23	0°♏	
morning rise	378 Jul 16 j 20:27	16°♏27'46		evening rise	381 Jan 15 j 17:08	6°♏55'28	
direct	378 Aug 02 j 19:13	11°♏01'22			381 Feb 03 j 05:01	0°♋	
greatest brilliancy	378 Aug 17 j 07:23	14°♏42'20	-4.5m		381 Feb 27 j 10:15	0°♌	
	378 Sep 08 j 06:29	0°♐		asc. node	381 Mar 20 j 07:43	25°♌36'38	
morning max el	378 Sep 21 j 15:01	12°♐28'09	46°24'08		381 Mar 23 j 22:17	0°♍	
asc. node	378 Oct 03 j 12:31	24°♐45'00			381 Apr 17 j 19:38	0°♎	
	378 Oct 08 j 09:08	0°♑			381 May 13 j 06:12	0°♏	
	378 Nov 03 j 16:31	0°♒			381 Jun 08 j 14:16	0°♐	
	378 Nov 28 j 16:20	0°♓			381 Jul 06 j 19:06	0°♑	
	378 Dec 23 j 03:19	0°♈		desc. node	381 Jul 09 j 21:08	3°♑04'03	
	379 Jan 16 j 09:43	0°♉		evening max el	381 Jul 14 j 00:50	7°♑06'20	45°49'45
desc. node	379 Jan 23 j 02:07	8°♉16'25			381 Aug 11 j 02:09	0°♊	
	379 Feb 09 j 15:16	0°♊		greatest brilliancy	381 Aug 21 j 11:17	5°♊10'32	-4.6m
	379 Mar 05 j 21:33	0°♋		retrograde	381 Sep 01 j 01:31	7°♊11'14	
morning set	379 Mar 28 j 14:06	27°♋59'22		evening set	381 Sep 18 j 09:29	1°♊34'04	

	381 Sep 21 j 00:18	30° \mathbb{R} \mathbb{M}		max. Earth dist.	384 Feb 24 j 20:33	7° \mathbb{X} 32'29	1.72279 AU
inferior conj	381 Sep 21 j 22:29	29° \mathbb{M} 26'07	-7°-58'-23		384 Mar 13 j 23:08	0° \mathbb{Y}	
minimum elong	381 Sep 22 j 06:59	29° \mathbb{M} 13'07	7°57'14	evening rise	384 Mar 30 j 19:01	20° \mathbb{Y} 46'36	
min. Earth dist.	381 Sep 22 j 18:50	28° \mathbb{M} 54'59	0.27387 AU		384 Apr 07 j 06:52	0° \mathbb{X}	
morning rise	381 Sep 26 j 04:11	26° \mathbb{M} 53'23		asc. node	384 Apr 16 j 19:34	11° \mathbb{X} 42'05	
direct	381 Oct 12 j 20:42	21° \mathbb{M} 32'45			384 May 01 j 18:32	0° \mathbb{II}	
greatest brilliancy	381 Oct 26 j 15:16	25° \mathbb{M} 01'41	-4.7m		384 May 26 j 10:26	0° \mathbb{S}	
asc. node	381 Oct 31 j 00:10	27° \mathbb{M} 21'37			384 Jun 20 j 07:36	0° \mathbb{Q}	
	381 Nov 04 j 04:06	0° \mathbb{L}			384 Jul 15 j 12:44	0° \mathbb{M}	
morning max el	381 Dec 02 j 15:34	25° \mathbb{L} 03'56	46°55'51	desc. node	384 Aug 06 j 09:01	25° \mathbb{M} 29'19	
	381 Dec 07 j 09:43	0° \mathbb{L}			384 Aug 10 j 07:11	0° \mathbb{L}	
	382 Jan 03 j 10:58	0° \mathbb{X}			384 Sep 06 j 03:02	0° \mathbb{L}	
	382 Jan 29 j 00:58	0° \mathbb{S}		evening max el	384 Sep 25 j 09:06	20° \mathbb{L} 04'32	47°03'02
desc. node	382 Feb 19 j 14:04	25° \mathbb{S} 47'12			384 Oct 05 j 18:13	0° \mathbb{X}	
	382 Feb 23 j 02:03	0° \mathbb{X}		greatest brilliancy	384 Nov 03 j 09:20	20° \mathbb{X} 17'06	-4.7m
	382 Mar 19 j 21:45	0° \mathbb{X}		retrograde	384 Nov 14 j 20:48	22° \mathbb{X} 45'50	
	382 Apr 13 j 14:59	0° \mathbb{Y}		asc. node	384 Nov 27 j 12:12	19° \mathbb{X} 32'10	
	382 May 08 j 06:39	0° \mathbb{X}		evening set	384 Nov 29 j 04:48	18° \mathbb{X} 40'20	
	382 Jun 01 j 20:23	0° \mathbb{II}		inferior conj	384 Dec 05 j 10:10	15° \mathbb{X} 02'05	2°02'24
morning set	382 Jun 04 j 19:24	3° \mathbb{II} 37'18		minimum elong	384 Dec 05 j 05:37	15° \mathbb{X} 09'02	2°00'58
asc. node	382 Jun 12 j 17:15	13° \mathbb{II} 18'46		min. Earth dist.	384 Dec 04 j 23:30	15° \mathbb{X} 18'22	0.26410 AU
	382 Jun 26 j 07:18	0° \mathbb{S}		morning rise	384 Dec 11 j 06:36	11° \mathbb{X} 36'04	
max. Earth dist.	382 Jul 07 j 19:00	14° \mathbb{S} 09'15	1.73227 AU	direct	384 Dec 25 j 16:36	7° \mathbb{X} 25'52	
				greatest brilliancy	385 Jan 06 j 04:15	9° \mathbb{X} 53'41	-4.7m
superior conj	382 Jul 11 j 02:01	18° \mathbb{S} 13'01	1°00'28		385 Feb 03 j 14:22	0° \mathbb{S}	
minimum elong	382 Jul 10 j 17:18	17° \mathbb{S} 46'08	1°00'11	morning max el	385 Feb 13 j 18:59	9° \mathbb{S} 43'51	46°36'40
	382 Jul 20 j 14:50	0° \mathbb{Q}			385 Mar 05 j 05:14	0° \mathbb{X}	
	382 Aug 13 j 19:32	0° \mathbb{M}		desc. node	385 Mar 19 j 01:51	15° \mathbb{X} 17'22	
evening rise	382 Aug 16 j 04:22	2° \mathbb{M} 56'25			385 Apr 01 j 01:21	0° \mathbb{X}	
	382 Sep 06 j 22:48	0° \mathbb{L}			385 Apr 26 j 22:00	0° \mathbb{Y}	
	382 Oct 01 j 02:08	0° \mathbb{L}			385 May 22 j 06:50	0° \mathbb{X}	
desc. node	382 Oct 02 j 06:48	1° \mathbb{L} 29'03			385 Jun 16 j 07:26	0° \mathbb{II}	
	382 Oct 25 j 06:41	0° \mathbb{X}		asc. node	385 Jul 10 j 05:08	29° \mathbb{II} 00'55	
	382 Nov 18 j 13:54	0° \mathbb{S}			385 Jul 11 j 00:29	0° \mathbb{S}	
	382 Dec 13 j 03:05	0° \mathbb{X}			385 Aug 04 j 10:15	0° \mathbb{Q}	
	383 Jan 07 j 05:59	0° \mathbb{X}		morning set	385 Aug 11 j 18:07	9° \mathbb{Q} 04'15	
asc. node	383 Jan 23 j 09:54	18° \mathbb{X} 36'37			385 Aug 28 j 13:55	0° \mathbb{M}	
	383 Feb 02 j 16:28	0° \mathbb{Y}		max. Earth dist.	385 Sep 15 j 05:38	22° \mathbb{M} 04'04	1.71739 AU
evening max el	383 Feb 19 j 08:00	17° \mathbb{Y} 21'36	46°07'20				
	383 Mar 04 j 21:29	0° \mathbb{X}		superior conj	385 Sep 18 j 02:18	25° \mathbb{M} 39'07	1°18'06
greatest brilliancy	383 Mar 26 j 02:18	14° \mathbb{X} 49'01	-4.5m	minimum elong	385 Sep 18 j 09:33	26° \mathbb{M} 01'47	1°17'57
retrograde	383 Apr 09 j 18:20	18° \mathbb{X} 37'41			385 Sep 21 j 13:34	0° \mathbb{L}	
evening set	383 Apr 25 j 10:34	13° \mathbb{X} 52'36			385 Oct 15 j 11:26	0° \mathbb{L}	
inferior conj	383 May 01 j 05:00	10° \mathbb{X} 21'53	3°09'18	evening rise	385 Oct 27 j 19:41	15° \mathbb{L} 29'47	
minimum elong	383 May 01 j 11:27	10° \mathbb{X} 11'42	3°07'32	desc. node	385 Oct 29 j 18:43	17° \mathbb{L} 57'22	
min. Earth dist.	383 May 01 j 09:36	10° \mathbb{X} 14'39	0.28943 AU		385 Nov 08 j 09:07	0° \mathbb{X}	
morning rise	383 May 07 j 12:25	6° \mathbb{X} 32'46			385 Dec 02 j 07:42	0° \mathbb{S}	
desc. node	383 May 14 j 23:19	3° \mathbb{X} 16'01			385 Dec 26 j 08:36	0° \mathbb{X}	
direct	383 May 22 j 18:46	2° \mathbb{X} 03'50			386 Jan 19 j 14:23	0° \mathbb{X}	
greatest brilliancy	383 Jun 04 j 23:30	5° \mathbb{X} 06'11	-4.5m		386 Feb 13 j 05:30	0° \mathbb{Y}	
	383 Jul 08 j 16:10	0° \mathbb{II}		asc. node	386 Feb 19 j 21:49	8° \mathbb{Y} 00'58	
morning max el	383 Jul 10 j 12:53	1° \mathbb{II} 46'00	45°47'40		386 Mar 10 j 13:02	0° \mathbb{X}	
	383 Aug 06 j 20:49	0° \mathbb{S}			386 Apr 06 j 02:31	0° \mathbb{II}	
	383 Sep 02 j 07:12	0° \mathbb{Q}		evening max el	386 Apr 30 j 23:09	25° \mathbb{II} 38'40	45°19'56
asc. node	383 Sep 05 j 02:50	3° \mathbb{Q} 18'09			386 May 05 j 14:23	0° \mathbb{S}	
	383 Sep 27 j 10:43	0° \mathbb{M}		greatest brilliancy	386 Jun 04 j 19:58	21° \mathbb{S} 58'21	-4.5m
	383 Oct 21 j 21:07	0° \mathbb{L}		desc. node	386 Jun 11 j 11:22	24° \mathbb{S} 18'18	
	383 Nov 14 j 22:44	0° \mathbb{L}		retrograde	386 Jun 18 j 11:27	25° \mathbb{S} 12'28	
	383 Dec 08 j 20:58	0° \mathbb{X}		evening set	386 Jul 04 j 06:48	20° \mathbb{S} 26'41	
desc. node	383 Dec 25 j 16:20	21° \mathbb{X} 05'30		inferior conj	386 Jul 09 j 21:03	17° \mathbb{S} 05'45	-6°-2'-19
	384 Jan 01 j 18:50	0° \mathbb{S}		minimum elong	386 Jul 09 j 11:04	17° \mathbb{S} 21'13	6°00'14
morning set	384 Jan 10 j 22:26	11° \mathbb{S} 28'09		min. Earth dist.	386 Jul 09 j 23:45	17° \mathbb{S} 01'33	0.28814 AU
	384 Jan 25 j 17:52	0° \mathbb{X}		morning rise	386 Jul 14 j 15:07	14° \mathbb{S} 12'55	
	384 Feb 18 j 19:01	0° \mathbb{X}		direct	386 Jul 31 j 12:00	8° \mathbb{S} 50'23	
				greatest brilliancy	386 Aug 14 j 22:41	12° \mathbb{S} 30'10	-4.5m
superior conj	384 Feb 20 j 19:23	2° \mathbb{X} 30'28	-1°-25'-31		386 Sep 08 j 10:55	0° \mathbb{Q}	
minimum elong	384 Feb 20 j 19:42	2° \mathbb{X} 31'25	1°25'33	morning max el	386 Sep 19 j 06:58	10° \mathbb{Q} 14'15	46°22'31

asc. node	386 Oct 02 j 14:31	24°♏01'03		asc. node	389 Mar 19 j 09:45	25°♑08'08	
	386 Oct 08 j 02:30	0°♎			389 Mar 23 j 09:42	0°♎	
	386 Nov 03 j 06:51	0°♏			389 Apr 17 j 07:38	0°♐	
	386 Nov 28 j 05:19	0°♎			389 May 12 j 19:16	0°♑	
	386 Dec 22 j 15:32	0°♏			389 Jun 08 j 05:30	0°♏	
	387 Jan 15 j 21:27	0°♑			389 Jul 06 j 15:59	0°♎	
desc. node	387 Jan 22 j 04:13	7°♑46'53		desc. node	389 Jul 08 j 23:15	2°♎15'44	
	387 Feb 09 j 02:40	0°♏		evening max el	389 Jul 11 j 13:45	4°♎46'46	45°47'32
	387 Mar 05 j 08:42	0°♏			389 Aug 12 j 16:51	0°♏	
morning set	387 Mar 26 j 05:45	25°♏45'58		greatest brilliancy	389 Aug 18 j 23:51	2°♏49'51	-4.6m
	387 Mar 29 j 16:12	0°♑		retrograde	389 Aug 29 j 13:42	4°♏50'38	
	387 Apr 23 j 01:12	0°♎			389 Sep 14 j 13:58	30°♎	
				evening set	389 Sep 16 j 01:23	29°♎09'20	
superior conj	387 May 02 j 13:45	11°♏42'12	0°-29'-35	inferior conj	389 Sep 19 j 11:58	27°♎04'57	-8°-7'-22
minimum elong	387 May 02 j 19:38	12°♏00'17	0°29'19	minimum elong	389 Sep 19 j 19:52	26°♎52'51	8°06'24
max. Earth dist.	387 May 03 j 06:12	12°♏32'45	1.73549 AU	min. Earth dist.	389 Sep 20 j 08:37	26°♎33'21	0.27454 AU
asc. node	387 May 15 j 07:30	27°♏21'10		morning rise	389 Sep 23 j 14:01	24°♎37'14	
	387 May 17 j 11:15	0°♐		direct	389 Oct 10 j 10:21	19°♎10'22	
evening rise	387 Jun 07 j 22:33	26°♐21'40		greatest brilliancy	389 Oct 24 j 07:17	22°♎41'05	-4.6m
	387 Jun 10 j 21:41	0°♑		asc. node	389 Oct 30 j 02:23	25°♎53'01	
	387 Jul 05 j 08:14	0°♏			389 Nov 05 j 03:01	0°♏	
	387 Jul 29 j 19:37	0°♎		morning max el	389 Nov 30 j 04:30	22°♏37'02	46°55'28
	387 Aug 23 j 09:17	0°♏			389 Dec 07 j 06:11	0°♎	
desc. node	387 Sep 03 j 20:56	13°♏57'37			390 Jan 03 j 02:38	0°♏	
	387 Sep 17 j 03:05	0°♎			390 Jan 28 j 14:36	0°♑	
	387 Oct 12 j 03:58	0°♏		desc. node	390 Feb 18 j 16:03	25°♑15'13	
	387 Nov 06 j 19:07	0°♑			390 Feb 22 j 14:32	0°♏	
	387 Dec 03 j 23:01	0°♏			390 Mar 19 j 09:29	0°♏	
evening max el	387 Dec 07 j 16:46	3°♏52'05	47°16'28		390 Apr 13 j 02:13	0°♑	
asc. node	387 Dec 26 j 00:08	21°♏09'43			390 May 07 j 17:33	0°♎	
	388 Jan 06 j 15:58	0°♏			390 Jun 01 j 07:07	0°♐	
greatest brilliancy	388 Jan 13 j 23:02	4°♏08'21	-4.6m	morning set	390 Jun 02 j 13:40	1°♐33'30	
retrograde	388 Jan 27 j 15:35	7°♏36'05		asc. node	390 Jun 11 j 19:22	12°♐52'35	
evening set	388 Feb 14 j 11:20	1°♏22'53			390 Jun 25 j 17:56	0°♑	
	388 Feb 16 j 16:26	30°♎		max. Earth dist.	390 Jul 05 j 14:26	12°♑08'25	1.73265 AU
min. Earth dist.	388 Feb 16 j 23:02	29°♏49'36	0.28021 AU				
inferior conj	388 Feb 17 j 15:33	29°♏23'29	8°41'05	superior conj	390 Jul 08 j 20:27	16°♑09'03	0°58'14
minimum elong	388 Feb 17 j 14:57	29°♏24'26	8°41'06	minimum elong	390 Jul 08 j 11:47	15°♑42'16	0°57'56
morning rise	388 Feb 20 j 18:51	27°♏26'14			390 Jul 20 j 01:29	0°♏	
direct	388 Mar 09 j 14:04	21°♏22'27			390 Aug 13 j 06:17	0°♎	
greatest brilliancy	388 Mar 20 j 11:00	23°♏32'58	-4.5m	evening rise	390 Aug 13 j 21:28	0°♎47'09	
	388 Apr 01 j 13:47	0°♏			390 Sep 06 j 09:45	0°♏	
desc. node	388 Apr 15 j 13:34	10°♏45'41			390 Sep 30 j 13:22	0°♎	
morning max el	388 Apr 27 j 16:26	21°♏50'14	45°55'13	desc. node	390 Oct 01 j 08:55	1°♎00'40	
	388 May 05 j 23:04	0°♑			390 Oct 24 j 18:18	0°♏	
	388 Jun 03 j 02:34	0°♎			390 Nov 18 j 02:00	0°♑	
	388 Jun 29 j 12:21	0°♐			390 Dec 12 j 15:55	0°♏	
	388 Jul 24 j 23:56	0°♑			391 Jan 06 j 20:11	0°♏	
asc. node	388 Aug 06 j 16:58	15°♑16'06		asc. node	391 Jan 22 j 11:55	17°♏57'52	
	388 Aug 18 j 19:53	0°♏			391 Feb 02 j 09:51	0°♑	
	388 Sep 12 j 04:15	0°♎		evening max el	391 Feb 16 j 22:11	15°♑04'23	46°09'57
	388 Oct 06 j 04:58	0°♏			391 Mar 05 j 03:27	0°♎	
morning set	388 Oct 22 j 11:53	20°♏27'52		greatest brilliancy	391 Mar 23 j 18:04	12°♏38'38	-4.5m
	388 Oct 30 j 01:44	0°♎		retrograde	391 Apr 07 j 10:47	16°♏29'06	
	388 Nov 22 j 21:23	0°♏		evening set	391 Apr 23 j 05:06	11°♏40'33	
desc. node	388 Nov 26 j 06:38	4°♏15'44		inferior conj	391 Apr 28 j 21:30	8°♏12'59	3°27'27
				minimum elong	391 Apr 29 j 04:28	8°♏02'00	3°25'35
superior conj	388 Dec 02 j 10:52	12°♏02'13	0°-14'-39	min. Earth dist.	391 Apr 29 j 02:16	8°♏05'28	0.28936 AU
minimum elong	388 Dec 02 j 06:56	11°♏49'50	0°14'29	morning rise	391 May 05 j 03:51	4°♏25'18	
behind sun begin	388 Dec 01 j 18:20	11°♏10'11		desc. node	391 May 14 j 01:29	0°♏43'03	
behind sun end	388 Dec 02 j 19:32	12°♏29'29			391 May 18 j 07:51	30°♎	
max. Earth dist.	388 Dec 04 j 07:31	14°♏22'43	1.71045 AU	direct	391 May 20 j 10:26	29°♑54'48	
	388 Dec 16 j 17:35	0°♑			391 May 22 j 13:38	0°♎	
	389 Jan 09 j 15:23	0°♏		greatest brilliancy	391 Jun 02 j 15:23	2°♏57'11	-4.5m
evening rise	389 Jan 13 j 03:22	4°♏22'50		morning max el	391 Jul 08 j 04:56	29°♏36'41	45°47'11
	389 Feb 02 j 16:03	0°♏			391 Jul 08 j 14:41	0°♐	
	389 Feb 26 j 21:24	0°♑			391 Aug 06 j 12:24	0°♑	

	391 Sep 01 j 20:26	0°♌		evening max el	394 Apr 28 j 15:52	23°♊30'34	45°20'22
asc. node	391 Sep 04 j 04:46	2°♌45'24			394 May 05 j 15:21	0°♉	
	391 Sep 26 j 22:51	0°♍		greatest brilliancy	394 Jun 02 j 10:30	19°♉47'28	-4.5m
	391 Oct 21 j 08:43	0°♎		desc. node	394 Jun 10 j 13:26	22°♉27'59	
	391 Nov 14 j 10:03	0°♏		retrograde	394 Jun 16 j 03:13	23°♉02'33	
	391 Dec 08 j 08:06	0°♐		evening set	394 Jul 01 j 20:11	18°♉20'25	
desc. node	391 Dec 24 j 18:24	20°♐37'23		inferior conj	394 Jul 07 j 12:57	14°♉55'28	-5°-47'-32
	392 Jan 01 j 05:50	0°♑		minimum elong	394 Jul 07 j 03:04	15°♉10'49	5°45'23
morning set	392 Jan 08 j 08:18	8°♑54'15		min. Earth dist.	394 Jul 07 j 15:07	14°♉52'06	0.28833 AU
	392 Jan 25 j 04:46	0°♒		morning rise	394 Jul 12 j 09:46	11°♉58'27	
				direct	394 Jul 29 j 04:42	6°♉40'02	
superior conj	392 Feb 18 j 08:08	0°♈07'09	-1°-25'-31	greatest brilliancy	394 Aug 12 j 13:11	10°♉17'18	-4.5m
minimum elong	392 Feb 18 j 07:30	0°♈05'09	1°25'32		394 Sep 08 j 13:35	0°♌	
	392 Feb 18 j 05:50	0°♈		morning max el	394 Sep 16 j 21:56	7°♌58'19	46°20'50
max. Earth dist.	392 Feb 22 j 06:49	5°♈01'37	1.72223 AU	asc. node	394 Oct 01 j 16:44	23°♌18'32	
	392 Mar 13 j 09:55	0°♉			394 Oct 07 j 19:28	0°♍	
evening rise	392 Mar 28 j 10:10	18°♉32'17			394 Nov 02 j 20:59	0°♎	
	392 Apr 06 j 17:39	0°♊			394 Nov 27 j 18:09	0°♏	
asc. node	392 Apr 15 j 21:43	11°♊15'30			394 Dec 22 j 03:39	0°♐	
	392 May 01 j 05:27	0°♋			395 Jan 15 j 09:06	0°♑	
	392 May 25 j 21:40	0°♌		desc. node	395 Jan 21 j 06:13	7°♑17'19	
	392 Jun 19 j 19:26	0°♍			395 Feb 08 j 13:58	0°♒	
	392 Jul 15 j 01:34	0°♎			395 Mar 04 j 19:44	0°♈	
desc. node	392 Aug 05 j 10:59	24°♎54'02		morning set	395 Mar 23 j 21:35	23°♈33'22	
	392 Aug 09 j 21:46	0°♏			395 Mar 29 j 03:02	0°♉	
	392 Sep 05 j 21:13	0°♐			395 Apr 22 j 11:55	0°♊	
evening max el	392 Sep 22 j 22:56	17°♐41'58	47°01'09				
	392 Oct 06 j 00:04	0°♑		superior conj	395 Apr 30 j 07:21	9°♊35'53	0°-32'-34
greatest brilliancy	392 Oct 31 j 22:22	17°♑48'50	-4.7m	minimum elong	395 Apr 30 j 13:46	9°♊55'36	0°32'18
retrograde	392 Nov 12 j 09:43	20°♑17'11		max. Earth dist.	395 May 01 j 05:01	10°♊42'26	1.73528 AU
evening set	392 Nov 26 j 16:51	16°♑12'08		asc. node	395 May 14 j 09:37	26°♊54'46	
asc. node	392 Nov 26 j 14:15	16°♑15'36			395 May 16 j 21:58	0°♋	
inferior conj	392 Dec 02 j 22:27	12°♑33'54	1°38'31	evening rise	395 Jun 05 j 17:36	24°♋19'43	
minimum elong	392 Dec 02 j 18:45	12°♑39'32	1°37'19		395 Jun 10 j 08:28	0°♌	
min. Earth dist.	392 Dec 02 j 12:55	12°♑48'25	0.26391 AU		395 Jul 04 j 19:15	0°♍	
morning rise	392 Dec 08 j 20:51	9°♑05'50			395 Jul 29 j 06:59	0°♎	
direct	392 Dec 23 j 05:20	4°♑57'51			395 Aug 22 j 21:11	0°♏	
greatest brilliancy	393 Jan 03 j 18:20	7°♑27'53	-4.7m	desc. node	395 Sep 02 j 23:02	13°♏26'53	
	393 Feb 03 j 17:58	0°♒			395 Sep 16 j 15:46	0°♐	
morning max el	393 Feb 11 j 09:29	7°♒23'33	46°37'58		395 Oct 11 j 17:52	0°♑	
	393 Mar 04 j 22:42	0°♓			395 Nov 06 j 11:10	0°♒	
desc. node	393 Mar 18 j 03:56	14°♓39'37			395 Dec 03 j 20:20	0°♓	
	393 Mar 31 j 15:35	0°♈		evening max el	395 Dec 05 j 07:59	1°♓31'35	47°17'41
	393 Apr 26 j 10:41	0°♉		asc. node	395 Dec 25 j 02:10	20°♓02'29	
	393 May 21 j 18:37	0°♊			396 Jan 08 j 02:43	0°♈	
	393 Jun 15 j 18:40	0°♋		greatest brilliancy	396 Jan 11 j 17:05	1°♈52'23	-4.6m
asc. node	393 Jul 09 j 07:07	28°♋33'40		retrograde	396 Jan 25 j 06:43	5°♈16'45	
	393 Jul 10 j 11:23	0°♌			396 Feb 10 j 13:34	30°♉	
	393 Aug 03 j 21:01	0°♍		evening set	396 Feb 12 j 01:19	29°♉06'07	
morning set	393 Aug 09 j 10:40	6°♍53'29		min. Earth dist.	396 Feb 14 j 13:10	27°♉32'34	0.27957 AU
	393 Aug 28 j 00:41	0°♎		inferior conj	396 Feb 15 j 06:30	27°♉05'10	8°40'40
max. Earth dist.	393 Sep 12 j 17:23	19°♎36'41	1.71788 AU	minimum elong	396 Feb 15 j 05:03	27°♉07'26	8°40'38
				morning rise	396 Feb 18 j 09:04	25°♉08'53	
superior conj	393 Sep 15 j 16:54	23°♎20'34	1°19'24	direct	396 Mar 07 j 04:20	19°♉05'23	
minimum elong	393 Sep 15 j 23:29	23°♎41'10	1°19'17	greatest brilliancy	396 Mar 17 j 23:21	21°♉13'52	-4.5m
	393 Sep 21 j 00:25	0°♏			396 Apr 02 j 11:03	0°♊	
	393 Oct 14 j 22:23	0°♐		desc. node	396 Apr 14 j 15:45	9°♊47'18	
evening rise	393 Oct 25 j 06:48	12°♐59'31		morning max el	396 Apr 25 j 06:18	19°♊33'30	45°56'13
desc. node	393 Oct 28 j 20:54	17°♐29'39			396 May 05 j 18:39	0°♋	
	393 Nov 07 j 20:11	0°♑			396 Jun 02 j 17:25	0°♌	
	393 Dec 01 j 18:54	0°♒			396 Jun 29 j 01:18	0°♍	
	393 Dec 25 j 19:59	0°♓			396 Jul 24 j 11:56	0°♎	
	394 Jan 19 j 02:05	0°♈		asc. node	396 Aug 05 j 19:00	14°♎46'55	
	394 Feb 12 j 17:47	0°♉			396 Aug 18 j 07:22	0°♏	
asc. node	394 Feb 18 j 23:50	7°♉29'37			396 Sep 11 j 15:29	0°♐	
	394 Mar 10 j 02:29	0°♊			396 Oct 05 j 16:05	0°♑	
	394 Apr 05 j 18:39	0°♋		morning set	396 Oct 20 j 00:10	18°♑00'32	

	396 Oct 29 j 12:51	0°♌		retrograde	399 Apr 05 j 03:50	14°♏19'38	
	396 Nov 22 j 08:32	0°♏		evening set	399 Apr 20 j 23:47	9°♏27'30	
desc. node	396 Nov 25 j 08:38	3°♏46'58		inferior conj	399 Apr 26 j 14:01	6°♏03'08	3°45'22
				minimum elong	399 Apr 26 j 21:27	5°♏51'24	3°43'25
superior conj	396 Nov 29 j 20:18	9°♏25'49	0°-10'-40	min. Earth dist.	399 Apr 26 j 18:37	5°♏55'53	0.28924 AU
minimum elong	396 Nov 29 j 17:26	9°♏16'46	0°10'32	morning rise	399 May 02 j 19:12	2°♏17'22	
behind sun begin	396 Nov 28 j 20:46	8°♏11'46			399 May 07 j 11:05	30°♏	
behind sun end	396 Nov 30 j 14:05	10°♏21'45		desc. node	399 May 13 j 03:27	28°♏14'17	
max. Earth dist.	396 Dec 01 j 08:58	11°♏21'11	1.71035 AU	direct	399 May 18 j 02:31	27°♏44'59	
	396 Dec 16 j 04:46	0°♏			399 May 29 j 08:28	0°♏	
	397 Jan 09 j 02:35	0°♏		greatest brilliancy	399 May 31 j 06:57	0°♏47'14	-4.5m
evening rise	397 Jan 10 j 13:34	1°♏49'33		morning max el	399 Jul 05 j 21:41	27°♏28'33	45°46'46
	397 Feb 02 j 03:15	0°♏			399 Jul 08 j 12:34	0°♏	
	397 Feb 26 j 08:42	0°♏			399 Aug 06 j 03:59	0°♏	
asc. node	397 Mar 18 j 11:56	24°♏39'44			399 Sep 01 j 09:49	0°♏	
	397 Mar 22 j 21:16	0°♏		asc. node	399 Sep 03 j 06:59	2°♏12'50	
	397 Apr 16 j 19:46	0°♏			399 Sep 26 j 11:16	0°♏	
	397 May 12 j 08:32	0°♏			399 Oct 20 j 20:39	0°♏	
	397 Jun 07 j 21:06	0°♏			399 Nov 13 j 21:44	0°♏	
desc. node	397 Jul 06 j 13:55	0°♏			399 Dec 07 j 19:36	0°♏	
evening max el	397 Jul 08 j 01:13	1°♏25'34		desc. node	399 Dec 23 j 20:25	20°♏07'56	
	397 Jul 09 j 02:22	2°♏25'59	45°45'19		399 Dec 31 j 17:12	0°♏	
	397 Aug 15 j 06:37	0°♏		morning set	400 Jan 05 j 17:57	6°♏18'32	
greatest brilliancy	397 Aug 16 j 11:44	0°♏27'54	-4.5m		400 Jan 24 j 16:01	0°♏	
retrograde	397 Aug 27 j 02:20	2°♏29'50					
	397 Sep 07 j 09:54	30°♏		superior conj	400 Feb 15 j 20:34	27°♏41'38	-1°-25'-21
evening set	397 Sep 13 j 17:05	26°♏44'22		minimum elong	400 Feb 15 j 18:56	27°♏36'35	1°25'21
inferior conj	397 Sep 17 j 01:31	24°♏43'18	-8°-15'-22		400 Feb 17 j 17:01	0°♏	
minimum elong	397 Sep 17 j 08:46	24°♏32'13	8°14'35	max. Earth dist.	400 Feb 19 j 18:31	2°♏34'02	1.72170 AU
min. Earth dist.	397 Sep 17 j 22:18	24°♏11'31	0.27522 AU		400 Mar 12 j 21:03	0°♏	
morning rise	397 Sep 21 j 00:06	22°♏20'41		evening rise	400 Mar 26 j 01:14	16°♏16'31	
direct	397 Oct 08 j 00:10	16°♏47'24			400 Apr 06 j 04:49	0°♏	
greatest brilliancy	397 Oct 22 j 00:13	20°♏21'17	-4.6m	asc. node	400 Apr 14 j 23:48	10°♏47'33	
asc. node	397 Oct 29 j 04:26	24°♏26'31			400 Apr 30 j 16:45	0°♏	
	397 Nov 05 j 20:19	0°♏			400 May 25 j 09:15	0°♏	
morning max el	397 Nov 27 j 18:01	20°♏10'59	46°55'04		400 Jun 19 j 07:36	0°♏	
	397 Dec 07 j 02:17	0°♏			400 Jul 14 j 14:45	0°♏	
	398 Jan 02 j 18:18	0°♏		desc. node	400 Aug 04 j 13:06	24°♏18'11	
	398 Jan 28 j 04:22	0°♏			400 Aug 09 j 12:49	0°♏	
desc. node	398 Feb 17 j 18:07	24°♏42'48			400 Sep 05 j 16:13	0°♏	
	398 Feb 22 j 03:12	0°♏		evening max el	400 Sep 20 j 13:16	15°♏19'40	46°58'53
	398 Mar 18 j 21:26	0°♏			400 Oct 06 j 08:53	0°♏	
	398 Apr 12 j 13:41	0°♏		greatest brilliancy	400 Oct 29 j 11:22	15°♏18'54	-4.7m
	398 May 07 j 04:41	0°♏		retrograde	400 Nov 09 j 22:28	17°♏46'11	
morning set	398 May 31 j 08:12	29°♏29'54		evening set	400 Nov 24 j 04:56	13°♏41'37	
	398 May 31 j 18:03	0°♏		asc. node	400 Nov 25 j 16:16	12°♏53'04	
asc. node	398 Jun 10 j 21:21	12°♏25'22		inferior conj	400 Nov 30 j 10:27	10°♏03'24	1°14'04
	398 Jun 25 j 04:47	0°♏		minimum elong	400 Nov 30 j 07:39	10°♏07'40	1°13'09
max. Earth dist.	398 Jul 03 j 12:22	10°♏14'36	1.73306 AU	min. Earth dist.	400 Nov 30 j 02:02	10°♏16'13	0.26378 AU
				morning rise	400 Dec 06 j 10:37	6°♏33'25	
superior conj	398 Jul 06 j 15:06	14°♏05'02	0°55'56	direct	400 Dec 20 j 18:02	2°♏27'44	
minimum elong	398 Jul 06 j 06:30	13°♏38'29	0°55'37	greatest brilliancy	401 Jan 01 j 07:37	4°♏59'01	-4.7m
	398 Jul 19 j 12:22	0°♏			401 Feb 03 j 20:39	0°♏	
evening rise	398 Aug 11 j 14:48	28°♏37'45		morning max el	401 Feb 08 j 23:25	5°♏00'12	46°39'17
	398 Aug 12 j 17:19	0°♏			401 Mar 04 j 16:16	0°♏	
	398 Sep 05 j 21:02	0°♏		desc. node	401 Mar 17 j 06:08	14°♏01'23	
desc. node	398 Sep 30 j 11:02	0°♏31'14			401 Mar 31 j 06:04	0°♏	
	398 Sep 30 j 00:58	0°♏			401 Apr 25 j 23:38	0°♏	
	398 Oct 24 j 06:17	0°♏			401 May 21 j 06:41	0°♏	
	398 Nov 17 j 14:29	0°♏			401 Jun 15 j 06:11	0°♏	
	398 Dec 12 j 05:10	0°♏		asc. node	401 Jul 08 j 09:14	28°♏05'54	
	399 Jan 06 j 10:53	0°♏			401 Jul 09 j 22:35	0°♏	
asc. node	399 Jan 21 j 13:57	17°♏17'47			401 Aug 03 j 08:03	0°♏	
	399 Feb 02 j 04:02	0°♏		morning set	401 Aug 07 j 03:42	4°♏43'30	
evening max el	399 Feb 14 j 13:03	12°♏47'48	46°12'37		401 Aug 27 j 11:41	0°♏	
	399 Mar 05 j 12:23	0°♏		max. Earth dist.	401 Sep 10 j 04:54	17°♏08'07	1.71839 AU
greatest brilliancy	399 Mar 21 j 09:54	10°♏27'26	-4.5m				

superior conj	401 Sep 13 j 08:04	21° \cap 03'13	1°20'32	direct	404 Mar 04 j 17:58	16° \approx 46'49	
minimum elong	401 Sep 13 j 13:58	21° \cap 21'42	1°20'27	greatest brilliancy	404 Mar 15 j 12:49	18° \approx 54'44	-4.6m
	401 Sep 20 j 11:30	0° $\underline{\Delta}$			404 Apr 03 j 03:18	0° H	
	401 Oct 14 j 09:36	0° \cap		desc. node	404 Apr 13 j 17:43	8° H 49'01	
evening rise	401 Oct 22 j 18:12	10° \cap 29'18		morning max el	404 Apr 22 j 19:39	17° H 14'39	45°57'20
desc. node	401 Oct 27 j 22:53	17° \cap 00'25			404 May 05 j 13:54	0° γ	
	401 Nov 07 j 07:33	0° A			404 Jun 02 j 08:13	0° B	
	401 Dec 01 j 06:27	0° C			404 Jun 28 j 14:14	0° \cap	
	401 Dec 25 j 07:45	0° \approx			404 Jul 23 j 23:55	0° D	
	402 Jan 18 j 14:12	0° H		asc. node	404 Aug 04 j 21:07	14° D 17'57	
	402 Feb 12 j 06:29	0° γ			404 Aug 17 j 18:52	0° \cap	
asc. node	402 Feb 18 j 02:01	6° γ 57'33		greatest brilliancy	404 Sep 07 j 23:30	26° \cap 06'36	-3.9m
	402 Mar 09 j 16:25	0° B			404 Sep 11 j 02:43	0° \cap	
	402 Apr 05 j 11:27	0° \cap			404 Oct 05 j 03:11	0° $\underline{\Delta}$	
evening max el	402 Apr 26 j 07:50	21° \cap 19'36	45°20'53	morning set	404 Oct 17 j 12:55	15° $\underline{\Delta}$ 34'52	
	402 May 05 j 18:08	0° D			404 Oct 28 j 23:53	0° \cap	
greatest brilliancy	402 May 31 j 01:50	17° D 36'36	-4.5m		404 Nov 21 j 19:35	0° A	
desc. node	402 Jun 09 j 15:28	20° D 32'49		desc. node	404 Nov 24 j 10:40	3° A 18'38	
retrograde	402 Jun 13 j 18:38	20° D 51'57					
evening set	402 Jun 29 j 09:45	16° D 13'17		superior conj	404 Nov 27 j 06:14	6° A 51'17	0°-6'-43
inferior conj	402 Jul 05 j 04:54	12° D 44'42	-5°-32'-18	minimum elong	404 Nov 27 j 04:24	6° A 45'33	0°06'38
minimum elong	402 Jul 04 j 19:10	12° D 59'51	5°30'07	behind sun begin	404 Nov 26 j 03:49	5° A 28'08	
min. Earth dist.	402 Jul 05 j 06:55	12° D 41'34	0.28846 AU	behind sun end	404 Nov 28 j 05:00	8° A 02'59	
morning rise	402 Jul 10 j 04:22	9° D 43'28		max. Earth dist.	404 Nov 28 j 12:02	8° A 25'06	1.71028 AU
direct	402 Jul 26 j 20:53	4° D 29'11			404 Dec 15 j 15:49	0° C	
greatest brilliancy	402 Aug 10 j 03:32	8° D 03'42	-4.5m	evening rise	405 Jan 08 j 00:03	29° C 17'28	
	402 Sep 08 j 14:59	0° \cap			405 Jan 08 j 13:39	0° \approx	
morning max el	402 Sep 14 j 12:02	5° \cap 39'57	46°19'21		405 Feb 01 j 14:23	0° H	
asc. node	402 Sep 30 j 18:45	22° \cap 35'45			405 Feb 25 j 19:59	0° γ	
	402 Oct 07 j 12:12	0° \cap		asc. node	405 Mar 17 j 13:55	24° γ 10'41	
	402 Nov 02 j 11:04	0° $\underline{\Delta}$			405 Mar 22 j 08:52	0° B	
	402 Nov 27 j 07:03	0° \cap			405 Apr 16 j 07:59	0° \cap	
	402 Dec 21 j 15:55	0° A			405 May 11 j 21:55	0° D	
	403 Jan 14 j 20:57	0° C			405 Jun 07 j 12:59	0° \cap	
desc. node	403 Jan 20 j 08:21	6° C 47'25		evening max el	405 Jul 06 j 15:19	0° \cap 06'14	45°43'18
	403 Feb 08 j 01:31	0° \approx			405 Jul 06 j 12:42	0° \cap	
	403 Mar 04 j 07:02	0° H		desc. node	405 Jul 07 j 03:22	0° \cap 35'01	
morning set	403 Mar 21 j 12:44	21° H 17'47		greatest brilliancy	405 Aug 13 j 22:26	28° \cap 05'02	-4.5m
	403 Mar 28 j 14:06	0° γ			405 Aug 21 j 19:15	0° $\underline{\Delta}$	
	403 Apr 21 j 22:52	0° B		retrograde	405 Aug 24 j 15:32	0° $\underline{\Delta}$ 09'20	
					405 Aug 27 j 10:56	30° R \cap	
superior conj	403 Apr 28 j 00:28	7° B 27'27	0°-35'-34	evening set	405 Sep 11 j 08:31	24° \cap 19'48	
minimum elong	403 Apr 28 j 07:23	7° B 48'42	0°35'15	inferior conj	405 Sep 14 j 14:58	22° \cap 21'45	-8°-22'-37
max. Earth dist.	403 Apr 29 j 02:20	8° B 46'54	1.73503 AU	minimum elong	405 Sep 14 j 21:31	22° \cap 11'45	8°21'59
asc. node	403 May 13 j 11:33	26° B 27'14		min. Earth dist.	405 Sep 15 j 11:32	21° \cap 50'21	0.27589 AU
	403 May 16 j 08:52	0° \cap		morning rise	405 Sep 18 j 10:12	20° \cap 04'11	
evening rise	403 Jun 03 j 12:21	22° \cap 16'17		direct	405 Oct 05 j 14:15	14° \cap 24'37	
	403 Jun 09 j 19:29	0° D		greatest brilliancy	405 Oct 19 j 16:59	18° \cap 01'48	-4.6m
	403 Jul 04 j 06:28	0° \cap		asc. node	405 Oct 28 j 06:25	23° \cap 03'07	
	403 Jul 28 j 18:32	0° \cap			405 Nov 06 j 09:06	0° $\underline{\Delta}$	
	403 Aug 22 j 09:14	0° $\underline{\Delta}$		morning max el	405 Nov 25 j 08:32	17° $\underline{\Delta}$ 48'09	46°54'51
desc. node	403 Sep 02 j 01:11	12° $\underline{\Delta}$ 55'57			405 Dec 06 j 21:35	0° \cap	
	403 Sep 16 j 04:35	0° \cap			406 Jan 02 j 09:30	0° A	
	403 Oct 11 j 07:54	0° A			406 Jan 27 j 17:44	0° C	
	403 Nov 06 j 03:29	0° C		desc. node	406 Feb 16 j 20:16	24° C 11'39	
evening max el	403 Dec 02 j 22:00	29° C 07'43	47°18'36		406 Feb 21 j 15:32	0° \approx	
	403 Dec 03 j 18:30	0° \approx			406 Mar 18 j 09:07	0° H	
asc. node	403 Dec 24 j 04:13	18° \approx 53'03			406 Apr 12 j 00:55	0° γ	
greatest brilliancy	404 Jan 09 j 10:36	29° \approx 34'42	-4.7m		406 May 06 j 15:39	0° B	
	404 Jan 10 j 08:44	0° H		morning set	406 May 29 j 02:26	27° B 25'47	
retrograde	404 Jan 22 j 21:12	2° H 56'12			406 May 31 j 04:49	0° \cap	
	404 Feb 03 j 20:22	30° R \approx		asc. node	406 Jun 09 j 23:29	11° \cap 59'02	
evening set	404 Feb 09 j 14:37	26° \approx 48'39			406 Jun 24 j 15:28	0° D	
min. Earth dist.	404 Feb 12 j 03:22	25° \approx 13'47	0.27899 AU	max. Earth dist.	406 Jul 01 j 10:59	8° D 23'25	1.73342 AU
inferior conj	404 Feb 12 j 21:12	24° \approx 45'35	8°39'13				
minimum elong	404 Feb 12 j 18:57	24° \approx 49'09	8°39'08	superior conj	406 Jul 04 j 09:23	12° D 00'27	0°53'32
morning rise	404 Feb 15 j 23:32	22° \approx 49'36		minimum elong	406 Jul 04 j 00:54	11° D 34'15	0°53'13

	406 Jul 18 j 23:05	0°♌			408 Dec 19 j 07:12	0°♏	
evening rise	406 Aug 09 j 08:00	26°♌28'33		greatest brilliancy	408 Dec 29 j 20:50	2°♏30'51	-4.7m
	406 Aug 12 j 04:11	0°♍			409 Feb 03 j 21:30	0°♐	
	406 Sep 05 j 08:08	0°♎		morning max el	409 Feb 06 j 12:31	2°♐35'47	46°40'39
desc. node	406 Sep 29 j 13:01	0°♎01'56			409 Mar 04 j 09:02	0°♑	
	406 Sep 29 j 12:23	0°♏		desc. node	409 Mar 16 j 08:03	13°♑23'59	
	406 Oct 23 j 18:04	0°♏			409 Mar 30 j 19:56	0°♒	
	406 Nov 17 j 02:44	0°♐			409 Apr 25 j 12:02	0°♓	
	406 Dec 11 j 18:11	0°♑			409 May 20 j 18:14	0°♑	
	407 Jan 06 j 01:22	0°♒			409 Jun 14 j 17:14	0°♒	
asc. node	407 Jan 20 j 16:09	16°♒39'01		asc. node	409 Jul 07 j 11:21	27°♒39'23	
	407 Feb 01 j 22:10	0°♓			409 Jul 09 j 09:22	0°♓	
evening max el	407 Feb 12 j 04:45	10°♓34'33	46°15'18		409 Aug 02 j 18:45	0°♌	
	407 Mar 05 j 23:44	0°♑		morning set	409 Aug 04 j 20:38	2°♌34'16	
greatest brilliancy	407 Mar 19 j 02:06	8°♑17'57	-4.5m		409 Aug 26 j 22:24	0°♍	
retrograde	407 Apr 02 j 21:09	12°♑11'10		max. Earth dist.	409 Sep 07 j 15:08	14°♍36'30	1.71892 AU
evening set	407 Apr 18 j 18:38	7°♑15'27					
inferior conj	407 Apr 24 j 06:33	3°♑54'10	4°03'01	superior conj	409 Sep 10 j 23:12	18°♍46'49	1°21'32
minimum elong	407 Apr 24 j 14:26	3°♑41'46	4°00'58	minimum elong	409 Sep 11 j 04:23	19°♍03'03	1°21'28
min. Earth dist.	407 Apr 24 j 10:39	3°♑47'44	0.28917 AU		409 Sep 19 j 22:17	0°♎	
morning rise	407 Apr 30 j 10:25	0°♑10'35			409 Oct 13 j 20:29	0°♏	
	407 Apr 30 j 18:04	30°♒♓		evening rise	409 Oct 20 j 05:31	7°♏59'52	
desc. node	407 May 12 j 05:32	25°♓51'20		desc. node	409 Oct 27 j 00:57	16°♏32'26	
direct	407 May 15 j 19:08	25°♓36'12			409 Nov 06 j 18:35	0°♏	
greatest brilliancy	407 May 28 j 21:59	28°♓37'32	-4.5m		409 Nov 30 j 17:41	0°♐	
	407 May 31 j 20:17	0°♑			409 Dec 24 j 19:13	0°♑	
morning max el	407 Jul 03 j 14:46	25°♑21'58	45°46'13		410 Jan 18 j 01:59	0°♒	
	407 Jul 08 j 09:24	0°♒			410 Feb 11 j 18:52	0°♓	
	407 Aug 05 j 19:05	0°♓		asc. node	410 Feb 17 j 04:01	6°♓25'57	
	407 Aug 31 j 22:51	0°♌			410 Mar 09 j 06:02	0°♑	
asc. node	407 Sep 02 j 09:02	1°♌40'41			410 Apr 05 j 04:04	0°♒	
	407 Sep 25 j 23:21	0°♍		evening max el	410 Apr 23 j 23:07	19°♒08'25	45°21'34
	407 Oct 20 j 08:15	0°♎			410 May 05 j 21:50	0°♓	
	407 Nov 13 j 09:04	0°♏		greatest brilliancy	410 May 28 j 16:30	15°♓26'46	-4.5m
	407 Dec 07 j 06:46	0°♏		desc. node	410 Jun 08 j 17:35	18°♓35'29	
desc. node	407 Dec 22 j 22:33	19°♏39'53		retrograde	410 Jun 11 j 10:03	18°♓43'40	
	407 Dec 31 j 04:13	0°♐		evening set	410 Jun 26 j 23:42	14°♓07'52	
morning set	408 Jan 03 j 03:46	3°♐44'21		inferior conj	410 Jul 02 j 21:08	10°♓36'05	-5°-16'-38
	408 Jan 24 j 02:54	0°♑		minimum elong	410 Jul 02 j 11:35	10°♓50'57	5°14'26
				min. Earth dist.	410 Jul 02 j 23:16	10°♓32'45	0.28865 AU
superior conj	408 Feb 13 j 09:06	25°♑17'34	-1°-25'-1	morning rise	410 Jul 07 j 23:12	7°♓30'45	
minimum elong	408 Feb 13 j 06:30	25°♑09'28	1°25'01	direct	410 Jul 24 j 12:56	2°♓20'12	
	408 Feb 17 j 03:47	0°♒		greatest brilliancy	410 Aug 07 j 19:03	5°♓53'08	-4.5m
max. Earth dist.	408 Feb 17 j 08:48	0°♒15'38	1.72112 AU		410 Sep 08 j 14:47	0°♌	
	408 Mar 12 j 07:45	0°♓		morning max el	410 Sep 12 j 02:03	3°♌22'21	46°17'45
evening rise	408 Mar 23 j 16:28	14°♓02'33		asc. node	410 Sep 29 j 20:45	21°♌54'11	
	408 Apr 05 j 15:33	0°♑			410 Oct 07 j 04:23	0°♍	
asc. node	408 Apr 14 j 01:48	10°♑20'39			410 Nov 02 j 00:49	0°♎	
	408 Apr 30 j 03:38	0°♒			410 Nov 26 j 19:40	0°♏	
	408 May 24 j 20:30	0°♓			410 Dec 21 j 03:52	0°♏	
	408 Jun 18 j 19:29	0°♌			411 Jan 14 j 08:30	0°♐	
	408 Jul 14 j 03:43	0°♍		desc. node	411 Jan 19 j 10:27	6°♐18'25	
desc. node	408 Aug 03 j 15:14	23°♍43'01			411 Feb 07 j 12:45	0°♑	
	408 Aug 09 j 03:44	0°♎			411 Mar 03 j 18:01	0°♒	
	408 Sep 05 j 11:24	0°♏		morning set	411 Mar 19 j 03:49	19°♒02'47	
evening max el	408 Sep 18 j 03:36	12°♏58'25	46°56'34		411 Mar 28 j 00:53	0°♓	
	408 Oct 06 j 20:10	0°♏			411 Apr 21 j 09:30	0°♑	
greatest brilliancy	408 Oct 27 j 01:13	12°♏51'07	-4.7m				
retrograde	408 Nov 07 j 10:54	15°♏16'03		superior conj	411 Apr 25 j 17:50	5°♑20'41	0°-38'-29
evening set	408 Nov 21 j 17:16	11°♏11'58		minimum elong	411 Apr 26 j 01:13	5°♑43'21	0°38'10
asc. node	408 Nov 24 j 18:25	9°♏28'40		max. Earth dist.	411 Apr 26 j 21:59	6°♑47'10	1.73472 AU
inferior conj	408 Nov 27 j 22:25	7°♏34'00	0°49'24	asc. node	411 May 12 j 13:45	26°♑01'24	
minimum elong	408 Nov 27 j 20:32	7°♏36'52	0°48'47		411 May 15 j 19:28	0°♒	
min. Earth dist.	408 Nov 27 j 15:21	7°♏44'47	0.26365 AU	evening rise	411 Jun 01 j 07:26	20°♒14'54	
morning rise	408 Dec 04 j 00:06	4°♏02'04			411 Jun 09 j 06:09	0°♓	
	408 Dec 17 j 06:06	30°♒♏			411 Jul 03 j 17:22	0°♌	
direct	408 Dec 18 j 06:36	29°♏58'43			411 Jul 28 j 05:49	0°♍	

	411 Aug 21 j 21:05	0°♄			414 Jan 02 j 00:39	0°♂		
desc. node	411 Sep 01 j 03:08	12°♄24'58			414 Jan 27 j 07:11	0°♂		
	411 Sep 15 j 17:18	0°♄		desc. node	414 Feb 15 j 22:16	23°♂39'33		
	411 Oct 10 j 21:57	0°♂			414 Feb 21 j 03:59	0°≈		
	411 Nov 05 j 19:59	0°♂			414 Mar 17 j 20:54	0°♂		
evening max el	411 Nov 30 j 11:24	26°♂42'35	47°19'38		414 Apr 11 j 12:16	0°♂		
	411 Dec 03 j 17:27	0°≈			414 May 06 j 02:41	0°♂		
asc. node	411 Dec 23 j 06:22	17°≈42'18		morning set	414 May 26 j 20:45	25°♂21'43		
greatest brilliancy	412 Jan 07 j 03:29	27°≈16'22	-4.7m		414 May 30 j 15:40	0°♄		
	412 Jan 14 j 23:46	0°♂		asc. node	414 Jun 09 j 01:35	11°♄32'21		
retrograde	412 Jan 20 j 11:51	0°♂36'09			414 Jun 24 j 02:15	0°♄		
	412 Jan 25 j 21:02	30°♂≈		max. Earth dist.	414 Jun 29 j 09:27	6°♂31'33	1.73372 AU	
evening set	412 Feb 07 j 03:30	24°≈31'57						
min. Earth dist.	412 Feb 09 j 17:33	22°≈55'19	0.27838 AU	superior conj	414 Jul 02 j 03:57	9°♂56'26	0°51'05	
inferior conj	412 Feb 10 j 11:54	22°≈26'21	8°36'51	minimum elong	414 Jul 01 j 19:37	9°♂30'45	0°50'45	
minimum elong	412 Feb 10 j 08:49	22°≈31'12	8°36'43		414 Jul 18 j 09:52	0°♄		
morning rise	412 Feb 13 j 14:23	20°≈30'12		evening rise	414 Aug 07 j 01:41	24°♄20'46		
direct	412 Mar 02 j 07:21	14°≈28'24			414 Aug 11 j 15:06	0°♄		
greatest brilliancy	412 Mar 13 j 02:48	16°≈36'39	-4.6m		414 Sep 04 j 19:17	0°♄		
	412 Apr 03 j 15:11	0°♂		desc. node	414 Sep 28 j 15:08	29°♄33'00		
desc. node	412 Apr 12 j 19:50	7°♂52'58			414 Sep 28 j 23:51	0°♄		
morning max el	412 Apr 20 j 09:41	14°♂57'53	45°58'36		414 Oct 23 j 05:56	0°♂		
	412 May 05 j 08:25	0°♂			414 Nov 16 j 15:10	0°♂		
	412 Jun 01 j 22:38	0°♂			414 Dec 11 j 07:29	0°≈		
	412 Jun 28 j 02:53	0°♄			415 Jan 05 j 16:20	0°♂		
	412 Jul 23 j 11:39	0°♄		asc. node	415 Jan 19 j 18:08	15°♂58'17		
asc. node	412 Aug 03 j 23:11	13°♄49'35			415 Feb 01 j 17:12	0°♂		
	412 Aug 17 j 06:08	0°♄		evening max el	415 Feb 09 j 21:02	8°♂21'29	46°17'57	
	412 Sep 10 j 13:45	0°♄			415 Mar 06 j 15:49	0°♂		
greatest brilliancy	412 Sep 16 j 15:10	7°♄32'28	-3.9m	greatest brilliancy	415 Mar 16 j 19:35	6°♂08'45	-4.5m	
	412 Oct 04 j 14:09	0°♄		retrograde	415 Mar 31 j 14:16	10°♂00'59		
morning set	412 Oct 15 j 01:48	13°♄09'56		evening set	415 Apr 16 j 13:27	5°♂01'57		
	412 Oct 28 j 10:53	0°♄		inferior conj	415 Apr 21 j 22:56	1°♂43'46	4°20'20	
	412 Nov 21 j 06:37	0°♂		minimum elong	415 Apr 22 j 07:13	1°♂30'43	4°18'14	
desc. node	412 Nov 23 j 12:52	2°♂50'47		min. Earth dist.	415 Apr 22 j 02:25	1°♂38'17	0.28903 AU	
					415 Apr 24 j 17:21	30°♂♂		
superior conj	412 Nov 24 j 15:51	4°♂15'44	0°-2'-42	morning rise	415 Apr 28 j 01:14	28°♂02'27		
minimum elong	412 Nov 24 j 15:06	4°♂13'22	0°02'41	desc. node	415 May 11 j 07:42	23°♂31'47		
behind sun begin	412 Nov 23 j 12:47	2°♂50'30		direct	415 May 13 j 11:44	23°♂26'14		
behind sun end	412 Nov 25 j 17:25	5°♂36'15		greatest brilliancy	415 May 26 j 11:35	26°♂25'00	-4.5m	
max. Earth dist.	412 Nov 25 j 16:23	5°♂32'59	1.71027 AU		415 Jun 02 j 10:39	0°♂		
	412 Dec 15 j 02:53	0°♂		morning max el	415 Jul 01 j 07:25	23°♂13'39	45°45'46	
evening rise	413 Jan 05 j 10:06	26°♂43'57			415 Jul 08 j 05:48	0°♄		
	413 Jan 08 j 00:43	0°≈			415 Aug 05 j 10:12	0°♄		
	413 Feb 01 j 01:30	0°♂			415 Aug 31 j 11:59	0°♄		
	413 Feb 25 j 07:15	0°♂		asc. node	415 Sep 01 j 11:00	1°♄07'57		
asc. node	413 Mar 16 j 15:58	23°♂41'53			415 Sep 25 j 11:32	0°♄		
	413 Mar 21 j 20:29	0°♂			415 Oct 19 j 19:58	0°♄		
	413 Apr 15 j 20:12	0°♄			415 Nov 12 j 20:32	0°♄		
	413 May 11 j 11:20	0°♄			415 Dec 06 j 18:06	0°♂		
	413 Jun 07 j 04:59	0°♄		desc. node	415 Dec 22 j 00:37	19°♂11'02		
evening max el	413 Jul 04 j 05:30	27°♄50'17	45°41'29		415 Dec 30 j 15:27	0°♂		
desc. node	413 Jul 06 j 05:29	29°♄44'06		morning set	415 Dec 31 j 13:39	1°♂09'38		
	413 Jul 06 j 12:15	0°♄			416 Jan 23 j 14:04	0°≈		
greatest brilliancy	413 Aug 11 j 08:39	25°♄43'09	-4.5m					
retrograde	413 Aug 22 j 05:27	27°♄50'26		superior conj	416 Feb 10 j 21:11	22°≈50'57	-1°-24'-30	
evening set	413 Sep 09 j 00:00	21°♄57'22		minimum elong	416 Feb 10 j 17:37	22°≈39'52	1°24'30	
inferior conj	413 Sep 12 j 04:46	20°♄01'45	-8°-28'-45	max. Earth dist.	416 Feb 14 j 23:16	27°≈56'36	1.72060 AU	
minimum elong	413 Sep 12 j 10:36	19°♄52'51	8°28'16		416 Feb 16 j 14:54	0°♂		
min. Earth dist.	413 Sep 13 j 00:39	19°♄31'24	0.27658 AU		416 Mar 11 j 18:50	0°♂		
morning rise	413 Sep 15 j 20:56	17°♄48'49		evening rise	416 Mar 21 j 07:02	11°♂45'14		
direct	413 Oct 03 j 05:09	12°♄03'34			416 Apr 05 j 02:39	0°♂		
greatest brilliancy	413 Oct 17 j 09:01	15°♄42'33	-4.6m	asc. node	416 Apr 13 j 03:57	9°♂53'03		
asc. node	413 Oct 27 j 08:38	21°♄43'31			416 Apr 29 j 14:53	0°♄		
	413 Nov 06 j 18:25	0°♄			416 May 24 j 08:07	0°♄		
morning max el	413 Nov 22 j 23:58	15°♄27'51	46°54'11		416 Jun 18 j 07:46	0°♄		
	413 Dec 06 j 16:26	0°♄			416 Jul 13 j 17:08	0°♄		

desc. node	416 Aug 02 j 17:12	23° \cap 06'15		419 Feb 07 j 00:14	0° \approx	
	416 Aug 08 j 19:11	0° $\underline{\Delta}$		419 Mar 03 j 05:14	0° H	
	416 Sep 05 j 07:24	0° \mathbb{M}	morning set	419 Mar 16 j 18:56	16° H 46'56	
evening max el	416 Sep 15 j 17:41	10° \mathbb{M} 36'02	46°54'17	419 Mar 27 j 11:56	0° Υ	
	416 Oct 07 j 11:21	0° Z		419 Apr 20 j 20:28	0° B	
greatest brilliancy	416 Oct 24 j 16:06	10° Z 24'41	-4.7m			
retrograde	416 Nov 04 j 23:03	12° Z 46'21		superior conj	419 Apr 23 j 11:08	3° B 12'40 0°-41'-20
evening set	416 Nov 19 j 06:08	8° Z 42'31		minimum elong	419 Apr 23 j 18:57	3° B 36'42 0°41'01
asc. node	416 Nov 23 j 20:28	6° Z 03'30		max. Earth dist.	419 Apr 24 j 16:23	4° B 42'33 1.73448 AU
inferior conj	416 Nov 25 j 10:44	5° Z 05'15	0°24'56	asc. node	419 May 11 j 15:50	25° B 34'05
minimum elong	416 Nov 25 j 09:47	5° Z 06'42	0°24'37		419 May 15 j 06:27	0° Π
min. Earth dist.	416 Nov 25 j 05:17	5° Z 13'34	0.26355 AU	evening rise	419 May 30 j 02:17	18° Π 11'42
morning rise	416 Dec 01 j 13:39	1° Z 31'25			419 Jun 08 j 17:15	0° S
	416 Dec 04 j 16:56	30° \mathbb{M}			419 Jul 03 j 04:40	0° Ω
direct	416 Dec 15 j 19:00	27° \mathbb{M} 30'14			419 Jul 27 j 17:29	0° \cap
	416 Dec 27 j 07:20	0° Z			419 Aug 21 j 09:20	0° $\underline{\Delta}$
greatest brilliancy	416 Dec 27 j 10:46	0° Z 03'34	-4.7m	desc. node	419 Aug 31 j 05:15	11° $\underline{\Delta}$ 53'25
	417 Feb 03 j 21:24	0° S			419 Sep 15 j 06:25	0° \mathbb{M}
morning max el	417 Feb 04 j 00:57	0° S 08'53	46°41'46		419 Oct 10 j 12:28	0° Z
	417 Mar 04 j 01:49	0° \approx			419 Nov 05 j 13:06	0° S
desc. node	417 Mar 15 j 10:11	12° \approx 46'31		evening max el	419 Nov 28 j 01:22	24° S 18'02 47°20'38
	417 Mar 30 j 10:05	0° H			419 Dec 03 j 17:46	0° \approx
	417 Apr 25 j 00:49	0° Υ		asc. node	419 Dec 22 j 08:24	16° \approx 28'28
	417 May 20 j 06:13	0° B		greatest brilliancy	420 Jan 04 j 19:27	24° \approx 55'53 -4.7m
	417 Jun 14 j 04:42	0° Π		retrograde	420 Jan 18 j 02:56	28° \approx 15'15
asc. node	417 Jul 06 j 13:21	27° Π 11'18		evening set	420 Feb 04 j 15:56	22° \approx 14'44
	417 Jul 08 j 20:32	0° S		min. Earth dist.	420 Feb 07 j 07:27	20° \approx 36'11 0.27776 AU
	417 Aug 02 j 05:48	0° Ω		inferior conj	420 Feb 08 j 02:33	20° \approx 06'08 8°33'35
morning set	417 Aug 02 j 13:29	0° Ω 23'45		minimum elong	420 Feb 07 j 22:39	20° \approx 12'15 8°33'22
	417 Aug 26 j 09:27	0° \cap		morning rise	420 Feb 11 j 05:36	18° \approx 09'23
max. Earth dist.	417 Sep 05 j 02:52	12° \cap 08'35	1.71947 AU	direct	420 Feb 28 j 20:48	12° \approx 09'00
				greatest brilliancy	420 Mar 10 j 16:27	14° \approx 17'34 -4.6m
superior conj	417 Sep 08 j 14:32	16° \cap 30'03	1°22'24		420 Apr 04 j 00:12	0° H
minimum elong	417 Sep 08 j 18:59	16° \cap 43'58	1°22'21	desc. node	420 Apr 11 j 21:59	6° H 57'43
	417 Sep 19 j 09:24	0° $\underline{\Delta}$		morning max el	420 Apr 18 j 00:28	12° H 42'22 45°59'51
	417 Oct 13 j 07:43	0° \mathbb{M}			420 May 05 j 02:41	0° Υ
evening rise	417 Oct 17 j 17:13	5° \mathbb{M} 30'43			420 Jun 01 j 13:08	0° B
desc. node	417 Oct 26 j 03:07	16° \mathbb{M} 03'43			420 Jun 27 j 15:45	0° Π
	417 Nov 06 j 05:57	0° Z			420 Jul 22 j 23:41	0° S
	417 Nov 30 j 05:12	0° S		asc. node	420 Aug 03 j 01:13	13° S 20'08
	417 Dec 24 j 06:58	0° \approx			420 Aug 16 j 17:42	0° Ω
	418 Jan 17 j 14:05	0° H			420 Sep 10 j 01:04	0° \cap
	418 Feb 11 j 07:38	0° Υ		greatest brilliancy	420 Sep 20 j 23:12	13° \cap 36'43 -3.9m
asc. node	418 Feb 16 j 06:04	5° Υ 53'24			420 Oct 04 j 01:22	0° $\underline{\Delta}$
	418 Mar 08 j 20:11	0° B		morning set	420 Oct 12 j 14:41	10° $\underline{\Delta}$ 44'24
	418 Apr 04 j 21:34	0° Π			420 Oct 27 j 22:06	0° \mathbb{M}
evening max el	418 Apr 21 j 13:53	16° Π 54'25	45°22'13		420 Nov 20 j 17:52	0° Z
	418 May 06 j 04:20	0° S				
greatest brilliancy	418 May 26 j 06:14	13° S 13'52	-4.5m	superior conj	420 Nov 22 j 01:25	1° Z 39'22 0°01'21
desc. node	418 Jun 07 j 19:39	16° S 31'48		minimum elong	420 Nov 22 j 01:46	1° Z 40'28 0°01'20
retrograde	418 Jun 09 j 01:34	16° S 33'35		behind sun begin	420 Nov 20 j 23:19	0° Z 17'10
evening set	418 Jun 24 j 13:35	12° S 00'10		behind sun end	420 Nov 23 j 04:13	3° Z 03'44
inferior conj	418 Jun 30 j 13:11	8° S 25'36	-5°00'-26	desc. node	420 Nov 22 j 14:50	2° Z 21'39
minimum elong	418 Jun 30 j 03:53	8° S 40'06	4°58'14	max. Earth dist.	420 Nov 23 j 00:25	2° Z 51'46 1.71028 AU
min. Earth dist.	418 Jun 30 j 15:33	8° S 21'56	0.28881 AU		420 Dec 14 j 14:08	0° S
morning rise	418 Jul 05 j 17:51	5° S 16'25		evening rise	421 Jan 02 j 20:11	24° S 09'53
direct	418 Jul 22 j 04:30	0° S 09'17			421 Jan 07 j 12:00	0° \approx
greatest brilliancy	418 Aug 05 j 11:22	3° S 42'08	-4.5m		421 Jan 31 j 12:50	0° H
	418 Sep 08 j 14:03	0° Ω			421 Feb 24 j 18:43	0° Υ
morning max el	418 Sep 09 j 16:26	1° Ω 04'37	46°16'19	asc. node	421 Mar 15 j 18:10	23° Υ 13'02
asc. node	418 Sep 28 j 23:00	21° Ω 12'44			421 Mar 21 j 08:15	0° B
	418 Oct 06 j 20:40	0° \cap			421 Apr 15 j 08:37	0° Π
	418 Nov 01 j 14:45	0° $\underline{\Delta}$			421 May 11 j 01:02	0° S
	418 Nov 26 j 08:30	0° \mathbb{M}			421 Jun 06 j 21:30	0° Ω
	418 Dec 20 j 16:05	0° Z		evening max el	421 Jul 01 j 20:27	25° Ω 35'27 45°39'29
	419 Jan 13 j 20:18	0° S		desc. node	421 Jul 05 j 07:27	28° Ω 50'59
desc. node	419 Jan 18 j 12:26	5° S 48'12			421 Jul 06 j 13:20	0° \cap

greatest brilliancy	421 Aug 08 j 19:08	23° \cap 20'33	-4.5m	superior conj	424 Feb 08 j 09:05	20° \approx 24'10	-1°-23'-51
retrograde	421 Aug 19 j 19:03	25° \cap 30'07		minimum elong	424 Feb 08 j 04:34	20° \approx 10'06	1°23'49
evening set	421 Sep 06 j 15:03	19° \cap 34'19		max. Earth dist.	424 Feb 12 j 14:10	25° \approx 39'17	1.72002 AU
inferior conj	421 Sep 09 j 18:24	17° \cap 40'36	-8°-34'-1		424 Feb 16 j 01:52	0° \times	
minimum elong	421 Sep 09 j 23:27	17° \cap 32'53	8°33'41		424 Mar 11 j 05:46	0° γ	
min. Earth dist.	421 Sep 10 j 13:28	17° \cap 11'29	0.27722 AU	evening rise	424 Mar 18 j 21:33	9° γ 28'05	
morning rise	421 Sep 13 j 07:38	15° \cap 31'56			424 Apr 04 j 13:37	0° \times	
direct	421 Sep 30 j 20:11	9° \cap 41'39		asc. node	424 Apr 12 j 06:02	9° \times 25'43	
greatest brilliancy	421 Oct 14 j 23:50	13° \cap 20'50	-4.6m		424 Apr 29 j 02:00	0° \cap	
asc. node	421 Oct 26 j 10:39	20° \cap 25'18			424 May 23 j 19:35	0° \ominus	
	421 Nov 07 j 01:30	0° $\underline{\Delta}$			424 Jun 17 j 19:53	0° Ω	
morning max el	421 Nov 20 j 14:59	13° $\underline{\Delta}$ 06'08	46°53'32		424 Jul 13 j 06:24	0° \cap	
	421 Dec 06 j 10:57	0° \cap		desc. node	424 Aug 01 j 19:21	22° \cap 30'27	
	422 Jan 01 j 15:41	0° \times			424 Aug 08 j 10:37	0° $\underline{\Delta}$	
	422 Jan 26 j 20:35	0° \ominus			424 Sep 05 j 03:51	0° \cap	
desc. node	422 Feb 15 j 00:21	23° \ominus 07'42		evening max el	424 Sep 13 j 06:32	8° \cap 11'00	46°51'40
	422 Feb 20 j 16:26	0° \approx			424 Oct 08 j 07:35	0° \times	
	422 Mar 17 j 08:43	0° \times		greatest brilliancy	424 Oct 22 j 07:11	7° \times 58'02	-4.7m
	422 Apr 10 j 23:38	0° γ		retrograde	424 Nov 02 j 10:27	10° \times 16'05	
	422 May 05 j 13:45	0° \times		evening set	424 Nov 16 j 18:53	6° \times 11'55	
morning set	422 May 24 j 15:17	23° \times 18'14		inferior conj	424 Nov 22 j 22:46	2° \times 35'53	0°00'10
	422 May 30 j 02:33	0° \cap		minimum elong	424 Nov 22 j 22:46	2° \times 35'53	0°00'10
asc. node	422 Jun 08 j 03:36	11° \cap 05'17		transit middle	424 Nov 22 j 22:46	2° \times 35'53	0°00'10
	422 Jun 23 j 13:02	0° \ominus		transit begin	424 Nov 22 j 18:42	2° \times 42'06	
max. Earth dist.	422 Jun 27 j 07:26	4° \ominus 38'09	1.73404 AU	transit end	424 Nov 23 j 02:50	2° \times 29'41	
				asc. node	424 Nov 22 j 22:30	2° \times 36'17	
superior conj	422 Jun 29 j 22:35	7° \ominus 52'38	0°48'34	min. Earth dist.	424 Nov 22 j 19:22	2° \times 41'04	0.26353 AU
minimum elong	422 Jun 29 j 14:28	7° \ominus 27'38	0°48'14		424 Nov 27 j 07:20	30° \cap 00'22	
	422 Jul 17 j 20:44	0° Ω		morning rise	424 Nov 29 j 02:43	29° \cap 00'22	
evening rise	422 Aug 04 j 19:21	22° Ω 12'40		direct	424 Dec 13 j 06:38	25° \cap 00'43	
	422 Aug 11 j 02:08	0° \cap		greatest brilliancy	424 Dec 25 j 01:40	27° \cap 36'48	-4.7m
	422 Sep 04 j 06:35	0° $\underline{\Delta}$			424 Dec 29 j 23:06	0° \times	
desc. node	422 Sep 27 j 17:16	29° $\underline{\Delta}$ 03'40		morning max el	425 Feb 01 j 12:56	27° \times 40'45	46°43'07
	422 Sep 28 j 11:27	0° \cap			425 Feb 03 j 20:14	0° \ominus	
	422 Oct 22 j 17:56	0° \times			425 Mar 03 j 18:07	0° \approx	
	422 Nov 16 j 03:42	0° \ominus		desc. node	425 Mar 14 j 12:22	12° \approx 10'05	
	422 Dec 10 j 20:55	0° \approx			425 Mar 29 j 23:50	0° \times	
	423 Jan 05 j 07:28	0° \times			425 Apr 24 j 13:15	0° γ	
asc. node	423 Jan 18 j 20:12	15° \times 17'30			425 May 19 j 17:50	0° \times	
	423 Feb 01 j 12:44	0° γ			425 Jun 13 j 15:50	0° \cap	
evening max el	423 Feb 07 j 13:12	6° γ 07'59	46°20'33	asc. node	425 Jul 05 j 15:29	26° \cap 44'34	
	423 Mar 07 j 13:26	0° \times			425 Jul 08 j 07:24	0° \ominus	
greatest brilliancy	423 Mar 14 j 13:58	4° \times 00'49	-4.5m	morning set	425 Jul 31 j 06:42	28° \ominus 15'24	
retrograde	423 Mar 29 j 07:01	7° \times 50'53			425 Aug 01 j 16:32	0° Ω	
evening set	423 Apr 14 j 08:26	2° \times 48'41			425 Aug 25 j 20:11	0° \cap	
	423 Apr 18 j 22:45	30° \cap γ		max. Earth dist.	425 Sep 02 j 17:48	9° \cap 51'45	1.72004 AU
inferior conj	423 Apr 19 j 15:23	29° γ 33'43	4°37'17				
minimum elong	423 Apr 20 j 00:00	29° γ 20'07	4°35'10	superior conj	425 Sep 06 j 06:15	14° \cap 15'34	1°23'06
min. Earth dist.	423 Apr 19 j 18:28	29° γ 28'51	0.28886 AU	minimum elong	425 Sep 06 j 09:58	14° \cap 27'10	1°23'05
morning rise	423 Apr 25 j 15:53	25° γ 54'40			425 Sep 18 j 20:12	0° $\underline{\Delta}$	
desc. node	423 May 10 j 09:41	21° γ 17'25			425 Oct 12 j 18:40	0° \cap	
direct	423 May 11 j 04:13	21° γ 16'43		evening rise	425 Oct 15 j 05:14	3° \cap 03'31	
greatest brilliancy	423 May 24 j 00:26	24° γ 11'50	-4.5m	desc. node	425 Oct 25 j 05:07	15° \cap 35'21	
	423 Jun 03 j 13:17	0° \times			425 Nov 05 j 17:05	0° \times	
morning max el	423 Jun 28 j 23:15	21° \times 03'48	45°45'21		425 Nov 29 j 16:33	0° \ominus	
	423 Jul 08 j 01:25	0° \cap			425 Dec 23 j 18:33	0° \approx	
	423 Aug 05 j 00:59	0° \ominus			426 Jan 17 j 02:01	0° \times	
	423 Aug 31 j 00:56	0° Ω			426 Feb 10 j 20:14	0° γ	
asc. node	423 Aug 31 j 13:14	0° Ω 36'22		asc. node	426 Feb 15 j 08:15	5° γ 21'51	
	423 Sep 24 j 23:40	0° \cap			426 Mar 08 j 10:12	0° \times	
	423 Oct 19 j 07:41	0° $\underline{\Delta}$			426 Apr 04 j 15:05	0° \cap	
	423 Nov 12 j 08:01	0° \cap		evening max el	426 Apr 19 j 04:44	14° \cap 41'46	45°23'10
	423 Dec 06 j 05:23	0° \times			426 May 06 j 12:41	0° \ominus	
desc. node	423 Dec 21 j 02:39	18° \times 42'13		greatest brilliancy	426 May 23 j 19:13	11° \ominus 01'26	-4.5m
morning set	423 Dec 28 j 23:14	28° \times 34'09		retrograde	426 Jun 06 j 17:41	14° \ominus 25'12	
	423 Dec 30 j 02:36	0° \ominus		desc. node	426 Jun 06 j 21:41	14° \ominus 25'11	
	424 Jan 23 j 01:06	0° \approx		evening set	426 Jun 22 j 03:48	9° \ominus 53'42	

inferior conj	426 Jun 28 j 05:23	6°☿16'39	-4°-43'-56	behind sun end	428 Nov 20 j 14:13	0°☿29'55	
minimum elong	426 Jun 27 j 20:23	6°☿30'40	4°41'44		428 Nov 20 j 04:43	0°☿	
min. Earth dist.	426 Jun 28 j 07:46	6°☿12'56	0.28896 AU	max. Earth dist.	428 Nov 20 j 10:16	0°☿17'29	1.71026 AU
morning rise	426 Jul 03 j 12:36	3°☿03'54		desc. node	428 Nov 21 j 16:55	1°☿53'59	
	426 Jul 09 j 18:32	30°☿II			428 Dec 14 j 01:01	0°☿	
direct	426 Jul 19 j 20:19	27°☿II59'50		evening rise	428 Dec 31 j 06:33	21°☿37'53	
	426 Jul 30 j 10:12	0°☿			429 Jan 06 j 22:54	0°☿	
greatest brilliancy	426 Aug 03 j 04:21	1°☿33'36	-4.5m		429 Jan 30 j 23:49	0°☿	
morning max el	426 Sep 07 j 07:56	28°☿51'12	46°14'58		429 Feb 24 j 05:54	0°☿	
	426 Sep 08 j 11:50	0°☿		asc. node	429 Mar 14 j 20:09	22°☿44'22	
asc. node	426 Sep 28 j 00:59	20°☿32'24			429 Mar 20 j 19:46	0°☿	
	426 Oct 06 j 12:12	0°☿			429 Apr 14 j 20:48	0°☿	
	426 Nov 01 j 04:09	0°☿			429 May 10 j 14:33	0°☿	
	426 Nov 25 j 20:54	0°☿			429 Jun 06 j 14:00	0°☿	
	426 Dec 20 j 03:56	0°☿		evening max el	429 Jun 29 j 11:41	23°☿22'23	45°37'40
	427 Jan 13 j 07:48	0°☿		desc. node	429 Jul 04 j 09:37	27°☿58'24	
desc. node	427 Jan 17 j 14:35	5°☿19'22			429 Jul 06 j 15:16	0°☿	
	427 Feb 06 j 11:27	0°☿		greatest brilliancy	429 Aug 06 j 06:32	21°☿00'39	-4.5m
	427 Mar 02 j 16:12	0°☿		retrograde	429 Aug 17 j 08:28	23°☿11'33	
morning set	427 Mar 14 j 09:29	14°☿30'01		evening set	429 Sep 04 j 06:03	17°☿13'41	
	427 Mar 26 j 22:41	0°☿		inferior conj	429 Sep 07 j 08:17	15°☿21'20	-8°-38'-28
	427 Apr 20 j 07:06	0°☿		minimum elong	429 Sep 07 j 12:31	15°☿14'51	8°38'14
				min. Earth dist.	429 Sep 08 j 02:35	14°☿53'18	0.27784 AU
superior conj	427 Apr 21 j 04:05	1°☿04'32	0°-44'-10	morning rise	429 Sep 10 j 18:48	13°☿16'25	
minimum elong	427 Apr 21 j 12:19	1°☿29'49	0°43'50	direct	429 Sep 28 j 11:20	7°☿21'39	
max. Earth dist.	427 Apr 22 j 11:21	2°☿40'39	1.73419 AU	greatest brilliancy	429 Oct 12 j 14:11	10°☿59'52	-4.6m
asc. node	427 May 10 j 17:49	25°☿07'33		asc. node	429 Oct 25 j 12:41	19°☿10'37	
	427 May 14 j 17:04	0°☿			429 Nov 07 j 06:02	0°☿	
evening rise	427 May 27 j 21:06	16°☿09'30		morning max el	429 Nov 18 j 05:27	10°☿44'05	46°52'52
	427 Jun 08 j 03:58	0°☿			429 Dec 06 j 04:40	0°☿	
	427 Jul 02 j 15:37	0°☿			430 Jan 01 j 06:11	0°☿	
	427 Jul 27 j 04:49	0°☿			430 Jan 26 j 09:33	0°☿	
	427 Aug 20 j 21:14	0°☿		desc. node	430 Feb 14 j 02:29	22°☿37'03	
desc. node	427 Aug 30 j 07:24	11°☿23'03			430 Feb 20 j 04:30	0°☿	
	427 Sep 14 j 19:12	0°☿			430 Mar 16 j 20:13	0°☿	
	427 Oct 10 j 02:40	0°☿			430 Apr 10 j 10:45	0°☿	
	427 Nov 05 j 06:04	0°☿			430 May 05 j 00:35	0°☿	
evening max el	427 Nov 25 j 16:12	21°☿57'02	47°21'23	morning set	430 May 22 j 09:38	21°☿14'50	
	427 Dec 03 j 18:46	0°☿			430 May 29 j 13:12	0°☿	
asc. node	427 Dec 21 j 10:28	15°☿13'24		asc. node	430 Jun 07 j 05:44	10°☿39'14	
greatest brilliancy	428 Jan 02 j 10:27	22°☿34'47	-4.7m		430 Jun 22 j 23:38	0°☿	
retrograde	428 Jan 15 j 18:13	25°☿54'30		max. Earth dist.	430 Jun 25 j 03:35	2°☿39'50	1.73431 AU
evening set	428 Feb 02 j 03:50	19°☿58'00					
min. Earth dist.	428 Feb 04 j 20:54	18°☿17'23	0.27718 AU	superior conj	430 Jun 27 j 17:05	5°☿49'09	0°45'59
inferior conj	428 Feb 05 j 16:57	17°☿45'54	8°29'24	minimum elong	430 Jun 27 j 09:14	5°☿24'57	0°45'39
minimum elong	428 Feb 05 j 12:17	17°☿53'14	8°29'04		430 Jul 17 j 07:22	0°☿	
morning rise	428 Feb 08 j 20:59	15°☿48'00		evening rise	430 Aug 02 j 13:00	20°☿05'19	
direct	428 Feb 26 j 10:34	9°☿49'38			430 Aug 10 j 12:56	0°☿	
greatest brilliancy	428 Mar 08 j 05:25	11°☿57'58	-4.6m		430 Sep 03 j 17:39	0°☿	
	428 Apr 04 j 06:31	0°☿		desc. node	430 Sep 26 j 19:13	28°☿34'27	
desc. node	428 Apr 10 j 23:57	6°☿03'44			430 Sep 27 j 22:52	0°☿	
morning max el	428 Apr 15 j 16:01	10°☿29'14	46°01'08		430 Oct 22 j 05:47	0°☿	
	428 May 04 j 20:16	0°☿			430 Nov 15 j 16:07	0°☿	
	428 Jun 01 j 03:11	0°☿			430 Dec 10 j 10:14	0°☿	
	428 Jun 27 j 04:12	0°☿			431 Jan 04 j 22:34	0°☿	
	428 Jul 22 j 11:18	0°☿		asc. node	431 Jan 17 j 22:24	14°☿37'21	
asc. node	428 Aug 02 j 03:22	12°☿52'13			431 Feb 01 j 08:32	0°☿	
	428 Aug 16 j 04:51	0°☿		evening max el	431 Feb 05 j 04:36	3°☿53'12	46°23'07
	428 Sep 09 j 12:00	0°☿			431 Mar 08 j 18:55	0°☿	
greatest brilliancy	428 Sep 23 j 21:20	17°☿56'50	-3.9m	greatest brilliancy	431 Mar 12 j 08:15	1°☿53'22	-4.5m
	428 Oct 03 j 12:13	0°☿		retrograde	431 Mar 26 j 23:17	5°☿41'28	
morning set	428 Oct 10 j 04:03	8°☿21'31		evening set	431 Apr 12 j 03:29	0°☿35'58	
	428 Oct 27 j 08:57	0°☿			431 Apr 13 j 03:52	30°☿☿	
				inferior conj	431 Apr 17 j 07:54	27°☿24'24	4°53'52
superior conj	428 Nov 19 j 11:29	29°☿05'46	0°05'20	minimum elong	431 Apr 17 j 16:48	27°☿10'19	4°51'44
minimum elong	428 Nov 19 j 12:55	29°☿10'16	0°05'16	min. Earth dist.	431 Apr 17 j 10:51	27°☿19'44	0.28870 AU
behind sun begin	428 Nov 18 j 11:37	27°☿50'35		morning rise	431 Apr 23 j 06:24	23°☿47'44	

direct	431 May 08 j 20:25	19°♊07'49		desc. node	433 Oct 24 j 07:10	15°♍06'39	
desc. node	431 May 09 j 11:46	19°♊08'17			433 Nov 05 j 04:23	0°♊	
greatest brilliancy	431 May 21 j 13:55	21°♊59'46	-4.5m		433 Nov 29 j 04:03	0°♊	
	431 Jun 04 j 08:33	0°♊			433 Dec 23 j 06:19	0°♊	
morning max el	431 Jun 26 j 14:29	18°♊52'40	45°44'59		434 Jan 16 j 14:11	0°♊	
	431 Jul 07 j 20:22	0°♊			434 Feb 10 j 09:07	0°♊	
	431 Aug 04 j 15:29	0°♊		asc. node	434 Feb 14 j 10:13	4°♊48'54	
asc. node	431 Aug 30 j 15:15	0°♊04'35			434 Mar 08 j 00:36	0°♊	
	431 Aug 30 j 13:42	0°♊			434 Apr 04 j 09:16	0°♊	
	431 Sep 24 j 11:36	0°♊		evening max el	434 Apr 16 j 20:15	12°♊30'14	45°24'17
	431 Oct 18 j 19:13	0°♊			434 May 07 j 00:22	0°♊	
	431 Nov 11 j 19:19	0°♊		greatest brilliancy	434 May 21 j 07:59	8°♊48'23	-4.5m
	431 Dec 05 j 16:34	0°♊		retrograde	434 Jun 04 j 10:10	12°♊16'22	
desc. node	431 Dec 20 j 04:46	18°♊13'52		desc. node	434 Jun 05 j 23:48	12°♊13'29	
morning set	431 Dec 26 j 08:48	25°♊58'43		evening set	434 Jun 19 j 18:13	7°♊46'32	
	431 Dec 29 j 13:41	0°♊		inferior conj	434 Jun 25 j 21:34	4°♊07'06	-4°-27'00
	432 Jan 22 j 12:06	0°♊		minimum elong	434 Jun 25 j 12:55	4°♊20'33	4°24'50
				min. Earth dist.	434 Jun 25 j 23:40	4°♊03'50	0.28912 AU
superior conj	432 Feb 05 j 21:01	17°♊57'37	-1°-23'-1	morning rise	434 Jul 01 j 07:19	0°♊51'00	
minimum elong	432 Feb 05 j 15:33	17°♊40'35	1°22'58		434 Jul 02 j 20:14	30°♊	
max. Earth dist.	432 Feb 10 j 02:57	23°♊15'29	1.71942 AU	direct	434 Jul 17 j 12:45	25°♊49'51	
	432 Feb 15 j 12:46	0°♊		greatest brilliancy	434 Jul 31 j 21:12	29°♊24'26	-4.5m
	432 Mar 10 j 16:36	0°♊			434 Aug 02 j 02:43	0°♊	
evening rise	432 Mar 16 j 12:00	7°♊10'59		morning max el	434 Sep 05 j 00:09	26°♊38'56	46°13'27
	432 Apr 04 j 00:29	0°♊			434 Sep 08 j 09:10	0°♊	
asc. node	432 Apr 11 j 08:02	8°♊58'21		asc. node	434 Sep 27 j 03:01	19°♊51'37	
	432 Apr 28 j 13:04	0°♊			434 Oct 06 j 03:52	0°♊	
	432 May 23 j 07:04	0°♊			434 Oct 31 j 17:47	0°♊	
	432 Jun 17 j 08:04	0°♊			434 Nov 25 j 09:33	0°♊	
	432 Jul 12 j 19:48	0°♊			434 Dec 19 j 16:03	0°♊	
desc. node	432 Jul 31 j 21:26	21°♊54'06			435 Jan 12 j 19:32	0°♊	
	432 Aug 08 j 02:18	0°♊		desc. node	435 Jan 16 j 16:39	4°♊49'30	
	432 Sep 05 j 01:00	0°♊			435 Feb 05 j 22:54	0°♊	
evening max el	432 Sep 10 j 18:37	5°♊44'20	46°49'13		435 Mar 02 j 03:25	0°♊	
	432 Oct 09 j 11:00	0°♊		morning set	435 Mar 11 j 23:48	12°♊11'20	
greatest brilliancy	432 Oct 19 j 21:39	5°♊30'53	-4.7m		435 Mar 26 j 09:45	0°♊	
retrograde	432 Oct 30 j 21:51	7°♊46'17					
evening set	432 Nov 14 j 07:50	3°♊40'56		superior conj	435 Apr 18 j 20:54	28°♊54'52	0°-46'-58
inferior conj	432 Nov 20 j 10:51	0°♊06'39	0°-24'-35	minimum elong	435 Apr 19 j 05:29	29°♊21'16	0°46'37
minimum elong	432 Nov 20 j 11:47	0°♊05'13	0°24'17		435 Apr 19 j 18:04	0°♊	
min. Earth dist.	432 Nov 20 j 09:31	0°♊08'41	0.26358 AU	max. Earth dist.	435 Apr 20 j 07:17	0°♊40'39	1.73388 AU
	432 Nov 20 j 15:13	30°♊		asc. node	435 May 09 j 19:59	24°♊40'38	
asc. node	432 Nov 22 j 00:39	29°♊09'11			435 May 14 j 04:01	0°♊	
morning rise	432 Nov 26 j 15:37	26°♊29'52		evening rise	435 May 25 j 15:53	14°♊06'21	
direct	432 Dec 10 j 18:16	22°♊30'57			435 Jun 07 j 15:00	0°♊	
greatest brilliancy	432 Dec 22 j 17:27	25°♊11'04	-4.7m		435 Jul 02 j 02:52	0°♊	
	432 Dec 31 j 15:04	0°♊			435 Jul 26 j 16:29	0°♊	
morning max el	433 Jan 30 j 01:32	25°♊13'44	46°44'27		435 Aug 20 j 09:33	0°♊	
	433 Feb 03 j 18:17	0°♊		desc. node	435 Aug 29 j 09:20	10°♊50'54	
	433 Mar 03 j 10:15	0°♊			435 Sep 14 j 08:29	0°♊	
desc. node	433 Mar 13 j 14:16	11°♊32'49			435 Oct 09 j 17:30	0°♊	
	433 Mar 29 j 13:33	0°♊			435 Nov 04 j 23:55	0°♊	
	433 Apr 24 j 01:41	0°♊		evening max el	435 Nov 23 j 07:49	19°♊36'36	47°22'06
	433 May 19 j 05:30	0°♊			435 Dec 03 j 21:46	0°♊	
	433 Jun 13 j 03:03	0°♊		asc. node	435 Dec 20 j 12:36	13°♊54'37	
asc. node	433 Jul 04 j 17:35	26°♊17'20		greatest brilliancy	435 Dec 31 j 01:41	20°♊12'25	-4.7m
	433 Jul 07 j 18:22	0°♊		retrograde	436 Jan 13 j 09:31	23°♊31'45	
morning set	433 Jul 28 j 23:51	26°♊06'24		evening set	436 Jan 30 j 15:19	17°♊39'53	
	433 Aug 01 j 03:26	0°♊		min. Earth dist.	436 Feb 02 j 10:01	15°♊56'58	0.27654 AU
	433 Aug 25 j 07:05	0°♊		inferior conj	436 Feb 03 j 07:10	15°♊23'47	8°24'15
max. Earth dist.	433 Aug 31 j 09:51	7°♊37'49	1.72060 AU	minimum elong	436 Feb 03 j 01:46	15°♊32'15	8°23'48
				morning rise	436 Feb 06 j 12:30	13°♊24'11	
superior conj	433 Sep 03 j 21:53	12°♊00'16	1°23'42	direct	436 Feb 24 j 00:37	7°♊28'39	
minimum elong	433 Sep 04 j 00:50	12°♊09'30	1°23'40	greatest brilliancy	436 Mar 05 j 17:21	9°♊35'40	-4.6m
	433 Sep 18 j 07:11	0°♊			436 Apr 04 j 11:20	0°♊	
	433 Oct 12 j 05:46	0°♊		desc. node	436 Apr 10 j 02:05	5°♊10'03	
evening rise	433 Oct 12 j 17:13	0°♊35'52		morning max el	436 Apr 13 j 07:26	8°♊14'34	46°02'21

	436 May 04 j 13:54	0°♄		438 Nov 15 j 04:53	0°♄		
	436 May 31 j 17:28	0°♄		438 Dec 10 j 00:00	0°♄		
	436 Jun 26 j 16:57	0°♄		439 Jan 04 j 14:17	0°♄		
	436 Jul 21 j 23:13	0°♄	asc. node	439 Jan 17 j 00:21	13°♄54'48		
asc. node	436 Aug 01 j 05:23	12°♄22'54		439 Feb 01 j 05:32	0°♄		
	436 Aug 15 j 16:19	0°♄	evening max el	439 Feb 02 j 19:03	1°♄34'27	46°25'41	
	436 Sep 08 j 23:16	0°♄	greatest brilliancy	439 Mar 10 j 02:09	29°♄43'37	-4.6m	
greatest brilliancy	436 Sep 25 j 22:33	21°♄10'49	-3.9m	439 Mar 10 j 15:49	0°♄		
	436 Oct 02 j 23:26	0°♄	retrograde	439 Mar 24 j 15:18	3°♄30'26		
morning set	436 Oct 07 j 17:26	5°♄57'41		439 Apr 06 j 22:18	30°♄		
	436 Oct 26 j 20:12	0°♄	evening set	439 Apr 09 j 22:28	28°♄21'20		
			inferior conj	439 Apr 15 j 00:18	25°♄13'30	5°10'03	
superior conj	436 Nov 16 j 21:23	26°♄30'17	0°09'18	minimum elong	439 Apr 15 j 09:26	24°♄59'01	5°07'54
minimum elong	436 Nov 16 j 23:51	26°♄38'04	0°09'11	min. Earth dist.	439 Apr 15 j 03:18	25°♄08'44	0.28852 AU
behind sun begin	436 Nov 16 j 01:44	25°♄28'25		morning rise	439 Apr 20 j 20:38	21°♄39'28	
behind sun end	436 Nov 17 j 21:58	27°♄47'42		direct	439 May 06 j 11:57	16°♄57'13	
max. Earth dist.	436 Nov 17 j 16:55	27°♄31'47	1.71029 AU	desc. node	439 May 08 j 13:54	17°♄02'12	
	436 Nov 19 j 16:00	0°♄		greatest brilliancy	439 May 19 j 04:09	19°♄47'13	-4.5m
desc. node	436 Nov 20 j 19:05	1°♄25'14			439 Jun 04 j 23:28	0°♄	
	436 Dec 13 j 12:20	0°♄		morning max el	439 Jun 24 j 05:22	16°♄39'39	45°44'43
evening rise	436 Dec 28 j 16:20	19°♄02'31			439 Jul 07 j 15:09	0°♄	
	437 Jan 06 j 10:15	0°♄			439 Aug 04 j 06:08	0°♄	
	437 Jan 30 j 11:15	0°♄	asc. node	439 Aug 29 j 17:14	29°♄32'01		
	437 Feb 23 j 17:30	0°♄			439 Aug 30 j 02:40	0°♄	
asc. node	437 Mar 13 j 22:12	22°♄14'38			439 Sep 23 j 23:46	0°♄	
	437 Mar 20 j 07:44	0°♄			439 Oct 18 j 06:56	0°♄	
	437 Apr 14 j 09:29	0°♄			439 Nov 11 j 06:47	0°♄	
	437 May 10 j 04:39	0°♄			439 Dec 05 j 03:53	0°♄	
	437 Jun 06 j 07:16	0°♄	desc. node	439 Dec 19 j 06:50	17°♄44'57		
evening max el	437 Jun 27 j 02:19	21°♄06'47	45°35'54	morning set	439 Dec 23 j 18:35	23°♄23'24	
desc. node	437 Jul 03 j 11:42	27°♄03'27			439 Dec 29 j 00:54	0°♄	
	437 Jul 06 j 19:15	0°♄			440 Jan 21 j 23:15	0°♄	
greatest brilliancy	437 Aug 03 j 18:54	18°♄41'07	-4.5m				
retrograde	437 Aug 14 j 21:34	20°♄52'31		superior conj	440 Feb 03 j 08:46	15°♄29'50	-1°-22'-1
evening set	437 Sep 01 j 20:48	14°♄53'20		minimum elong	440 Feb 03 j 02:25	15°♄10'00	1°21'57
inferior conj	437 Sep 04 j 22:18	13°♄01'47	-8°-41'-58	max. Earth dist.	440 Feb 07 j 12:46	20°♄41'49	1.71887 AU
minimum elong	437 Sep 05 j 01:42	12°♄56'34	8°41'48		440 Feb 14 j 23:52	0°♄	
min. Earth dist.	437 Sep 05 j 16:06	12°♄34'28	0.27844 AU		440 Mar 10 j 03:41	0°♄	
morning rise	437 Sep 08 j 06:26	11°♄00'05		evening rise	440 Mar 14 j 02:01	4°♄51'42	
direct	437 Sep 26 j 02:05	5°♄01'22			440 Apr 03 j 11:36	0°♄	
greatest brilliancy	437 Oct 10 j 04:37	8°♄38'27	-4.6m	asc. node	440 Apr 10 j 10:11	8°♄30'45	
asc. node	437 Oct 24 j 14:52	17°♄57'39			440 Apr 28 j 00:23	0°♄	
	437 Nov 07 j 09:13	0°♄			440 May 22 j 18:46	0°♄	
morning max el	437 Nov 15 j 18:48	8°♄18'09	46°51'58		440 Jun 16 j 20:31	0°♄	
	437 Dec 05 j 22:24	0°♄			440 Jul 12 j 09:31	0°♄	
	437 Dec 31 j 20:58	0°♄	desc. node	440 Jul 30 j 23:24	21°♄16'32		
	438 Jan 25 j 22:53	0°♄			440 Aug 07 j 18:28	0°♄	
desc. node	438 Feb 13 j 04:27	22°♄04'34			440 Sep 04 j 23:08	0°♄	
	438 Feb 19 j 16:58	0°♄	evening max el	440 Sep 08 j 06:55	3°♄17'55	46°46'49	
	438 Mar 16 j 08:06	0°♄			440 Oct 11 j 01:58	0°♄	
	438 Apr 09 j 22:13	0°♄		greatest brilliancy	440 Oct 17 j 11:18	3°♄02'48	-4.7m
	438 May 04 j 11:46	0°♄	retrograde	440 Oct 28 j 09:46	5°♄16'52		
morning set	438 May 20 j 03:45	19°♄09'39		evening set	440 Nov 11 j 21:05	1°♄09'47	
	438 May 29 j 00:13	0°♄			440 Nov 13 j 23:28	30°♄	
asc. node	438 Jun 06 j 07:48	10°♄11'51		inferior conj	440 Nov 17 j 22:59	27°♄37'35	0°-49'-13
	438 Jun 22 j 10:35	0°♄	minimum elong	440 Nov 18 j 00:52	27°♄34'44	0°48'37	
max. Earth dist.	438 Jun 22 j 22:13	0°♄35'46	1.73458 AU	min. Earth dist.	440 Nov 17 j 23:24	27°♄36'56	0.26363 AU
			asc. node	440 Nov 21 j 02:41	25°♄43'45		
superior conj	438 Jun 25 j 11:36	3°♄44'39	0°43'19	morning rise	440 Nov 24 j 04:26	24°♄00'10	
minimum elong	438 Jun 25 j 04:02	3°♄21'21	0°43'00	direct	440 Dec 08 j 06:18	20°♄01'22	
	438 Jul 16 j 18:22	0°♄	greatest brilliancy	440 Dec 20 j 09:01	22°♄45'30	-4.7m	
evening rise	438 Jul 31 j 06:51	17°♄57'38			441 Jan 01 j 18:52	0°♄	
	438 Aug 10 j 00:06	0°♄	morning max el	441 Jan 27 j 15:04	22°♄49'12	46°45'42	
	438 Sep 03 j 05:02	0°♄			441 Feb 03 j 15:27	0°♄	
desc. node	438 Sep 25 j 21:22	28°♄04'57			441 Mar 03 j 02:06	0°♄	
	438 Sep 27 j 10:35	0°♄	desc. node	441 Mar 12 j 16:26	10°♄56'36		
	438 Oct 21 j 17:55	0°♄			441 Mar 29 j 03:11	0°♄	

	441 Apr 23 j 14:07	0°♄		evening max el	443 Nov 20 j 23:49	17°♄17'48	47°22'36
	441 May 18 j 17:12	0°♅			443 Dec 04 j 02:05	0°♁	
	441 Jun 12 j 14:18	0°♆		asc. node	443 Dec 19 j 14:37	12°♁33'50	
asc. node	441 Jul 03 j 19:35	25°♆49'46		greatest brilliancy	443 Dec 28 j 17:59	17°♁52'09	-4.7m
	441 Jul 07 j 05:22	0°♄		retrograde	444 Jan 11 j 00:40	21°♁09'31	
morning set	441 Jul 26 j 17:00	23°♄57'28		evening set	444 Jan 28 j 02:36	15°♁23'02	
	441 Jul 31 j 14:19	0°♄		min. Earth dist.	444 Jan 30 j 23:16	13°♁37'09	0.27584 AU
	441 Aug 24 j 17:59	0°♄		inferior conj	444 Jan 31 j 21:22	13°♁02'30	8°18'14
max. Earth dist.	441 Aug 29 j 02:26	5°♄25'42	1.72116 AU	minimum elong	444 Jan 31 j 15:15	13°♁12'05	8°17'40
				morning rise	444 Feb 04 j 04:16	11°♁00'41	
superior conj	441 Sep 01 j 13:35	9°♄45'14	1°24'08	direct	444 Feb 21 j 14:48	5°♁08'47	
minimum elong	441 Sep 01 j 15:46	9°♄52'02	1°24'07	greatest brilliancy	444 Mar 03 j 04:55	7°♁13'51	-4.6m
	441 Sep 17 j 18:11	0°♄			444 Apr 04 j 13:54	0°♁	
evening rise	441 Oct 10 j 05:27	28°♄08'55		desc. node	444 Apr 09 j 04:13	4°♁18'39	
	441 Oct 11 j 16:55	0°♄		morning max el	444 Apr 10 j 22:00	5°♁59'01	46°03'38
desc. node	441 Oct 23 j 09:20	14°♄38'18			444 May 04 j 06:41	0°♄	
	441 Nov 04 j 15:41	0°♄			444 May 31 j 07:11	0°♅	
	441 Nov 28 j 15:31	0°♄			444 Jun 26 j 05:15	0°♆	
	441 Dec 22 j 17:59	0°♁			444 Jul 21 j 10:46	0°♄	
	442 Jan 16 j 02:13	0°♁		asc. node	444 Jul 31 j 07:28	11°♄54'44	
	442 Feb 09 j 21:55	0°♄			444 Aug 15 j 03:28	0°♄	
asc. node	442 Feb 13 j 12:17	4°♄16'37			444 Sep 08 j 10:12	0°♄	
	442 Mar 07 j 15:00	0°♅		greatest brilliancy	444 Sep 27 j 16:10	24°♄02'09	-3.9m
	442 Apr 04 j 03:47	0°♆			444 Oct 02 j 10:20	0°♄	
evening max el	442 Apr 14 j 12:42	10°♆21'14	45°25'20	morning set	444 Oct 05 j 06:56	3°♄35'14	
	442 May 07 j 15:55	0°♄			444 Oct 26 j 07:06	0°♄	
greatest brilliancy	442 May 18 j 22:00	6°♄37'12	-4.5m				
retrograde	442 Jun 02 j 02:53	10°♄07'45		superior conj	444 Nov 14 j 07:28	23°♄56'32	0°13'14
desc. node	442 Jun 05 j 01:51	9°♄57'25		minimum elong	444 Nov 14 j 10:56	24°♄07'28	0°13'03
evening set	442 Jun 17 j 08:55	5°♄39'43		behind sun begin	444 Nov 13 j 18:54	23°♄16'58	
inferior conj	442 Jun 23 j 13:48	1°♄57'53	-4°-9'-39	behind sun end	444 Nov 15 j 02:59	24°♄57'57	
minimum elong	442 Jun 23 j 05:33	2°♄10'41	4°07'33	max. Earth dist.	444 Nov 14 j 21:14	24°♄39'53	1.71035 AU
min. Earth dist.	442 Jun 23 j 15:23	1°♄55'25	0.28926 AU		444 Nov 19 j 02:57	0°♄	
	442 Jun 26 j 18:24	30°♄		desc. node	444 Nov 19 j 21:04	0°♄57'02	
morning rise	442 Jun 29 j 01:58	28°♄38'34			444 Dec 12 j 23:19	0°♄	
direct	442 Jul 15 j 05:39	23°♄40'31		evening rise	444 Dec 26 j 02:06	16°♄28'02	
greatest brilliancy	442 Jul 29 j 13:15	27°♄14'48	-4.5m		445 Jan 05 j 21:17	0°♁	
	442 Aug 03 j 18:15	0°♄			445 Jan 29 j 22:22	0°♁	
morning max el	442 Sep 02 j 16:29	24°♄27'38	46°11'52		445 Feb 23 j 04:46	0°♄	
	442 Sep 08 j 05:35	0°♄		asc. node	445 Mar 13 j 00:23	21°♄46'27	
asc. node	442 Sep 26 j 05:15	19°♄12'18			445 Mar 19 j 19:20	0°♅	
	442 Oct 05 j 19:07	0°♄			445 Apr 13 j 21:46	0°♆	
	442 Oct 31 j 07:08	0°♄			445 May 09 j 18:24	0°♄	
	442 Nov 24 j 22:00	0°♄			445 Jun 06 j 00:25	0°♄	
	442 Dec 19 j 03:57	0°♄		evening max el	445 Jun 24 j 16:08	18°♄50'34	45°34'02
desc. node	443 Jan 12 j 07:03	0°♄		desc. node	445 Jul 02 j 13:41	26°♄08'19	
	443 Jan 15 j 18:40	4°♄20'04			445 Jul 07 j 00:33	0°♄	
	443 Feb 05 j 10:06	0°♁		greatest brilliancy	445 Aug 01 j 07:39	16°♄23'15	-4.5m
	443 Mar 01 j 14:22	0°♁		retrograde	445 Aug 12 j 10:30	18°♄35'09	
morning set	443 Mar 09 j 14:21	9°♁54'12		evening set	445 Aug 30 j 11:12	12°♄35'09	
	443 Mar 25 j 20:32	0°♄		inferior conj	445 Sep 02 j 12:29	10°♄43'51	-8°-44'-24
				minimum elong	445 Sep 02 j 15:01	10°♄39'57	8°44'20
superior conj	443 Apr 16 j 13:50	26°♄46'21	0°-49'-39	min. Earth dist.	445 Sep 03 j 06:02	10°♄16'52	0.27905 AU
minimum elong	443 Apr 16 j 22:44	27°♄13'44	0°49'20	morning rise	445 Sep 05 j 18:38	8°♄44'50	
max. Earth dist.	443 Apr 18 j 05:13	28°♄47'33	1.73359 AU	direct	445 Sep 23 j 16:31	2°♄42'27	
	443 Apr 19 j 04:46	0°♅		greatest brilliancy	445 Oct 07 j 20:18	6°♄19'56	-4.6m
asc. node	443 May 08 j 22:03	24°♅14'10		asc. node	445 Oct 23 j 16:52	16°♄47'26	
	443 May 13 j 14:43	0°♆			445 Nov 07 j 10:32	0°♄	
evening rise	443 May 23 j 10:43	12°♆04'01		morning max el	445 Nov 13 j 07:37	5°♄51'58	46°51'08
	443 Jun 07 j 01:48	0°♄			445 Dec 05 j 15:23	0°♄	
	443 Jul 01 j 13:55	0°♄			445 Dec 31 j 11:12	0°♄	
	443 Jul 26 j 03:57	0°♄			446 Jan 25 j 11:45	0°♄	
	443 Aug 19 j 21:40	0°♄		desc. node	446 Feb 12 j 06:35	21°♄33'50	
desc. node	443 Aug 28 j 11:28	10°♄20'01			446 Feb 19 j 05:01	0°♁	
	443 Sep 13 j 21:36	0°♄			446 Mar 15 j 19:36	0°♁	
	443 Oct 09 j 08:13	0°♄			446 Apr 09 j 09:18	0°♄	
	443 Nov 04 j 17:52	0°♄			446 May 03 j 22:33	0°♅	

morning set	446 May 17 j 22:10	17°♄06'32		448 Nov 06 j 17:05	30°♈♌	
	446 May 28 j 10:48	0°♈		evening set	448 Nov 09 j 10:28	28°♌38'44
asc. node	446 Jun 05 j 09:49	9°♈45'38		inferior conj	448 Nov 15 j 11:00	25°♌08'39 -1°-13'-47
max. Earth dist.	446 Jun 20 j 18:09	28°♈37'06	1.73485 AU	minimum elong	448 Nov 15 j 13:49	25°♌04'23 1°12'54
	446 Jun 21 j 21:07	0°♄		min. Earth dist.	448 Nov 15 j 12:52	25°♌05'50 0.26379 AU
				asc. node	448 Nov 20 j 04:44	22°♌20'27
superior conj	446 Jun 23 j 06:29	1°♄42'40	0°40'38	morning rise	448 Nov 21 j 16:57	21°♌31'03
minimum elong	446 Jun 22 j 23:15	1°♄20'24	0°40'20	direct	448 Dec 05 j 18:53	17°♌31'56
	446 Jul 16 j 04:58	0°♈		greatest brilliancy	448 Dec 18 j 00:07	20°♌19'28 -4.7m
evening rise	446 Jul 29 j 01:08	15°♈52'35			449 Jan 02 j 15:10	0°♈
	446 Aug 09 j 10:53	0°♈		morning max el	449 Jan 25 j 05:19	20°♈26'32 46°46'52
	446 Sep 02 j 16:06	0°♈			449 Feb 03 j 11:53	0°♄
desc. node	446 Sep 24 j 23:29	27°♈36'18			449 Mar 02 j 17:36	0°♈
	446 Sep 26 j 21:59	0°♌		desc. node	449 Mar 11 j 18:34	10°♈20'49
	446 Oct 21 j 05:47	0°♈			449 Mar 28 j 16:34	0°♈
	446 Nov 14 j 17:23	0°♄			449 Apr 23 j 02:20	0°♈
	446 Dec 09 j 13:32	0°♈			449 May 18 j 04:44	0°♈
	447 Jan 04 j 05:53	0°♈			449 Jun 12 j 01:24	0°♈
asc. node	447 Jan 16 j 02:27	13°♈13'10		asc. node	449 Jul 02 j 21:42	25°♈22'56
evening max el	447 Jan 31 j 08:50	29°♈14'51	46°28'16		449 Jul 06 j 16:14	0°♄
	447 Feb 01 j 02:53	0°♈		morning set	449 Jul 24 j 10:31	21°♄50'16
greatest brilliancy	447 Mar 07 j 19:10	27°♈33'30	-4.6m		449 Jul 31 j 01:04	0°♈
	447 Mar 13 j 21:21	0°♈			449 Aug 24 j 04:43	0°♈
retrograde	447 Mar 22 j 07:29	1°♈20'26		max. Earth dist.	449 Aug 26 j 18:49	3°♈13'33 1.72166 AU
	447 Mar 30 j 10:55	30°♈♈				
evening set	447 Apr 07 j 17:27	26°♈07'20		superior conj	449 Aug 30 j 05:48	7°♈32'26 1°24'26
inferior conj	447 Apr 12 j 16:41	23°♈03'29	5°25'46	minimum elong	449 Aug 30 j 07:13	7°♈36'50 1°24'26
minimum elong	447 Apr 13 j 02:01	22°♈48'43	5°23'39		449 Sep 17 j 05:00	0°♈
min. Earth dist.	447 Apr 12 j 19:43	22°♈58'41	0.28834 AU	evening rise	449 Oct 07 j 18:09	25°♈43'59
morning rise	447 Apr 18 j 10:45	19°♈32'33			449 Oct 11 j 03:53	0°♌
direct	447 May 04 j 03:17	14°♈47'21		desc. node	449 Oct 22 j 11:20	14°♌09'54
desc. node	447 May 07 j 15:54	15°♈01'29			449 Nov 04 j 02:52	0°♈
greatest brilliancy	447 May 16 j 19:20	17°♈36'47	-4.5m		449 Nov 28 j 02:56	0°♄
	447 Jun 05 j 10:04	0°♈			449 Dec 22 j 05:41	0°♈
morning max el	447 Jun 21 j 20:46	14°♈29'01	45°44'43		450 Jan 15 j 14:21	0°♈
	447 Jul 07 j 09:01	0°♈			450 Feb 09 j 10:51	0°♈
	447 Aug 03 j 20:10	0°♄		asc. node	450 Feb 12 j 14:28	3°♈44'20
asc. node	447 Aug 28 j 19:28	29°♄01'29			450 Mar 07 j 05:38	0°♈
	447 Aug 29 j 15:10	0°♈			450 Apr 03 j 22:53	0°♈
	447 Sep 23 j 11:32	0°♈		evening max el	450 Apr 12 j 05:16	8°♈12'19 45°26'29
	447 Oct 17 j 18:21	0°♈			450 May 08 j 13:07	0°♄
	447 Nov 10 j 18:01	0°♌		greatest brilliancy	450 May 16 j 13:08	4°♄27'07 -4.5m
	447 Dec 04 j 14:59	0°♈		retrograde	450 May 30 j 19:22	7°♄58'32
desc. node	447 Dec 18 j 08:53	17°♈16'38		desc. node	450 Jun 04 j 03:54	7°♄36'04
morning set	447 Dec 21 j 04:02	20°♈47'37		evening set	450 Jun 14 j 23:43	3°♄32'26
	447 Dec 28 j 11:55	0°♄			450 Jun 20 j 22:22	30°♈♈
	448 Jan 21 j 10:11	0°♈		inferior conj	450 Jun 21 j 05:54	29°♈48'16 -3°-51'-59
				minimum elong	450 Jun 20 j 22:06	0°♄00'24 3°49'57
superior conj	448 Jan 31 j 20:06	13°♈01'25	-1°-20'-51	min. Earth dist.	450 Jun 21 j 07:06	29°♈46'24 0.28934 AU
minimum elong	448 Jan 31 j 12:53	12°♈38'52	1°20'45	morning rise	450 Jun 26 j 20:23	26°♈25'40
max. Earth dist.	448 Feb 04 j 21:10	18°♈04'24	1.71833 AU	direct	450 Jul 12 j 22:27	21°♈30'55
	448 Feb 14 j 10:43	0°♈		greatest brilliancy	450 Jul 27 j 04:02	25°♈03'19 -4.5m
	448 Mar 09 j 14:30	0°♈			450 Aug 04 j 21:50	0°♄
evening rise	448 Mar 11 j 15:50	2°♈32'32		morning max el	450 Aug 31 j 08:18	22°♄15'10 46°10'29
	448 Apr 02 j 22:30	0°♈			450 Sep 08 j 01:21	0°♈
asc. node	448 Apr 09 j 12:14	8°♈03'33		asc. node	450 Sep 25 j 07:12	18°♈32'45
	448 Apr 27 j 11:29	0°♈			450 Oct 05 j 10:07	0°♈
	448 May 22 j 06:17	0°♄			450 Oct 30 j 20:20	0°♈
	448 Jun 16 j 08:43	0°♈			450 Nov 24 j 10:20	0°♌
	448 Jul 11 j 23:01	0°♈			450 Dec 18 j 15:49	0°♈
desc. node	448 Jul 30 j 01:36	20°♈40'21			451 Jan 11 j 18:36	0°♄
	448 Aug 07 j 10:30	0°♈		desc. node	451 Jan 14 j 20:49	3°♄50'58
	448 Sep 04 j 21:44	0°♌			451 Feb 04 j 21:23	0°♈
evening max el	448 Sep 05 j 19:44	0°♌54'05	46°44'17		451 Mar 01 j 01:27	0°♈
	448 Oct 13 j 14:13	0°♈		morning set	451 Mar 07 j 04:18	7°♈34'42
greatest brilliancy	448 Oct 14 j 23:52	0°♈34'18	-4.6m		451 Mar 25 j 07:28	0°♈
retrograde	448 Oct 25 j 22:03	2°♈47'59				

superior conj	451 Apr 14 j 06:13	24°Υ35'39	0°-52'-20	direct	453 Sep 21 j 06:41	0°η22'16	
minimum elong	451 Apr 14 j 15:23	25°Υ03'53	0°52'00	greatest brilliancy	453 Oct 05 j 12:50	4°η01'37	-4.6m
max. Earth dist.	451 Apr 16 j 03:28	26°Υ54'55	1.73324 AU	asc. node	453 Oct 22 j 18:56	15°η38'09	
	451 Apr 18 j 15:37	0°Ϡ			453 Nov 07 j 11:01	0°Ϡ	
asc. node	451 May 08 j 00:02	23°Ϡ47'03		morning max el	453 Nov 10 j 21:02	3°Ϡ26'23	46°50'29
	451 May 13 j 01:34	0°Π			453 Dec 05 j 08:21	0°Π	
evening rise	451 May 21 j 05:08	9°Π59'58			453 Dec 31 j 01:31	0°Ϡ	
	451 Jun 06 j 12:46	0°Ϡ			454 Jan 25 j 00:45	0°Ϡ	
	451 Jul 01 j 01:08	0°Ω		desc. node	454 Feb 11 j 08:42	21°Ϡ02'32	
	451 Jul 25 j 15:36	0°η			454 Feb 18 j 17:13	0°≈	
	451 Aug 19 j 09:59	0°Ϡ			454 Mar 15 j 07:17	0°Ϡ	
desc. node	451 Aug 27 j 13:35	9°Ϡ48'37			454 Apr 08 j 20:38	0°Υ	
	451 Sep 13 j 10:53	0°Π			454 May 03 j 09:38	0°Ϡ	
	451 Oct 08 j 23:08	0°Ϡ		morning set	454 May 15 j 16:19	15°Ϡ01'29	
	451 Nov 04 j 12:12	0°Ϡ			454 May 27 j 21:44	0°Π	
evening max el	451 Nov 18 j 15:08	14°Ϡ57'16	47°22'55	asc. node	454 Jun 04 j 11:59	9°Π18'45	
	451 Dec 04 j 08:21	0°≈		max. Earth dist.	454 Jun 18 j 14:47	26°Π39'25	1.73512 AU
asc. node	451 Dec 18 j 16:42	11°≈10'21					
greatest brilliancy	451 Dec 26 j 10:54	15°≈32'20	-4.7m	superior conj	454 Jun 21 j 01:01	29°Π38'30	0°37'53
retrograde	452 Jan 08 j 15:19	18°≈46'40		minimum elong	454 Jun 20 j 18:08	29°Π17'21	0°37'34
evening set	452 Jan 25 j 13:42	13°≈06'01			454 Jun 21 j 08:00	0°Ϡ	
min. Earth dist.	452 Jan 28 j 12:51	11°≈16'19	0.27520 AU		454 Jul 15 j 15:57	0°Ω	
inferior conj	452 Jan 29 j 11:34	10°≈40'40	8°11'20	evening rise	454 Jul 26 j 19:09	13°Ω45'45	
minimum elong	452 Jan 29 j 04:47	10°≈51'18	8°10'36		454 Aug 08 j 22:02	0°η	
morning rise	452 Feb 01 j 20:16	8°≈36'05			454 Sep 02 j 03:32	0°Ϡ	
direct	452 Feb 19 j 04:42	2°≈48'17		desc. node	454 Sep 24 j 01:26	27°Ϡ06'03	
greatest brilliancy	452 Feb 29 j 17:13	4°≈51'49	-4.6m		454 Sep 26 j 09:47	0°Π	
	452 Apr 04 j 15:26	0°Ϡ			454 Oct 20 j 18:03	0°Ϡ	
desc. node	452 Apr 08 j 06:11	3°Ϡ26'50			454 Nov 14 j 06:18	0°Ϡ	
morning max el	452 Apr 08 j 11:40	3°Ϡ40'06	46°04'50		454 Dec 09 j 03:30	0°≈	
	452 May 03 j 23:30	0°Υ			455 Jan 03 j 22:00	0°Ϡ	
	452 May 30 j 21:06	0°Ϡ		asc. node	455 Jan 15 j 04:38	12°Ϡ30'32	
	452 Jun 25 j 17:46	0°Π		evening max el	455 Jan 28 j 23:01	26°Ϡ55'40	46°31'03
	452 Jul 20 j 22:32	0°Ϡ			455 Feb 01 j 01:17	0°Υ	
asc. node	452 Jul 30 j 09:36	11°Ϡ26'05		greatest brilliancy	455 Mar 05 j 11:09	25°Υ21'39	-4.6m
	452 Aug 14 j 14:49	0°Ω		retrograde	455 Mar 20 j 00:11	29°Υ10'10	
	452 Sep 07 j 21:23	0°η		evening set	455 Apr 05 j 12:33	23°Υ52'43	
greatest brilliancy	452 Sep 29 j 04:45	26°η37'07	-3.9m	inferior conj	455 Apr 10 j 09:10	20°Υ52'54	5°40'58
	452 Oct 01 j 21:27	0°Ϡ		minimum elong	455 Apr 10 j 18:38	20°Υ37'56	5°38'54
morning set	452 Oct 02 j 20:34	1°Ϡ12'31		min. Earth dist.	455 Apr 10 j 11:52	20°Υ48'38	0.28819 AU
	452 Oct 25 j 18:13	0°Π		morning rise	455 Apr 16 j 00:52	17°Υ25'29	
				direct	455 May 01 j 18:59	12°Υ36'52	
superior conj	452 Nov 11 j 18:01	21°Π23'44	0°17'06	desc. node	455 May 06 j 18:00	13°Υ04'36	
minimum elong	452 Nov 11 j 22:27	21°Π37'41	0°16'53	greatest brilliancy	455 May 14 j 10:56	15°Υ26'17	-4.5m
max. Earth dist.	452 Nov 12 j 00:05	21°Π42'48	1.71038 AU		455 Jun 05 j 18:14	0°Ϡ	
desc. node	452 Nov 18 j 23:10	0°Ϡ28'38		morning max el	455 Jun 19 j 13:07	12°Ϡ19'41	45°44'34
	452 Nov 18 j 14:04	0°Ϡ			455 Jul 07 j 02:54	0°Π	
	452 Dec 12 j 10:27	0°Ϡ			455 Aug 03 j 10:30	0°Ϡ	
evening rise	452 Dec 23 j 12:14	13°Ϡ54'13		asc. node	455 Aug 27 j 21:28	28°Ϡ29'10	
	453 Jan 05 j 08:28	0°≈			455 Aug 29 j 04:01	0°Ω	
	453 Jan 29 j 09:39	0°Ϡ			455 Sep 22 j 23:39	0°η	
	453 Feb 22 j 16:16	0°Υ			455 Oct 17 j 06:05	0°Ϡ	
asc. node	453 Mar 12 j 02:21	21°Υ16'45			455 Nov 10 j 05:32	0°Π	
	453 Mar 19 j 07:15	0°Ϡ			455 Dec 04 j 02:23	0°Ϡ	
	453 Apr 13 j 10:28	0°Π		desc. node	455 Dec 17 j 11:00	16°Ϡ47'38	
	453 May 09 j 08:41	0°Ϡ		morning set	455 Dec 18 j 13:30	18°Ϡ10'54	
	453 Jun 05 j 18:24	0°Ω			455 Dec 27 j 23:14	0°Ϡ	
evening max el	453 Jun 22 j 05:13	16°Ω31'28	45°32'23		456 Jan 20 j 21:25	0°≈	
desc. node	453 Jul 01 j 15:51	25°Ω11'13					
	453 Jul 07 j 08:41	0°η		superior conj	456 Jan 29 j 07:26	10°≈31'55	-1°-19'-31
greatest brilliancy	453 Jul 29 j 19:39	14°η03'30	-4.5m	minimum elong	456 Jan 28 j 23:23	10°≈06'44	1°19'23
retrograde	453 Aug 09 j 23:36	16°η16'57		max. Earth dist.	456 Feb 02 j 05:27	15°≈25'37	1.71777 AU
evening set	453 Aug 28 j 01:07	10°η16'22			456 Feb 13 j 21:51	0°Ϡ	
inferior conj	453 Aug 31 j 02:36	8°η24'50	-8°-46'-1	evening rise	456 Mar 09 j 05:51	0°Υ13'12	
minimum elong	453 Aug 31 j 04:14	8°η22'19	8°46'01		456 Mar 09 j 01:35	0°Υ	
min. Earth dist.	453 Aug 31 j 19:55	7°η58'12	0.27966 AU		456 Apr 02 j 09:38	0°Ϡ	
morning rise	453 Sep 03 j 07:08	6°η28'10		asc. node	456 Apr 08 j 14:17	7°Ϡ35'37	

	456 Apr 26 j 22:50	0°♈			458 Oct 05 j 01:06	0°♈	
	456 May 21 j 18:05	0°♈			458 Oct 30 j 09:40	0°♈	
	456 Jun 15 j 21:19	0°♈			458 Nov 23 j 22:50	0°♈	
	456 Jul 11 j 13:00	0°♈			458 Dec 18 j 03:49	0°♈	
desc. node	456 Jul 29 j 03:39	20°♈02'15			459 Jan 11 j 06:15	0°♈	
	456 Aug 07 j 03:15	0°♈		desc. node	459 Jan 13 j 22:54	3°♈21'15	
evening max el	456 Sep 03 j 09:29	28°♈31'35	46°41'48		459 Feb 04 j 08:46	0°♈	
	456 Sep 04 j 21:49	0°♈			459 Feb 28 j 12:37	0°♈	
greatest brilliancy	456 Oct 12 j 12:11	28°♈04'41	-4.6m	morning set	459 Mar 04 j 18:09	5°♈14'30	
	456 Oct 19 j 13:12	0°♈			459 Mar 24 j 18:28	0°♈	
retrograde	456 Oct 23 j 10:36	0°♈17'54					
	456 Oct 27 j 06:15	30°♈		superior conj	459 Apr 11 j 22:43	22°♈25'02	0°-54'-56
evening set	456 Nov 07 j 00:03	26°♈06'34		minimum elong	459 Apr 12 j 08:06	22°♈53'55	0°54'35
inferior conj	456 Nov 12 j 22:58	22°♈38'34	-1°-38'-13	max. Earth dist.	459 Apr 14 j 00:49	24°♈59'17	1.73283 AU
minimum elong	456 Nov 13 j 02:41	22°♈32'55	1°37'03		459 Apr 18 j 02:31	0°♈	
min. Earth dist.	456 Nov 13 j 01:59	22°♈33'59	0.26395 AU	asc. node	459 May 07 j 02:14	23°♈20'24	
morning rise	456 Nov 19 j 05:10	19°♈01'03			459 May 12 j 12:27	0°♈	
asc. node	456 Nov 19 j 06:53	18°♈58'47		evening rise	459 May 18 j 23:42	7°♈56'16	
direct	456 Dec 03 j 07:46	15°♈01'38			459 Jun 05 j 23:44	0°♈	
greatest brilliancy	456 Dec 15 j 14:08	17°♈51'08	-4.7m		459 Jun 30 j 12:21	0°♈	
	457 Jan 03 j 06:45	0°♈			459 Jul 25 j 03:16	0°♈	
morning max el	457 Jan 22 j 19:41	18°♈03'16	46°47'57		459 Aug 18 j 22:21	0°♈	
	457 Feb 03 j 07:59	0°♈		desc. node	459 Aug 26 j 15:32	9°♈16'30	
	457 Mar 02 j 09:09	0°♈			459 Sep 13 j 00:20	0°♈	
desc. node	457 Mar 10 j 20:30	9°♈43'56			459 Oct 08 j 14:24	0°♈	
	457 Mar 28 j 06:05	0°♈			459 Nov 04 j 07:15	0°♈	
	457 Apr 22 j 14:42	0°♈		evening max el	459 Nov 16 j 05:27	12°♈33'19	47°23'03
	457 May 17 j 16:24	0°♈			459 Dec 04 j 17:25	0°♈	
	457 Jun 11 j 12:40	0°♈		asc. node	459 Dec 17 j 18:50	9°♈43'08	
asc. node	457 Jul 01 j 23:50	24°♈55'34		greatest brilliancy	459 Dec 24 j 04:21	13°♈11'58	-4.7m
	457 Jul 06 j 03:17	0°♈		retrograde	460 Jan 06 j 05:22	16°♈22'31	
morning set	457 Jul 22 j 04:10	19°♈42'47		evening set	460 Jan 23 j 00:23	10°♈48'06	
	457 Jul 30 j 12:03	0°♈		min. Earth dist.	460 Jan 26 j 02:39	8°♈53'46	0.27452 AU
	457 Aug 23 j 15:44	0°♈		inferior conj	460 Jan 27 j 01:32	8°♈17'50	8°03'29
max. Earth dist.	457 Aug 24 j 08:44	0°♈53'00	1.72222 AU	minimum elong	460 Jan 26 j 18:08	8°♈29'27	8°02'35
				morning rise	460 Jan 30 j 12:16	6°♈10'07	
superior conj	457 Aug 27 j 22:00	5°♈18'48	1°24'36	direct	460 Feb 16 j 17:45	0°♈26'40	
minimum elong	457 Aug 27 j 22:39	5°♈20'50	1°24'36	greatest brilliancy	460 Feb 27 j 06:11	2°♈29'43	-4.6m
	457 Sep 16 j 16:06	0°♈			460 Apr 04 j 15:46	0°♈	
evening rise	457 Oct 05 j 06:38	23°♈17'32		morning max el	460 Apr 06 j 00:30	1°♈18'55	46°06'13
	457 Oct 10 j 15:10	0°♈		desc. node	460 Apr 07 j 08:21	2°♈36'23	
desc. node	457 Oct 21 j 13:25	13°♈40'57			460 May 03 j 15:58	0°♈	
	457 Nov 03 j 14:19	0°♈			460 May 30 j 10:49	0°♈	
	457 Nov 27 j 14:36	0°♈			460 Jun 25 j 06:07	0°♈	
	457 Dec 21 j 17:37	0°♈			460 Jul 20 j 10:08	0°♈	
	458 Jan 15 j 02:44	0°♈		asc. node	460 Jul 29 j 11:37	10°♈57'30	
	458 Feb 09 j 00:05	0°♈			460 Aug 14 j 02:01	0°♈	
asc. node	458 Feb 11 j 16:26	3°♈10'37			460 Sep 07 j 08:25	0°♈	
	458 Mar 06 j 20:39	0°♈		greatest brilliancy	460 Sep 30 j 02:46	28°♈26'54	-3.9m
	458 Apr 03 j 18:40	0°♈		morning set	460 Sep 30 j 10:28	28°♈51'01	
evening max el	458 Apr 09 j 21:55	6°♈03'16	45°27'46		460 Oct 01 j 08:27	0°♈	
	458 May 09 j 18:17	0°♈			460 Oct 25 j 05:16	0°♈	
greatest brilliancy	458 May 14 j 05:11	2°♈18'28	-4.5m				
retrograde	458 May 28 j 11:40	5°♈50'02		superior conj	460 Nov 09 j 04:29	18°♈50'44	0°20'56
desc. node	458 Jun 03 j 06:01	5°♈10'45		minimum elong	460 Nov 09 j 09:50	19°♈07'35	0°20'40
evening set	458 Jun 12 j 15:03	1°♈25'44		max. Earth dist.	460 Nov 09 j 03:07	18°♈46'26	1.71056 AU
	458 Jun 15 j 02:57	30°♈		desc. node	460 Nov 18 j 01:19	0°♈00'29	
inferior conj	458 Jun 18 j 22:21	27°♈39'36	-3°-34'-14		460 Nov 18 j 01:10	0°♈	
minimum elong	458 Jun 18 j 15:03	27°♈51'00	3°32'17		460 Dec 11 j 21:36	0°♈	
min. Earth dist.	458 Jun 18 j 23:25	27°♈37'57	0.28941 AU	evening rise	460 Dec 20 j 21:50	11°♈18'43	
morning rise	458 Jun 24 j 14:58	24°♈13'40			461 Jan 04 j 19:41	0°♈	
direct	458 Jul 10 j 15:18	19°♈22'20			461 Jan 28 j 20:57	0°♈	
greatest brilliancy	458 Jul 24 j 18:19	22°♈51'37	-4.5m		461 Feb 22 j 03:45	0°♈	
	458 Aug 05 j 17:49	0°♈		asc. node	461 Mar 11 j 04:26	20°♈47'31	
morning max el	458 Aug 28 j 23:24	20°♈00'53	46°08'50		461 Mar 18 j 19:07	0°♈	
	458 Sep 07 j 20:40	0°♈			461 Apr 12 j 23:08	0°♈	
asc. node	458 Sep 24 j 09:17	17°♈53'24			461 May 08 j 22:58	0°♈	

	461 Jun 05 j 12:35	0°♈		morning set	463 Dec 15 j 23:30	15°♏37'06	
evening max el	461 Jun 19 j 18:47	14°♈14'34	45°31'02	desc. node	463 Dec 16 j 13:02	16°♏19'38	
desc. node	461 Jun 30 j 17:55	24°♈13'30			463 Dec 27 j 10:10	0°♏	
	461 Jul 07 j 19:08	0°♏			464 Jan 20 j 08:17	0°♏	
greatest brilliancy	461 Jul 27 j 06:51	11°♏44'35	-4.5m				
retrograde	461 Aug 07 j 13:35	14°♏01'00		superior conj	464 Jan 26 j 18:36	8°♏02'50	-1°-18'00
evening set	461 Aug 25 j 14:58	8°♏00'14		minimum elong	464 Jan 26 j 09:47	7°♏35'14	1°17'51
inferior conj	461 Aug 28 j 17:04	6°♏07'56	-8°-46'-44	max. Earth dist.	464 Jan 30 j 15:25	12°♏52'55	1.71733 AU
minimum elong	461 Aug 28 j 17:50	6°♏06'45	8°46'44		464 Feb 13 j 08:41	0°♏	
min. Earth dist.	461 Aug 29 j 09:53	5°♏42'06	0.28026 AU	evening rise	464 Mar 06 j 19:24	27°♏53'08	
morning rise	461 Aug 31 j 20:29	4°♏13'02			464 Mar 08 j 12:24	0°♏	
	461 Sep 09 j 02:45	30°♏♈			464 Apr 01 j 20:32	0°♏	
direct	461 Sep 18 j 21:23	28°♏04'16		asc. node	464 Apr 07 j 16:26	7°♏08'43	
	461 Sep 29 j 02:00	0°♏			464 Apr 26 j 09:58	0°♏	
greatest brilliancy	461 Oct 03 j 05:51	1°♏45'58	-4.6m		464 May 21 j 05:39	0°♏	
asc. node	461 Oct 21 j 21:07	14°♏32'16			464 Jun 15 j 09:40	0°♏	
	461 Nov 07 j 09:59	0°♏			464 Jul 11 j 02:47	0°♏	
morning max el	461 Nov 08 j 11:33	1°♏04'48	46°49'30	desc. node	464 Jul 28 j 05:38	19°♏24'36	
	461 Dec 05 j 00:44	0°♏			464 Aug 06 j 19:56	0°♏	
	461 Dec 30 j 15:33	0°♏		evening max el	464 Aug 31 j 23:56	26°♏12'08	46°39'18
	462 Jan 24 j 13:35	0°♏			464 Sep 04 j 22:34	0°♏	
desc. node	462 Feb 10 j 10:40	20°♏31'02		greatest brilliancy	464 Oct 10 j 01:11	25°♏37'38	-4.6m
	462 Feb 18 j 05:19	0°♏		retrograde	464 Oct 20 j 23:08	27°♏49'29	
	462 Mar 14 j 18:50	0°♏		evening set	464 Nov 04 j 14:02	23°♏36'11	
	462 Apr 08 j 07:47	0°♏		inferior conj	464 Nov 10 j 11:04	20°♏10'25	-2°-2'-24
	462 May 02 j 20:30	0°♏		minimum elong	464 Nov 10 j 15:40	20°♏03'26	2°00'56
morning set	462 May 13 j 10:16	12°♏56'28		min. Earth dist.	464 Nov 10 j 15:17	20°♏04'02	0.26411 AU
	462 May 27 j 08:27	0°♏		morning rise	464 Nov 16 j 17:12	16°♏33'04	
asc. node	462 Jun 03 j 14:02	8°♏52'14		asc. node	464 Nov 18 j 08:54	15°♏42'58	
max. Earth dist.	462 Jun 16 j 13:01	24°♏47'21	1.73535 AU	direct	464 Nov 30 j 20:47	12°♏33'25	
				greatest brilliancy	464 Dec 13 j 03:25	15°♏23'32	-4.7m
superior conj	462 Jun 18 j 19:34	27°♏35'07	0°35'04		465 Jan 03 j 17:43	0°♏	
minimum elong	462 Jun 18 j 13:05	27°♏15'10	0°34'46	morning max el	465 Jan 20 j 09:28	15°♏39'57	46°48'52
	462 Jun 20 j 18:41	0°♏			465 Feb 03 j 02:58	0°♏	
	462 Jul 15 j 02:41	0°♏			465 Mar 02 j 00:03	0°♏	
evening rise	462 Jul 24 j 13:32	11°♏40'52		desc. node	465 Mar 09 j 22:40	9°♏09'08	
	462 Aug 08 j 08:55	0°♏			465 Mar 27 j 19:08	0°♏	
	462 Sep 01 j 14:39	0°♏			465 Apr 22 j 02:43	0°♏	
desc. node	462 Sep 23 j 03:35	26°♏37'27			465 May 17 j 03:48	0°♏	
	462 Sep 25 j 21:15	0°♏			465 Jun 10 j 23:40	0°♏	
	462 Oct 20 j 06:00	0°♏		asc. node	465 Jul 01 j 01:49	24°♏28'38	
	462 Nov 13 j 18:58	0°♏			465 Jul 05 j 14:03	0°♏	
	462 Dec 08 j 17:21	0°♏		morning set	465 Jul 19 j 21:32	17°♏35'31	
	463 Jan 03 j 14:12	0°♏			465 Jul 29 j 22:42	0°♏	
asc. node	463 Jan 14 j 06:35	11°♏47'02		max. Earth dist.	465 Aug 21 j 21:32	28°♏30'07	1.72276 AU
evening max el	463 Jan 26 j 14:06	24°♏38'52	46°33'39		465 Aug 23 j 02:24	0°♏	
	463 Feb 01 j 00:34	0°♏					
greatest brilliancy	463 Mar 03 j 03:13	23°♏09'33	-4.6m	superior conj	465 Aug 25 j 14:13	3°♏06'22	1°24'39
retrograde	463 Mar 17 j 17:09	26°♏59'10		minimum elong	465 Aug 25 j 14:06	3°♏06'00	1°24'38
evening set	463 Apr 03 j 07:26	21°♏37'21			465 Sep 16 j 02:53	0°♏	
inferior conj	463 Apr 08 j 01:20	18°♏41'37	5°55'52	evening rise	465 Oct 02 j 19:18	20°♏52'47	
minimum elong	463 Apr 08 j 10:53	18°♏26'31	5°53'50		465 Oct 10 j 02:07	0°♏	
min. Earth dist.	463 Apr 08 j 03:24	18°♏38'20	0.28800 AU	desc. node	465 Oct 20 j 15:32	13°♏13'07	
morning rise	463 Apr 13 j 14:32	15°♏18'06			465 Nov 03 j 01:27	0°♏	
direct	463 Apr 29 j 10:43	10°♏25'53			465 Nov 27 j 01:55	0°♏	
desc. node	463 May 05 j 20:07	11°♏11'40			465 Dec 21 j 05:11	0°♏	
greatest brilliancy	463 May 12 j 01:24	13°♏14'33	-4.5m		466 Jan 14 j 14:45	0°♏	
	463 Jun 05 j 23:52	0°♏			466 Feb 08 j 12:58	0°♏	
morning max el	463 Jun 17 j 05:55	10°♏12'10	45°44'34	asc. node	466 Feb 10 j 18:32	2°♏38'22	
	463 Jul 06 j 20:04	0°♏			466 Mar 06 j 11:27	0°♏	
	463 Aug 03 j 00:21	0°♏			466 Apr 03 j 14:45	0°♏	
asc. node	463 Aug 26 j 23:29	27°♏58'01		evening max el	466 Apr 07 j 13:47	3°♏52'54	45°28'52
	463 Aug 28 j 16:26	0°♏			466 May 11 j 12:45	0°♏	
	463 Sep 22 j 11:21	0°♏		greatest brilliancy	466 May 11 j 21:09	0°♏09'51	-4.5m
	463 Oct 16 j 17:23	0°♏		retrograde	466 May 26 j 03:19	3°♏41'35	
	463 Nov 09 j 16:38	0°♏		desc. node	466 Jun 02 j 08:03	2°♏40'31	
	463 Dec 03 j 13:22	0°♏			466 Jun 08 j 23:08	30°♏♏	

evening set	466 Jun 10 j 06:19	29°II18'46		max. Earth dist.	468 Nov 06 j 09:49	16°III01'52	1.71072 AU
inferior conj	466 Jun 16 j 14:37	25°II31'04	-3°-15'-56	desc. node	468 Nov 17 j 03:17	29°III32'05	
minimum elong	466 Jun 16 j 07:51	25°II41'39	3°14'06		468 Nov 17 j 12:10	0°♂	
min. Earth dist.	466 Jun 16 j 15:59	25°II28'56	0.28948 AU		468 Dec 11 j 08:40	0°♂	
morning rise	466 Jun 22 j 09:16	22°II01'50		evening rise	468 Dec 18 j 07:33	8°♂43'49	
direct	466 Jul 08 j 07:31	17°II13'44			469 Jan 04 j 06:49	0°≈	
greatest brilliancy	466 Jul 22 j 08:49	20°II40'23	-4.5m		469 Jan 28 j 08:12	0°♂	
	466 Aug 06 j 08:30	0°♂			469 Feb 21 j 15:11	0°♀	
morning max el	466 Aug 26 j 13:42	17°♂45'19	46°07'23	asc. node	469 Mar 10 j 06:36	20°♀18'43	
	466 Sep 07 j 15:12	0°♂			469 Mar 18 j 06:56	0°♂	
asc. node	466 Sep 23 j 11:29	17°♂15'33			469 Apr 12 j 11:46	0°II	
	466 Oct 04 j 15:37	0°♂			469 May 08 j 13:20	0°♂	
	466 Oct 29 j 22:35	0°♂			469 Jun 05 j 07:12	0°♂	
	466 Nov 23 j 10:59	0°III		evening max el	469 Jun 17 j 09:02	11°♂59'23	45°29'35
	466 Dec 17 j 15:30	0°♂		desc. node	469 Jun 29 j 19:54	23°♂14'04	
	467 Jan 10 j 17:35	0°♂			469 Jul 08 j 09:20	0°♂	
desc. node	467 Jan 13 j 00:51	2°♂52'10		greatest brilliancy	469 Jul 24 j 16:47	9°♂23'55	-4.5m
	467 Feb 03 j 19:49	0°≈		retrograde	469 Aug 05 j 03:47	11°♂44'19	
	467 Feb 27 j 23:28	0°♂		evening set	469 Aug 23 j 04:10	5°♂43'56	
morning set	467 Mar 02 j 08:01	2°♂55'18		inferior conj	469 Aug 26 j 07:20	3°♂50'09	-8°-46'-28
	467 Mar 24 j 05:10	0°♀		minimum elong	469 Aug 26 j 07:14	3°♂50'17	8°46'29
				min. Earth dist.	469 Aug 26 j 23:21	3°♂25'33	0.28088 AU
superior conj	467 Apr 09 j 15:14	20°♀15'21	0°-57'-26	morning rise	469 Aug 29 j 10:05	1°♂56'22	
minimum elong	467 Apr 10 j 00:46	20°♀44'41	0°57'06		469 Sep 01 j 19:35	30°♂♂	
max. Earth dist.	467 Apr 11 j 21:02	23°♀01'01	1.73245 AU	direct	469 Sep 16 j 12:27	25°♂45'26	
	467 Apr 17 j 13:09	0°♂		greatest brilliancy	469 Sep 30 j 22:35	29°♂29'24	-4.6m
asc. node	467 May 06 j 04:16	22°♂54'01			469 Oct 01 j 23:10	0°♂	
	467 May 11 j 23:06	0°II		asc. node	469 Oct 20 j 23:06	13°♂26'59	
evening rise	467 May 16 j 18:06	5°II52'42		morning max el	469 Nov 06 j 02:47	28°♂44'49	46°48'37
	467 Jun 05 j 10:31	0°♂			469 Nov 07 j 08:14	0°♂	
	467 Jun 29 j 23:26	0°♂			469 Dec 04 j 16:57	0°III	
	467 Jul 24 j 14:49	0°♂			469 Dec 30 j 05:30	0°♂	
	467 Aug 18 j 10:37	0°♂			470 Jan 24 j 02:22	0°♂	
desc. node	467 Aug 25 j 17:41	8°♂45'23		desc. node	470 Feb 09 j 12:50	20°♂00'11	
	467 Sep 12 j 13:42	0°III			470 Feb 17 j 17:23	0°≈	
	467 Oct 08 j 05:39	0°♂			470 Mar 14 j 06:25	0°♂	
	467 Nov 04 j 02:35	0°♂			470 Apr 07 j 18:59	0°♀	
evening max el	467 Nov 13 j 18:57	10°♂07'56	47°23'08		470 May 02 j 07:26	0°♂	
	467 Dec 05 j 05:16	0°≈		morning set	470 May 11 j 04:24	10°♂51'44	
asc. node	467 Dec 16 j 20:50	8°≈13'09			470 May 26 j 19:13	0°II	
greatest brilliancy	467 Dec 21 j 21:17	10°≈51'14	-4.7m	asc. node	470 Jun 02 j 16:03	8°II25'29	
retrograde	468 Jan 03 j 19:09	13°≈58'51		max. Earth dist.	470 Jun 14 j 12:58	23°II00'23	1.73556 AU
evening set	468 Jan 20 j 10:50	8°≈30'34					
min. Earth dist.	468 Jan 23 j 16:38	6°≈31'13	0.27384 AU	superior conj	470 Jun 16 j 14:14	25°II31'53	0°32'12
inferior conj	468 Jan 24 j 15:27	5°≈55'25	7°54'37	minimum elong	470 Jun 16 j 08:11	25°II13'16	0°31'56
minimum elong	468 Jan 24 j 07:28	6°≈07'57	7°53'33		470 Jun 20 j 05:25	0°♂	
morning rise	468 Jan 28 j 04:28	3°≈44'17			470 Jul 14 j 13:31	0°♂	
	468 Feb 04 j 13:27	30°♂♂		evening rise	470 Jul 22 j 08:03	9°♂36'09	
direct	468 Feb 14 j 06:23	28°♂05'12			470 Aug 07 j 19:58	0°♂	
	468 Feb 24 j 10:13	0°≈			470 Sep 01 j 01:59	0°♂	
greatest brilliancy	468 Feb 24 j 19:58	0°≈08'56	-4.6m	desc. node	470 Sep 22 j 05:41	26°♂07'50	
morning max el	468 Apr 03 j 13:32	28°≈58'42	46°07'45		470 Sep 25 j 08:59	0°III	
	468 Apr 04 j 14:44	0°♂			470 Oct 19 j 18:15	0°♂	
desc. node	468 Apr 06 j 10:25	1°♂47'18			470 Nov 13 j 07:57	0°♂	
	468 May 03 j 07:53	0°♀			470 Dec 08 j 07:31	0°≈	
	468 May 30 j 00:11	0°♂			471 Jan 03 j 06:51	0°♂	
	468 Jun 24 j 18:16	0°II		asc. node	471 Jan 13 j 08:42	11°♂02'57	
	468 Jul 19 j 21:37	0°♂		evening max el	471 Jan 24 j 06:01	22°♂23'40	46°36'21
asc. node	468 Jul 28 j 13:42	10°♂29'20			471 Feb 01 j 01:06	0°♀	
	468 Aug 13 j 13:10	0°♂		greatest brilliancy	471 Feb 28 j 19:57	20°♀57'55	-4.6m
	468 Sep 06 j 19:25	0°♂		retrograde	471 Mar 15 j 10:13	24°♀47'29	
morning set	468 Sep 28 j 00:17	26°♂29'33		evening set	471 Apr 01 j 02:25	19°♀21'30	
	468 Sep 30 j 19:24	0°♂		inferior conj	471 Apr 05 j 17:30	16°♀29'44	6°10'14
	468 Oct 24 j 16:13	0°III		minimum elong	471 Apr 06 j 03:06	16°♀14'35	6°08'17
				min. Earth dist.	471 Apr 05 j 18:43	16°♀27'49	0.28777 AU
superior conj	468 Nov 06 j 14:56	16°III17'59	0°24'43	morning rise	471 Apr 11 j 04:03	13°♀10'15	
minimum elong	468 Nov 06 j 21:09	16°III37'33	0°24'25	direct	471 Apr 27 j 02:49	8°♀14'29	

desc. node	471 May 04 j 22:07	9°Υ22'14			473 Dec 20 j 17:14	0°≈	
greatest brilliancy	471 May 09 j 14:49	11°Υ01'03	-4.5m		474 Jan 14 j 03:18	0°✕	
	471 Jun 06 j 03:49	0°♄			474 Feb 08 j 02:27	0°Υ	
morning max el	471 Jun 14 j 22:49	8°♄04'29	45°44'35	asc. node	474 Feb 09 j 20:40	2°Υ04'37	
	471 Jul 06 j 13:05	0°♂			474 Mar 06 j 02:57	0°♄	
	471 Aug 02 j 14:15	0°♂			474 Apr 03 j 12:01	0°♂	
asc. node	471 Aug 26 j 01:42	27°♂27'03		evening max el	474 Apr 05 j 04:48	1°♂39'15	45°30'16
	471 Aug 28 j 04:59	0°♂		greatest brilliancy	474 May 09 j 12:27	27°♂59'32	-4.5m
	471 Sep 21 j 23:16	0°♂			474 May 14 j 13:47	0°♂	
	471 Oct 16 j 04:58	0°♂		retrograde	474 May 23 j 19:07	1°♂32'46	
	471 Nov 09 j 04:04	0°♂		desc. node	474 Jun 01 j 10:07	0°♂05'09	
	471 Dec 03 j 00:43	0°♄			474 Jun 01 j 16:08	30°♂♂	
morning set	471 Dec 13 j 09:10	13°♄01'08		evening set	474 Jun 07 j 21:53	27°♂10'50	
desc. node	471 Dec 15 j 15:06	15°♄50'39		inferior conj	474 Jun 14 j 07:05	23°♂22'01	-2°-57'-30
	471 Dec 26 j 21:25	0°♄		minimum elong	474 Jun 14 j 00:52	23°♂31'44	2°55'48
	472 Jan 19 j 19:27	0°≈		min. Earth dist.	474 Jun 14 j 08:55	23°♂19'08	0.28954 AU
				morning rise	474 Jun 20 j 03:37	19°♂49'45	
superior conj	472 Jan 24 j 05:19	5°≈31'19	-1°-16'-19	direct	474 Jul 05 j 23:28	15°♂04'26	
minimum elong	472 Jan 23 j 19:49	5°≈01'34	1°16'08	greatest brilliancy	474 Jul 20 j 00:23	18°♂29'44	-4.5m
max. Earth dist.	472 Jan 28 j 03:29	10°≈25'49	1.71681 AU		474 Aug 06 j 19:50	0°♂	
	472 Feb 12 j 19:47	0°✕		morning max el	474 Aug 24 j 04:16	15°♂29'35	46°06'07
evening rise	472 Mar 04 j 08:44	25°✕31'27			474 Sep 07 j 09:35	0°♂	
	472 Mar 07 j 23:30	0°Υ		asc. node	474 Sep 22 j 13:26	16°♂36'29	
	472 Apr 01 j 07:44	0°♄			474 Oct 04 j 06:15	0°♂	
asc. node	472 Apr 06 j 18:27	6°♄40'33			474 Oct 29 j 11:43	0°♂	
	472 Apr 25 j 21:23	0°♂			474 Nov 22 j 23:23	0°♂	
	472 May 20 j 17:31	0°♂			474 Dec 17 j 03:27	0°♄	
	472 Jun 14 j 22:21	0°♂			475 Jan 10 j 05:14	0°♄	
	472 Jul 10 j 16:57	0°♂		desc. node	475 Jan 12 j 03:02	2°♄22'42	
desc. node	472 Jul 27 j 07:50	18°♂46'31			475 Feb 03 j 07:15	0°≈	
	472 Aug 06 j 13:14	0°♂			475 Feb 27 j 10:43	0°✕	
evening max el	472 Aug 29 j 13:54	23°♂50'42	46°36'30	morning set	475 Feb 27 j 21:19	0°✕32'52	
	472 Sep 05 j 01:01	0°♂			475 Mar 23 j 16:17	0°Υ	
greatest brilliancy	472 Oct 07 j 14:42	23°♂10'01	-4.6m				
retrograde	472 Oct 18 j 10:50	25°♂19'29		superior conj	475 Apr 07 j 07:21	18°Υ03'09	0°-59'-52
evening set	472 Nov 02 j 04:03	21°♂04'04		minimum elong	475 Apr 07 j 16:59	18°Υ32'50	0°59'33
inferior conj	472 Nov 07 j 23:03	17°♂40'47	-2°-26'-18	max. Earth dist.	475 Apr 09 j 15:03	20°Υ54'43	1.73202 AU
minimum elong	472 Nov 08 j 04:30	17°♂32'31	2°24'36		475 Apr 17 j 00:10	0°♄	
min. Earth dist.	472 Nov 08 j 04:48	17°♂32'04	0.26435 AU	asc. node	475 May 05 j 06:16	22°♄26'26	
morning rise	472 Nov 14 j 04:48	14°♂03'36			475 May 11 j 10:06	0°♂	
asc. node	472 Nov 17 j 10:57	12°♂29'28		evening rise	475 May 14 j 12:14	3°♂47'18	
direct	472 Nov 28 j 09:26	10°♂03'30			475 Jun 04 j 21:40	0°♂	
greatest brilliancy	472 Dec 10 j 17:21	12°♂54'47	-4.7m		475 Jun 29 j 10:52	0°♂	
	473 Jan 04 j 02:31	0°♄			475 Jul 24 j 02:44	0°♂	
morning max el	473 Jan 17 j 22:17	13°♄12'18	46°49'48		475 Aug 17 j 23:16	0°♂	
	473 Feb 02 j 22:01	0°♄		desc. node	475 Aug 24 j 19:47	8°♂13'00	
	473 Mar 01 j 15:13	0°≈			475 Sep 12 j 03:28	0°♂	
desc. node	473 Mar 09 j 00:47	8°≈33'10			475 Oct 07 j 21:21	0°♄	
	473 Mar 27 j 08:29	0°✕			475 Nov 03 j 22:41	0°♄	
	473 Apr 21 j 15:02	0°Υ		evening max el	475 Nov 11 j 08:22	7°♄41'51	47°23'10
	473 May 16 j 15:30	0°♄			475 Dec 05 j 21:22	0°≈	
	473 Jun 10 j 10:58	0°♂		asc. node	475 Dec 15 j 22:55	6°≈39'30	
asc. node	473 Jun 30 j 03:57	24°♂01'14		greatest brilliancy	475 Dec 19 j 13:01	8°≈28'16	-4.7m
	473 Jul 05 j 01:08	0°♂		retrograde	476 Jan 01 j 09:10	11°≈34'38	
morning set	473 Jul 17 j 15:15	15°♂28'21		evening set	476 Jan 17 j 21:11	6°≈12'08	
	473 Jul 29 j 09:40	0°♂		min. Earth dist.	476 Jan 21 j 06:31	4°≈07'56	0.27323 AU
max. Earth dist.	473 Aug 19 j 11:26	26°♂09'46	1.72331 AU	inferior conj	476 Jan 22 j 05:23	3°≈32'09	7°44'51
	473 Aug 22 j 13:22	0°♂		minimum elong	476 Jan 21 j 20:52	3°≈45'29	7°43'36
				morning rise	476 Jan 25 j 20:54	1°≈17'31	
superior conj	473 Aug 23 j 06:59	0°♂54'50	1°24'32		476 Jan 28 j 02:56	30°♂♄	
minimum elong	473 Aug 23 j 06:07	0°♂52'08	1°24'33	direct	476 Feb 11 j 19:04	25°♄42'38	
	473 Sep 15 j 13:59	0°♂		greatest brilliancy	476 Feb 22 j 10:14	27°♄47'44	-4.6m
evening rise	473 Sep 30 j 08:34	18°♂28'59			476 Feb 27 j 09:22	0°≈	
	473 Oct 09 j 13:23	0°♂		morning max el	476 Apr 01 j 03:36	26°≈39'47	46°09'13
desc. node	473 Oct 19 j 17:32	12°♂43'51			476 Apr 04 j 13:12	0°✕	
	473 Nov 02 j 12:56	0°♄		desc. node	476 Apr 05 j 12:25	0°✕57'43	
	473 Nov 26 j 13:38	0°♄			476 May 02 j 23:57	0°Υ	

	476 May 29 j 13:48	0°♄			479 Jan 02 j 23:45	0°♁	
	476 Jun 24 j 06:38	0°♂		asc. node	479 Jan 12 j 10:52	10°♁18'40	
	476 Jul 19 j 09:19	0°♄		evening max el	479 Jan 21 j 22:27	20°♁09'51	46°38'59
asc. node	476 Jul 27 j 15:49	10°♄00'44			479 Feb 01 j 02:45	0°♁	
	476 Aug 13 j 00:30	0°♂		greatest brilliancy	479 Feb 26 j 13:41	18°♁48'02	-4.6m
	476 Sep 06 j 06:36	0°♄		retrograde	479 Mar 13 j 03:04	22°♁36'10	
morning set	476 Sep 25 j 14:27	24°♄08'35		evening set	479 Mar 29 j 21:29	17°♁06'19	
	476 Sep 30 j 06:33	0°♂		inferior conj	479 Apr 03 j 09:46	14°♁18'26	6°24'02
	476 Oct 24 j 03:22	0°♄		minimum elong	479 Apr 03 j 19:19	14°♁03'19	6°22'10
				min. Earth dist.	479 Apr 03 j 10:04	14°♁17'58	0.28753 AU
superior conj	476 Nov 04 j 01:50	13°♄46'00	0°28'25	morning rise	479 Apr 08 j 17:29	11°♁02'59	
minimum elong	476 Nov 04 j 08:51	14°♄08'05	0°28'05	direct	479 Apr 24 j 19:12	6°♁03'49	
max. Earth dist.	476 Nov 03 j 18:40	13°♄23'29	1.71087 AU	desc. node	479 May 04 j 00:13	7°♁37'18	
desc. node	476 Nov 16 j 05:24	29°♄03'33		greatest brilliancy	479 May 07 j 03:30	8°♁47'05	-4.5m
	476 Nov 16 j 23:20	0°♄			479 Jun 06 j 06:01	0°♄	
	476 Dec 10 j 19:52	0°♄		morning max el	479 Jun 12 j 15:13	5°♄55'49	45°44'30
evening rise	476 Dec 15 j 17:40	6°♄09'46			479 Jul 06 j 05:41	0°♂	
	477 Jan 03 j 18:06	0°♄			479 Aug 02 j 03:58	0°♄	
	477 Jan 27 j 19:35	0°♁		asc. node	479 Aug 25 j 03:40	26°♄55'39	
	477 Feb 21 j 02:47	0°♁			479 Aug 27 j 17:25	0°♂	
asc. node	477 Mar 09 j 08:33	19°♁48'36			479 Sep 21 j 11:01	0°♄	
	477 Mar 17 j 18:59	0°♄			479 Oct 15 j 16:23	0°♂	
	477 Apr 12 j 00:42	0°♂			479 Nov 08 j 15:18	0°♄	
	477 May 08 j 04:08	0°♄			479 Dec 02 j 11:54	0°♄	
	477 Jun 05 j 02:36	0°♂		morning set	479 Dec 10 j 18:53	10°♄25'45	
evening max el	477 Jun 15 j 00:13	9°♂46'06	45°28'21	desc. node	479 Dec 14 j 17:14	15°♄22'21	
desc. node	477 Jun 28 j 22:05	22°♂13'14			479 Dec 26 j 08:32	0°♄	
	477 Jul 09 j 04:34	0°♄			480 Jan 19 j 06:29	0°♄	
greatest brilliancy	477 Jul 22 j 02:56	7°♄03'40	-4.5m				
retrograde	477 Aug 02 j 18:18	9°♄27'48		superior conj	480 Jan 21 j 15:59	2°♄59'58	-1°-14'-30
evening set	477 Aug 20 j 17:12	3°♄28'36		minimum elong	480 Jan 21 j 05:52	2°♄28'19	1°14'15
inferior conj	477 Aug 23 j 21:45	1°♄32'38	-8°-45'-23	max. Earth dist.	480 Jan 25 j 15:20	7°♄58'19	1.71630 AU
minimum elong	477 Aug 23 j 20:48	1°♄34'06	8°45'24		480 Feb 12 j 06:44	0°♁	
min. Earth dist.	477 Aug 24 j 12:37	1°♄09'50	0.28145 AU	evening rise	480 Mar 01 j 21:59	23°♁09'51	
	477 Aug 26 j 10:27	30°♄♂			480 Mar 07 j 10:26	0°♁	
morning rise	477 Aug 27 j 00:13	29°♂39'20			480 Mar 31 j 18:44	0°♄	
direct	477 Sep 14 j 04:06	23°♂27'09		asc. node	480 Apr 05 j 20:31	6°♄13'08	
greatest brilliancy	477 Sep 28 j 14:25	27°♂11'52	-4.6m		480 Apr 25 j 08:38	0°♂	
	477 Oct 03 j 16:57	0°♄			480 May 20 j 05:14	0°♄	
asc. node	477 Oct 20 j 01:11	12°♄23'24			480 Jun 14 j 10:55	0°♂	
morning max el	477 Nov 03 j 18:29	26°♄26'00	46°47'34		480 Jul 10 j 07:07	0°♄	
	477 Nov 07 j 05:43	0°♂		desc. node	480 Jul 26 j 09:51	18°♄08'00	
	477 Dec 04 j 08:58	0°♄			480 Aug 06 j 06:44	0°♂	
	477 Dec 29 j 19:23	0°♄		evening max el	480 Aug 27 j 03:10	21°♂28'14	46°33'48
	478 Jan 23 j 15:07	0°♄			480 Sep 05 j 04:47	0°♄	
desc. node	478 Feb 08 j 14:54	19°♄29'08		greatest brilliancy	480 Oct 05 j 04:55	20°♄44'18	-4.6m
	478 Feb 17 j 05:26	0°♄		retrograde	480 Oct 15 j 22:10	22°♄50'57	
	478 Mar 13 j 17:58	0°♁		evening set	480 Oct 30 j 18:23	18°♄33'05	
	478 Apr 07 j 06:11	0°♁		inferior conj	480 Nov 05 j 11:15	15°♄12'42	-2°-49'-39
	478 May 01 j 18:23	0°♄		minimum elong	480 Nov 05 j 17:29	15°♄03'13	2°47'45
morning set	478 May 08 j 22:28	8°♄46'41		min. Earth dist.	480 Nov 05 j 18:43	15°♄01'21	0.26461 AU
	478 May 26 j 06:03	0°♂		morning rise	480 Nov 11 j 16:20	11°♄35'56	
asc. node	478 Jun 01 j 18:13	7°♄58'56		asc. node	480 Nov 16 j 13:05	9°♄22'21	
max. Earth dist.	478 Jun 12 j 12:08	21°♄10'49	1.73573 AU	direct	480 Nov 25 j 21:46	7°♄34'57	
				greatest brilliancy	480 Dec 08 j 08:16	10°♄28'27	-4.7m
superior conj	478 Jun 14 j 08:46	23°♄28'00	0°29'18		481 Jan 04 j 08:29	0°♄	
minimum elong	478 Jun 14 j 03:10	23°♄10'50	0°29'03	morning max el	481 Jan 15 j 10:29	10°♄43'52	46°50'37
	478 Jun 19 j 16:13	0°♄			481 Feb 02 j 16:15	0°♄	
	478 Jul 14 j 00:24	0°♂			481 Mar 01 j 05:54	0°♄	
evening rise	478 Jul 20 j 02:29	7°♂31'07		desc. node	481 Mar 08 j 02:42	7°♄57'40	
	478 Aug 07 j 07:01	0°♄			481 Mar 26 j 21:27	0°♁	
	478 Aug 31 j 13:19	0°♂			481 Apr 21 j 03:02	0°♁	
desc. node	478 Sep 21 j 07:39	25°♄37'53			481 May 16 j 02:52	0°♄	
	478 Sep 24 j 20:43	0°♄			481 Jun 09 j 21:58	0°♂	
	478 Oct 19 j 06:32	0°♄		asc. node	481 Jun 29 j 06:03	23°♄34'38	
	478 Nov 12 j 20:59	0°♄			481 Jul 04 j 11:54	0°♄	
	478 Dec 07 j 21:46	0°♄		morning set	481 Jul 15 j 08:58	13°♄22'04	

	481 Jul 28 j 20:23	0°♈		minimum elong	484 Jan 19 j 10:05	1°≈22'45	7°32'41
max. Earth dist.	481 Aug 17 j 02:49	23°♈54'50	1.72390 AU		484 Jan 21 j 15:19	30°♈	
				morning rise	484 Jan 23 j 13:16	28°♈50'29	
superior conj	481 Aug 20 j 23:43	28°♈43'59	1°24'19	direct	484 Feb 09 j 07:56	23°♈20'00	
minimum elong	481 Aug 20 j 22:08	28°♈39'03	1°24'19	greatest brilliancy	484 Feb 19 j 23:46	25°♈26'10	-4.6m
	481 Aug 22 j 00:07	0°♐			484 Feb 29 j 03:48	0°≈	
	481 Sep 15 j 00:51	0°♑		morning max el	484 Mar 29 j 18:13	24°≈23'05	46°10'40
evening rise	481 Sep 27 j 21:46	16°♑05'54			484 Apr 04 j 10:29	0°♒	
	481 Oct 09 j 00:25	0°♒		desc. node	484 Apr 04 j 14:36	0°♒10'22	
desc. node	481 Oct 18 j 19:39	12°♒15'48			484 May 02 j 15:24	0°♓	
	481 Nov 02 j 00:09	0°♓			484 May 29 j 02:58	0°♈	
	481 Nov 26 j 01:05	0°♈			484 Jun 23 j 18:38	0°♐	
	481 Dec 20 j 04:59	0°≈			484 Jul 18 j 20:40	0°♑	
	482 Jan 13 j 15:36	0°♒		asc. node	484 Jul 26 j 17:50	9°♑32'47	
	482 Feb 07 j 15:44	0°♓			484 Aug 12 j 11:31	0°♈	
asc. node	482 Feb 08 j 22:38	1°♓31'01			484 Sep 05 j 17:28	0°♐	
	482 Mar 05 j 18:22	0°♈		morning set	484 Sep 23 j 04:54	21°♐49'36	
evening max el	482 Apr 02 j 19:28	29°♈25'40	45°31'47		484 Sep 29 j 17:23	0°♑	
	482 Apr 03 j 09:41	0°♐			484 Oct 23 j 14:14	0°♒	
greatest brilliancy	482 May 07 j 02:49	25°♐48'59	-4.5m	max. Earth dist.	484 Nov 01 j 04:08	10°♒47'50	1.71108 AU
retrograde	482 May 21 j 11:14	29°♐25'09					
desc. node	482 May 31 j 12:13	27°♐26'22		superior conj	484 Nov 01 j 12:43	11°♒14'52	0°32'03
evening set	482 Jun 05 j 13:35	25°♐03'34		minimum elong	484 Nov 01 j 20:28	11°♒39'15	0°31'42
inferior conj	482 Jun 11 j 23:31	21°♐14'02	-2°-38'-54	desc. node	484 Nov 15 j 07:33	28°♒35'56	
minimum elong	482 Jun 11 j 17:53	21°♐22'50	2°37'20		484 Nov 16 j 10:17	0°♓	
min. Earth dist.	482 Jun 12 j 01:43	21°♐10'34	0.28961 AU		484 Dec 10 j 06:53	0°♈	
morning rise	482 Jun 17 j 21:54	17°♐39'06		evening rise	484 Dec 13 j 03:23	3°♈35'01	
direct	482 Jul 03 j 15:19	12°♐56'06			485 Jan 03 j 05:11	0°≈	
greatest brilliancy	482 Jul 17 j 16:51	16°♐21'30	-4.5m		485 Jan 27 j 06:47	0°♒	
	482 Aug 07 j 03:41	0°♑			485 Feb 20 j 14:11	0°♓	
morning max el	482 Aug 21 j 19:20	13°♑16'13	46°04'47	asc. node	485 Mar 08 j 10:40	19°♓19'38	
	482 Sep 07 j 03:11	0°♈			485 Mar 17 j 06:51	0°♈	
asc. node	482 Sep 21 j 15:32	15°♈59'03			485 Apr 11 j 13:30	0°♐	
	482 Oct 03 j 20:28	0°♐			485 May 07 j 18:52	0°♑	
	482 Oct 29 j 00:32	0°♑			485 Jun 04 j 22:19	0°♈	
	482 Nov 22 j 11:28	0°♒		evening max el	485 Jun 12 j 15:55	7°♈34'46	45°27'09
	482 Dec 16 j 15:06	0°♓		desc. node	485 Jun 28 j 00:08	21°♈11'23	
	483 Jan 09 j 16:33	0°♈			485 Jul 10 j 06:10	0°♐	
desc. node	483 Jan 11 j 05:06	1°♈53'55		greatest brilliancy	485 Jul 19 j 14:18	4°♐45'49	-4.5m
	483 Feb 02 j 18:20	0°≈		retrograde	485 Jul 31 j 08:43	7°♐12'19	
morning set	483 Feb 25 j 10:19	28°≈10'27		evening set	485 Aug 18 j 06:00	1°♐15'12	
	483 Feb 26 j 21:37	0°♒			485 Aug 20 j 07:52	30°♒	
	483 Mar 23 j 03:03	0°♓		inferior conj	485 Aug 21 j 12:16	29°♒16'25	-8°-43'-34
				minimum elong	485 Aug 21 j 10:29	29°♒19'11	8°43'32
superior conj	483 Apr 04 j 23:22	15°♓51'35	-1°-2'-14	min. Earth dist.	485 Aug 22 j 01:58	28°♒55'23	0.28196 AU
minimum elong	483 Apr 05 j 09:04	16°♓21'28	1°01'55	morning rise	485 Aug 24 j 14:48	27°♒22'55	
max. Earth dist.	483 Apr 07 j 07:46	18°♓45'23	1.73161 AU	direct	485 Sep 11 j 19:56	21°♒10'27	
	483 Apr 16 j 10:51	0°♈		greatest brilliancy	485 Sep 26 j 05:02	24°♒54'02	-4.6m
asc. node	483 May 04 j 08:28	22°♈00'25			485 Oct 04 j 21:10	0°♐	
	483 May 10 j 20:48	0°♐		asc. node	485 Oct 19 j 03:21	11°♐22'35	
evening rise	483 May 12 j 06:22	1°♐42'57		morning max el	485 Nov 01 j 09:21	24°♐06'12	46°46'23
	483 Jun 04 j 08:28	0°♑			485 Nov 07 j 02:08	0°♑	
	483 Jun 28 j 21:57	0°♈			485 Dec 04 j 00:28	0°♒	
	483 Jul 23 j 14:19	0°♐			485 Dec 29 j 08:58	0°♓	
	483 Aug 17 j 11:37	0°♑			486 Jan 23 j 03:41	0°♈	
desc. node	483 Aug 23 j 21:45	7°♑41'11		desc. node	486 Feb 07 j 16:53	18°♈58'17	
	483 Sep 11 j 17:01	0°♒			486 Feb 16 j 17:19	0°≈	
	483 Oct 07 j 13:02	0°♓			486 Mar 13 j 05:22	0°♒	
	483 Nov 03 j 19:12	0°♈			486 Apr 06 j 17:13	0°♓	
evening max el	483 Nov 08 j 22:23	5°♈17'59	47°23'08		486 May 01 j 05:11	0°♈	
	483 Dec 06 j 18:45	0°≈		morning set	486 May 06 j 16:20	6°♈41'29	
asc. node	483 Dec 15 j 01:03	5°≈02'43			486 May 25 j 16:43	0°♐	
greatest brilliancy	483 Dec 17 j 03:51	6°≈04'18	-4.7m	asc. node	486 May 31 j 20:16	7°♐32'32	
retrograde	483 Dec 29 j 23:29	9°≈10'23		max. Earth dist.	486 Jun 10 j 10:09	19°♐18'16	1.73589 AU
evening set	484 Jan 15 j 07:14	3°≈53'30					
min. Earth dist.	484 Jan 18 j 19:54	1°≈44'50	0.27259 AU	superior conj	486 Jun 12 j 03:12	21°♐24'24	0°26'21
inferior conj	484 Jan 19 j 19:04	1°≈08'43	7°34'07	minimum elong	486 Jun 11 j 22:07	21°♐08'46	0°26'07

	486 Jun 19 j 02:53	0°☿			489 Feb 02 j 10:01	0°☿		
	486 Jul 13 j 11:09	0°♌			489 Feb 28 j 20:25	0°♌		
evening rise	486 Jul 17 j 20:59	5°♌26'41		desc. node	489 Mar 07 j 04:55	7°♌23'16		
	486 Aug 06 j 17:57	0°♍			489 Mar 26 j 10:23	0°♍		
	486 Aug 31 j 00:31	0°♎			489 Apr 20 j 15:04	0°♎		
desc. node	486 Sep 20 j 09:49	25°♎09'02			489 May 15 j 14:21	0°♏		
	486 Sep 24 j 08:19	0°♏			489 Jun 09 j 09:05	0°♏		
	486 Oct 18 j 18:40	0°♐		asc. node	489 Jun 28 j 08:03	23°♏07'20		
	486 Nov 12 j 09:54	0°♑			489 Jul 03 j 22:48	0°☿		
	486 Dec 07 j 12:01	0°♒		morning set	489 Jul 13 j 02:37	11°☿15'13		
	487 Jan 02 j 16:52	0°♓			489 Jul 28 j 07:12	0°♌		
asc. node	487 Jan 11 j 12:49	9°♓33'19		max. Earth dist.	489 Aug 14 j 20:49	21°♌47'44	1.72448 AU	
evening max el	487 Jan 19 j 14:14	17°♓54'13	46°41'23					
	487 Feb 01 j 05:55	0°♈		superior conj	489 Aug 18 j 16:26	26°♌32'46	1°23'57	
greatest brilliancy	487 Feb 24 j 08:21	16°♈38'48	-4.6m	minimum elong	489 Aug 18 j 14:08	26°♌25'37	1°23'57	
retrograde	487 Mar 10 j 19:21	20°♈24'04			489 Aug 21 j 11:00	0°♍		
evening set	487 Mar 27 j 16:27	14°♈50'30			489 Sep 14 j 11:52	0°♎		
inferior conj	487 Apr 01 j 01:53	12°♈06'32	6°37'25	evening rise	489 Sep 25 j 11:12	13°♎43'07		
minimum elong	487 Apr 01 j 11:20	11°♈51'33	6°35'39		489 Oct 08 j 11:38	0°♏		
min. Earth dist.	487 Apr 01 j 01:30	12°♈07'08	0.28726 AU	desc. node	489 Oct 17 j 21:45	11°♏47'04		
morning rise	487 Apr 06 j 06:35	8°♈55'12			489 Nov 01 j 11:33	0°♐		
direct	487 Apr 22 j 11:12	3°♈52'40			489 Nov 25 j 12:43	0°♑		
desc. node	487 May 03 j 02:21	5°♈55'43			489 Dec 19 j 16:56	0°♒		
greatest brilliancy	487 May 04 j 15:59	6°♈32'26	-4.5m		490 Jan 13 j 04:03	0°♓		
	487 Jun 06 j 06:53	0°♉			490 Feb 07 j 05:12	0°♈		
morning max el	487 Jun 10 j 06:29	3°♉44'23	45°44'30	asc. node	490 Feb 08 j 00:46	0°♈57'33		
	487 Jul 05 j 21:58	0°♊			490 Mar 05 j 10:06	0°♉		
	487 Aug 01 j 17:30	0°☿		evening max el	490 Mar 31 j 10:30	27°♉12'36	45°33'18	
asc. node	487 Aug 24 j 05:44	26°☿24'49			490 Apr 03 j 08:24	0°♊		
	487 Aug 27 j 05:44	0°♌		greatest brilliancy	490 May 04 j 16:49	23°♊37'32	-4.5m	
	487 Sep 20 j 22:43	0°♍		retrograde	490 May 19 j 03:53	27°♊17'09		
	487 Oct 15 j 03:45	0°♎		desc. node	490 May 30 j 14:15	24°♊43'07		
	487 Nov 08 j 02:30	0°♏		evening set	490 Jun 03 j 05:32	22°♊55'34		
	487 Dec 01 j 22:59	0°♐		inferior conj	490 Jun 09 j 16:00	19°♊05'27	-2°-19'-58	
morning set	487 Dec 08 j 04:59	7°♐51'50		minimum elong	490 Jun 09 j 10:59	19°♊13'16	2°18'34	
desc. node	487 Dec 13 j 19:16	14°♐54'03		min. Earth dist.	490 Jun 09 j 18:19	19°♊01'50	0.28970 AU	
	487 Dec 25 j 19:33	0°♑		morning rise	490 Jun 15 j 16:11	15°♊28'12		
	488 Jan 18 j 17:27	0°♒		direct	490 Jul 01 j 07:32	10°♊47'10		
				greatest brilliancy	490 Jul 15 j 09:59	14°♊13'35	-4.5m	
superior conj	488 Jan 19 j 02:47	0°♒29'14	-1°-12'-30		490 Aug 07 j 09:32	0°☿		
minimum elong	488 Jan 18 j 16:08	29°♒55'54	1°12'14	morning max el	490 Aug 19 j 11:21	11°☿04'44	46°03'29	
max. Earth dist.	488 Jan 23 j 02:35	5°♒29'05	1.71582 AU		490 Sep 06 j 20:39	0°♌		
	488 Feb 11 j 17:39	0°♓		asc. node	490 Sep 20 j 17:44	15°♌21'40		
evening rise	488 Feb 28 j 11:01	20°♓47'30			490 Oct 03 j 10:44	0°♍		
	488 Mar 06 j 21:23	0°♈			490 Oct 28 j 13:29	0°♎		
	488 Mar 31 j 05:48	0°♉			490 Nov 21 j 23:45	0°♏		
asc. node	488 Apr 04 j 22:40	5°♉45'46			490 Dec 16 j 02:57	0°♐		
	488 Apr 24 j 19:56	0°♊			491 Jan 09 j 04:06	0°♑		
	488 May 19 j 17:01	0°☿		desc. node	491 Jan 10 j 07:05	1°♑24'08		
	488 Jun 13 j 23:36	0°♌			491 Feb 02 j 05:38	0°♒		
	488 Jul 09 j 21:31	0°♍		morning set	491 Feb 22 j 23:27	25°♒47'42		
desc. node	488 Jul 25 j 11:51	17°♍28'52			491 Feb 26 j 08:43	0°♓		
	488 Aug 06 j 00:44	0°♎			491 Mar 22 j 14:00	0°♈		
evening max el	488 Aug 24 j 15:23	19°♎03'02	46°31'03					
	488 Sep 05 j 10:33	0°♏		superior conj	491 Apr 02 j 15:35	13°♎39'59	-1°-4'-29	
greatest brilliancy	488 Oct 02 j 19:11	18°♏18'23	-4.6m	minimum elong	491 Apr 03 j 01:16	14°♎09'51	1°04'11	
retrograde	488 Oct 13 j 09:27	20°♏22'32		max. Earth dist.	491 Apr 05 j 01:49	16°♎39'34	1.73119 AU	
evening set	488 Oct 28 j 08:50	16°♏01'35			491 Apr 15 j 21:44	0°♏		
inferior conj	488 Nov 02 j 23:27	12°♏44'34	-3°-12'-45	asc. node	491 May 03 j 10:30	21°♏33'13		
minimum elong	488 Nov 03 j 06:26	12°♏33'57	3°10'38	evening rise	491 May 10 j 00:44	29°♏38'37		
min. Earth dist.	488 Nov 03 j 08:47	12°♏30'22	0.26490 AU		491 May 10 j 07:42	0°♐		
morning rise	488 Nov 09 j 03:37	9°♏08'41			491 Jun 03 j 19:32	0°☿		
asc. node	488 Nov 15 j 15:08	6°♏20'32			491 Jun 28 j 09:21	0°♌		
direct	488 Nov 23 j 09:45	5°♏06'02			491 Jul 23 j 02:14	0°♍		
greatest brilliancy	488 Dec 05 j 23:57	8°♏03'00	-4.7m		491 Aug 17 j 00:18	0°♎		
	489 Jan 04 j 12:30	0°♐		desc. node	491 Aug 22 j 23:54	7°♎08'57		
morning max el	489 Jan 12 j 22:47	8°♐15'32	46°51'38		491 Sep 11 j 06:58	0°♏		

	491 Oct 07 j 05:15	0°♊			494 Mar 12 j 17:03	0°♋	
	491 Nov 03 j 16:47	0°♌			494 Apr 06 j 04:33	0°♍	
evening max el	491 Nov 06 j 13:14	2°♌55'20	47°22'55		494 Apr 30 j 16:15	0°♎	
	491 Dec 08 j 00:56	0°♍		morning set	494 May 04 j 10:18	4°♏35'44	
asc. node	491 Dec 14 j 03:04	3°♍21'00			494 May 25 j 03:39	0°♐	
greatest brilliancy	491 Dec 14 j 18:18	3°♍38'38	-4.7m	asc. node	494 May 30 j 22:17	7°♐05'20	
retrograde	491 Dec 27 j 13:59	6°♍44'32		max. Earth dist.	494 Jun 08 j 07:20	17°♐22'30	1.73598 AU
evening set	492 Jan 12 j 17:09	1°♍33'20					
	492 Jan 15 j 07:20	30°♎♌		superior conj	494 Jun 09 j 21:54	19°♐20'57	0°23'23
min. Earth dist.	492 Jan 16 j 08:56	29°♌20'23	0.27195 AU	minimum elong	494 Jun 09 j 17:20	19°♐06'56	0°23'11
inferior conj	492 Jan 17 j 08:34	28°♌43'39	7°22'21		494 Jun 18 j 13:47	0°♑	
minimum elong	492 Jan 16 j 23:11	28°♌58'14	7°20'45		494 Jul 12 j 22:07	0°♒	
morning rise	492 Jan 21 j 05:39	26°♌21'37		evening rise	494 Jul 15 j 15:47	3°♒22'37	
direct	492 Feb 06 j 21:16	20°♌55'55			494 Aug 06 j 05:06	0°♓	
greatest brilliancy	492 Feb 17 j 12:26	23°♌02'15	-4.6m		494 Aug 30 j 12:00	0°♓	
	492 Mar 01 j 09:38	0°♍		desc. node	494 Sep 19 j 11:52	24°♓38'52	
morning max el	492 Mar 27 j 09:07	22°♍06'08	46°12'17		494 Sep 23 j 20:15	0°♔	
desc. node	492 Apr 03 j 16:39	29°♍22'42			494 Oct 18 j 07:11	0°♕	
	492 Apr 04 j 07:19	0°♋			494 Nov 11 j 23:14	0°♌	
	492 May 02 j 06:52	0°♍			494 Dec 07 j 02:45	0°♍	
	492 May 28 j 16:16	0°♎			495 Jan 02 j 10:43	0°♋	
	492 Jun 23 j 06:50	0°♐		asc. node	495 Jan 10 j 14:57	8°♋46'52	
asc. node	492 Jul 18 j 08:16	0°♑		evening max el	495 Jan 17 j 04:48	15°♋34'24	46°43'49
	492 Jul 25 j 19:56	9°♑04'16			495 Feb 01 j 11:19	0°♍	
	492 Aug 11 j 22:50	0°♒		greatest brilliancy	495 Feb 22 j 02:53	14°♍28'06	-4.6m
	492 Sep 05 j 04:39	0°♓		retrograde	495 Mar 08 j 11:11	18°♍10'43	
morning set	492 Sep 20 j 19:24	19°♓29'55		evening set	495 Mar 25 j 11:19	12°♍33'26	
	492 Sep 29 j 04:32	0°♓		inferior conj	495 Mar 29 j 17:54	9°♍53'30	6°50'15
	492 Oct 23 j 01:24	0°♔		minimum elong	495 Mar 30 j 03:13	9°♍38'43	6°48'36
				min. Earth dist.	495 Mar 29 j 17:09	9°♍54'42	0.28696 AU
superior conj	492 Oct 29 j 23:44	8°♔43'13	0°35'37	morning rise	495 Apr 03 j 19:26	6°♍46'24	
minimum elong	492 Oct 30 j 08:07	9°♔09'37	0°35'14	direct	495 Apr 20 j 02:34	1°♍40'16	
max. Earth dist.	492 Oct 29 j 12:37	8°♔08'14	1.71128 AU	greatest brilliancy	495 May 02 j 05:17	4°♍17'32	-4.5m
desc. node	492 Nov 14 j 09:30	28°♔06'44		desc. node	495 May 02 j 04:20	4°♍16'34	
	492 Nov 15 j 21:31	0°♕			495 Jun 06 j 06:54	0°♎	
	492 Dec 09 j 18:13	0°♌		morning max el	495 Jun 07 j 21:03	1°♎30'25	45°44'46
evening rise	492 Dec 10 j 13:02	0°♌59'06			495 Jul 05 j 14:09	0°♐	
	493 Jan 02 j 16:37	0°♍			495 Aug 01 j 07:05	0°♑	
	493 Jan 26 j 18:20	0°♋		asc. node	495 Aug 23 j 07:55	25°♑54'08	
	493 Feb 20 j 01:57	0°♍			495 Aug 26 j 18:06	0°♒	
asc. node	493 Mar 07 j 12:49	18°♍49'41			495 Sep 20 j 10:29	0°♓	
	493 Mar 16 j 19:04	0°♎			495 Oct 14 j 15:15	0°♓	
	493 Apr 11 j 02:40	0°♐			495 Nov 07 j 13:53	0°♔	
	493 May 07 j 10:03	0°♑			495 Dec 01 j 10:19	0°♕	
	493 Jun 04 j 18:54	0°♒		morning set	495 Dec 05 j 14:45	5°♕16'02	
evening max el	493 Jun 10 j 07:26	5°♒22'26	45°25'54	desc. node	495 Dec 12 j 21:19	14°♕25'04	
desc. node	493 Jun 27 j 02:07	20°♒07'20			495 Dec 25 j 06:49	0°♌	
	493 Jul 11 j 18:47	0°♓					
greatest brilliancy	493 Jul 17 j 02:43	2°♓28'45	-4.5m	superior conj	496 Jan 16 j 13:06	27°♌56'14	-1°-10'-19
retrograde	493 Jul 28 j 22:49	4°♓56'30		minimum elong	496 Jan 16 j 02:00	27°♌21'30	1°10'02
	493 Aug 14 j 02:43	30°♔♒			496 Jan 18 j 04:37	0°♍	
evening set	493 Aug 15 j 18:38	29°♒02'10		max. Earth dist.	496 Jan 20 j 10:39	2°♍49'07	1.71532 AU
inferior conj	493 Aug 19 j 02:59	27°♒00'00	-8°-40'-52		496 Feb 11 j 04:47	0°♋	
minimum elong	493 Aug 19 j 00:23	27°♒04'02	8°40'47	evening rise	496 Feb 25 j 23:35	18°♋23'03	
min. Earth dist.	493 Aug 19 j 15:46	26°♒40'18	0.28248 AU		496 Mar 06 j 08:32	0°♍	
morning rise	493 Aug 22 j 05:58	25°♒05'34			496 Mar 30 j 17:04	0°♎	
direct	493 Sep 09 j 11:34	18°♒53'31		asc. node	496 Apr 04 j 00:40	5°♎17'19	
greatest brilliancy	493 Sep 23 j 19:40	22°♒35'26	-4.6m		496 Apr 24 j 07:27	0°♐	
	493 Oct 05 j 18:10	0°♓			496 May 19 j 05:01	0°♑	
asc. node	493 Oct 18 j 05:20	10°♓21'45			496 Jun 13 j 12:31	0°♒	
morning max el	493 Oct 29 j 23:23	21°♓43'17	46°45'08		496 Jul 09 j 12:08	0°♓	
	493 Nov 06 j 22:18	0°♓		desc. node	496 Jul 24 j 14:03	16°♓49'48	
	493 Dec 03 j 16:06	0°♔			496 Aug 05 j 19:10	0°♓	
	493 Dec 28 j 22:45	0°♕		evening max el	496 Aug 22 j 03:05	16°♓36'57	46°28'24
	494 Jan 22 j 16:28	0°♌			496 Sep 05 j 18:31	0°♔	
desc. node	494 Feb 06 j 19:03	18°♌27'10		greatest brilliancy	496 Sep 30 j 08:26	15°♔51'39	-4.6m
	494 Feb 16 j 05:28	0°♍		retrograde	496 Oct 10 j 21:02	17°♔54'35	

evening set	496 Oct 25 j 23:26	13°♌29'51			499 Apr 15 j 08:31	0°♏	
inferior conj	496 Oct 31 j 11:41	10°♌16'28	-3°-35'-17	asc. node	499 May 02 j 12:30	21°♏06'14	
minimum elong	496 Oct 31 j 19:22	10°♌04'48	3°33'00	evening rise	499 May 07 j 18:27	27°♏32'40	
min. Earth dist.	496 Oct 31 j 22:41	9°♌59'46	0.26530 AU		499 May 09 j 18:30	0°♐	
morning rise	496 Nov 06 j 14:48	6°♌42'00			499 Jun 03 j 06:30	0°♑	
asc. node	496 Nov 14 j 17:11	3°♌24'32			499 Jun 27 j 20:38	0°♒	
direct	496 Nov 20 j 22:01	2°♌36'52			499 Jul 22 j 14:03	0°♓	
greatest brilliancy	496 Dec 03 j 16:17	5°♌38'11	-4.7m		499 Aug 16 j 12:55	0°♐	
	497 Jan 04 j 15:10	0°♓		desc. node	499 Aug 22 j 01:57	6°♐36'44	
morning max el	497 Jan 10 j 12:00	5°♓48'45	46°52'26		499 Sep 10 j 20:50	0°♌	
	497 Feb 02 j 03:39	0°♓			499 Oct 06 j 21:26	0°♓	
	497 Feb 28 j 10:59	0°♐			499 Nov 03 j 14:45	0°♓	
desc. node	497 Mar 06 j 06:58	6°♐48'03		evening max el	499 Nov 04 j 04:39	0°♓35'20	47°22'41
	497 Mar 25 j 23:25	0°♐			499 Dec 09 j 19:45	0°♐	
	497 Apr 20 j 03:11	0°♑		greatest brilliancy	499 Dec 12 j 09:12	1°♐14'53	-4.7m
	497 May 15 j 01:53	0°♒		asc. node	499 Dec 13 j 05:09	1°♐36'50	
	497 Jun 08 j 20:14	0°♐		retrograde	499 Dec 25 j 04:32	4°♐19'41	
asc. node	497 Jun 27 j 10:11	22°♐40'16			500 Jan 08 j 18:54	30°♐♑	
	497 Jul 03 j 09:45	0°♑		evening set	500 Jan 10 j 03:11	29°♓14'22	
morning set	497 Jul 10 j 20:22	9°♑08'34		min. Earth dist.	500 Jan 13 j 21:56	26°♓57'08	0.27132 AU
	497 Jul 27 j 18:03	0°♒		inferior conj	500 Jan 14 j 22:04	26°♓19'38	7°09'46
max. Earth dist.	497 Aug 12 j 16:05	19°♒44'39	1.72499 AU	minimum elong	500 Jan 14 j 12:23	26°♓34'42	7°08'01
				morning rise	500 Jan 18 j 22:05	23°♓53'38	
superior conj	497 Aug 16 j 09:26	24°♒22'31	1°23'29	direct	500 Feb 04 j 10:54	18°♓33'08	
minimum elong	497 Aug 16 j 06:27	24°♒13'12	1°23'27	greatest brilliancy	500 Feb 15 j 00:27	20°♓38'31	-4.6m
	497 Aug 20 j 21:52	0°♓			500 Mar 02 j 06:49	0°♐	
	497 Sep 13 j 22:51	0°♐		morning max el	500 Mar 24 j 23:40	19°♐48'57	46°13'35
evening rise	497 Sep 23 j 01:09	11°♐22'14		desc. node	500 Apr 02 j 18:38	28°♐36'16	
	497 Oct 07 j 22:46	0°♌			500 Apr 04 j 03:15	0°♐	
desc. node	497 Oct 16 j 23:44	11°♌18'13			500 May 01 j 21:56	0°♑	
	497 Oct 31 j 22:54	0°♓			500 May 28 j 05:17	0°♒	
	497 Nov 25 j 00:20	0°♓			500 Jun 22 j 18:47	0°♐	
	497 Dec 19 j 04:55	0°♐			500 Jul 17 j 19:37	0°♑	
	498 Jan 12 j 16:38	0°♐		asc. node	500 Jul 24 j 22:03	8°♑36'36	
	498 Feb 06 j 18:52	0°♑			500 Aug 11 j 09:52	0°♒	
asc. node	498 Feb 07 j 02:53	0°♑23'31			500 Sep 04 j 15:33	0°♓	
	498 Mar 05 j 02:11	0°♒		morning set	500 Sep 18 j 09:51	17°♓10'56	
evening max el	498 Mar 29 j 02:01	25°♒00'28	45°35'03		500 Sep 28 j 15:24	0°♐	
	498 Apr 03 j 08:14	0°♐			500 Oct 22 j 12:18	0°♌	
greatest brilliancy	498 May 02 j 07:02	21°♐26'05	-4.5m	max. Earth dist.	500 Oct 26 j 17:59	5°♌19'50	1.71145 AU
retrograde	498 May 16 j 20:46	25°♐08'33					
desc. node	498 May 29 j 16:18	21°♐55'20		superior conj	500 Oct 27 j 11:03	6°♌13'32	0°39'05
evening set	498 May 31 j 21:30	20°♐46'55		minimum elong	500 Oct 27 j 20:00	6°♌41'42	0°38'40
inferior conj	498 Jun 07 j 08:16	16°♐56'15	-2°00'-45	desc. node	500 Nov 13 j 11:38	27°♌39'03	
minimum elong	498 Jun 07 j 03:54	17°♐03'03	1°59'32		500 Nov 15 j 08:26	0°♓	
min. Earth dist.	498 Jun 07 j 10:26	16°♐52'53	0.28975 AU	evening rise	500 Dec 07 j 22:57	28°♓25'02	
morning rise	498 Jun 13 j 10:09	13°♐16'57			500 Dec 09 j 05:11	0°♓	
direct	498 Jun 29 j 00:01	8°♐37'46			501 Jan 02 j 03:39	0°♐	
greatest brilliancy	498 Jul 13 j 02:20	12°♐04'34	-4.5m		501 Jan 26 j 05:28	0°♐	
	498 Aug 07 j 13:28	0°♑			501 Feb 19 j 13:20	0°♑	
morning max el	498 Aug 17 j 03:56	8°♑54'57	46°02'19	asc. node	501 Mar 06 j 14:45	18°♑20'09	
	498 Sep 06 j 13:39	0°♒			501 Mar 16 j 06:58	0°♒	
asc. node	498 Sep 19 j 19:39	14°♒44'09			501 Apr 10 j 15:37	0°♐	
	498 Oct 03 j 00:43	0°♓			501 May 07 j 01:12	0°♑	
	498 Oct 28 j 02:10	0°♐			501 Jun 04 j 15:58	0°♒	
	498 Nov 21 j 11:44	0°♌		evening max el	501 Jun 07 j 22:06	3°♒08'41	45°24'44
	498 Dec 15 j 14:33	0°♓		desc. node	501 Jun 26 j 04:19	19°♒02'38	
	499 Jan 08 j 15:27	0°♓			501 Jul 14 j 02:58	0°♓	
desc. node	499 Jan 09 j 09:15	0°♓55'34		greatest brilliancy	501 Jul 14 j 15:44	0°♓12'54	-4.5m
	499 Feb 01 j 16:48	0°♐		retrograde	501 Jul 26 j 12:28	2°♓41'25	
morning set	499 Feb 20 j 12:02	23°♐23'25			501 Aug 07 j 07:11	30°♐♒	
	499 Feb 25 j 19:44	0°♐		evening set	501 Aug 13 j 06:51	26°♒50'26	
	499 Mar 22 j 00:53	0°♑		inferior conj	501 Aug 16 j 17:39	24°♒44'27	-8°-37'-17
				minimum elong	501 Aug 16 j 14:13	24°♒49'45	8°37'09
superior conj	499 Mar 31 j 07:05	11°♑26'17	-1°-6'-40	min. Earth dist.	501 Aug 17 j 05:53	24°♒25'34	0.28297 AU
minimum elong	499 Mar 31 j 16:42	11°♑55'58	1°06'24	morning rise	501 Aug 19 j 21:25	22°♒48'32	
max. Earth dist.	499 Apr 02 j 20:14	14°♑34'57	1.73077 AU	direct	501 Sep 07 j 02:32	16°♒37'17	

greatest brilliancy	501 Sep 21 j 10:29	20°Ω17'57	-4.6m		504 Mar 30 j 03:58	0°⋈	
	501 Oct 06 j 09:23	0°♍		asc. node	504 Apr 03 j 02:45	4°♋50'13	
asc. node	501 Oct 17 j 07:26	9°♍23'28			504 Apr 23 j 18:36	0°♊	
morning max el	501 Oct 27 j 12:40	19°♍19'27	46°43'58		504 May 18 j 16:42	0°♎	
	501 Nov 06 j 17:31	0°♊			504 Jun 13 j 01:12	0°♏	
	501 Dec 03 j 07:10	0°♌			504 Jul 09 j 02:42	0°♍	
	501 Dec 28 j 12:02	0°♌		desc. node	504 Jul 23 j 16:03	16°♍10'26	
	502 Jan 22 j 04:46	0°♎			504 Aug 05 j 13:55	0°♊	
desc. node	502 Feb 05 j 21:06	17°♎57'10		evening max el	504 Aug 19 j 15:30	14°♊13'18	46°25'43
	502 Feb 15 j 17:07	0°♎			504 Sep 06 j 05:06	0°♌	
	502 Mar 12 j 04:14	0°♋		greatest brilliancy	504 Sep 27 j 20:43	13°♌24'24	-4.6m
	502 Apr 05 j 15:25	0°♍		retrograde	504 Oct 08 j 09:05	15°♌27'09	
	502 Apr 30 j 02:56	0°♋		evening set	504 Oct 23 j 14:06	10°♌58'16	
morning set	502 May 02 j 04:10	2°♋30'47		inferior conj	504 Oct 28 j 23:49	7°♌48'38	-3°-57'-15
	502 May 24 j 14:14	0°♊		minimum elong	504 Oct 29 j 08:09	7°♌36'01	3°54'51
asc. node	502 May 30 j 00:27	6°♊39'32		min. Earth dist.	504 Oct 29 j 12:07	7°♌29'59	0.26572 AU
max. Earth dist.	502 Jun 06 j 02:53	15°♊22'41	1.73612 AU	morning rise	504 Nov 04 j 01:39	4°♌16'10	
				asc. node	504 Nov 13 j 19:18	0°♌34'52	
superior conj	502 Jun 07 j 16:25	17°♊17'56	0°20'22	direct	504 Nov 18 j 10:42	0°♌08'04	
minimum elong	502 Jun 07 j 12:24	17°♊05'37	0°20'11	greatest brilliancy	504 Dec 01 j 07:56	3°♌13'11	-4.7m
	502 Jun 18 j 00:22	0°♎			505 Jan 04 j 16:11	0°♌	
	502 Jul 12 j 08:47	0°♏		morning max el	505 Jan 08 j 02:09	3°♌25'00	46°53'14
evening rise	502 Jul 13 j 10:21	1°♏18'49			505 Feb 01 j 20:41	0°♎	
	502 Aug 05 j 15:58	0°♍			505 Feb 28 j 01:09	0°♎	
	502 Aug 29 j 23:12	0°♊		desc. node	505 Mar 05 j 08:55	6°♎13'26	
desc. node	502 Sep 18 j 13:51	24°♊09'20			505 Mar 25 j 12:07	0°♋	
	502 Sep 23 j 07:54	0°♌			505 Apr 19 j 15:00	0°♍	
	502 Oct 17 j 19:26	0°♌			505 May 14 j 13:08	0°♋	
	502 Nov 11 j 12:20	0°♎			505 Jun 08 j 07:07	0°♊	
	502 Dec 06 j 17:16	0°♎		asc. node	505 Jun 26 j 12:16	22°♊13'49	
	503 Jan 02 j 04:30	0°♋			505 Jul 02 j 20:26	0°♎	
asc. node	503 Jan 09 j 17:06	8°♋01'07		morning set	505 Jul 08 j 14:25	7°♎03'39	
evening max el	503 Jan 14 j 18:48	13°♋14'16	46°46'24		505 Jul 27 j 04:42	0°♏	
	503 Feb 01 j 18:11	0°♍		max. Earth dist.	505 Aug 10 j 10:55	17°♏40'44	1.72555 AU
greatest brilliancy	503 Feb 19 j 20:45	12°♍18'04	-4.6m				
retrograde	503 Mar 06 j 03:09	15°♍59'27		superior conj	505 Aug 14 j 02:33	22°♏13'05	1°22'52
evening set	503 Mar 23 j 06:17	10°♍18'15		minimum elong	505 Aug 13 j 22:54	22°♏01'45	1°22'50
inferior conj	503 Mar 27 j 10:09	7°♍42'28	7°02'19		505 Aug 20 j 08:36	0°♍	
minimum elong	503 Mar 27 j 19:15	7°♍28'01	7°00'48		505 Sep 13 j 09:45	0°♊	
min. Earth dist.	503 Mar 27 j 09:01	7°♍44'16	0.28666 AU	evening rise	505 Sep 20 j 15:03	9°♊01'29	
morning rise	503 Apr 01 j 08:29	4°♍39'49			505 Oct 07 j 09:51	0°♌	
	503 Apr 12 j 16:39	30°♋		desc. node	505 Oct 16 j 01:51	10°♌49'57	
direct	503 Apr 17 j 17:44	29°♋29'42			505 Oct 31 j 10:12	0°♌	
	503 Apr 22 j 22:01	0°♍			505 Nov 24 j 11:54	0°♎	
greatest brilliancy	503 Apr 29 j 19:33	2°♍05'33	-4.5m		505 Dec 18 j 16:52	0°♎	
desc. node	503 May 01 j 06:27	2°♍42'50			506 Jan 12 j 05:10	0°♋	
morning max el	503 Jun 05 j 11:55	29°♍18'25	45°44'56	asc. node	506 Feb 06 j 04:49	29°♋49'09	
	503 Jun 06 j 05:19	0°♋			506 Feb 06 j 08:32	0°♍	
	503 Jul 05 j 05:41	0°♊			506 Mar 04 j 18:24	0°♋	
	503 Jul 31 j 20:15	0°♎		evening max el	506 Mar 26 j 18:39	22°♋51'31	45°36'56
asc. node	503 Aug 22 j 09:52	25°♎23'39			506 Apr 03 j 09:00	0°♊	
	503 Aug 26 j 06:10	0°♏		greatest brilliancy	506 Apr 29 j 22:35	19°♊17'19	-4.5m
	503 Sep 19 j 21:59	0°♍		retrograde	506 May 14 j 13:57	23°♊01'04	
	503 Oct 14 j 02:28	0°♊		desc. node	506 May 28 j 18:26	19°♊05'39	
	503 Nov 07 j 00:59	0°♌		evening set	506 May 29 j 13:59	18°♊39'31	
	503 Nov 30 j 21:20	0°♌		inferior conj	506 Jun 05 j 00:49	14°♊48'21	-1°-41'-37
morning set	503 Dec 03 j 00:33	2°♌41'09		minimum elong	506 Jun 04 j 21:07	14°♊54'06	1°40'34
desc. node	503 Dec 11 j 23:26	13°♌57'12		min. Earth dist.	506 Jun 05 j 02:39	14°♊45'28	0.28977 AU
	503 Dec 24 j 17:46	0°♎		morning rise	506 Jun 11 j 04:13	11°♊07'06	
				direct	506 Jun 26 j 17:03	6°♊29'56	
superior conj	504 Jan 13 j 23:23	25°♎23'59	-1°-8'-1	greatest brilliancy	506 Jul 10 j 17:33	9°♊55'21	-4.5m
minimum elong	504 Jan 13 j 11:57	24°♎48'08	1°07'41		506 Aug 07 j 15:29	0°♎	
max. Earth dist.	504 Jan 17 j 15:23	29°♎59'38	1.71482 AU	morning max el	506 Aug 14 j 20:31	6°♎45'56	46°00'55
	504 Jan 17 j 15:31	0°♎			506 Sep 06 j 06:12	0°♏	
	504 Feb 10 j 15:38	0°♋		asc. node	506 Sep 18 j 21:46	14°♏07'47	
evening rise	504 Feb 23 j 12:16	15°♋59'49			506 Oct 02 j 14:34	0°♍	
	504 Mar 05 j 19:21	0°♍			506 Oct 27 j 14:50	0°♊	

	506 Nov 20 j 23:48	0°♌		evening max el	509 Jun 05 j 12:21	0°♌53'12	45°23'46
	506 Dec 15 j 02:13	0°♊		desc. node	509 Jun 25 j 06:20	17°♌55'27	
desc. node	507 Jan 08 j 11:18	0°♊26'21		greatest brilliancy	509 Jul 12 j 04:34	27°♌56'43	-4.5m
	507 Jan 08 j 02:51	0°♊			509 Jul 19 j 04:28	0°♎	
	507 Feb 01 j 04:00	0°♋		retrograde	509 Jul 24 j 02:25	0°♎26'58	
morning set	507 Feb 18 j 00:25	20°♋58'22			509 Jul 28 j 21:46	30°♎♌	
	507 Feb 25 j 06:45	0°♋		evening set	509 Aug 10 j 19:06	24°♌39'28	
	507 Mar 21 j 11:47	0°♎		inferior conj	509 Aug 14 j 08:39	22°♌29'27	-8°-32'-58
				minimum elong	509 Aug 14 j 04:26	22°♌35'59	8°32'44
superior conj	507 Mar 28 j 22:31	9°♎12'14	-1°-8'-46	min. Earth dist.	509 Aug 14 j 20:33	22°♌11'04	0.28343 AU
minimum elong	507 Mar 29 j 08:01	9°♎41'33	1°08'31	morning rise	509 Aug 17 j 13:32	20°♌31'43	
max. Earth dist.	507 Mar 31 j 15:59	12°♎34'18	1.73033 AU	direct	509 Sep 04 j 17:29	14°♌21'27	
	507 Apr 14 j 19:21	0°♋		greatest brilliancy	509 Sep 19 j 02:17	18°♌02'00	-4.6m
asc. node	507 May 01 j 14:41	20°♋39'38			509 Oct 06 j 20:48	0°♎	
evening rise	507 May 05 j 12:17	25°♋26'53		asc. node	509 Oct 16 j 09:34	8°♎26'20	
	507 May 09 j 05:21	0°♌		morning max el	509 Oct 25 j 02:04	16°♎55'39	46°42'45
	507 Jun 02 j 17:30	0°♌			509 Nov 06 j 12:23	0°♌	
	507 Jun 27 j 07:57	0°♌			509 Dec 02 j 22:16	0°♌	
	507 Jul 22 j 01:53	0°♎			509 Dec 28 j 01:34	0°♊	
	507 Aug 16 j 01:36	0°♌			510 Jan 21 j 17:25	0°♊	
desc. node	507 Aug 21 j 03:57	6°♌04'13		desc. node	510 Feb 04 j 23:05	17°♊25'41	
	507 Sep 10 j 10:55	0°♌			510 Feb 15 j 05:11	0°♋	
	507 Oct 06 j 14:07	0°♊			510 Mar 11 j 15:51	0°♋	
evening max el	507 Nov 01 j 20:01	28°♊14'14	47°22'01		510 Apr 05 j 02:42	0°♎	
	507 Nov 03 j 13:59	0°♊		morning set	510 Apr 29 j 21:40	0°♋23'28	
greatest brilliancy	507 Dec 10 j 01:09	28°♊50'51	-4.7m		510 Apr 29 j 14:00	0°♋	
asc. node	507 Dec 12 j 07:15	29°♊47'04			510 May 24 j 01:11	0°♌	
	507 Dec 12 j 21:09	0°♋		asc. node	510 May 29 j 02:28	6°♌12'10	
retrograde	507 Dec 22 j 18:37	1°♋52'42		max. Earth dist.	510 Jun 03 j 22:48	13°♌22'56	1.73623 AU
	508 Jan 01 j 05:58	30°♋♊					
evening set	508 Jan 07 j 13:02	26°♊53'38		superior conj	510 Jun 05 j 10:50	15°♌13'35	0°17'20
min. Earth dist.	508 Jan 11 j 11:08	24°♊31'29	0.27067 AU	minimum elong	510 Jun 05 j 07:23	15°♌03'00	0°17'09
inferior conj	508 Jan 12 j 11:19	23°♊53'52	6°56'17		510 Jun 17 j 11:18	0°♌	
minimum elong	508 Jan 12 j 01:23	24°♊09'19	6°54'21	evening rise	510 Jul 11 j 05:08	29°♌14'44	
morning rise	508 Jan 16 j 14:18	21°♊23'37			510 Jul 11 j 19:49	0°♌	
direct	508 Feb 02 j 00:04	16°♊08'44			510 Aug 05 j 03:12	0°♎	
greatest brilliancy	508 Feb 12 j 12:26	18°♊13'07	-4.6m		510 Aug 29 j 10:44	0°♌	
	508 Mar 02 j 23:03	0°♋		desc. node	510 Sep 17 j 16:02	23°♌39'35	
morning max el	508 Mar 22 j 13:06	17°♋28'05	46°15'01		510 Sep 22 j 19:52	0°♌	
desc. node	508 Apr 01 j 20:50	27°♋50'28			510 Oct 17 j 07:59	0°♊	
	508 Apr 03 j 22:49	0°♋			510 Nov 11 j 01:45	0°♊	
	508 May 01 j 12:58	0°♎			510 Dec 06 j 08:16	0°♋	
	508 May 27 j 18:22	0°♋			511 Jan 01 j 23:10	0°♋	
	508 Jun 22 j 06:50	0°♌		asc. node	511 Jan 08 j 19:01	7°♋12'47	
asc. node	508 Jul 17 j 07:06	0°♌		evening max el	511 Jan 12 j 08:35	10°♋52'07	46°48'41
	508 Jul 24 j 00:02	8°♌08'06			511 Feb 02 j 04:36	0°♎	
	508 Aug 10 j 21:02	0°♌		greatest brilliancy	511 Feb 17 j 13:28	10°♎04'15	-4.6m
	508 Sep 04 j 02:35	0°♎		retrograde	511 Mar 03 j 19:06	13°♎45'40	
morning set	508 Sep 16 j 00:51	14°♎53'21		evening set	511 Mar 21 j 00:54	8°♎00'18	
	508 Sep 28 j 02:24	0°♌		inferior conj	511 Mar 25 j 02:06	5°♎28'46	7°13'54
	508 Oct 21 j 23:22	0°♌		minimum elong	511 Mar 25 j 10:55	5°♎14'46	7°12'30
max. Earth dist.	508 Oct 23 j 22:47	2°♌29'05	1.71175 AU	min. Earth dist.	511 Mar 25 j 00:33	5°♎31'13	0.28639 AU
				morning rise	511 Mar 29 j 21:09	2°♎30'56	
superior conj	508 Oct 24 j 22:49	3°♌44'41	0°42'24		511 Apr 03 j 15:40	30°♋♋	
minimum elong	508 Oct 25 j 08:15	4°♌14'21	0°42'00	direct	511 Apr 15 j 08:29	27°♋16'19	
desc. node	508 Nov 12 j 13:46	27°♌10'36		greatest brilliancy	511 Apr 27 j 10:10	29°♋51'47	-4.5m
	508 Nov 14 j 19:37	0°♊			511 Apr 27 j 18:10	0°♎	
evening rise	508 Dec 05 j 08:40	25°♊49'22		desc. node	511 Apr 30 j 08:32	1°♎10'12	
	508 Dec 08 j 16:29	0°♊		morning max el	511 Jun 03 j 03:21	27°♎06'09	45°45'18
	509 Jan 01 j 15:02	0°♋			511 Jun 06 j 03:31	0°♋	
	509 Jan 25 j 16:58	0°♋			511 Jul 04 j 21:27	0°♌	
	509 Feb 19 j 01:07	0°♎			511 Jul 31 j 09:42	0°♌	
asc. node	509 Mar 05 j 16:53	17°♎50'06		asc. node	511 Aug 21 j 11:57	24°♌52'32	
	509 Mar 15 j 19:17	0°♋			511 Aug 25 j 18:31	0°♌	
	509 Apr 10 j 05:00	0°♌			511 Sep 19 j 09:47	0°♎	
	509 May 06 j 16:53	0°♌			511 Oct 13 j 14:00	0°♌	
	509 Jun 04 j 14:07	0°♌			511 Nov 06 j 12:21	0°♌	

morning set	511 Nov 30 j 10:59	0° \mathcal{A} 07'27		evening set	514 May 27 j 06:30	16° \mathbb{I} 30'46	
	511 Nov 30 j 08:37	0° \mathcal{A}		desc. node	514 May 27 j 20:27	16° \mathbb{I} 11'31	
desc. node	511 Dec 11 j 01:28	13° \mathcal{A} 28'13		inferior conj	514 Jun 02 j 17:13	12° \mathbb{I} 39'13	-1°-22'-11
	511 Dec 24 j 04:58	0° \mathcal{B}		minimum elong	514 Jun 02 j 14:13	12° \mathbb{I} 43'54	1°21'19
				min. Earth dist.	514 Jun 02 j 18:58	12° \mathbb{I} 36'28	0.28980 AU
superior conj	512 Jan 11 j 09:50	22° \mathcal{B} 51'14	-1°-5'-34	morning rise	514 Jun 08 j 21:59	8° \mathbb{I} 55'56	
minimum elong	512 Jan 10 j 22:07	22° \mathcal{B} 14'31	1°05'12	direct	514 Jun 24 j 09:56	4° \mathbb{I} 20'56	
max. Earth dist.	512 Jan 14 j 21:05	27° \mathcal{B} 12'09	1.71443 AU	greatest brilliancy	514 Jul 08 j 07:47	7° \mathbb{I} 43'38	-4.5m
	512 Jan 17 j 02:41	0° \approx			514 Aug 07 j 16:36	0° \mathcal{C}	
	512 Feb 10 j 02:48	0° \mathcal{H}		morning max el	514 Aug 12 j 12:25	4° \mathcal{C} 34'24	45°59'36
evening rise	512 Feb 21 j 00:49	13° \mathcal{H} 35'05			514 Sep 05 j 22:45	0° \mathcal{O}	
	512 Mar 05 j 06:35	0° \mathcal{Y}		asc. node	514 Sep 17 j 23:58	13° \mathcal{O} 31'15	
	512 Mar 29 j 15:19	0° \mathcal{B}			514 Oct 02 j 04:28	0° \mathcal{M}	
asc. node	512 Apr 02 j 04:52	4° \mathcal{B} 21'53			514 Oct 27 j 03:35	0° \mathcal{A}	
	512 Apr 23 j 06:14	0° \mathbb{I}			514 Nov 20 j 11:56	0° \mathcal{M}	
	512 May 18 j 04:53	0° \mathcal{C}			514 Dec 14 j 13:58	0° \mathcal{A}	
	512 Jun 12 j 14:24	0° \mathcal{O}		desc. node	515 Jan 07 j 13:18	29° \mathcal{A} 56'45	
	512 Jul 08 j 17:53	0° \mathcal{M}			515 Jan 07 j 14:20	0° \mathcal{B}	
desc. node	512 Jul 22 j 18:04	15° \mathcal{M} 29'34			515 Jan 31 j 15:16	0° \approx	
	512 Aug 05 j 09:37	0° \mathcal{A}		morning set	515 Feb 15 j 12:57	18° \approx 33'31	
evening max el	512 Aug 17 j 04:55	11° \mathcal{A} 51'20	46°23'09		515 Feb 24 j 17:50	0° \mathcal{H}	
	512 Sep 06 j 19:45	0° \mathcal{M}			515 Mar 20 j 22:42	0° \mathcal{Y}	
greatest brilliancy	512 Sep 25 j 08:32	10° \mathcal{M} 56'12	-4.6m				
retrograde	512 Oct 05 j 21:42	12° \mathcal{M} 59'12		superior conj	515 Mar 26 j 14:08	6° \mathcal{Y} 58'29	-1°-10'-45
evening set	512 Oct 21 j 05:03	8° \mathcal{M} 26'12		minimum elong	515 Mar 26 j 23:25	7° \mathcal{Y} 27'12	1°10'31
inferior conj	512 Oct 26 j 12:03	5° \mathcal{M} 20'16	-4°-18'-45	max. Earth dist.	515 Mar 29 j 12:59	10° \mathcal{Y} 37'16	1.72986 AU
minimum elong	512 Oct 26 j 20:56	5° \mathcal{M} 06'49	4°16'16		515 Apr 14 j 06:13	0° \mathcal{B}	
min. Earth dist.	512 Oct 27 j 01:18	5° \mathcal{M} 00'12	0.26613 AU	asc. node	515 Apr 30 j 16:42	20° \mathcal{B} 12'23	
morning rise	512 Nov 01 j 12:21	1° \mathcal{M} 50'12		evening rise	515 May 03 j 06:09	23° \mathcal{B} 20'58	
	512 Nov 05 j 07:18	30° \mathcal{R} \mathcal{A}			515 May 08 j 16:16	0° \mathbb{I}	
asc. node	512 Nov 12 j 21:20	27° \mathcal{A} 51'01			515 Jun 02 j 04:37	0° \mathcal{C}	
direct	512 Nov 15 j 23:54	27° \mathcal{A} 39'01			515 Jun 26 j 19:25	0° \mathcal{O}	
	512 Nov 27 j 03:10	0° \mathcal{M}			515 Jul 21 j 13:54	0° \mathcal{M}	
greatest brilliancy	512 Nov 28 j 22:37	0° \mathcal{M} 46'31	-4.7m		515 Aug 15 j 14:28	0° \mathcal{A}	
	513 Jan 04 j 16:14	0° \mathcal{A}		desc. node	515 Aug 20 j 06:06	5° \mathcal{A} 31'41	
morning max el	513 Jan 05 j 16:56	1° \mathcal{A} 02'22	46°54'00		515 Sep 10 j 01:13	0° \mathcal{M}	
	513 Feb 01 j 13:33	0° \mathcal{B}			515 Oct 06 j 07:09	0° \mathcal{A}	
	513 Feb 27 j 15:22	0° \approx		evening max el	515 Oct 30 j 10:37	25° \mathcal{A} 51'10	47°21'19
desc. node	513 Mar 04 j 11:08	5° \approx 39'15			515 Nov 03 j 14:15	0° \mathcal{B}	
	513 Mar 25 j 00:59	0° \mathcal{H}		greatest brilliancy	515 Dec 07 j 17:42	26° \mathcal{B} 27'29	-4.7m
	513 Apr 19 j 03:05	0° \mathcal{Y}		asc. node	515 Dec 11 j 09:16	27° \mathcal{B} 52'55	
	513 May 14 j 00:42	0° \mathcal{B}		retrograde	515 Dec 20 j 08:08	29° \mathcal{B} 25'37	
	513 Jun 07 j 18:21	0° \mathbb{I}		evening set	516 Jan 04 j 23:00	24° \mathcal{B} 32'45	
asc. node	513 Jun 25 j 14:17	21° \mathbb{I} 46'06		min. Earth dist.	516 Jan 09 j 00:49	22° \mathcal{B} 05'14	0.27002 AU
	513 Jul 02 j 07:28	0° \mathcal{C}		inferior conj	516 Jan 10 j 00:36	21° \mathcal{B} 28'13	6°41'55
morning set	513 Jul 06 j 08:16	4° \mathcal{C} 57'10		minimum elong	516 Jan 09 j 14:30	21° \mathcal{B} 43'56	6°39'51
	513 Jul 26 j 15:40	0° \mathcal{O}		morning rise	516 Jan 14 j 06:34	18° \mathcal{B} 53'31	
max. Earth dist.	513 Aug 08 j 04:14	15° \mathcal{O} 31'19	1.72606 AU	direct	516 Jan 30 j 12:44	13° \mathcal{B} 44'17	
				greatest brilliancy	516 Feb 10 j 01:23	15° \mathcal{B} 48'37	-4.6m
superior conj	513 Aug 11 j 19:33	20° \mathcal{O} 02'31	1°22'08		516 Mar 03 j 11:07	0° \approx	
minimum elong	513 Aug 11 j 15:17	19° \mathcal{O} 49'17	1°22'06	morning max el	516 Mar 20 j 01:49	15° \approx 05'28	46°16'35
	513 Aug 19 j 19:38	0° \mathcal{M}		desc. node	516 Mar 31 j 22:52	27° \approx 05'13	
	513 Sep 12 j 20:54	0° \mathcal{A}			516 Apr 03 j 17:44	0° \mathcal{H}	
evening rise	513 Sep 18 j 05:02	6° \mathcal{A} 40'10			516 May 01 j 03:41	0° \mathcal{Y}	
	513 Oct 06 j 21:11	0° \mathcal{M}			516 May 27 j 07:15	0° \mathcal{B}	
desc. node	513 Oct 15 j 03:56	10° \mathcal{M} 20'46			516 Jun 21 j 18:45	0° \mathbb{I}	
	513 Oct 30 j 21:45	0° \mathcal{A}			516 Jul 16 j 18:31	0° \mathcal{C}	
	513 Nov 23 j 23:42	0° \mathcal{B}		asc. node	516 Jul 23 j 02:11	7° \mathcal{C} 40'15	
	513 Dec 18 j 05:01	0° \approx			516 Aug 10 j 08:11	0° \mathcal{O}	
	514 Jan 11 j 17:55	0° \mathcal{H}			516 Sep 03 j 13:36	0° \mathcal{M}	
asc. node	514 Feb 05 j 06:59	29° \mathcal{H} 14'53		morning set	516 Sep 13 j 15:36	12° \mathcal{M} 34'59	
	514 Feb 05 j 22:26	0° \mathcal{Y}			516 Sep 27 j 13:24	0° \mathcal{A}	
	514 Mar 04 j 11:05	0° \mathcal{B}		max. Earth dist.	516 Oct 21 j 03:54	29° \mathcal{A} 39'35	1.71203 AU
evening max el	514 Mar 24 j 11:26	20° \mathcal{B} 42'14	45°38'35		516 Oct 21 j 10:23	0° \mathcal{M}	
	514 Apr 03 j 11:25	0° \mathbb{I}					
greatest brilliancy	514 Apr 27 j 15:00	17° \mathbb{I} 08'35	-4.5m	superior conj	516 Oct 22 j 10:27	1° \mathcal{M} 15'38	0°45'40
retrograde	514 May 12 j 06:36	20° \mathbb{I} 52'11		minimum elong	516 Oct 22 j 20:17	1° \mathcal{M} 46'35	0°45'16

desc. node	516 Nov 11 j 15:43	26° \mathbb{M} 41'53		greatest brilliancy	519 Apr 25 j 00:34	27° \mathbb{K} 38'54	-4.5m
	516 Nov 14 j 06:43	0° \mathbb{X}		desc. node	519 Apr 29 j 10:34	29° \mathbb{K} 41'46	
evening rise	516 Dec 02 j 18:17	23° \mathbb{X} 13'51			519 Apr 30 j 00:27	0° \mathbb{Y}	
	516 Dec 08 j 03:39	0° \mathbb{Z}		morning max el	519 May 31 j 19:46	24° \mathbb{Y} 57'22	45°45'46
	517 Jan 01 j 02:17	0° \approx			519 Jun 06 j 00:26	0° \mathbb{B}	
	517 Jan 25 j 04:22	0° \mathbb{K}			519 Jul 04 j 12:34	0° \mathbb{II}	
	517 Feb 18 j 12:47	0° \mathbb{Y}			519 Jul 30 j 22:39	0° \mathbb{S}	
asc. node	517 Mar 04 j 19:01	17° \mathbb{Y} 20'26		asc. node	519 Aug 20 j 14:08	24° \mathbb{S} 23'02	
	517 Mar 15 j 07:29	0° \mathbb{B}			519 Aug 25 j 06:26	0° \mathbb{Q}	
	517 Apr 09 j 18:17	0° \mathbb{II}			519 Sep 18 j 21:13	0° \mathbb{M}	
	517 May 06 j 08:35	0° \mathbb{S}			519 Oct 13 j 01:12	0° \mathbb{L}	
evening max el	517 Jun 03 j 02:12	28° \mathbb{S} 37'34	45°22'49		519 Nov 05 j 23:28	0° \mathbb{M}	
	517 Jun 04 j 12:56	0° \mathbb{Q}		morning set	519 Nov 27 j 21:05	27° \mathbb{M} 33'24	
desc. node	517 Jun 24 j 08:21	16° \mathbb{Q} 47'00			519 Nov 29 j 19:40	0° \mathbb{X}	
greatest brilliancy	517 Jul 09 j 15:52	25° \mathbb{Q} 39'20	-4.5m	desc. node	519 Dec 10 j 03:34	13° \mathbb{X} 00'05	
retrograde	517 Jul 21 j 16:32	28° \mathbb{Q} 13'02			519 Dec 23 j 15:58	0° \mathbb{Z}	
evening set	517 Aug 08 j 06:59	22° \mathbb{Q} 28'58					
inferior conj	517 Aug 11 j 23:33	20° \mathbb{Q} 14'40	-8°-27'-48	superior conj	520 Jan 08 j 19:37	20° \mathbb{Z} 17'04	-1°-2'-55
minimum elong	517 Aug 11 j 18:35	20° \mathbb{Q} 22'20	8°27'27	minimum elong	520 Jan 08 j 07:44	19° \mathbb{Z} 39'48	1°02'32
min. Earth dist.	517 Aug 12 j 11:03	19° \mathbb{Q} 56'55	0.28394 AU	max. Earth dist.	520 Jan 12 j 03:53	24° \mathbb{Z} 28'43	1.71401 AU
morning rise	517 Aug 15 j 05:56	18° \mathbb{Q} 14'42			520 Jan 16 j 13:36	0° \approx	
direct	517 Sep 02 j 08:25	12° \mathbb{Q} 05'38			520 Feb 09 j 13:41	0° \mathbb{K}	
greatest brilliancy	517 Sep 16 j 19:17	15° \mathbb{Q} 47'55	-4.6m	evening rise	520 Feb 18 j 13:01	11° \mathbb{K} 10'06	
	517 Oct 07 j 05:12	0° \mathbb{M}			520 Mar 04 j 17:29	0° \mathbb{Y}	
asc. node	517 Oct 15 j 11:34	7° \mathbb{M} 30'12			520 Mar 29 j 02:20	0° \mathbb{B}	
morning max el	517 Oct 22 j 16:14	14° \mathbb{M} 34'02	46°41'36	asc. node	520 Apr 01 j 06:53	3° \mathbb{B} 54'15	
	517 Nov 06 j 06:45	0° \mathbb{L}			520 Apr 22 j 17:32	0° \mathbb{II}	
	517 Dec 02 j 13:06	0° \mathbb{M}			520 May 17 j 16:44	0° \mathbb{S}	
	517 Dec 27 j 14:49	0° \mathbb{X}			520 Jun 12 j 03:18	0° \mathbb{Q}	
	518 Jan 21 j 05:47	0° \mathbb{Z}			520 Jul 08 j 08:48	0° \mathbb{M}	
desc. node	518 Feb 04 j 01:17	16° \mathbb{Z} 55'45		desc. node	520 Jul 21 j 20:17	14° \mathbb{M} 50'15	
	518 Feb 14 j 16:56	0° \approx			520 Aug 05 j 05:22	0° \mathbb{L}	
	518 Mar 11 j 03:10	0° \mathbb{K}		evening max el	520 Aug 14 j 19:10	9° \mathbb{L} 33'00	46°20'31
	518 Apr 04 j 13:43	0° \mathbb{Y}			520 Sep 07 j 14:21	0° \mathbb{M}	
morning set	518 Apr 27 j 15:16	28° \mathbb{Y} 17'10		greatest brilliancy	520 Sep 22 j 20:10	8° \mathbb{M} 29'41	-4.6m
	518 Apr 29 j 00:48	0° \mathbb{B}		retrograde	520 Oct 03 j 10:10	10° \mathbb{M} 32'42	
	518 May 23 j 11:51	0° \mathbb{II}		evening set	520 Oct 18 j 20:13	5° \mathbb{M} 55'42	
asc. node	518 May 28 j 04:31	5° \mathbb{II} 45'47		inferior conj	520 Oct 24 j 00:21	2° \mathbb{M} 53'24	-4°-39'-38
max. Earth dist.	518 Jun 01 j 20:16	11° \mathbb{II} 28'48	1.73631 AU	minimum elong	520 Oct 24 j 09:44	2° \mathbb{M} 39'11	4°37'03
				min. Earth dist.	520 Oct 24 j 14:22	2° \mathbb{M} 32'10	0.26661 AU
superior conj	518 Jun 03 j 05:27	13° \mathbb{II} 10'43	0°14'16		520 Oct 28 j 21:52	30° \mathbb{R} \mathbb{L}	
minimum elong	518 Jun 03 j 02:35	13° \mathbb{II} 01'55	0°14'08	morning rise	520 Oct 29 j 22:51	29° \mathbb{L} 25'48	
behind sun begin	518 Jun 02 j 16:27	12° \mathbb{II} 30'47		asc. node	520 Nov 11 j 23:25	25° \mathbb{L} 14'38	
behind sun end	518 Jun 03 j 12:43	13° \mathbb{II} 33'03		direct	520 Nov 13 j 13:32	25° \mathbb{L} 11'30	
	518 Jun 16 j 21:56	0° \mathbb{S}		greatest brilliancy	520 Nov 26 j 12:51	28° \mathbb{L} 20'14	-4.7m
evening rise	518 Jul 09 j 00:12	27° \mathbb{S} 12'33			520 Nov 29 j 20:26	0° \mathbb{M}	
	518 Jul 11 j 06:33	0° \mathbb{Q}		morning max el	521 Jan 03 j 07:23	28° \mathbb{M} 39'28	46°54'28
	518 Aug 04 j 14:10	0° \mathbb{M}			521 Jan 04 j 15:01	0° \mathbb{X}	
	518 Aug 28 j 22:04	0° \mathbb{L}			521 Feb 01 j 05:56	0° \mathbb{Z}	
desc. node	518 Sep 16 j 18:05	23° \mathbb{L} 09'58			521 Feb 27 j 05:14	0° \approx	
	518 Sep 22 j 07:40	0° \mathbb{M}		desc. node	521 Mar 03 j 13:10	5° \approx 05'20	
	518 Oct 16 j 20:25	0° \mathbb{X}			521 Mar 24 j 13:32	0° \mathbb{K}	
	518 Nov 10 j 15:05	0° \mathbb{Z}			521 Apr 18 j 14:48	0° \mathbb{Y}	
	518 Dec 05 j 23:15	0° \approx			521 May 13 j 11:52	0° \mathbb{B}	
	519 Jan 01 j 18:03	0° \mathbb{K}			521 Jun 07 j 05:11	0° \mathbb{II}	
asc. node	519 Jan 07 j 21:12	6° \mathbb{K} 25'13		asc. node	521 Jun 24 j 16:25	21° \mathbb{II} 19'53	
evening max el	519 Jan 09 j 23:04	8° \mathbb{K} 32'34	46°51'15		521 Jul 01 j 18:07	0° \mathbb{S}	
	519 Feb 02 j 18:03	0° \mathbb{Y}		morning set	521 Jul 04 j 02:23	2° \mathbb{S} 52'41	
greatest brilliancy	519 Feb 15 j 05:16	7° \mathbb{Y} 50'14	-4.6m		521 Jul 26 j 02:17	0° \mathbb{Q}	
retrograde	519 Mar 01 j 11:33	11° \mathbb{Y} 32'57		max. Earth dist.	521 Aug 05 j 20:10	13° \mathbb{Q} 18'55	1.72655 AU
evening set	519 Mar 18 j 19:30	5° \mathbb{Y} 43'15					
inferior conj	519 Mar 22 j 18:03	3° \mathbb{Y} 15'57	7°24'53	superior conj	521 Aug 09 j 13:02	17° \mathbb{Q} 54'42	1°21'18
minimum elong	519 Mar 23 j 02:34	3° \mathbb{Y} 02'28	7°23'36	minimum elong	521 Aug 09 j 08:10	17° \mathbb{Q} 39'38	1°21'14
min. Earth dist.	519 Mar 22 j 15:46	3° \mathbb{Y} 19'32	0.28609 AU		521 Aug 19 j 06:17	0° \mathbb{M}	
morning rise	519 Mar 27 j 09:49	0° \mathbb{Y} 23'11			521 Sep 12 j 07:41	0° \mathbb{L}	
	519 Mar 28 j 01:46	30° \mathbb{R} \mathbb{K}		evening rise	521 Sep 15 j 19:33	4° \mathbb{L} 21'50	
direct	519 Apr 12 j 23:36	25° \mathbb{K} 03'51			521 Oct 06 j 08:09	0° \mathbb{M}	

desc. node	521 Oct 14 j 05:56	9°♌52'32			524 Jun 21 j 06:34	0°♊		
	521 Oct 30 j 08:57	0°♊			524 Jul 16 j 05:47	0°♊		
	521 Nov 23 j 11:13	0°♊		asc. node	524 Jul 22 j 04:16	7°♊12'38		
	521 Dec 17 j 16:58	0°♊			524 Aug 09 j 19:10	0°♊		
	522 Jan 11 j 06:31	0°♊			524 Sep 03 j 00:28	0°♊		
asc. node	522 Feb 04 j 09:05	28°♊40'47		morning set	524 Sep 11 j 06:29	10°♊17'34		
	522 Feb 05 j 12:17	0°♊			524 Sep 27 j 00:16	0°♊		
	522 Mar 04 j 03:52	0°♊		max. Earth dist.	524 Oct 18 j 11:12	26°♊57'14	1.71235 AU	
evening max el	522 Mar 22 j 03:39	18°♊32'05	45°40'27					
	522 Apr 03 j 15:07	0°♊		superior conj	524 Oct 19 j 22:23	28°♊47'52	0°48'50	
greatest brilliancy	522 Apr 25 j 08:03	15°♊01'32	-4.5m	minimum elong	524 Oct 20 j 08:33	29°♊19'51	0°48'24	
retrograde	522 May 09 j 22:48	18°♊44'20			524 Oct 20 j 21:19	0°♊		
evening set	522 May 24 j 23:16	14°♊22'53		desc. node	524 Nov 10 j 17:51	26°♊13'57		
desc. node	522 May 26 j 22:31	13°♊15'49			524 Nov 13 j 17:44	0°♊		
inferior conj	522 May 31 j 09:44	10°♊31'18	-1°-2'-40	evening rise	524 Nov 30 j 04:16	20°♊39'48		
minimum elong	522 May 31 j 07:26	10°♊34'54	1°02'01		524 Dec 07 j 14:44	0°♊		
min. Earth dist.	522 May 31 j 11:40	10°♊28'15	0.28977 AU		524 Dec 31 j 13:26	0°♊		
morning rise	522 Jun 06 j 15:38	6°♊46'00			525 Jan 24 j 15:40	0°♊		
direct	522 Jun 22 j 02:34	2°♊13'08			525 Feb 18 j 00:23	0°♊		
greatest brilliancy	522 Jul 05 j 21:42	5°♊32'32	-4.5m	asc. node	525 Mar 03 j 20:58	16°♊50'26		
	522 Aug 07 j 16:06	0°♊			525 Mar 14 j 19:41	0°♊		
morning max el	522 Aug 10 j 03:33	2°♊22'08	45°58'23		525 Apr 09 j 07:40	0°♊		
	522 Sep 05 j 14:38	0°♊			525 May 06 j 00:33	0°♊		
asc. node	522 Sep 17 j 01:52	12°♊55'14		evening max el	525 May 31 j 16:37	26°♊23'21	45°22'08	
	522 Oct 01 j 17:55	0°♊			525 Jun 04 j 12:48	0°♊		
	522 Oct 26 j 15:55	0°♊		desc. node	525 Jun 23 j 10:32	15°♊36'58		
	522 Nov 19 j 23:40	0°♊		greatest brilliancy	525 Jul 07 j 02:36	23°♊21'40	-4.5m	
	522 Dec 14 j 01:23	0°♊		retrograde	525 Jul 19 j 07:27	25°♊59'43		
desc. node	523 Jan 06 j 15:28	29°♊28'33		evening set	525 Aug 05 j 18:50	20°♊19'12		
	523 Jan 07 j 01:32	0°♊		inferior conj	525 Aug 09 j 14:36	18°♊00'22	-8°-21'-48	
	523 Jan 31 j 02:18	0°♊		minimum elong	525 Aug 09 j 08:56	18°♊09'06	8°21'21	
morning set	523 Feb 13 j 01:02	16°♊07'51		min. Earth dist.	525 Aug 10 j 01:19	17°♊43'50	0.28441 AU	
	523 Feb 24 j 04:43	0°♊		morning rise	525 Aug 12 j 22:47	15°♊57'52		
	523 Mar 20 j 09:28	0°♊		direct	525 Aug 30 j 23:49	9°♊50'28		
				greatest brilliancy	525 Sep 14 j 12:28	13°♊34'45	-4.6m	
superior conj	523 Mar 24 j 05:15	4°♊43'43	-1°-12'-38		525 Oct 07 j 11:07	0°♊		
minimum elong	523 Mar 24 j 14:16	5°♊11'35	1°12'25	asc. node	525 Oct 14 j 13:42	6°♊35'47		
max. Earth dist.	523 Mar 27 j 08:13	8°♊35'17	1.72935 AU	morning max el	525 Oct 20 j 07:22	12°♊15'20	46°40'18	
	523 Apr 13 j 16:54	0°♊			525 Nov 06 j 00:37	0°♊		
asc. node	523 Apr 29 j 18:44	19°♊45'43			525 Dec 02 j 03:44	0°♊		
evening rise	523 Apr 30 j 23:31	21°♊14'02			525 Dec 27 j 04:00	0°♊		
	523 May 08 j 03:00	0°♊			526 Jan 20 j 18:06	0°♊		
	523 Jun 01 j 15:31	0°♊		desc. node	526 Feb 03 j 03:17	16°♊25'09		
	523 Jun 26 j 06:40	0°♊			526 Feb 14 j 04:40	0°♊		
	523 Jul 21 j 01:43	0°♊			526 Mar 10 j 14:30	0°♊		
	523 Aug 15 j 03:12	0°♊			526 Apr 04 j 00:46	0°♊		
desc. node	523 Aug 19 j 08:08	4°♊59'20		morning set	526 Apr 25 j 08:49	26°♊10'27		
	523 Sep 09 j 15:27	0°♊			526 Apr 28 j 11:40	0°♊		
	523 Oct 06 j 00:15	0°♊			526 May 22 j 22:38	0°♊		
evening max el	523 Oct 28 j 00:20	23°♊26'44	47°20'34	asc. node	526 May 27 j 06:41	5°♊19'22		
	523 Nov 03 j 15:21	0°♊		max. Earth dist.	526 May 30 j 18:38	9°♊37'06	1.73641 AU	
greatest brilliancy	523 Dec 05 j 10:11	24°♊04'53	-4.7m					
asc. node	523 Dec 10 j 11:23	25°♊55'16		superior conj	526 May 31 j 23:53	11°♊06'55	0°11'11	
retrograde	523 Dec 17 j 21:16	26°♊59'38		minimum elong	526 May 31 j 21:38	10°♊59'59	0°11'04	
evening set	524 Jan 02 j 09:06	22°♊12'29		behind sun begin	526 May 31 j 05:27	10°♊10'18		
min. Earth dist.	524 Jan 06 j 14:53	19°♊39'30	0.26943 AU	behind sun end	526 Jun 01 j 13:48	11°♊49'40		
inferior conj	524 Jan 07 j 13:57	19°♊03'37	6°26'41		526 Jun 16 j 08:42	0°♊		
minimum elong	524 Jan 07 j 03:45	19°♊19'28	6°24'29	evening rise	526 Jul 06 j 19:08	25°♊09'35		
morning rise	524 Jan 11 j 22:55	16°♊24'29			526 Jul 10 j 17:25	0°♊		
direct	524 Jan 28 j 01:06	11°♊20'31			526 Aug 04 j 01:15	0°♊		
greatest brilliancy	524 Feb 07 j 15:33	13°♊26'05	-4.6m		526 Aug 28 j 09:31	0°♊		
	524 Mar 03 j 19:48	0°♊		desc. node	526 Sep 15 j 20:03	22°♊39'49		
morning max el	524 Mar 17 j 14:27	12°♊42'47	46°18'03		526 Sep 21 j 19:37	0°♊		
desc. node	524 Mar 31 j 00:52	26°♊20'51			526 Oct 16 j 09:01	0°♊		
	524 Apr 03 j 12:02	0°♊			526 Nov 10 j 04:41	0°♊		
	524 Apr 30 j 18:09	0°♊			526 Dec 05 j 14:36	0°♊		
	524 May 26 j 19:59	0°♊			527 Jan 01 j 13:40	0°♊		

asc. node	527 Jan 06 j 23:19	5° Υ 36'09		asc. node	529 Jun 23 j 18:29	20° Π 52'27	
evening max el	527 Jan 07 j 14:38	6° Υ 15'07	46°53'43		529 Jul 01 j 05:06	0° Θ	
	527 Feb 03 j 12:29	0° Υ		morning set	529 Jul 01 j 20:31	0° Θ 47'19	
greatest brilliancy	527 Feb 12 j 21:19	5° Υ 35'53	-4.6m		529 Jul 25 j 13:14	0° Ω	
retrograde	527 Feb 27 j 04:18	9° Υ 19'22		max. Earth dist.	529 Aug 03 j 11:39	11° Ω 04'05	1.72710 AU
evening set	527 Mar 16 j 13:56	3° Υ 25'36					
inferior conj	527 Mar 20 j 09:54	1° Υ 02'17	7°35'07	superior conj	529 Aug 07 j 06:31	15° Ω 45'56	1°20'20
minimum elong	527 Mar 20 j 18:03	0° Υ 49'23	7°33'59	minimum elong	529 Aug 07 j 01:07	15° Ω 29'09	1°20'16
min. Earth dist.	527 Mar 20 j 06:31	1° Υ 07'37	0.28575 AU		529 Aug 18 j 17:20	0° η	
	527 Mar 22 j 01:24	30° Υ			529 Sep 11 j 18:52	0° $\underline{\Omega}$	
morning rise	527 Mar 24 j 22:23	28° Υ 14'41		evening rise	529 Sep 13 j 10:00	2° $\underline{\Omega}$ 02'06	
direct	527 Apr 10 j 15:05	22° Υ 50'46			529 Oct 05 j 19:31	0° \mathbb{M}	
greatest brilliancy	527 Apr 22 j 13:54	25° Υ 24'18	-4.5m	desc. node	529 Oct 13 j 08:04	9° \mathbb{M} 23'24	
desc. node	527 Apr 28 j 12:39	28° Υ 15'55			529 Oct 29 j 20:34	0° \mathcal{A}	
	527 May 01 j 11:57	0° Υ			529 Nov 22 j 23:08	0° \mathcal{B}	
morning max el	527 May 29 j 12:31	22° Υ 48'55	45°46'08		529 Dec 17 j 05:18	0° \approx	
	527 Jun 05 j 20:51	0° \mathcal{B}			530 Jan 10 j 19:32	0° Υ	
	527 Jul 04 j 03:42	0° Π		asc. node	530 Feb 03 j 11:02	28° Υ 04'56	
	527 Jul 30 j 11:45	0° Θ			530 Feb 05 j 02:38	0° Υ	
asc. node	527 Aug 19 j 16:04	23° Θ 52'03			530 Mar 03 j 21:25	0° \mathcal{B}	
	527 Aug 24 j 18:35	0° Ω		evening max el	530 Mar 19 j 19:03	16° \mathcal{B} 18'34	45°42'19
	527 Sep 18 j 08:51	0° η			530 Apr 03 j 21:20	0° Π	
	527 Oct 12 j 12:36	0° $\underline{\Omega}$		greatest brilliancy	530 Apr 23 j 00:55	12° Π 52'54	-4.5m
	527 Nov 05 j 10:45	0° \mathbb{M}		retrograde	530 May 07 j 14:44	16° Π 35'26	
morning set	527 Nov 25 j 07:22	24° \mathbb{M} 59'26		evening set	530 May 22 j 16:08	12° Π 13'34	
	527 Nov 29 j 06:53	0° \mathcal{A}		desc. node	530 May 26 j 00:37	10° Π 16'44	
desc. node	527 Dec 09 j 05:39	12° \mathcal{A} 31'22		inferior conj	530 May 29 j 02:14	8° Π 22'22	0°-43'-8
	527 Dec 23 j 03:09	0° \mathcal{B}		minimum elong	530 May 29 j 00:39	8° Π 24'51	0°42'41
				min. Earth dist.	530 May 29 j 04:38	8° Π 18'37	0.28975 AU
superior conj	528 Jan 06 j 05:20	17° \mathcal{B} 41'52	-1°00'-8	morning rise	530 Jun 04 j 09:09	4° Π 35'15	
minimum elong	528 Jan 05 j 17:26	17° \mathcal{B} 04'29	0°59'44	direct	530 Jun 19 j 18:45	0° Π 04'16	
max. Earth dist.	528 Jan 09 j 13:05	21° \mathcal{B} 52'03	1.71364 AU	greatest brilliancy	530 Jul 03 j 12:18	3° Π 21'16	-4.5m
	528 Jan 16 j 00:46	0° \approx			530 Aug 07 j 15:01	0° Θ	
	528 Feb 09 j 00:50	0° Υ		morning max el	530 Aug 07 j 18:00	0° Θ 07'12	45°57'13
evening rise	528 Feb 16 j 01:08	8° Υ 43'53			530 Sep 05 j 06:38	0° Ω	
	528 Mar 04 j 04:39	0° Υ		asc. node	530 Sep 16 j 04:02	12° Ω 19'08	
	528 Mar 28 j 13:36	0° \mathcal{B}			530 Oct 01 j 07:38	0° η	
asc. node	528 Mar 31 j 08:58	3° \mathcal{B} 26'05			530 Oct 26 j 04:36	0° $\underline{\Omega}$	
	528 Apr 22 j 05:06	0° Π			530 Nov 19 j 11:49	0° \mathbb{M}	
	528 May 17 j 04:54	0° Θ			530 Dec 13 j 13:11	0° \mathcal{A}	
	528 Jun 11 j 16:35	0° Ω		desc. node	531 Jan 05 j 17:30	28° \mathcal{A} 58'44	
	528 Jul 08 j 00:19	0° η			531 Jan 06 j 13:06	0° \mathcal{B}	
desc. node	528 Jul 20 j 22:14	14° η 08'39			531 Jan 30 j 13:40	0° \approx	
	528 Aug 05 j 02:13	0° $\underline{\Omega}$		morning set	531 Feb 10 j 12:45	13° \approx 39'50	
evening max el	528 Aug 12 j 09:29	7° $\underline{\Omega}$ 13'44	46°17'47		531 Feb 23 j 15:56	0° Υ	
	528 Sep 08 j 16:18	0° \mathbb{M}			531 Mar 19 j 20:33	0° Υ	
greatest brilliancy	528 Sep 20 j 08:37	6° \mathbb{M} 03'06	-4.6m				
retrograde	528 Sep 30 j 22:11	8° \mathbb{M} 05'05		superior conj	531 Mar 21 j 20:13	2° Υ 27'21	-1°-14'-25
evening set	528 Oct 16 j 11:31	3° \mathbb{M} 24'14		minimum elong	531 Mar 22 j 04:54	2° Υ 54'14	1°14'14
inferior conj	528 Oct 21 j 12:40	0° \mathbb{M} 25'42	-4°-59'-48	max. Earth dist.	531 Mar 25 j 01:53	6° Υ 27'22	1.72884 AU
minimum elong	528 Oct 21 j 22:28	0° \mathbb{M} 10'49	4°57'11		531 Apr 13 j 03:57	0° \mathcal{B}	
min. Earth dist.	528 Oct 22 j 03:31	0° \mathbb{M} 03'09	0.26707 AU	evening rise	531 Apr 28 j 16:44	19° \mathcal{B} 05'33	
	528 Oct 22 j 05:36	30° \mathcal{B}		asc. node	531 Apr 28 j 20:54	19° \mathcal{B} 18'21	
morning rise	528 Oct 27 j 09:03	27° $\underline{\Omega}$ 00'40			531 May 07 j 14:07	0° Π	
direct	528 Nov 11 j 02:58	22° $\underline{\Omega}$ 43'17		greatest brilliancy	531 May 13 j 14:56	7° Π 23'32	-3.9m
asc. node	528 Nov 11 j 01:31	22° $\underline{\Omega}$ 43'18			531 Jun 01 j 02:48	0° Θ	
greatest brilliancy	528 Nov 24 j 02:41	25° $\underline{\Omega}$ 52'32	-4.7m		531 Jun 25 j 18:17	0° Ω	
	528 Dec 01 j 13:25	0° \mathbb{M}			531 Jul 20 j 13:54	0° η	
morning max el	528 Dec 31 j 20:44	26° \mathbb{M} 12'48	46°54'50		531 Aug 14 j 16:19	0° $\underline{\Omega}$	
	529 Jan 04 j 13:13	0° \mathcal{A}		desc. node	531 Aug 18 j 10:08	4° $\underline{\Omega}$ 25'53	
	529 Jan 31 j 22:20	0° \mathcal{B}			531 Sep 09 j 06:11	0° \mathbb{M}	
	529 Feb 26 j 19:18	0° \approx			531 Oct 05 j 18:10	0° \mathcal{A}	
desc. node	529 Mar 02 j 15:08	4° \approx 30'27		evening max el	531 Oct 25 j 13:14	20° \mathcal{A} 58'54	47°19'34
	529 Mar 24 j 02:20	0° Υ			531 Nov 03 j 18:29	0° \mathcal{B}	
	529 Apr 18 j 02:49	0° Υ		greatest brilliancy	531 Dec 03 j 01:51	21° \mathcal{B} 39'04	-4.7m
	529 May 12 j 23:22	0° \mathcal{B}		asc. node	531 Dec 09 j 13:28	23° \mathcal{B} 50'30	
	529 Jun 06 j 16:20	0° Π		retrograde	531 Dec 15 j 10:06	24° \mathcal{B} 31'21	

evening set	531 Dec 30 j 18:54	19° $\overline{3}$ 49'24		behind sun begin	534 May 28 j 20:48	7° $\overline{\text{II}}$ 56'48	
min. Earth dist.	532 Jan 04 j 04:41	17° $\overline{3}$ 11'10	0.26885 AU	behind sun end	534 May 30 j 11:58	9° $\overline{\text{II}}$ 57'03	
inferior conj	532 Jan 05 j 02:58	16° $\overline{3}$ 36'36	6°10'29		534 Jun 15 j 19:32	0° $\overline{\text{S}}$	
minimum elong	532 Jan 04 j 16:44	16° $\overline{3}$ 52'29	6°08'10	evening rise	534 Jul 04 j 14:00	23° $\overline{\text{S}}$ 06'12	
morning rise	532 Jan 09 j 15:01	13° $\overline{3}$ 53'10			534 Jul 10 j 04:22	0° Ω	
direct	532 Jan 25 j 12:59	8° $\overline{3}$ 54'09			534 Aug 03 j 12:27	0° $\overline{\text{M}}$	
greatest brilliancy	532 Feb 05 j 06:08	11° $\overline{3}$ 02'06	-4.6m		534 Aug 27 j 21:03	0° $\underline{\text{A}}$	
	532 Mar 04 j 02:38	0° \approx		desc. node	534 Sep 14 j 22:14	22° $\underline{\text{A}}$ 10'09	
morning max el	532 Mar 15 j 03:14	10° \approx 19'10	46°19'41		534 Sep 21 j 07:36	0° $\overline{\text{M}}$	
desc. node	532 Mar 30 j 03:05	25° \approx 36'36			534 Oct 15 j 21:38	0° $\overline{\text{A}}$	
	532 Apr 03 j 06:17	0° X			534 Nov 09 j 18:17	0° $\overline{3}$	
	532 Apr 30 j 08:46	0° Y			534 Dec 05 j 06:04	0° \approx	
	532 May 26 j 08:56	0° B			535 Jan 01 j 09:50	0° X	
	532 Jun 20 j 18:37	0° $\overline{\text{II}}$		evening max el	535 Jan 05 j 06:41	3° X 58'54	46°55'56
	532 Jul 15 j 17:19	0° $\overline{\text{S}}$		asc. node	535 Jan 06 j 01:14	4° X 45'51	
asc. node	532 Jul 21 j 06:15	6° $\overline{\text{S}}$ 43'54			535 Feb 04 j 13:44	0° Y	
	532 Aug 09 j 06:24	0° Ω		greatest brilliancy	535 Feb 10 j 14:17	3° Y 22'25	-4.6m
	532 Sep 02 j 11:33	0° $\overline{\text{M}}$		retrograde	535 Feb 24 j 20:53	7° Y 04'57	
morning set	532 Sep 08 j 21:45	8° $\overline{\text{M}}$ 00'43		evening set	535 Mar 14 j 08:13	1° Y 07'31	
	532 Sep 26 j 11:21	0° $\underline{\text{A}}$			535 Mar 16 j 03:56	30° R X	
max. Earth dist.	532 Oct 15 j 22:11	24° $\underline{\text{A}}$ 25'51	1.71272 AU	inferior conj	535 Mar 18 j 01:37	28° X 47'57	7°44'47
				minimum elong	535 Mar 18 j 09:20	28° X 35'45	7°43'48
superior conj	532 Oct 17 j 10:35	26° $\underline{\text{A}}$ 20'16	0°51'51	min. Earth dist.	535 Mar 17 j 20:58	28° X 55'19	0.28541 AU
minimum elong	532 Oct 17 j 20:59	26° $\underline{\text{A}}$ 52'59	0°51'26	morning rise	535 Mar 22 j 10:44	26° X 05'30	
	532 Oct 20 j 08:28	0° $\overline{\text{M}}$		direct	535 Apr 08 j 06:48	20° X 37'16	
desc. node	532 Nov 09 j 19:58	25° $\overline{\text{M}}$ 45'16		greatest brilliancy	535 Apr 20 j 02:21	23° X 08'14	-4.5m
	532 Nov 13 j 04:59	0° $\overline{\text{A}}$		desc. node	535 Apr 27 j 14:45	26° X 52'34	
evening rise	532 Nov 27 j 14:14	18° $\overline{\text{A}}$ 04'50			535 May 02 j 13:14	0° Y	
	532 Dec 07 j 02:05	0° $\overline{3}$		morning max el	535 May 27 j 04:46	20° Y 39'14	45°46'29
	532 Dec 31 j 00:53	0° \approx			535 Jun 05 j 16:38	0° B	
	533 Jan 24 j 03:16	0° X			535 Jul 03 j 18:34	0° $\overline{\text{II}}$	
	533 Feb 17 j 12:17	0° Y			535 Jul 30 j 00:41	0° $\overline{\text{S}}$	
asc. node	533 Mar 02 j 23:06	16° Y 20'05		asc. node	535 Aug 18 j 18:11	23° $\overline{\text{S}}$ 21'58	
	533 Mar 14 j 08:12	0° B			535 Aug 24 j 06:34	0° Ω	
	533 Apr 08 j 21:24	0° $\overline{\text{II}}$			535 Sep 17 j 20:23	0° $\overline{\text{M}}$	
	533 May 05 j 17:03	0° $\overline{\text{S}}$			535 Oct 11 j 23:53	0° $\underline{\text{A}}$	
evening max el	533 May 29 j 07:46	24° $\overline{\text{S}}$ 10'20	45°21'32		535 Nov 04 j 21:54	0° $\overline{\text{M}}$	
	533 Jun 04 j 14:10	0° Ω		morning set	535 Nov 22 j 18:10	22° $\overline{\text{M}}$ 27'31	
desc. node	533 Jun 22 j 12:32	14° Ω 23'54			535 Nov 28 j 17:57	0° $\overline{\text{A}}$	
greatest brilliancy	533 Jul 04 j 13:18	21° Ω 03'28	-4.5m	desc. node	535 Dec 08 j 07:40	12° $\overline{\text{A}}$ 02'57	
retrograde	533 Jul 16 j 22:40	23° Ω 45'47			535 Dec 22 j 14:08	0° $\overline{3}$	
evening set	533 Aug 03 j 06:30	18° Ω 09'13					
inferior conj	533 Aug 07 j 05:35	15° Ω 45'31	-8°-15'-3	superior conj	536 Jan 03 j 15:25	15° $\overline{3}$ 08'25	0°-57'-15
minimum elong	533 Aug 06 j 23:15	15° Ω 55'17	8°14'29	minimum elong	536 Jan 03 j 03:35	14° $\overline{3}$ 31'16	0°56'50
min. Earth dist.	533 Aug 07 j 15:13	15° Ω 30'41	0.28483 AU	max. Earth dist.	536 Jan 07 j 00:40	19° $\overline{3}$ 23'22	1.71325 AU
morning rise	533 Aug 10 j 15:47	13° Ω 40'10			536 Jan 15 j 11:43	0° \approx	
direct	533 Aug 28 j 15:39	7° Ω 34'59			536 Feb 08 j 11:47	0° X	
greatest brilliancy	533 Sep 12 j 04:52	11° Ω 20'26	-4.6m	evening rise	536 Feb 13 j 13:20	6° X 18'31	
	533 Oct 07 j 15:12	0° $\overline{\text{M}}$			536 Mar 03 j 15:38	0° Y	
asc. node	533 Oct 13 j 15:48	5° $\overline{\text{M}}$ 42'13			536 Mar 28 j 00:43	0° B	
morning max el	533 Oct 17 j 22:54	9° $\overline{\text{M}}$ 57'42	46°39'03	asc. node	536 Mar 30 j 11:05	2° B 58'29	
	533 Nov 05 j 18:10	0° $\underline{\text{A}}$			536 Apr 21 j 16:31	0° $\overline{\text{II}}$	
	533 Dec 01 j 18:17	0° $\overline{\text{M}}$			536 May 16 j 16:57	0° $\overline{\text{S}}$	
	533 Dec 26 j 17:10	0° $\overline{\text{A}}$			536 Jun 11 j 05:49	0° Ω	
	534 Jan 20 j 06:29	0° $\overline{3}$			536 Jul 07 j 15:52	0° $\overline{\text{M}}$	
desc. node	534 Feb 02 j 05:18	15° $\overline{3}$ 54'14		desc. node	536 Jul 20 j 00:18	13° $\overline{\text{M}}$ 27'29	
	534 Feb 13 j 16:31	0° \approx			536 Aug 04 j 23:33	0° $\underline{\text{A}}$	
	534 Mar 10 j 01:58	0° X		evening max el	536 Aug 09 j 22:52	4° $\underline{\text{A}}$ 52'56	46°15'00
	534 Apr 03 j 11:56	0° Y			536 Sep 10 j 04:09	0° $\overline{\text{M}}$	
morning set	534 Apr 23 j 01:59	24° Y 02'11		greatest brilliancy	536 Sep 17 j 21:58	3° $\overline{\text{M}}$ 38'24	-4.6m
	534 Apr 27 j 22:37	0° B		retrograde	536 Sep 28 j 09:45	5° $\overline{\text{M}}$ 38'28	
	534 May 22 j 09:28	0° $\overline{\text{II}}$		evening set	536 Oct 14 j 02:56	0° $\overline{\text{M}}$ 53'39	
asc. node	534 May 26 j 08:40	4° $\overline{\text{II}}$ 52'12			536 Oct 15 j 16:29	30° R $\underline{\text{A}}$	
max. Earth dist.	534 May 28 j 18:05	7° $\overline{\text{II}}$ 48'25	1.73646 AU	inferior conj	536 Oct 19 j 01:03	27° $\underline{\text{A}}$ 59'04	-5°-19'-17
				minimum elong	536 Oct 19 j 11:11	27° $\underline{\text{A}}$ 43'40	5°16'42
superior conj	534 May 29 j 18:01	9° $\overline{\text{II}}$ 01'58	0°08'03	min. Earth dist.	536 Oct 19 j 17:02	27° $\underline{\text{A}}$ 34'47	0.26755 AU
minimum elong	534 May 29 j 16:23	8° $\overline{\text{II}}$ 56'55	0°07'58	morning rise	536 Oct 24 j 19:01	24° $\underline{\text{A}}$ 36'49	

direct	536 Nov 08 j 15:53	20°♊15'57		asc. node	539 Apr 27 j 22:54	18°♊51'55	
asc. node	536 Nov 10 j 03:32	20°♊18'37			539 May 07 j 00:46	0°♊	
greatest brilliancy	536 Nov 21 j 17:13	23°♊26'25	-4.7m		539 May 31 j 13:40	0°♊	
	536 Dec 02 j 17:32	0°♊			539 Jun 25 j 05:31	0°♊	
morning max el	536 Dec 29 j 09:12	23°♊44'38	46°55'25		539 Jul 20 j 01:44	0°♊	
	537 Jan 04 j 10:17	0°♊			539 Aug 14 j 05:09	0°♊	
	537 Jan 31 j 14:05	0°♊		desc. node	539 Aug 17 j 12:18	3°♊53'51	
	537 Feb 26 j 08:52	0°♊			539 Sep 08 j 20:42	0°♊	
desc. node	537 Mar 01 j 17:21	3°♊57'36			539 Oct 05 j 12:03	0°♊	
	537 Mar 23 j 14:42	0°♊		evening max el	539 Oct 23 j 02:14	18°♊32'44	47°18'34
	537 Apr 17 j 14:27	0°♊			539 Nov 03 j 22:46	0°♊	
	537 May 12 j 10:31	0°♊		greatest brilliancy	539 Nov 30 j 16:28	19°♊13'00	-4.7m
	537 Jun 06 j 03:11	0°♊		asc. node	539 Dec 08 j 15:27	21°♊41'35	
asc. node	537 Jun 22 j 20:30	20°♊25'43		retrograde	539 Dec 12 j 23:17	22°♊04'12	
morning set	537 Jun 29 j 14:35	28°♊42'37		evening set	539 Dec 28 j 04:47	17°♊26'46	
	537 Jun 30 j 15:47	0°♊		min. Earth dist.	540 Jan 01 j 18:12	14°♊43'54	0.26832 AU
	537 Jul 24 j 23:53	0°♊		inferior conj	540 Jan 02 j 15:53	14°♊10'21	5°53'29
max. Earth dist.	537 Aug 01 j 04:22	8°♊54'05	1.72764 AU	minimum elong	540 Jan 02 j 05:43	14°♊26'05	5°51'03
				morning rise	540 Jan 07 j 07:05	11°♊22'50	
superior conj	537 Aug 05 j 00:02	13°♊38'17	1°19'15	direct	540 Jan 23 j 01:06	6°♊28'24	
minimum elong	537 Aug 04 j 18:07	13°♊19'55	1°19'10	greatest brilliancy	540 Feb 02 j 20:30	8°♊38'44	-4.6m
	537 Aug 18 j 04:02	0°♊			540 Mar 04 j 06:57	0°♊	
evening rise	537 Sep 11 j 00:39	29°♊44'08		morning max el	540 Mar 12 j 17:02	7°♊59'02	46°21'27
	537 Sep 11 j 05:44	0°♊		desc. node	540 Mar 29 j 05:03	24°♊53'28	
	537 Oct 05 j 06:36	0°♊			540 Apr 02 j 23:39	0°♊	
desc. node	537 Oct 12 j 10:08	8°♊55'01			540 Apr 29 j 22:46	0°♊	
	537 Oct 29 j 07:54	0°♊			540 May 25 j 21:21	0°♊	
	537 Nov 22 j 10:47	0°♊			540 Jun 20 j 06:10	0°♊	
	537 Dec 16 j 17:20	0°♊			540 Jul 15 j 04:24	0°♊	
	538 Jan 10 j 08:13	0°♊		asc. node	540 Jul 20 j 08:23	6°♊16'51	
asc. node	538 Feb 02 j 13:13	27°♊30'58			540 Aug 08 j 17:15	0°♊	
	538 Feb 04 j 16:38	0°♊			540 Sep 01 j 22:19	0°♊	
	538 Mar 03 j 14:47	0°♊		morning set	540 Sep 06 j 13:08	5°♊45'21	
evening max el	538 Mar 17 j 09:37	14°♊04'29	45°44'14		540 Sep 25 j 22:07	0°♊	
	538 Apr 04 j 05:10	0°♊		max. Earth dist.	540 Oct 13 j 09:45	21°♊57'17	1.71306 AU
greatest brilliancy	538 Apr 20 j 16:54	10°♊44'37	-4.5m				
retrograde	538 May 05 j 06:59	14°♊28'27		superior conj	540 Oct 14 j 22:51	23°♊53'52	0°54'46
evening set	538 May 20 j 09:18	10°♊05'33		minimum elong	540 Oct 15 j 09:25	24°♊27'04	0°54'22
desc. node	538 May 25 j 02:37	7°♊18'14			540 Oct 19 j 19:19	0°♊	
inferior conj	538 May 26 j 18:56	6°♊15'09	0°-23'-37	desc. node	540 Nov 08 j 21:56	25°♊17'09	
minimum elong	538 May 26 j 18:04	6°♊16'30	0°23'23		540 Nov 12 j 15:55	0°♊	
min. Earth dist.	538 May 26 j 21:51	6°♊10'34	0.28977 AU	evening rise	540 Nov 25 j 00:09	15°♊30'50	
morning rise	538 Jun 02 j 02:44	2°♊26'30			540 Dec 06 j 13:06	0°♊	
	538 Jun 07 j 05:00	30°♊			540 Dec 30 j 12:01	0°♊	
direct	538 Jun 17 j 10:47	27°♊56'52			541 Jan 23 j 14:36	0°♊	
	538 Jun 28 j 04:30	0°♊			541 Feb 16 j 23:57	0°♊	
greatest brilliancy	538 Jul 01 j 04:23	1°♊13'13	-4.5m	asc. node	541 Mar 02 j 01:12	15°♊50'28	
morning max el	538 Aug 05 j 08:58	27°♊54'44	45°56'06		541 Mar 13 j 20:28	0°♊	
	538 Aug 07 j 12:34	0°♊			541 Apr 08 j 10:54	0°♊	
	538 Sep 04 j 21:59	0°♊			541 May 05 j 09:26	0°♊	
asc. node	538 Sep 15 j 06:09	11°♊44'20		evening max el	541 May 26 j 23:45	22°♊00'42	45°21'03
	538 Sep 30 j 20:50	0°♊			541 Jun 04 j 16:19	0°♊	
	538 Oct 25 j 16:50	0°♊		desc. node	541 Jun 21 j 14:34	13°♊10'09	
	538 Nov 18 j 23:31	0°♊		greatest brilliancy	541 Jul 02 j 00:49	18°♊47'56	-4.5m
	538 Dec 13 j 00:35	0°♊		retrograde	541 Jul 14 j 14:01	21°♊33'32	
desc. node	539 Jan 04 j 19:30	28°♊29'58		evening set	541 Jul 31 j 18:22	16°♊01'15	
	539 Jan 06 j 00:18	0°♊		inferior conj	541 Aug 04 j 20:47	13°♊32'23	-8°-7'-41
	539 Jan 30 j 00:40	0°♊		minimum elong	541 Aug 04 j 13:51	13°♊43'05	8°06'58
morning set	539 Feb 08 j 00:27	11°♊12'48		min. Earth dist.	541 Aug 05 j 05:10	13°♊19'28	0.28525 AU
	539 Feb 23 j 02:43	0°♊		morning rise	541 Aug 08 j 09:09	11°♊23'48	
				direct	541 Aug 26 j 08:01	5°♊21'25	
superior conj	539 Mar 19 j 11:22	0°♊12'53	-1°-16'-4	greatest brilliancy	541 Sep 09 j 20:34	9°♊06'30	-4.6m
minimum elong	539 Mar 19 j 19:40	0°♊38'33	1°15'54		541 Oct 07 j 17:22	0°♊	
	539 Mar 19 j 07:12	0°♊		asc. node	541 Oct 12 j 17:46	4°♊50'01	
max. Earth dist.	539 Mar 22 j 18:24	4°♊17'13	1.72829 AU	morning max el	541 Oct 15 j 14:32	7°♊41'12	46°37'34
	539 Apr 12 j 14:33	0°♊			541 Nov 05 j 11:10	0°♊	
evening rise	539 Apr 26 j 10:10	16°♊59'11			541 Dec 01 j 08:30	0°♊	

	541 Dec 26 j 06:05	0°♊			544 Jun 10 j 19:15	0°♋	
	542 Jan 19 j 18:36	0°♌			544 Jul 07 j 07:42	0°♍	
desc. node	542 Feb 01 j 07:30	15°♌24'35		desc. node	544 Jul 19 j 02:30	12°♍46'06	
	542 Feb 13 j 04:07	0°♎			544 Aug 04 j 21:41	0°♏	
	542 Mar 09 j 13:12	0°♐		evening max el	544 Aug 07 j 11:25	2°♏30'18	46°12'23
	542 Apr 02 j 22:54	0°♑			544 Sep 12 j 10:17	0°♐	
morning set	542 Apr 20 j 19:13	21°♑54'39		greatest brilliancy	544 Sep 15 j 11:37	1°♐14'36	-4.6m
	542 Apr 27 j 09:24	0°♒		retrograde	544 Sep 25 j 21:16	3°♐12'53	
	542 May 21 j 20:06	0°♓			544 Oct 08 j 16:55	30°♑♏	
asc. node	542 May 25 j 10:44	4°♓25'54		evening set	544 Oct 11 j 18:36	28°♑23'39	
max. Earth dist.	542 May 26 j 17:36	6°♓00'38	1.73644 AU	inferior conj	544 Oct 16 j 13:42	25°♑33'18	-5°-37'-56
				minimum elong	544 Oct 17 j 00:04	25°♑17'31	5°35'23
superior conj	542 May 27 j 12:22	6°♓58'14	0°04'56	min. Earth dist.	544 Oct 17 j 06:54	25°♑07'07	0.26809 AU
minimum elong	542 May 27 j 11:21	6°♓55'09	0°04'53	morning rise	544 Oct 22 j 05:04	22°♑14'08	
behind sun begin	542 May 26 j 13:50	5°♓49'04		direct	544 Nov 06 j 04:37	17°♑49'08	
behind sun end	542 May 28 j 08:53	8°♓01'15		asc. node	544 Nov 09 j 05:37	18°♑00'10	
	542 Jun 15 j 06:09	0°♈		greatest brilliancy	544 Nov 19 j 08:50	21°♑02'00	-4.7m
evening rise	542 Jul 02 j 09:11	21°♈04'31			544 Dec 03 j 14:06	0°♒	
	542 Jul 09 j 15:05	0°♉		morning max el	544 Dec 26 j 21:33	21°♒15'33	46°55'44
	542 Aug 02 j 23:25	0°♊			545 Jan 04 j 06:51	0°♋	
	542 Aug 27 j 08:25	0°♌			545 Jan 31 j 05:53	0°♍	
desc. node	542 Sep 14 j 00:16	21°♌40'30			545 Feb 25 j 22:35	0°♎	
	542 Sep 20 j 19:29	0°♍		desc. node	545 Feb 28 j 19:21	3°♎23'28	
	542 Oct 15 j 10:13	0°♊			545 Mar 23 j 03:17	0°♐	
	542 Nov 09 j 07:57	0°♌			545 Apr 17 j 02:17	0°♑	
	542 Dec 04 j 21:44	0°♎			545 May 11 j 21:52	0°♒	
	543 Jan 01 j 06:38	0°♐			545 Jun 05 j 14:14	0°♓	
evening max el	543 Jan 02 j 22:35	1°♐42'10	46°58'07	asc. node	545 Jun 21 j 22:38	19°♓58'43	
asc. node	543 Jan 05 j 03:25	3°♐55'26		morning set	545 Jun 27 j 08:33	26°♓36'57	
	543 Feb 06 j 01:36	0°♑			545 Jun 30 j 02:42	0°♈	
greatest brilliancy	543 Feb 08 j 08:13	1°♑10'05	-4.6m		545 Jul 24 j 10:46	0°♉	
retrograde	543 Feb 22 j 13:05	4°♑50'10		max. Earth dist.	545 Jul 29 j 22:36	6°♉48'08	1.72814 AU
	543 Mar 10 j 02:46	30°♒♐					
evening set	543 Mar 12 j 02:21	28°♒49'28		superior conj	545 Aug 02 j 17:43	11°♋30'30	1°18'05
inferior conj	543 Mar 15 j 17:15	26°♒33'27	7°53'53	minimum elong	545 Aug 02 j 11:18	11°♋10'38	1°17'57
minimum elong	543 Mar 16 j 00:30	26°♒21'59	7°53'01		545 Aug 17 j 14:59	0°♍	
min. Earth dist.	543 Mar 15 j 11:27	26°♒42'38	0.28502 AU	evening rise	545 Sep 08 j 15:46	27°♍27'11	
morning rise	543 Mar 19 j 22:57	23°♒56'00			545 Sep 10 j 16:47	0°♏	
direct	543 Apr 05 j 22:30	18°♒23'42			545 Oct 04 j 17:50	0°♐	
greatest brilliancy	543 Apr 17 j 14:22	20°♒51'26	-4.5m	desc. node	545 Oct 11 j 12:08	8°♐25'59	
desc. node	543 Apr 26 j 16:47	25°♒31'42			545 Oct 28 j 19:24	0°♊	
	543 May 03 j 07:50	0°♑			545 Nov 21 j 22:37	0°♌	
morning max el	543 May 24 j 20:12	18°♑27'32	45°46'59		545 Dec 16 j 05:38	0°♎	
	543 Jun 05 j 11:48	0°♒			546 Jan 09 j 21:16	0°♐	
	543 Jul 03 j 09:11	0°♓		asc. node	546 Feb 01 j 15:16	26°♒55'14	
	543 Jul 29 j 13:26	0°♈			546 Feb 04 j 07:12	0°♑	
asc. node	543 Aug 17 j 20:19	22°♈52'21			546 Mar 03 j 09:05	0°♒	
	543 Aug 23 j 18:25	0°♉		evening max el	546 Mar 14 j 23:52	11°♒48'12	45°46'20
	543 Sep 17 j 07:48	0°♊			546 Apr 04 j 16:45	0°♓	
	543 Oct 11 j 11:06	0°♋		greatest brilliancy	546 Apr 18 j 07:49	8°♓33'21	-4.5m
	543 Nov 04 j 09:03	0°♌		retrograde	546 May 02 j 23:24	12°♓19'43	
morning set	543 Nov 20 j 04:48	19°♓54'57		evening set	546 May 18 j 02:22	7°♓55'20	
	543 Nov 28 j 05:03	0°♊		inferior conj	546 May 24 j 11:23	4°♓06'01	0°-3'-54
desc. node	543 Dec 07 j 09:47	11°♊34'37		minimum elong	546 May 24 j 11:15	4°♓06'14	0°03'52
	543 Dec 22 j 01:13	0°♌		transit middle	546 May 24 j 11:15	4°♓06'14	0°03'52
				transit begin	546 May 24 j 07:18	4°♓12'25	
superior conj	544 Jan 01 j 00:59	12°♌33'03	0°-54'-13	transit end	546 May 24 j 15:11	4°♓00'04	
minimum elong	543 Dec 31 j 13:20	11°♌56'27	0°53'46	desc. node	546 May 24 j 04:43	4°♓16'29	
max. Earth dist.	544 Jan 04 j 09:00	16°♌44'11	1.71287 AU	min. Earth dist.	546 May 24 j 14:41	4°♓00'50	0.28978 AU
	544 Jan 14 j 22:47	0°♎		morning rise	546 May 30 j 19:59	0°♓16'16	
	544 Feb 07 j 22:50	0°♐			546 May 31 j 07:54	30°♒♓	
evening rise	544 Feb 11 j 00:53	3°♒50'40		direct	546 Jun 15 j 02:32	25°♒47'27	
	544 Mar 03 j 02:43	0°♑		greatest brilliancy	546 Jun 28 j 20:55	29°♒04'16	-4.5m
	544 Mar 27 j 11:57	0°♒			546 Jun 30 j 20:04	0°♓	
asc. node	544 Mar 29 j 13:04	2°♒30'09		morning max el	546 Aug 03 j 00:38	25°♓42'51	45°55'09
	544 Apr 21 j 04:06	0°♓			546 Aug 07 j 09:50	0°♈	
	544 May 16 j 05:12	0°♉			546 Sep 04 j 13:29	0°♊	

asc. node	546 Sep 14 j 08:05	11°♌08'08		evening max el	549 May 24 j 15:58	19°♎50'12	45°20'28
	546 Sep 30 j 10:16	0°♍			549 Jun 04 j 20:45	0°♌	
	546 Oct 25 j 05:16	0°♍		desc. node	549 Jun 20 j 16:45	11°♌52'53	
	546 Nov 18 j 11:26	0°♍		greatest brilliancy	549 Jun 29 j 13:35	16°♌32'24	-4.5m
	546 Dec 12 j 12:13	0°♍		retrograde	549 Jul 12 j 05:01	19°♌19'43	
desc. node	547 Jan 03 j 21:41	28°♍01'03		evening set	549 Jul 29 j 06:08	13°♌52'13	
	547 Jan 05 j 11:43	0°♎		inferior conj	549 Aug 02 j 11:57	11°♌18'02	-7°-59'-33
	547 Jan 29 j 11:55	0°♎		minimum elong	549 Aug 02 j 04:28	11°♌29'36	7°58'41
morning set	547 Feb 05 j 11:53	8°♎43'53		min. Earth dist.	549 Aug 02 j 19:22	11°♌06'34	0.28563 AU
	547 Feb 22 j 13:51	0°♎		morning rise	549 Aug 06 j 02:38	9°♌05'47	
				direct	549 Aug 24 j 00:07	3°♌06'46	
superior conj	547 Mar 17 j 02:04	27°♎55'41	-1°-17'-37	greatest brilliancy	549 Sep 07 j 10:58	6°♌49'45	-4.6m
minimum elong	547 Mar 17 j 09:54	28°♎19'56	1°17'28		549 Oct 07 j 18:39	0°♍	
	547 Mar 18 j 18:14	0°♏		asc. node	549 Oct 11 j 19:57	3°♍58'08	
max. Earth dist.	547 Mar 20 j 08:57	1°♏59'43	1.72779 AU	morning max el	549 Oct 13 j 05:18	5°♍21'33	46°36'02
	547 Apr 12 j 01:34	0°♏			549 Nov 05 j 04:13	0°♍	
evening rise	547 Apr 24 j 03:06	14°♏49'57			549 Nov 30 j 22:55	0°♍	
asc. node	547 Apr 27 j 00:57	18°♏24'18			549 Dec 25 j 19:12	0°♎	
	547 May 06 j 11:52	0°♐			550 Jan 19 j 06:57	0°♎	
	547 May 31 j 00:57	0°♐		desc. node	550 Jan 31 j 09:29	14°♎53'32	
	547 Jun 24 j 17:11	0°♑			550 Feb 12 j 15:56	0°♎	
	547 Jul 19 j 14:03	0°♑			550 Mar 09 j 00:37	0°♏	
	547 Aug 13 j 18:30	0°♑			550 Apr 02 j 10:03	0°♏	
desc. node	547 Aug 16 j 14:18	3°♑19'56		morning set	550 Apr 18 j 12:37	19°♏47'02	
	547 Sep 08 j 11:49	0°♒			550 Apr 26 j 20:22	0°♏	
	547 Oct 05 j 06:45	0°♒			550 May 21 j 07:00	0°♐	
evening max el	547 Oct 20 j 16:15	16°♒08'26	47°17'44	max. Earth dist.	550 May 24 j 16:09	4°♐09'04	1.73645 AU
	547 Nov 04 j 05:20	0°♒		asc. node	550 May 24 j 12:54	3°♐59'04	
greatest brilliancy	547 Nov 28 j 06:37	16°♒46'01	-4.7m				
asc. node	547 Dec 07 j 17:36	19°♒27'07		superior conj	550 May 25 j 06:44	4°♐53'51	0°01'47
retrograde	547 Dec 10 j 13:09	19°♒36'48		minimum elong	550 May 25 j 06:22	4°♐52'42	0°01'46
evening set	547 Dec 25 j 15:02	15°♒03'35		behind sun begin	550 May 24 j 08:02	3°♐44'09	
min. Earth dist.	547 Dec 30 j 07:31	12°♒16'45	0.26778 AU	behind sun end	550 May 26 j 04:42	6°♐01'16	
inferior conj	547 Dec 31 j 04:56	11°♒43'44	5°35'43		550 Jun 14 j 17:04	0°♑	
minimum elong	547 Dec 30 j 18:55	11°♒59'11	5°33'14	evening rise	550 Jun 30 j 04:13	19°♑01'27	
morning rise	548 Jan 04 j 23:15	8°♒52'20			550 Jul 09 j 02:09	0°♑	
direct	548 Jan 20 j 13:55	4°♒02'28			550 Aug 02 j 10:44	0°♑	
greatest brilliancy	548 Jan 31 j 09:58	6°♒14'06	-4.6m		550 Aug 26 j 20:06	0°♑	
	548 Mar 04 j 09:51	0°♒		desc. node	550 Sep 13 j 02:16	21°♑09'48	
morning max el	548 Mar 10 j 07:38	5°♒40'02	46°22'54		550 Sep 20 j 07:41	0°♒	
desc. node	548 Mar 28 j 07:07	24°♒10'10			550 Oct 14 j 23:09	0°♒	
	548 Apr 02 j 17:01	0°♓			550 Nov 08 j 22:01	0°♒	
	548 Apr 29 j 13:03	0°♓			550 Dec 04 j 13:56	0°♒	
	548 May 25 j 10:10	0°♓		evening max el	550 Dec 31 j 13:58	29°♒23'15	47°00'18
	548 Jun 19 j 18:10	0°♓			551 Jan 01 j 04:26	0°♓	
	548 Jul 14 j 15:54	0°♓		asc. node	551 Jan 04 j 05:32	3°♓03'11	
asc. node	548 Jul 19 j 10:29	5°♓48'25		greatest brilliancy	551 Feb 06 j 03:02	28°♓58'20	-4.6m
	548 Aug 08 j 04:29	0°♑			551 Feb 08 j 09:56	0°♓	
	548 Sep 01 j 09:27	0°♑		retrograde	551 Feb 20 j 05:04	2°♓35'09	
morning set	548 Sep 04 j 04:27	3°♓28'42			551 Mar 03 j 10:41	30°♓	
	548 Sep 25 j 09:16	0°♑		evening set	551 Mar 09 j 20:29	26°♓31'38	
max. Earth dist.	548 Oct 10 j 19:37	19°♑22'14	1.71339 AU	inferior conj	551 Mar 13 j 09:03	24°♓18'57	8°02'09
				minimum elong	551 Mar 13 j 15:46	24°♓08'18	8°01'26
superior conj	548 Oct 12 j 11:14	21°♑26'43	0°57'35	min. Earth dist.	551 Mar 13 j 02:20	24°♓29'37	0.28457 AU
minimum elong	548 Oct 12 j 21:51	22°♑00'06	0°57'11	morning rise	551 Mar 17 j 11:21	21°♓46'22	
	548 Oct 19 j 06:33	0°♒		direct	551 Apr 03 j 13:48	16°♓10'16	
desc. node	548 Nov 08 j 00:04	24°♒48'25		greatest brilliancy	551 Apr 15 j 02:37	18°♓34'49	-4.5m
	548 Nov 12 j 03:13	0°♒		desc. node	551 Apr 25 j 18:53	24°♓13'27	
evening rise	548 Nov 22 j 10:12	12°♒56'04			551 May 03 j 21:42	0°♓	
	548 Dec 06 j 00:28	0°♒		morning max el	551 May 22 j 10:52	16°♓13'44	45°47'27
	548 Dec 29 j 23:27	0°♒			551 Jun 05 j 06:30	0°♓	
	549 Jan 23 j 02:12	0°♓			551 Jul 02 j 23:45	0°♓	
	549 Feb 16 j 11:53	0°♓			551 Jul 29 j 02:18	0°♓	
asc. node	549 Mar 01 j 03:10	15°♓19'36		asc. node	551 Aug 16 j 22:17	22°♓21'34	
	549 Mar 13 j 09:05	0°♓			551 Aug 23 j 06:28	0°♑	
	549 Apr 08 j 00:53	0°♓			551 Sep 16 j 19:24	0°♑	
	549 May 05 j 02:35	0°♓			551 Oct 10 j 22:30	0°♑	

	551 Nov 03 j 20:19	0°♌		retrograde	554 Apr 30 j 16:29	10°♐12'02	
morning set	551 Nov 17 j 15:22	17°♌21'42		evening set	554 May 15 j 19:47	5°♐46'00	
	551 Nov 27 j 16:17	0°♏		inferior conj	554 May 22 j 04:00	1°♐57'54	0°15'44
desc. node	551 Dec 06 j 11:52	11°♏05'53		minimum elong	554 May 22 j 04:34	1°♐56'59	0°15'34
	551 Dec 21 j 12:26	0°♑		transit middle	554 May 22 j 04:34	1°♐56'59	0°15'34
				transit begin	554 May 22 j 03:26	1°♐58'46	
superior conj	551 Dec 29 j 10:29	9°♑57'02	0°-51'-2	transit end	554 May 22 j 05:43	1°♐55'12	
minimum elong	551 Dec 28 j 23:07	9°♑21'19	0°50'36	min. Earth dist.	554 May 22 j 07:23	1°♐52'36	0.28975 AU
max. Earth dist.	552 Jan 01 j 14:03	13°♑54'15	1.71251 AU	desc. node	554 May 23 j 06:49	1°♐15'54	
	552 Jan 14 j 09:59	0°♒			554 May 25 j 07:58	30°♒8	
	552 Feb 07 j 10:00	0°♓		morning rise	554 May 28 j 13:16	28°♓07'28	
evening rise	552 Feb 08 j 12:22	1°♓22'08		direct	554 Jun 12 j 18:49	23°♓39'12	
	552 Mar 02 j 13:54	0°♈		greatest brilliancy	554 Jun 26 j 13:16	26°♓56'23	-4.5m
	552 Mar 26 j 23:15	0°♉			554 Jul 02 j 10:47	0°♐	
asc. node	552 Mar 28 j 15:12	2°♉02'07		morning max el	554 Jul 31 j 17:17	23°♐34'35	45°54'12
	552 Apr 20 j 15:43	0°♐			554 Aug 07 j 05:59	0°♑	
	552 May 15 j 17:28	0°♑			554 Sep 04 j 04:28	0°♒	
	552 Jun 10 j 08:48	0°♒		asc. node	554 Sep 13 j 10:16	10°♒33'42	
	552 Jul 06 j 23:52	0°♓			554 Sep 29 j 23:22	0°♓	
desc. node	552 Jul 18 j 04:26	12°♓03'14			554 Oct 24 j 17:30	0°♑	
	552 Aug 04 j 20:53	0°♑			554 Nov 17 j 23:13	0°♌	
evening max el	552 Aug 04 j 23:31	0°♑06'21	46°09'38		554 Dec 11 j 23:44	0°♏	
greatest brilliancy	552 Sep 13 j 00:46	28°♑49'50	-4.6m	desc. node	555 Jan 02 j 23:41	27°♏31'56	
	552 Sep 16 j 22:01	0°♌			555 Jan 04 j 23:01	0°♑	
retrograde	552 Sep 23 j 08:55	0°♌47'05			555 Jan 28 j 23:01	0°♒	
	552 Sep 29 j 15:40	30°♒♑		morning set	555 Feb 02 j 22:56	6°♒14'08	
evening set	552 Oct 09 j 10:14	25°♑52'58			555 Feb 22 j 00:47	0°♓	
inferior conj	552 Oct 14 j 02:18	23°♑07'09	-5°-55'-50				
minimum elong	552 Oct 14 j 12:51	22°♑51'06	5°53'20	superior conj	555 Mar 14 j 16:31	25°♓38'14	-1°-19'-2
min. Earth dist.	552 Oct 14 j 20:44	22°♑39'06	0.26866 AU	minimum elong	555 Mar 14 j 23:50	26°♓00'56	1°18'55
morning rise	552 Oct 19 j 14:54	19°♑51'35		max. Earth dist.	555 Mar 18 j 00:10	29°♓44'47	1.72728 AU
direct	552 Nov 03 j 17:13	15°♑21'43			555 Mar 18 j 05:05	0°♈	
asc. node	552 Nov 08 j 07:45	15°♑46'46			555 Apr 11 j 12:23	0°♉	
greatest brilliancy	552 Nov 17 j 01:05	18°♑38'11	-4.7m	evening rise	555 Apr 21 j 20:04	12°♉41'27	
	552 Dec 04 j 05:35	0°♌		asc. node	555 Apr 26 j 03:08	17°♉57'49	
morning max el	552 Dec 24 j 10:37	18°♌48'03	46°56'06		555 May 05 j 22:44	0°♐	
	553 Jan 04 j 02:50	0°♏			555 May 30 j 11:59	0°♑	
	553 Jan 30 j 21:27	0°♑			555 Jun 24 j 04:34	0°♒	
	553 Feb 25 j 12:12	0°♒			555 Jul 19 j 02:03	0°♓	
desc. node	553 Feb 27 j 21:21	2°♒49'29			555 Aug 13 j 07:34	0°♑	
	553 Mar 22 j 15:46	0°♓		desc. node	555 Aug 15 j 16:21	2°♑47'06	
	553 Apr 16 j 14:02	0°♈			555 Sep 08 j 02:46	0°♌	
	553 May 11 j 09:07	0°♉			555 Oct 05 j 01:39	0°♏	
	553 Jun 05 j 01:11	0°♐		evening max el	555 Oct 18 j 07:00	13°♏46'44	47°16'25
asc. node	553 Jun 21 j 00:42	19°♐31'52			555 Nov 04 j 14:11	0°♑	
morning set	553 Jun 25 j 02:57	24°♐33'00		greatest brilliancy	555 Nov 25 j 20:35	14°♑18'34	-4.7m
	553 Jun 29 j 13:30	0°♑		asc. node	555 Dec 06 j 19:39	17°♑06'17	
	553 Jul 23 j 21:33	0°♒		retrograde	555 Dec 08 j 02:52	17°♑08'22	
max. Earth dist.	553 Jul 27 j 19:12	4°♒49'54	1.72868 AU	evening set	555 Dec 23 j 01:06	12°♑39'24	
				min. Earth dist.	555 Dec 27 j 20:29	9°♑48'34	0.26728 AU
superior conj	553 Jul 31 j 11:41	9°♒23'58	1°16'47	inferior conj	555 Dec 28 j 17:34	9°♑16'07	5°16'57
minimum elong	553 Jul 31 j 04:49	9°♒02'44	1°16'39	minimum elong	555 Dec 28 j 07:47	9°♑31'12	5°14'27
	553 Aug 17 j 01:50	0°♓		morning rise	556 Jan 02 j 15:01	6°♑20'48	
evening rise	553 Sep 06 j 07:08	25°♓11'11		direct	556 Jan 18 j 02:46	1°♑35'44	
	553 Sep 10 j 03:48	0°♑		greatest brilliancy	556 Jan 28 j 22:32	3°♑47'46	-4.6m
	553 Oct 04 j 05:05	0°♌			556 Mar 04 j 11:14	0°♒	
desc. node	553 Oct 10 j 14:17	7°♌57'25		morning max el	556 Mar 07 j 21:55	3°♒20'31	46°24'27
	553 Oct 28 j 06:56	0°♏		desc. node	556 Mar 27 j 09:18	23°♒28'11	
	553 Nov 21 j 10:29	0°♑			556 Apr 02 j 09:50	0°♓	
	553 Dec 15 j 17:57	0°♒			556 Apr 29 j 02:56	0°♈	
	554 Jan 09 j 10:21	0°♓			556 May 24 j 22:36	0°♉	
asc. node	554 Jan 31 j 17:15	26°♓19'17			556 Jun 19 j 05:46	0°♐	
	554 Feb 03 j 21:50	0°♈			556 Jul 14 j 03:01	0°♑	
	554 Mar 03 j 03:42	0°♉		asc. node	556 Jul 18 j 12:28	5°♑20'44	
evening max el	554 Mar 12 j 15:04	9°♉34'38	45°48'35		556 Aug 07 j 15:20	0°♒	
	554 Apr 05 j 07:57	0°♐			556 Aug 31 j 20:12	0°♓	
greatest brilliancy	554 Apr 15 j 22:44	6°♐22'53	-4.5m	morning set	556 Sep 01 j 20:19	1°♓15'09	

	556 Sep 24 j 20:02	0°♄		evening set	559 Mar 07 j 14:06	24°♋13'43	
max. Earth dist.	556 Oct 08 j 04:42	16°♄46'08	1.71376 AU	min. Earth dist.	559 Mar 10 j 17:18	22°♋15'45	0.28418 AU
				inferior conj	559 Mar 11 j 00:35	22°♋04'12	8°09'41
superior conj	556 Oct 10 j 00:15	19°♄02'53	1°00'14	minimum elong	559 Mar 11 j 06:41	21°♋54'29	8°09'07
minimum elong	556 Oct 10 j 10:50	19°♄36'07	0°59'51	morning rise	559 Mar 14 j 23:32	19°♋36'22	
	556 Oct 18 j 17:23	0°♍		direct	559 Apr 01 j 04:18	13°♋56'14	
desc. node	556 Nov 07 j 02:10	24°♍20'41		greatest brilliancy	559 Apr 12 j 15:52	16°♋19'00	-4.5m
	556 Nov 11 j 14:10	0°♌		desc. node	559 Apr 24 j 20:57	22°♋57'26	
evening rise	556 Nov 19 j 20:22	10°♌22'40			559 May 04 j 07:59	0°♍	
	556 Dec 05 j 11:32	0°♎		morning max el	559 May 20 j 01:03	13°♍58'54	45°48'06
	556 Dec 29 j 10:41	0°♏			559 Jun 05 j 00:35	0°♎	
	557 Jan 22 j 13:37	0°♐			559 Jul 02 j 13:56	0°♏	
	557 Feb 15 j 23:40	0°♑			559 Jul 28 j 14:49	0°♐	
asc. node	557 Feb 28 j 05:19	14°♑49'50		asc. node	559 Aug 16 j 00:25	21°♐52'19	
	557 Mar 12 j 21:31	0°♒			559 Aug 22 j 18:10	0°♑	
	557 Apr 07 j 14:43	0°♓			559 Sep 16 j 06:42	0°♒	
	557 May 04 j 19:45	0°♑			559 Oct 10 j 09:35	0°♓	
evening max el	557 May 22 j 07:46	17°♑39'45	45°20'04		559 Nov 03 j 07:17	0°♑	
	557 Jun 05 j 02:39	0°♒		morning set	559 Nov 15 j 02:27	14°♑51'03	
desc. node	557 Jun 19 j 18:43	10°♒34'03			559 Nov 27 j 03:11	0°♌	
greatest brilliancy	557 Jun 27 j 03:16	14°♒19'21	-4.5m	desc. node	559 Dec 05 j 13:53	10°♌37'56	
retrograde	557 Jul 09 j 19:41	17°♒07'42			559 Dec 20 j 23:18	0°♎	
evening set	557 Jul 26 j 18:06	11°♒45'09					
inferior conj	557 Jul 31 j 03:20	9°♒05'42	-7°-50'-44	superior conj	559 Dec 26 j 20:26	7°♎23'30	0°-47'-47
minimum elong	557 Jul 30 j 19:21	9°♒18'05	7°49'45	minimum elong	559 Dec 26 j 09:26	6°♎48'57	0°47'21
min. Earth dist.	557 Jul 31 j 10:10	8°♒55'07	0.28594 AU	max. Earth dist.	559 Dec 29 j 18:04	11°♎02'09	1.71218 AU
morning rise	557 Aug 03 j 20:25	6°♒49'34			560 Jan 13 j 20:49	0°♏	
direct	557 Aug 21 j 15:58	0°♒54'07		evening rise	560 Feb 06 j 00:03	28°♏55'11	
greatest brilliancy	557 Sep 05 j 01:12	4°♒34'31	-4.6m		560 Feb 06 j 20:51	0°♋	
	557 Oct 07 j 18:06	0°♑			560 Mar 02 j 00:49	0°♍	
asc. node	557 Oct 10 j 22:01	3°♑08'29			560 Mar 26 j 10:21	0°♎	
morning max el	557 Oct 10 j 19:17	3°♑01'38	46°34'36	asc. node	560 Mar 27 j 17:18	1°♎34'33	
	557 Nov 04 j 20:24	0°♓			560 Apr 20 j 03:12	0°♏	
	557 Nov 30 j 12:41	0°♑			560 May 15 j 05:40	0°♐	
	557 Dec 25 j 07:50	0°♌			560 Jun 09 j 22:20	0°♒	
	558 Jan 18 j 18:55	0°♎			560 Jul 06 j 16:09	0°♑	
desc. node	558 Jan 30 j 11:31	14°♎23'37		desc. node	560 Jul 17 j 06:31	11°♑20'42	
	558 Feb 12 j 03:27	0°♏		evening max el	560 Aug 02 j 11:45	27°♑43'35	46°07'09
	558 Mar 08 j 11:49	0°♐			560 Aug 04 j 20:53	0°♓	
	558 Apr 01 j 20:58	0°♑		greatest brilliancy	560 Sep 10 j 12:51	26°♓24'53	-4.6m
morning set	558 Apr 16 j 05:28	17°♑38'22		retrograde	560 Sep 20 j 21:04	28°♓22'25	
	558 Apr 26 j 07:05	0°♒		evening set	560 Oct 07 j 01:55	23°♓23'00	
	558 May 20 j 17:36	0°♓		inferior conj	560 Oct 11 j 14:55	20°♓41'47	-6°-12'-56
max. Earth dist.	558 May 22 j 13:14	2°♓13'55	1.73639 AU	minimum elong	560 Oct 12 j 01:34	20°♓25'36	6°10'31
				min. Earth dist.	560 Oct 12 j 10:16	20°♓12'22	0.26926 AU
superior conj	558 May 23 j 00:45	2°♓49'17	0°-1'-24	morning rise	560 Oct 17 j 00:37	17°♓30'21	
minimum elong	558 May 23 j 01:02	2°♓50'09	0°01'24	direct	560 Nov 01 j 06:18	12°♓55'01	
behind sun begin	558 May 22 j 02:39	1°♓41'26		asc. node	560 Nov 07 j 09:46	13°♓39'20	
behind sun end	558 May 23 j 23:25	3°♓58'52		greatest brilliancy	560 Nov 14 j 17:24	16°♓15'23	-4.7m
asc. node	558 May 23 j 14:53	3°♓32'40			560 Dec 04 j 16:51	0°♑	
	558 Jun 14 j 03:41	0°♐		morning max el	560 Dec 22 j 00:46	16°♑24'08	46°56'34
evening rise	558 Jun 27 j 23:08	16°♐59'03			561 Jan 03 j 21:58	0°♌	
	558 Jul 08 j 12:54	0°♒			561 Jan 30 j 12:31	0°♎	
	558 Aug 01 j 21:44	0°♑			561 Feb 25 j 01:25	0°♏	
	558 Aug 26 j 07:28	0°♓		desc. node	561 Feb 26 j 23:34	2°♏17'07	
desc. node	558 Sep 12 j 04:26	20°♓40'44			561 Mar 22 j 03:56	0°♐	
	558 Sep 19 j 19:32	0°♑			561 Apr 16 j 01:34	0°♑	
	558 Oct 14 j 11:44	0°♌			561 May 10 j 20:14	0°♎	
	558 Nov 08 j 11:46	0°♎			561 Jun 04 j 12:03	0°♏	
	558 Dec 04 j 05:57	0°♏		asc. node	561 Jun 20 j 02:43	19°♏05'04	
evening max el	558 Dec 29 j 04:12	27°♏02'15	47°02'07	morning set	561 Jun 22 j 21:00	22°♏28'09	
	559 Jan 01 j 02:42	0°♐			561 Jun 29 j 00:14	0°♐	
asc. node	559 Jan 03 j 07:28	2°♐10'27			561 Jul 23 j 08:15	0°♒	
greatest brilliancy	559 Feb 03 j 21:07	26°♐45'38	-4.6m	max. Earth dist.	561 Jul 25 j 15:51	2°♒52'02	1.72916 AU
	559 Feb 13 j 18:12	0°♑					
retrograde	559 Feb 17 j 20:24	0°♑19'50		superior conj	561 Jul 29 j 05:16	7°♒16'35	1°15'22
	559 Feb 21 j 20:45	30°♑♋		minimum elong	561 Jul 28 j 22:01	6°♒54'07	1°15'13

	561 Aug 16 j 12:36	0°♍			564 Jan 22 j 06:43	0°♋	
evening rise	561 Sep 03 j 22:22	22°♍55'11		greatest brilliancy	564 Jan 26 j 10:53	1°♋20'27	-4.6m
	561 Sep 09 j 14:43	0°♌			564 Mar 04 j 11:34	0°≈	
	561 Oct 03 j 16:15	0°♍		morning max el	564 Mar 05 j 11:39	0°≈59'02	46°26'00
desc. node	561 Oct 09 j 16:19	7°♍28'46		desc. node	564 Mar 26 j 11:17	22°≈45'47	
	561 Oct 27 j 18:24	0°♌			564 Apr 02 j 02:29	0°♌	
	561 Nov 20 j 22:17	0°♋			564 Apr 28 j 16:48	0°♍	
	561 Dec 15 j 06:11	0°≈			564 May 24 j 11:06	0°♌	
	562 Jan 08 j 23:22	0°♌			564 Jun 18 j 17:30	0°♍	
asc. node	562 Jan 30 j 19:27	25°♌44'10			564 Jul 13 j 14:19	0°♋	
	562 Feb 03 j 12:28	0°♍		asc. node	564 Jul 17 j 14:38	4°♋53'03	
	562 Mar 02 j 22:39	0°♌			564 Aug 07 j 02:25	0°♌	
evening max el	562 Mar 10 j 06:58	7°♌23'15	45°50'47	morning set	564 Aug 30 j 11:56	28°♌59'54	
	562 Apr 06 j 04:20	0°♍			564 Aug 31 j 07:14	0°♍	
greatest brilliancy	562 Apr 13 j 13:57	4°♍12'59	-4.5m		564 Sep 24 j 07:06	0°♌	
retrograde	562 Apr 28 j 09:38	8°♍04'03		max. Earth dist.	564 Oct 05 j 10:24	13°♌58'33	1.71415 AU
evening set	562 May 13 j 13:15	3°♍36'21					
inferior conj	562 May 19 j 20:28	29°♌49'23	0°35'22	superior conj	564 Oct 07 j 13:07	16°♌37'43	1°02'46
minimum elong	562 May 19 j 21:46	29°♌47'21	0°35'00	minimum elong	564 Oct 07 j 23:35	17°♌10'35	1°02'25
	562 May 19 j 13:41	30°♌♌			564 Oct 18 j 04:32	0°♍	
min. Earth dist.	562 May 19 j 23:42	29°♌44'20	0.28977 AU	desc. node	564 Nov 06 j 04:08	23°♍51'42	
desc. node	562 May 22 j 08:48	28°♌15'28			564 Nov 11 j 01:23	0°♌	
morning rise	562 May 26 j 06:17	25°♌58'29		evening rise	564 Nov 17 j 06:17	7°♌47'40	
direct	562 Jun 10 j 11:29	21°♌30'38			564 Dec 04 j 22:51	0°♋	
greatest brilliancy	562 Jun 24 j 04:50	24°♌47'14	-4.5m		564 Dec 28 j 22:08	0°≈	
	562 Jul 03 j 13:58	0°♍			565 Jan 22 j 01:18	0°♌	
morning max el	562 Jul 29 j 10:21	21°♍27'03	45°53'10		565 Feb 15 j 11:42	0°♍	
	562 Aug 07 j 01:40	0°♋		asc. node	565 Feb 27 j 07:23	14°♍18'58	
	562 Sep 03 j 19:21	0°♌			565 Mar 12 j 10:16	0°♌	
asc. node	562 Sep 12 j 12:22	9°♌59'03			565 Apr 07 j 04:56	0°♍	
	562 Sep 29 j 12:26	0°♍			565 May 04 j 13:33	0°♋	
	562 Oct 24 j 05:42	0°♌		evening max el	565 May 19 j 22:48	15°♋26'47	45°19'43
	562 Nov 17 j 10:58	0°♍			565 Jun 05 j 11:14	0°♌	
	562 Dec 11 j 11:13	0°♌		desc. node	565 Jun 18 j 20:48	9°♌12'15	
desc. node	563 Jan 02 j 01:42	27°♌02'52		greatest brilliancy	565 Jun 24 j 16:35	12°♌05'16	-4.5m
	563 Jan 04 j 10:18	0°♋		retrograde	565 Jul 07 j 10:03	14°♌55'21	
	563 Jan 28 j 10:08	0°≈		evening set	565 Jul 24 j 06:03	9°♌37'29	
morning set	563 Jan 31 j 10:01	3°≈44'20		inferior conj	565 Jul 28 j 18:48	6°♌52'54	-7°-41'-14
	563 Feb 21 j 11:44	0°♌		minimum elong	565 Jul 28 j 10:20	7°♌06'01	7°40'06
				min. Earth dist.	565 Jul 29 j 01:19	6°♌42'47	0.28631 AU
superior conj	563 Mar 12 j 06:57	23°♌20'37	-1°-20'-19	morning rise	565 Aug 01 j 14:23	4°♌32'45	
minimum elong	563 Mar 12 j 13:43	23°♌41'34	1°20'14		565 Aug 11 j 03:25	30°♌♋	
max. Earth dist.	563 Mar 15 j 17:10	27°♌35'15	1.72675 AU	direct	565 Aug 19 j 07:29	28°♋40'43	
	563 Mar 17 j 15:56	0°♍			565 Aug 27 j 18:14	0°♌	
	563 Apr 10 j 23:12	0°♌		greatest brilliancy	565 Sep 02 j 16:29	2°♌19'45	-4.6m
evening rise	563 Apr 19 j 13:01	10°♌32'55			565 Oct 07 j 17:05	0°♍	
asc. node	563 Apr 25 j 05:07	17°♌30'39		morning max el	565 Oct 08 j 08:54	0°♍39'31	46°33'05
	563 May 05 j 09:37	0°♍		asc. node	565 Oct 10 j 00:01	2°♍18'10	
	563 May 29 j 23:06	0°♋			565 Nov 04 j 12:48	0°♌	
	563 Jun 23 j 16:07	0°♌			565 Nov 30 j 02:48	0°♍	
	563 Jul 18 j 14:18	0°♍			565 Dec 24 j 20:48	0°♌	
	563 Aug 12 j 20:57	0°♌			566 Jan 18 j 07:10	0°♋	
desc. node	563 Aug 14 j 18:30	2°♌13'43		desc. node	566 Jan 29 j 13:43	13°♋53'19	
	563 Sep 07 j 18:08	0°♍			566 Feb 11 j 15:15	0°≈	
	563 Oct 04 j 21:16	0°♌			566 Mar 07 j 23:16	0°♌	
evening max el	563 Oct 15 j 22:07	11°♌25'34	47°15'07		566 Apr 01 j 08:10	0°♍	
	563 Nov 05 j 02:17	0°♋		morning set	566 Apr 13 j 22:19	15°♍28'41	
greatest brilliancy	563 Nov 23 j 11:07	11°♋51'30	-4.7m		566 Apr 25 j 18:06	0°♌	
retrograde	563 Dec 05 j 16:20	14°♋39'11			566 May 20 j 04:31	0°♍	
asc. node	563 Dec 05 j 21:40	14°♋39'08					
evening set	563 Dec 20 j 11:23	10°♋14'31		superior conj	566 May 20 j 18:58	0°♍44'21	0°-4'-33
min. Earth dist.	563 Dec 25 j 09:37	7°♋19'34	0.26677 AU	minimum elong	566 May 20 j 19:54	0°♍47'14	0°04'32
inferior conj	563 Dec 26 j 06:09	6°♋47'57	4°57'37	behind sun begin	566 May 19 j 22:10	29°♌40'31	
minimum elong	563 Dec 25 j 20:41	7°♋02'32	4°55'05	behind sun end	566 May 21 j 17:38	1°♍53'57	
morning rise	563 Dec 31 j 06:36	3°♋48'38		max. Earth dist.	566 May 20 j 09:14	0°♍14'28	1.73631 AU
	564 Jan 09 j 04:58	30°♌♌		asc. node	566 May 22 j 16:58	3°♍05'33	
direct	564 Jan 15 j 15:35	29°♌08'34			566 Jun 13 j 14:36	0°♋	

evening rise	566 Jun 25 j 18:17	14°☿56'36			569 Feb 24 j 14:58	0°≈	
	566 Jul 07 j 23:57	0°♈		desc. node	569 Feb 26 j 01:31	1°≈42'52	
	566 Aug 01 j 09:04	0°♍			569 Mar 21 j 16:27	0°♋	
	566 Aug 25 j 19:12	0°♊			569 Apr 15 j 13:23	0°♍	
desc. node	566 Sep 11 j 06:28	20°♊09'54			569 May 10 j 07:36	0°♌	
	566 Sep 19 j 07:51	0°♍			569 Jun 03 j 23:09	0°♈	
	566 Oct 14 j 00:51	0°♌		asc. node	569 Jun 19 j 04:52	18°♈37'57	
	566 Nov 08 j 02:09	0°♍		morning set	569 Jun 20 j 15:11	20°♈23'07	
	566 Dec 03 j 22:47	0°≈			569 Jun 28 j 11:12	0°☿	
evening max el	566 Dec 26 j 17:56	24°≈38'27	47°04'10		569 Jul 22 j 19:11	0°♈	
	567 Jan 01 j 02:30	0°♋		max. Earth dist.	569 Jul 23 j 11:56	0°♈51'50	1.72960 AU
asc. node	567 Jan 02 j 09:39	1°♋15'54					
greatest brilliancy	567 Feb 01 j 14:14	24°♋30'14	-4.6m	superior conj	569 Jul 26 j 23:11	5°♈09'27	1°13'52
retrograde	567 Feb 15 j 11:45	28°♋03'23		minimum elong	569 Jul 26 j 15:35	4°♈45'57	1°13'41
evening set	567 Mar 05 j 07:33	21°♋54'38			569 Aug 15 j 23:36	0°♍	
inferior conj	567 Mar 08 j 16:06	19°♋48'13	8°16'36	evening rise	569 Sep 01 j 14:07	20°♍40'06	
minimum elong	567 Mar 08 j 21:35	19°♋39'32	8°16'08		569 Sep 09 j 01:52	0°♊	
min. Earth dist.	567 Mar 08 j 08:17	20°♋00'38	0.28374 AU		569 Oct 03 j 03:37	0°♍	
morning rise	567 Mar 12 j 11:49	17°♋25'13		desc. node	569 Oct 08 j 18:20	6°♍59'32	
direct	567 Mar 29 j 18:33	11°♋40'51			569 Oct 27 j 06:02	0°♌	
greatest brilliancy	567 Apr 10 j 05:50	14°♋02'58	-4.5m		569 Nov 20 j 10:16	0°♍	
desc. node	567 Apr 23 j 23:00	21°♋42'38			569 Dec 14 j 18:42	0°≈	
	567 May 04 j 15:55	0°♍			570 Jan 08 j 12:44	0°♋	
morning max el	567 May 17 j 15:45	11°♍44'16	45°48'53	asc. node	570 Jan 29 j 21:28	25°♋07'17	
	567 Jun 04 j 18:34	0°♌			570 Feb 03 j 03:39	0°♍	
	567 Jul 02 j 04:16	0°♈			570 Mar 02 j 18:34	0°♌	
	567 Jul 28 j 03:35	0°☿		evening max el	570 Mar 07 j 23:35	5°♌12'29	45°53'05
asc. node	567 Aug 15 j 02:31	21°☿22'07			570 Apr 07 j 09:10	0°♈	
	567 Aug 22 j 06:08	0°♈		greatest brilliancy	570 Apr 11 j 06:38	2°♈04'08	-4.5m
	567 Sep 15 j 18:16	0°♍		retrograde	570 Apr 26 j 02:43	5°♈55'09	
	567 Oct 09 j 20:58	0°♊		evening set	570 May 11 j 06:57	1°♈25'58	
	567 Nov 02 j 18:37	0°♍			570 May 13 j 18:29	30°♌♌	
morning set	567 Nov 12 j 13:26	12°♍18'50		inferior conj	570 May 17 j 12:59	27°♌40'12	0°54'58
	567 Nov 26 j 14:29	0°♌		minimum elong	570 May 17 j 14:59	27°♌37'04	0°54'23
desc. node	567 Dec 04 j 16:00	10°♌09'00		min. Earth dist.	570 May 17 j 15:58	27°♌35'32	0.28971 AU
	567 Dec 20 j 10:37	0°♍		desc. node	570 May 21 j 10:53	25°♌15'22	
				morning rise	570 May 23 j 23:08	23°♌48'55	
superior conj	567 Dec 24 j 05:48	4°♍46'38	0°-44'-23	direct	570 Jun 08 j 04:23	19°♌21'41	
minimum elong	567 Dec 23 j 19:17	4°♍13'33	0°43'57	greatest brilliancy	570 Jun 21 j 19:12	22°♌36'07	-4.5m
max. Earth dist.	567 Dec 26 j 20:30	8°♍03'36	1.71190 AU		570 Jul 04 j 10:03	0°♈	
	568 Jan 13 j 08:07	0°≈		morning max el	570 Jul 27 j 02:56	19°♈18'08	45°52'09
evening rise	568 Feb 03 j 11:10	26°≈25'07			570 Aug 06 j 20:54	0°☿	
	568 Feb 06 j 08:07	0°♋			570 Sep 03 j 10:09	0°♈	
	568 Mar 01 j 12:06	0°♍		asc. node	570 Sep 11 j 14:17	9°♈23'42	
	568 Mar 25 j 21:48	0°♌			570 Sep 29 j 01:30	0°♍	
asc. node	568 Mar 26 j 19:17	1°♌05'34			570 Oct 23 j 17:56	0°♊	
	568 Apr 19 j 15:03	0°♈			570 Nov 16 j 22:46	0°♍	
	568 May 14 j 18:16	0°☿			570 Dec 10 j 22:44	0°♌	
	568 Jun 09 j 12:18	0°♈		desc. node	571 Jan 01 j 03:53	26°♌34'14	
	568 Jul 06 j 09:01	0°♍			571 Jan 03 j 21:37	0°♍	
desc. node	568 Jul 16 j 08:43	10°♍37'08			571 Jan 27 j 21:18	0°≈	
evening max el	568 Jul 31 j 01:04	25°♍23'06	46°04'46	morning set	571 Jan 28 j 21:06	1°≈14'17	
	568 Aug 04 j 22:21	0°♊			571 Feb 20 j 22:48	0°♋	
greatest brilliancy	568 Sep 07 j 23:47	23°♊58'52	-4.6m				
retrograde	568 Sep 18 j 09:50	25°♊57'54		superior conj	571 Mar 09 j 21:04	21°♋01'28	-1°-21'-29
evening set	568 Oct 04 j 17:48	20°♊53'10		minimum elong	571 Mar 10 j 03:11	21°♋20'25	1°21'25
inferior conj	568 Oct 09 j 03:42	18°♊16'22	-6°-29'-5	max. Earth dist.	571 Mar 13 j 10:47	25°♋27'08	1.72624 AU
minimum elong	568 Oct 09 j 14:21	18°♊00'12	6°26'48		571 Mar 17 j 02:55	0°♍	
min. Earth dist.	568 Oct 09 j 23:28	17°♊46'23	0.26990 AU		571 Apr 10 j 10:09	0°♌	
morning rise	568 Oct 14 j 10:23	15°♊09'24		evening rise	571 Apr 17 j 05:31	8°♌22'29	
direct	568 Oct 29 j 20:10	10°♊28'30		asc. node	571 Apr 24 j 07:11	17°♌03'22	
asc. node	568 Nov 06 j 11:49	11°♊36'46			571 May 04 j 20:38	0°♈	
greatest brilliancy	568 Nov 12 j 09:15	13°♊51'49	-4.7m		571 May 29 j 10:19	0°☿	
	568 Dec 05 j 01:30	0°♍			571 Jun 23 j 03:45	0°♈	
morning max el	568 Dec 19 j 15:41	14°♍01'19	46°56'39		571 Jul 18 j 02:39	0°♍	
	569 Jan 03 j 16:59	0°♌			571 Aug 12 j 10:29	0°♊	
	569 Jan 30 j 03:49	0°♍		desc. node	571 Aug 13 j 20:29	1°♊39'36	

	571 Sep 07 j 09:44	0°♌			574 Feb 11 j 02:44	0°♏		
	571 Oct 04 j 17:25	0°♊			574 Mar 07 j 10:24	0°♋		
evening max el	571 Oct 13 j 13:00	9°♊03'55	47°13'42		574 Mar 31 j 19:02	0°♌		
	571 Nov 05 j 18:09	0°♈		morning set	574 Apr 11 j 15:12	13°♌19'59		
greatest brilliancy	571 Nov 21 j 02:40	9°♈26'11	-4.7m		574 Apr 25 j 04:47	0°♉		
retrograde	571 Dec 03 j 05:28	12°♈10'38		max. Earth dist.	574 May 18 j 05:13	28°♉15'57	1.73627 AU	
asc. node	571 Dec 04 j 23:48	12°♈06'47						
evening set	571 Dec 17 j 22:04	7°♈50'11		superior conj	574 May 18 j 13:12	28°♉40'25	0°-7'-42	
min. Earth dist.	571 Dec 22 j 23:19	4°♈50'56	0.26627 AU	minimum elong	574 May 18 j 14:47	28°♉45'17	0°07'38	
inferior conj	571 Dec 23 j 18:55	4°♈20'44	4°37'41	behind sun begin	574 May 17 j 18:48	27°♉43'57		
minimum elong	571 Dec 23 j 09:50	4°♈34'43	4°35'11	behind sun end	574 May 19 j 10:45	29°♉46'36		
morning rise	571 Dec 28 j 22:13	1°♈17'21			574 May 19 j 15:07	0°♊		
	571 Dec 31 j 09:06	30°♋♊		asc. node	574 May 21 j 19:07	2°♊39'35		
direct	572 Jan 13 j 04:13	26°♋♊42'20			574 Jun 13 j 01:15	0°♋		
greatest brilliancy	572 Jan 24 j 00:03	28°♋♊54'34	-4.6m	evening rise	574 Jun 23 j 13:27	12°♋55'02		
	572 Jan 26 j 13:33	0°♈			574 Jul 07 j 10:45	0°♌		
morning max el	572 Mar 03 j 00:28	28°♈35'28	46°27'23		574 Jul 31 j 20:08	0°♍		
	572 Mar 04 j 10:38	0°♏			574 Aug 25 j 06:40	0°♎		
desc. node	572 Mar 25 j 13:20	22°♏04'21		desc. node	574 Sep 10 j 08:28	19°♎39'56		
	572 Apr 01 j 18:44	0°♋			574 Sep 18 j 19:52	0°♌		
	572 Apr 28 j 06:31	0°♌			574 Oct 13 j 13:42	0°♊		
	572 May 23 j 23:31	0°♉			574 Nov 07 j 16:20	0°♈		
	572 Jun 18 j 05:09	0°♊			574 Dec 03 j 15:34	0°♏		
asc. node	572 Jul 13 j 01:30	0°♋		evening max el	574 Dec 24 j 08:01	22°♏16'30	47°06'09	
	572 Jul 16 j 16:41	4°♋25'19		asc. node	575 Jan 01 j 11:43	0°♋20'55		
	572 Aug 06 j 13:22	0°♌			575 Jan 01 j 02:59	0°♋		
morning set	572 Aug 28 j 03:38	26°♌45'26		greatest brilliancy	575 Jan 30 j 06:33	22°♋14'39	-4.6m	
	572 Aug 30 j 18:07	0°♍		retrograde	575 Feb 13 j 03:29	25°♋48'00		
	572 Sep 23 j 18:02	0°♎		evening set	575 Mar 03 j 00:43	19°♋36'44		
max. Earth dist.	572 Oct 02 j 17:17	11°♎15'09	1.71459 AU	inferior conj	575 Mar 06 j 07:36	17°♋33'08	8°22'38	
				minimum elong	575 Mar 06 j 12:25	17°♋25'30	8°22'17	
superior conj	572 Oct 05 j 02:19	14°♎14'08	1°05'10	min. Earth dist.	575 Mar 05 j 23:01	17°♋46'44	0.28329 AU	
minimum elong	572 Oct 05 j 12:37	14°♎46'27	1°04'51	morning rise	575 Mar 10 j 00:19	15°♋14'52		
	572 Oct 17 j 15:32	0°♌		direct	575 Mar 27 j 08:53	9°♋26'20		
desc. node	572 Nov 05 j 06:18	23°♌23'41		greatest brilliancy	575 Apr 07 j 19:54	11°♋48'14	-4.5m	
	572 Nov 10 j 12:29	0°♊		desc. node	575 Apr 23 j 01:06	20°♋31'18		
evening rise	572 Nov 14 j 16:31	5°♊14'08			575 May 04 j 21:01	0°♌		
	572 Dec 04 j 10:02	0°♈		morning max el	575 May 15 j 07:12	9°♌32'41	45°49'42	
	572 Dec 28 j 09:26	0°♏			575 Jun 04 j 11:41	0°♉		
	573 Jan 21 j 12:47	0°♋			575 Jul 01 j 18:04	0°♊		
	573 Feb 14 j 23:34	0°♌			575 Jul 27 j 15:56	0°♋		
asc. node	573 Feb 26 j 09:22	13°♌48'24		asc. node	575 Aug 14 j 04:29	20°♋52'30		
	573 Mar 11 j 22:52	0°♉			575 Aug 21 j 17:46	0°♌		
	573 Apr 06 j 19:06	0°♊			575 Sep 15 j 05:31	0°♍		
	573 May 04 j 07:36	0°♋			575 Oct 09 j 08:01	0°♎		
evening max el	573 May 17 j 13:15	13°♋12'51	45°19'25		575 Nov 02 j 05:34	0°♌		
	573 Jun 05 j 22:38	0°♌		morning set	575 Nov 10 j 00:37	9°♌48'27		
desc. node	573 Jun 17 j 22:57	7°♌48'18			575 Nov 26 j 01:25	0°♊		
greatest brilliancy	573 Jun 22 j 05:22	9°♌51'04	-4.5m	desc. node	575 Dec 03 j 18:05	9°♊41'12		
retrograde	573 Jul 05 j 00:47	12°♌43'56			575 Dec 19 j 21:33	0°♈		
evening set	573 Jul 21 j 18:05	7°♌30'26						
inferior conj	573 Jul 26 j 10:21	4°♌40'56	-7°-31'-5	superior conj	575 Dec 21 j 15:07	2°♈10'42	0°-40'-53	
minimum elong	573 Jul 26 j 01:29	4°♌54'41	7°29'47	minimum elong	575 Dec 21 j 05:09	1°♈39'22	0°40'27	
min. Earth dist.	573 Jul 26 j 16:38	4°♌31'11	0.28664 AU	max. Earth dist.	575 Dec 24 j 02:27	5°♈17'11	1.71167 AU	
morning rise	573 Jul 30 j 08:36	2°♌16'46			576 Jan 12 j 19:03	0°♏		
	573 Aug 03 j 11:37	30°♋♋		evening rise	576 Jan 31 j 22:19	23°♏56'07		
direct	573 Aug 16 j 22:50	26°♋28'07			576 Feb 05 j 19:03	0°♋		
	573 Aug 31 j 02:37	0°♌			576 Feb 29 j 23:05	0°♌		
greatest brilliancy	573 Aug 31 j 08:53	0°♌07'24	-4.6m		576 Mar 25 j 08:57	0°♉		
morning max el	573 Oct 05 j 22:43	28°♌18'59	46°31'36	asc. node	576 Mar 25 j 21:25	0°♉38'04		
	573 Oct 07 j 14:51	0°♍			576 Apr 19 j 02:34	0°♊		
asc. node	573 Oct 09 j 02:10	1°♍29'54			576 May 14 j 06:31	0°♋		
	573 Nov 04 j 04:38	0°♎			576 Jun 09 j 02:00	0°♌		
	573 Nov 29 j 16:30	0°♌			576 Jul 06 j 01:50	0°♍		
	573 Dec 24 j 09:25	0°♊		desc. node	576 Jul 15 j 10:38	9°♍53'13		
	574 Jan 17 j 19:08	0°♈		evening max el	576 Jul 28 j 15:10	23°♍05'29	46°02'14	
desc. node	574 Jan 28 j 15:40	13°♈23'09			576 Aug 05 j 00:52	0°♎		

greatest brilliancy	576 Sep 05 j 10:30	21°♄33'32	-4.6m	superior conj	579 Mar 07 j 10:53	18°♄41'58	-1°-22'-31
retrograde	576 Sep 15 j 22:41	23°♄33'53		minimum elong	579 Mar 07 j 16:17	18°♄58'44	1°22'28
evening set	576 Oct 02 j 09:42	18°♄24'07		max. Earth dist.	579 Mar 11 j 05:13	23°♄22'05	1.72570 AU
inferior conj	576 Oct 06 j 16:24	15°♄51'37	-6°-44'-36		579 Mar 16 j 13:42	0°♄	
minimum elong	576 Oct 07 j 03:00	15°♄35'33	6°42'25		579 Apr 09 j 20:56	0°♄	
min. Earth dist.	576 Oct 07 j 12:16	15°♄21'28	0.27053 AU	evening rise	579 Apr 14 j 21:51	6°♄11'57	
morning rise	576 Oct 11 j 19:51	12°♄49'15		asc. node	579 Apr 23 j 09:20	16°♄36'50	
direct	576 Oct 27 j 10:16	8°♄02'56			579 May 04 j 07:30	0°♄	
asc. node	576 Nov 05 j 13:57	9°♄39'45			579 May 28 j 21:24	0°♄	
greatest brilliancy	576 Nov 10 j 00:03	11°♄27'44	-4.7m		579 Jun 22 j 15:14	0°♄	
	576 Dec 05 j 07:22	0°♄			579 Jul 17 j 14:52	0°♄	
morning max el	576 Dec 17 j 06:26	11°♄39'06	46°56'42		579 Aug 11 j 23:54	0°♄	
	577 Jan 03 j 11:09	0°♄		desc. node	579 Aug 12 j 22:34	1°♄06'15	
	577 Jan 29 j 18:32	0°♄			579 Sep 07 j 01:21	0°♄	
	577 Feb 24 j 04:02	0°♄			579 Oct 04 j 14:05	0°♄	
desc. node	577 Feb 25 j 03:35	1°♄10'13		evening max el	579 Oct 11 j 02:37	6°♄39'28	47°11'57
	577 Mar 21 j 04:32	0°♄			579 Nov 06 j 15:26	0°♄	
	577 Apr 15 j 00:50	0°♄		greatest brilliancy	579 Nov 18 j 18:26	7°♄00'36	-4.7m
	577 May 09 j 18:38	0°♄		retrograde	579 Nov 30 j 17:40	9°♄41'17	
	577 Jun 03 j 09:54	0°♄		asc. node	579 Dec 04 j 01:51	9°♄27'31	
morning set	577 Jun 18 j 09:38	18°♄20'00		evening set	579 Dec 15 j 08:39	5°♄24'37	
asc. node	577 Jun 18 j 06:55	18°♄11'38		min. Earth dist.	579 Dec 20 j 13:12	2°♄20'52	0.26583 AU
	577 Jun 27 j 21:49	0°♄		inferior conj	579 Dec 21 j 07:26	1°♄52'46	4°16'50
max. Earth dist.	577 Jul 21 j 07:24	28°♄50'48	1.73005 AU	minimum elong	579 Dec 20 j 22:50	2°♄06'02	4°14'24
	577 Jul 22 j 05:47	0°♄			579 Dec 24 j 09:35	30°♄	
				morning rise	579 Dec 26 j 13:31	28°♄45'22	
superior conj	577 Jul 24 j 17:17	3°♄04'04	1°12'16	direct	580 Jan 10 j 16:11	24°♄15'02	
minimum elong	577 Jul 24 j 09:23	2°♄39'39	1°12'04	greatest brilliancy	580 Jan 21 j 14:15	26°♄29'03	-4.6m
	577 Aug 15 j 10:17	0°♄			580 Jan 28 j 18:39	0°♄	
evening rise	577 Aug 30 j 05:57	18°♄26'16		morning max el	580 Feb 29 j 12:22	26°♄09'15	46°28'55
	577 Sep 08 j 12:45	0°♄			580 Mar 04 j 08:51	0°♄	
	577 Oct 02 j 14:45	0°♄		desc. node	580 Mar 24 j 15:32	21°♄23'48	
desc. node	577 Oct 07 j 20:30	6°♄31'25			580 Apr 01 j 10:42	0°♄	
	577 Oct 26 j 17:29	0°♄			580 Apr 27 j 20:03	0°♄	
	577 Nov 19 j 22:03	0°♄			580 May 23 j 11:47	0°♄	
	577 Dec 14 j 06:59	0°♄			580 Jun 17 j 16:42	0°♄	
	578 Jan 08 j 01:55	0°♄			580 Jul 12 j 12:39	0°♄	
asc. node	578 Jan 28 j 23:27	24°♄30'57		asc. node	580 Jul 15 j 18:40	3°♄57'34	
	578 Feb 02 j 18:42	0°♄			580 Aug 06 j 00:17	0°♄	
	578 Mar 02 j 14:47	0°♄		morning set	580 Aug 25 j 19:42	24°♄32'19	
evening max el	578 Mar 05 j 15:59	3°♄01'53	45°55'19		580 Aug 30 j 04:58	0°♄	
greatest brilliancy	578 Apr 09 j 00:27	29°♄57'22	-4.5m		580 Sep 23 j 04:53	0°♄	
	578 Apr 09 j 02:38	0°♄		max. Earth dist.	580 Sep 30 j 04:02	8°♄44'09	1.71504 AU
retrograde	578 Apr 23 j 19:21	3°♄46'49					
	578 May 07 j 16:13	30°♄		superior conj	580 Oct 02 j 15:58	11°♄52'13	1°07'26
evening set	578 May 09 j 00:48	29°♄16'12		minimum elong	580 Oct 03 j 02:01	12°♄23'44	1°07'07
inferior conj	578 May 15 j 05:28	25°♄31'48	1°14'36		580 Oct 17 j 02:29	0°♄	
minimum elong	578 May 15 j 08:11	25°♄27'33	1°13'48	desc. node	580 Nov 04 j 08:22	22°♄55'36	
min. Earth dist.	578 May 15 j 08:24	25°♄27'12	0.28963 AU		580 Nov 09 j 23:32	0°♄	
desc. node	578 May 20 j 13:02	22°♄17'32		evening rise	580 Nov 12 j 03:02	2°♄41'40	
morning rise	578 May 21 j 15:44	21°♄40'08			580 Dec 03 j 21:14	0°♄	
direct	578 Jun 05 j 21:10	17°♄13'35			580 Dec 27 j 20:48	0°♄	
greatest brilliancy	578 Jun 19 j 08:51	20°♄24'50	-4.5m		581 Jan 21 j 00:23	0°♄	
	578 Jul 05 j 00:35	0°♄			581 Feb 14 j 11:33	0°♄	
morning max el	578 Jul 24 j 18:36	17°♄07'54	45°51'15	asc. node	581 Feb 25 j 11:32	13°♄17'59	
	578 Aug 06 j 15:16	0°♄			581 Mar 11 j 11:37	0°♄	
	578 Sep 03 j 00:28	0°♄			581 Apr 06 j 09:31	0°♄	
asc. node	578 Sep 10 j 16:30	8°♄50'18			581 May 04 j 02:13	0°♄	
	578 Sep 28 j 14:14	0°♄		evening max el	581 May 15 j 03:33	10°♄58'25	45°19'20
	578 Oct 23 j 05:56	0°♄			581 Jun 06 j 14:07	0°♄	
	578 Nov 16 j 10:23	0°♄		desc. node	581 Jun 17 j 00:55	6°♄21'05	
	578 Dec 10 j 10:07	0°♄		greatest brilliancy	581 Jun 19 j 17:11	7°♄35'31	-4.5m
desc. node	578 Dec 31 j 05:53	26°♄05'27		retrograde	581 Jul 02 j 16:02	10°♄32'29	
	579 Jan 03 j 08:48	0°♄		evening set	581 Jul 19 j 06:06	5°♄22'59	
morning set	579 Jan 26 j 07:43	28°♄43'15		inferior conj	581 Jul 24 j 01:51	2°♄28'42	-7°-20'-10
	579 Jan 27 j 08:17	0°♄		minimum elong	581 Jul 23 j 16:39	2°♄42'58	7°18'44
	579 Feb 20 j 09:39	0°♄		min. Earth dist.	581 Jul 24 j 07:44	2°♄19'36	0.28696 AU

morning rise	581 Jul 28 j 02:53	0°Ω00'33			584 Jan 12 j 06:11	0°≈	
	581 Jul 28 j 03:15	30°R☿		evening rise	584 Jan 29 j 09:44	21°≈27'16	
direct	581 Aug 14 j 14:17	24°☿15'10			584 Feb 05 j 06:10	0°✠	
greatest brilliancy	581 Aug 29 j 02:09	27°☿56'08	-4.6m		584 Feb 29 j 10:17	0°Υ	
	581 Sep 02 j 00:25	0°Ω		asc. node	584 Mar 24 j 23:31	0°♄09'34	
morning max el	581 Oct 03 j 13:25	26°Ω00'37	46°30'20		584 Mar 24 j 20:22	0°♄	
	581 Oct 07 j 11:54	0°♍			584 Apr 18 j 14:25	0°♊	
asc. node	581 Oct 08 j 04:15	0°♍42'04			584 May 13 j 19:10	0°☿	
	581 Nov 03 j 20:16	0°♌			584 Jun 08 j 16:10	0°Ω	
	581 Nov 29 j 06:06	0°♌			584 Jul 05 j 19:21	0°♍	
	581 Dec 23 j 22:01	0°♌		desc. node	584 Jul 14 j 12:46	9°♍08'17	
	582 Jan 17 j 07:08	0°☿		evening max el	584 Jul 26 j 05:32	20°♍47'48	45°59'45
desc. node	582 Jan 27 j 17:44	12°☿53'03			584 Aug 05 j 05:24	0°♌	
	582 Feb 10 j 14:21	0°≈		greatest brilliancy	584 Sep 02 j 22:01	19°♌08'41	-4.6m
	582 Mar 06 j 21:43	0°✠		retrograde	584 Sep 13 j 11:19	21°♌09'20	
	582 Mar 31 j 06:05	0°Υ		evening set	584 Sep 30 j 01:43	15°♌54'49	
morning set	582 Apr 09 j 07:39	11°Υ09'13		inferior conj	584 Oct 04 j 05:14	13°♌26'29	-6°-59'-10
	582 Apr 24 j 15:39	0°♄		minimum elong	584 Oct 04 j 15:40	13°♌10'36	6°57'09
				min. Earth dist.	584 Oct 05 j 01:10	12°♌56'11	0.27115 AU
superior conj	582 May 16 j 07:07	26°♄34'58	0°-10'-51	morning rise	584 Oct 09 j 05:15	10°♌28'42	
minimum elong	582 May 16 j 09:21	26°♄41'50	0°10'45	direct	584 Oct 25 j 00:29	5°♌37'02	
behind sun begin	582 May 15 j 16:34	25°♄50'17		asc. node	584 Nov 04 j 15:59	7°♌46'25	
behind sun end	582 May 17 j 02:09	27°♄33'23		greatest brilliancy	584 Nov 07 j 14:18	9°♌02'07	-4.7m
max. Earth dist.	582 May 16 j 02:02	26°♄19'20	1.73620 AU		584 Dec 05 j 11:44	0°♌	
	582 May 19 j 01:55	0°♊		morning max el	584 Dec 14 j 20:34	9°♌14'18	46°56'46
asc. node	582 May 20 j 21:06	2°♊12'34			585 Jan 03 j 05:14	0°♌	
	582 Jun 12 j 12:05	0°☿			585 Jan 29 j 09:21	0°☿	
evening rise	582 Jun 21 j 08:33	10°☿52'49			585 Feb 23 j 17:15	0°≈	
	582 Jul 06 j 21:46	0°Ω		desc. node	585 Feb 24 j 05:46	0°≈37'24	
	582 Jul 31 j 07:26	0°♍			585 Mar 20 j 16:48	0°✠	
	582 Aug 24 j 18:22	0°♌			585 Apr 14 j 12:31	0°Υ	
desc. node	582 Sep 09 j 10:39	19°♌09'49			585 May 09 j 05:56	0°♄	
	582 Sep 18 j 08:08	0°♌			585 Jun 02 j 20:58	0°♊	
	582 Oct 13 j 02:47	0°♌		morning set	585 Jun 16 j 04:05	16°♊15'52	
	582 Nov 07 j 06:47	0°☿		asc. node	585 Jun 17 j 08:57	17°♊44'19	
	582 Dec 03 j 08:47	0°≈			585 Jun 27 j 08:45	0°☿	
evening max el	582 Dec 21 j 22:49	19°≈56'05	47°08'02	max. Earth dist.	585 Jul 19 j 01:18	26°☿44'05	1.73049 AU
asc. node	582 Dec 31 j 13:42	29°≈24'15			585 Jul 21 j 16:41	0°Ω	
	583 Jan 01 j 04:54	0°✠					
greatest brilliancy	583 Jan 27 j 22:11	19°✠57'33	-4.6m	superior conj	585 Jul 22 j 11:23	0°Ω57'49	1°10'33
retrograde	583 Feb 10 j 19:37	23°✠31'44		minimum elong	585 Jul 22 j 03:15	0°Ω32'39	1°10'21
evening set	583 Feb 28 j 17:33	17°✠18'11			585 Aug 14 j 21:17	0°♍	
inferior conj	583 Mar 03 j 23:03	15°✠16'56	8°27'49	evening rise	585 Aug 27 j 21:51	16°♍11'47	
minimum elong	583 Mar 04 j 03:10	15°✠10'26	8°27'34		585 Sep 07 j 23:56	0°♌	
min. Earth dist.	583 Mar 03 j 13:19	15°✠32'18	0.28287 AU		585 Oct 02 j 02:13	0°♌	
morning rise	583 Mar 07 j 12:58	13°✠03'11		desc. node	585 Oct 06 j 22:31	6°♌01'53	
direct	583 Mar 24 j 23:41	7°✠10'45			585 Oct 26 j 05:15	0°♌	
greatest brilliancy	583 Apr 05 j 09:36	9°✠32'08	-4.5m		585 Nov 19 j 10:12	0°☿	
desc. node	583 Apr 22 j 03:11	19°✠21'02			585 Dec 13 j 19:40	0°≈	
	583 May 05 j 00:43	0°Υ			586 Jan 07 j 15:32	0°✠	
morning max el	583 May 12 j 23:19	7°Υ21'42	45°50'29	asc. node	586 Jan 28 j 01:41	23°✠54'09	
	583 Jun 04 j 04:48	0°♄			586 Feb 02 j 10:16	0°Υ	
	583 Jul 01 j 08:02	0°♊			586 Mar 02 j 11:57	0°♄	
	583 Jul 27 j 04:29	0°☿		evening max el	586 Mar 03 j 07:37	0°♄48'33	45°57'37
asc. node	583 Aug 13 j 06:39	20°☿22'55		greatest brilliancy	586 Apr 06 j 18:26	27°♄50'21	-4.5m
	583 Aug 21 j 05:36	0°Ω			586 Apr 12 j 00:49	0°♊	
	583 Sep 14 j 17:00	0°♍		retrograde	586 Apr 21 j 11:45	1°♊38'18	
	583 Oct 08 j 19:19	0°♌			586 Apr 30 j 13:20	30°R♄	
	583 Nov 01 j 16:47	0°♌		evening set	586 May 06 j 18:56	27°♄06'00	
morning set	583 Nov 07 j 12:11	7°♌18'29		inferior conj	586 May 12 j 22:10	23°♄23'15	1°33'54
	583 Nov 25 j 12:37	0°♌		minimum elong	586 May 13 j 01:33	23°♄17'55	1°32'55
desc. node	583 Dec 02 j 20:06	9°♌12'22		min. Earth dist.	586 May 13 j 01:17	23°♄18'21	0.28957 AU
				morning rise	586 May 19 j 08:21	19°♄31'16	
superior conj	583 Dec 19 j 00:44	29°♌34'56	0°-37'-18	desc. node	586 May 19 j 14:59	19°♄22'14	
minimum elong	583 Dec 18 j 15:26	29°♌05'41	0°36'55	direct	586 Jun 03 j 13:47	15°♄05'16	
	583 Dec 19 j 08:42	0°☿		greatest brilliancy	586 Jun 16 j 23:00	18°♄13'31	-4.5m
max. Earth dist.	583 Dec 21 j 11:18	2°☿39'05	1.71141 AU		586 Jul 05 j 11:44	0°♊	

morning max el	586 Jul 22 j 09:41	14° II 55'21	45°50'19		589 Feb 13 j 23:46	0° Y	
	586 Aug 06 j 09:32	0° S		asc. node	589 Feb 24 j 13:35	12° Y 46'32	
	586 Sep 02 j 14:58	0° Q			589 Mar 11 j 00:39	0° B	
asc. node	586 Sep 09 j 18:35	8° Q 15'47			589 Apr 06 j 00:15	0° II	
	586 Sep 28 j 03:12	0° M			589 May 03 j 21:27	0° S	
	586 Oct 22 j 18:10	0° A		evening max el	589 May 12 j 18:43	8° S 46'02	45°19'31
	586 Nov 15 j 22:14	0° M			589 Jun 07 j 10:51	0° Q	
	586 Dec 09 j 21:43	0° X		desc. node	589 Jun 16 j 03:01	4° Q 51'25	
desc. node	586 Dec 30 j 07:56	25° X 35'59		greatest brilliancy	589 Jun 17 j 04:41	5° Q 20'05	-4.5m
	587 Jan 02 j 20:14	0° Z		retrograde	589 Jun 30 j 07:59	8° Q 21'43	
morning set	587 Jan 23 j 18:13	26° Z 10'46		evening set	589 Jul 16 j 18:27	3° Q 16'06	
	587 Jan 26 j 19:35	0° \approx		inferior conj	589 Jul 21 j 17:34	0° Q 17'05	-7°-8'-44
	587 Feb 19 j 20:49	0° K		minimum elong	589 Jul 21 j 08:04	0° Q 31'47	7°07'10
				min. Earth dist.	589 Jul 21 j 22:39	0° Q 09'14	0.28728 AU
superior conj	587 Mar 05 j 00:47	16° K 21'47	-1°-23'-24		589 Jul 22 j 04:37	30° R S	
minimum elong	587 Mar 05 j 05:27	16° K 36'15	1°23'22	morning rise	589 Jul 25 j 21:25	27° S 44'59	
max. Earth dist.	587 Mar 08 j 22:24	21° K 12'11	1.72509 AU	direct	589 Aug 12 j 06:20	22° S 02'59	
	587 Mar 16 j 00:45	0° Y		greatest brilliancy	589 Aug 26 j 19:18	25° S 45'21	-4.6m
	587 Apr 09 j 07:57	0° B			589 Sep 03 j 07:12	0° Q	
evening rise	587 Apr 12 j 14:16	4° B 00'56		morning max el	589 Oct 01 j 05:11	23° Q 45'09	46°28'47
asc. node	587 Apr 22 j 11:20	16° B 09'10		asc. node	589 Oct 07 j 06:16	29° Q 54'42	
	587 May 03 j 18:35	0° II			589 Oct 07 j 08:18	0° M	
	587 May 28 j 08:43	0° S			589 Nov 03 j 11:47	0° A	
	587 Jun 22 j 03:01	0° Q			589 Nov 28 j 19:44	0° M	
	587 Jul 17 j 03:25	0° M			589 Dec 23 j 10:40	0° X	
	587 Aug 11 j 13:44	0° A			590 Jan 16 j 19:12	0° Z	
desc. node	587 Aug 12 j 00:41	0° A 31'56		desc. node	590 Jan 26 j 19:56	12° Z 23'14	
	587 Sep 06 j 17:31	0° M			590 Feb 10 j 02:00	0° \approx	
	587 Oct 04 j 11:46	0° X			590 Mar 06 j 09:03	0° K	
evening max el	587 Oct 08 j 15:16	4° X 11'53	47°10'15		590 Mar 30 j 17:11	0° Y	
	587 Nov 07 j 20:59	0° Z		morning set	590 Apr 06 j 23:53	8° Y 57'33	
greatest brilliancy	587 Nov 16 j 09:55	4° Z 33'57	-4.7m		590 Apr 24 j 02:34	0° B	
retrograde	587 Nov 28 j 05:48	7° Z 11'31					
asc. node	587 Dec 03 j 03:53	6° Z 41'36		superior conj	590 May 14 j 00:58	24° B 29'07	0°-14'00
evening set	587 Dec 12 j 19:27	2° Z 57'51		minimum elong	590 May 14 j 03:51	24° B 37'58	0°13'53
	587 Dec 17 j 20:40	30° R X		behind sun begin	590 May 13 j 16:49	24° B 04'06	
min. Earth dist.	587 Dec 18 j 03:13	29° X 49'56	0.26546 AU	behind sun end	590 May 14 j 14:53	25° B 11'51	
inferior conj	587 Dec 18 j 19:59	29° X 24'08	3°55'30	max. Earth dist.	590 May 13 j 23:41	24° B 25'10	1.73609 AU
minimum elong	587 Dec 18 j 11:54	29° X 36'35	3°53'09		590 May 18 j 12:45	0° II	
morning rise	587 Dec 24 j 04:45	26° X 13'00		asc. node	590 May 19 j 23:12	1° II 45'46	
direct	588 Jan 08 j 03:52	21° X 46'44			590 Jun 11 j 22:56	0° S	
greatest brilliancy	588 Jan 19 j 05:16	24° X 03'38	-4.6m	evening rise	590 Jun 19 j 03:46	8° S 50'59	
	588 Jan 30 j 06:03	0° Z			590 Jul 06 j 08:44	0° Q	
morning max el	588 Feb 27 j 00:43	23° Z 43'07	46°30'32		590 Jul 30 j 18:40	0° M	
	588 Mar 04 j 06:33	0° \approx			590 Aug 24 j 06:01	0° A	
desc. node	588 Mar 23 j 17:29	20° \approx 42'20		desc. node	590 Sep 08 j 12:39	18° A 39'11	
	588 Apr 01 j 02:40	0° K			590 Sep 17 j 20:25	0° M	
	588 Apr 27 j 09:41	0° Y			590 Oct 12 j 15:59	0° X	
	588 May 23 j 00:11	0° B			590 Nov 06 j 21:28	0° Z	
	588 Jun 17 j 04:22	0° II			590 Dec 03 j 02:29	0° \approx	
	588 Jul 11 j 23:54	0° S		evening max el	590 Dec 19 j 14:24	17° \approx 37'08	47°09'50
asc. node	588 Jul 14 j 20:53	3° S 30'04		asc. node	590 Dec 30 j 15:54	28° \approx 26'23	
	588 Aug 05 j 11:22	0° Q			591 Jan 01 j 08:33	0° K	
morning set	588 Aug 23 j 11:49	22° Q 18'53		greatest brilliancy	591 Jan 25 j 14:08	17° K 40'01	-4.6m
	588 Aug 29 j 16:00	0° M		retrograde	591 Feb 08 j 11:45	21° K 14'05	
	588 Sep 22 j 15:58	0° A		evening set	591 Feb 26 j 09:48	14° K 58'54	
max. Earth dist.	588 Sep 27 j 16:24	6° A 17'34	1.71551 AU	min. Earth dist.	591 Mar 01 j 02:57	13° K 17'09	0.28239 AU
				inferior conj	591 Mar 01 j 14:08	12° K 59'30	8°32'20
superior conj	588 Sep 30 j 05:36	9° A 29'31	1°09'34	minimum elong	591 Mar 01 j 17:31	12° K 54'10	8°32'10
minimum elong	588 Sep 30 j 15:19	10° A 00'01	1°09'17	morning rise	591 Mar 05 j 01:27	10° K 49'57	
	588 Oct 16 j 13:38	0° M		direct	591 Mar 22 j 14:35	4° K 54'13	
desc. node	588 Nov 03 j 10:22	22° M 26'36		greatest brilliancy	591 Apr 02 j 21:56	7° K 13'50	-4.5m
	588 Nov 09 j 10:47	0° X		desc. node	591 Apr 21 j 05:13	18° K 12'22	
evening rise	588 Nov 09 j 13:27	0° X 08'22			591 May 05 j 02:55	0° Y	
	588 Dec 03 j 08:36	0° Z		morning max el	591 May 10 j 15:18	5° Y 10'24	45°51'19
	588 Dec 27 j 08:21	0° \approx			591 Jun 03 j 21:33	0° B	
	589 Jan 20 j 12:11	0° K			591 Jun 30 j 21:48	0° II	

	591 Jul 26 j 16:52	0°☿			594 Mar 02 j 09:45	0°♄	
asc. node	591 Aug 12 j 08:44	19°☿53'32		greatest brilliancy	594 Apr 04 j 11:38	25°♄42'10	-4.5m
	591 Aug 20 j 17:16	0°♁		retrograde	594 Apr 19 j 03:48	29°♄29'37	
	591 Sep 14 j 04:17	0°♂		evening set	594 May 04 j 12:55	24°♄55'14	
	591 Oct 08 j 06:26	0°♂		inferior conj	594 May 10 j 14:38	21°♄14'33	1°53'12
	591 Nov 01 j 03:51	0°♂		minimum elong	594 May 10 j 18:41	21°♄08'11	1°52'03
morning set	591 Nov 04 j 23:53	4°♂49'30		min. Earth dist.	594 May 10 j 18:11	21°♄08'58	0.28950 AU
	591 Nov 24 j 23:41	0°♂		morning rise	594 May 17 j 00:33	17°♄22'30	
desc. node	591 Dec 01 j 22:13	8°♂44'16		desc. node	594 May 18 j 17:06	16°♄29'02	
				direct	594 Jun 01 j 05:36	12°♄56'40	
superior conj	591 Dec 16 j 10:01	26°♂58'21	0°-33'-37	greatest brilliancy	594 Jun 14 j 13:46	16°♄03'07	-4.5m
minimum elong	591 Dec 16 j 01:29	26°♂31'30	0°33'14		594 Jul 05 j 19:44	0°♂	
	591 Dec 18 j 19:47	0°♂		morning max el	594 Jul 20 j 00:19	12°♂42'19	45°49'32
max. Earth dist.	591 Dec 18 j 19:35	29°♂59'20	1.71121 AU		594 Aug 06 j 03:06	0°☿	
	592 Jan 11 j 17:15	0°♂			594 Sep 02 j 05:00	0°♁	
evening rise	592 Jan 26 j 20:29	18°♂56'26		asc. node	594 Sep 08 j 20:31	7°♁41'56	
	592 Feb 04 j 17:14	0°♂			594 Sep 27 j 15:46	0°♂	
	592 Feb 28 j 21:25	0°♂			594 Oct 22 j 06:02	0°♂	
asc. node	592 Mar 24 j 01:29	29°♂40'59			594 Nov 15 j 09:41	0°♂	
	592 Mar 24 j 07:43	0°♂			594 Dec 09 j 08:55	0°♂	
	592 Apr 18 j 02:12	0°♂		desc. node	594 Dec 29 j 10:05	25°♂08'11	
	592 May 13 j 07:46	0°☿			595 Jan 02 j 07:14	0°♂	
	592 Jun 08 j 06:20	0°♁		morning set	595 Jan 21 j 04:49	23°♂39'48	
	592 Jul 05 j 13:03	0°♂			595 Jan 26 j 06:27	0°♂	
desc. node	592 Jul 13 j 14:55	8°♂23'27			595 Feb 19 j 07:36	0°♂	
evening max el	592 Jul 23 j 19:44	18°♂30'28	45°57'24				
	592 Aug 05 j 11:31	0°♂		superior conj	595 Mar 02 j 14:31	14°♂02'06	-1°-24'-9
greatest brilliancy	592 Aug 31 j 10:37	16°♂46'29	-4.6m	minimum elong	595 Mar 02 j 18:23	14°♂14'05	1°24'08
retrograde	592 Sep 10 j 23:41	18°♂46'31		max. Earth dist.	595 Mar 06 j 13:13	18°♂55'57	1.72454 AU
evening set	592 Sep 27 j 17:54	13°♂27'34			595 Mar 15 j 11:29	0°♂	
inferior conj	592 Oct 01 j 18:20	11°♂03'19	-7°-12'-44		595 Apr 08 j 18:41	0°♂	
minimum elong	592 Oct 02 j 04:31	10°♂47'48	7°10'54	evening rise	595 Apr 10 j 06:11	1°♂49'15	
min. Earth dist.	592 Oct 02 j 14:26	10°♂32'41	0.27176 AU	asc. node	595 Apr 21 j 13:25	15°♂42'31	
morning rise	592 Oct 06 j 14:46	8°♂10'10			595 May 03 j 05:24	0°♂	
direct	592 Oct 22 j 14:24	3°♂13'10			595 May 27 j 19:47	0°☿	
asc. node	592 Nov 03 j 18:04	5°♂59'02			595 Jun 21 j 14:34	0°♁	
greatest brilliancy	592 Nov 05 j 04:33	6°♂38'03	-4.7m		595 Jul 16 j 15:46	0°♂	
	592 Dec 05 j 14:00	0°♂		desc. node	595 Aug 11 j 02:40	29°♂57'49	
morning max el	592 Dec 12 j 09:47	6°♂48'08	46°56'31		595 Aug 11 j 03:25	0°♂	
	593 Jan 02 j 22:37	0°♂			595 Sep 06 j 09:39	0°♂	
	593 Jan 28 j 23:48	0°♂			595 Oct 04 j 09:53	0°♂	
desc. node	593 Feb 23 j 07:43	0°♂04'29		evening max el	595 Oct 06 j 03:43	1°♂44'59	47°08'38
	593 Feb 23 j 06:13	0°♂			595 Nov 09 j 14:33	0°♂	
	593 Mar 20 j 04:53	0°♂		greatest brilliancy	595 Nov 14 j 00:48	2°♂07'43	-4.7m
	593 Apr 14 j 00:00	0°♂		retrograde	595 Nov 25 j 18:20	4°♂43'14	
	593 May 08 j 17:01	0°♂		asc. node	595 Dec 02 j 06:02	3°♂51'01	
	593 Jun 02 j 07:48	0°♂		evening set	595 Dec 10 j 06:27	0°♂31'51	
morning set	593 Jun 13 j 22:12	14°♂11'29			595 Dec 11 j 05:37	30°♂♂	
asc. node	593 Jun 16 j 11:05	17°♂17'59		min. Earth dist.	595 Dec 15 j 17:07	27°♂20'25	0.26509 AU
	593 Jun 26 j 19:27	0°☿		inferior conj	595 Dec 16 j 08:30	26°♂56'48	3°33'40
max. Earth dist.	593 Jul 16 j 18:30	24°☿35'56	1.73092 AU	minimum elong	595 Dec 16 j 01:01	27°♂08'18	3°31'26
				morning rise	595 Dec 21 j 19:54	23°♂42'19	
superior conj	593 Jul 20 j 05:26	28°☿52'11	1°08'45	direct	596 Jan 05 j 15:34	19°♂19'37	
minimum elong	593 Jul 19 j 21:06	28°☿26'24	1°08'31	greatest brilliancy	596 Jan 16 j 20:09	21°♂39'38	-4.6m
	593 Jul 21 j 03:23	0°♁			596 Jan 31 j 06:29	0°♂	
	593 Aug 14 j 08:03	0°♂		morning max el	596 Feb 24 j 13:52	21°♂20'20	46°32'06
evening rise	593 Aug 25 j 13:58	13°♂58'52			596 Mar 04 j 02:56	0°♂	
	593 Sep 07 j 10:52	0°♂		desc. node	596 Mar 22 j 19:35	20°♂03'01	
	593 Oct 01 j 13:22	0°♂			596 Mar 31 j 17:56	0°♂	
desc. node	593 Oct 06 j 00:32	5°♂33'21			596 Apr 26 j 22:50	0°♂	
	593 Oct 25 j 16:41	0°♂			596 May 22 j 12:13	0°♂	
	593 Nov 18 j 22:01	0°♂			596 Jun 16 j 15:45	0°♂	
	593 Dec 13 j 08:03	0°♂			596 Jul 11 j 10:53	0°☿	
	594 Jan 07 j 04:57	0°♂		asc. node	596 Jul 13 j 22:54	3°☿02'50	
asc. node	594 Jan 27 j 03:40	23°♂17'08			596 Aug 04 j 22:09	0°♁	
	594 Feb 02 j 01:50	0°♂		morning set	596 Aug 21 j 03:45	20°♂05'51	
evening max el	594 Feb 28 j 22:16	28°♂33'03	45°59'52		596 Aug 29 j 02:44	0°♂	

	596 Sep 22 j 02:45	0°♄		inferior conj	599 Feb 27 j 05:17	10°♄42'33	8°36'07
max. Earth dist.	596 Sep 25 j 05:55	3°♄55'34	1.71598 AU	minimum elong	599 Feb 27 j 07:55	10°♄38'24	8°36'01
				morning rise	599 Mar 02 j 14:12	8°♄36'45	
superior conj	596 Sep 27 j 19:08	7°♄07'32	1°11'34	direct	599 Mar 20 j 05:40	2°♄38'29	
minimum elong	596 Sep 28 j 04:29	7°♄36'50	1°11'20	greatest brilliancy	599 Mar 31 j 09:17	4°♄55'03	-4.5m
	596 Oct 16 j 00:31	0°♄		desc. node	599 Apr 20 j 07:19	17°♄06'26	
desc. node	596 Nov 02 j 12:31	21°♄58'54			599 May 05 j 03:27	0°♄	
evening rise	596 Nov 06 j 23:57	27°♄36'10		morning max el	599 May 08 j 06:48	2°♄58'34	45°52'10
	596 Nov 08 j 21:46	0°♄			599 Jun 03 j 13:45	0°♄	
	596 Dec 02 j 19:43	0°♄			599 Jun 30 j 11:16	0°♄	
	596 Dec 26 j 19:35	0°♄			599 Jul 26 j 05:06	0°♄	
	597 Jan 19 j 23:37	0°♄		asc. node	599 Aug 11 j 10:42	19°♄24'03	
	597 Feb 13 j 11:36	0°♄			599 Aug 20 j 04:52	0°♄	
asc. node	597 Feb 23 j 15:35	12°♄16'06			599 Sep 13 j 15:33	0°♄	
	597 Mar 10 j 13:20	0°♄			599 Oct 07 j 17:33	0°♄	
	597 Apr 05 j 14:48	0°♄			599 Oct 31 j 14:55	0°♄	
	597 May 03 j 16:56	0°♄		morning set	599 Nov 02 j 11:33	2°♄20'24	
evening max el	597 May 10 j 10:44	6°♄36'30	45°19'34		599 Nov 24 j 10:45	0°♄	
	597 Jun 08 j 15:07	0°♄		desc. node	599 Dec 01 j 00:18	8°♄16'03	
greatest brilliancy	597 Jun 14 j 16:40	3°♄05'41	-4.5m				
desc. node	597 Jun 15 j 05:09	3°♄19'06		superior conj	599 Dec 13 j 19:17	24°♄21'46	0°-29'-52
retrograde	597 Jun 27 j 23:55	6°♄11'01		minimum elong	599 Dec 13 j 11:34	23°♄57'33	0°29'31
evening set	597 Jul 14 j 06:47	1°♄09'27		max. Earth dist.	599 Dec 16 j 02:49	27°♄16'25	1.71099 AU
	597 Jul 16 j 06:23	30°♄			599 Dec 18 j 06:51	0°♄	
inferior conj	597 Jul 19 j 09:09	28°♄05'39	-6°-56'-38		600 Jan 11 j 04:18	0°♄	
minimum elong	597 Jul 18 j 23:26	28°♄20'40	6°54'56	evening rise	600 Jan 24 j 07:11	16°♄25'17	
min. Earth dist.	597 Jul 19 j 13:20	27°♄59'11	0.28757 AU		600 Feb 04 j 04:19	0°♄	
morning rise	597 Jul 23 j 15:52	25°♄29'27			600 Feb 28 j 08:34	0°♄	
direct	597 Aug 09 j 22:43	19°♄51'09		asc. node	600 Mar 23 j 03:39	29°♄12'57	
greatest brilliancy	597 Aug 24 j 11:20	23°♄33'36	-4.5m		600 Mar 23 j 19:04	0°♄	
	597 Sep 04 j 05:11	0°♄			600 Apr 17 j 13:58	0°♄	
morning max el	597 Sep 28 j 21:07	21°♄30'53	46°27'13		600 May 12 j 20:21	0°♄	
asc. node	597 Oct 06 j 08:25	29°♄08'59			600 Jun 07 j 20:35	0°♄	
	597 Oct 07 j 03:53	0°♄			600 Jul 05 j 07:10	0°♄	
	597 Nov 03 j 02:51	0°♄		desc. node	600 Jul 12 j 16:51	7°♄37'20	
	597 Nov 28 j 09:02	0°♄		evening max el	600 Jul 21 j 09:04	16°♄11'00	45°54'49
	597 Dec 22 j 23:03	0°♄			600 Aug 05 j 20:10	0°♄	
	598 Jan 16 j 07:00	0°♄		greatest brilliancy	600 Aug 28 j 23:44	14°♄24'27	-4.6m
desc. node	598 Jan 25 j 21:51	11°♄53'18		retrograde	600 Sep 08 j 11:37	16°♄23'23	
	598 Feb 09 j 13:23	0°♄		evening set	600 Sep 25 j 09:59	10°♄59'54	
	598 Mar 05 j 20:05	0°♄		inferior conj	600 Sep 29 j 07:26	8°♄39'49	-7°-25'-30
	598 Mar 30 j 03:58	0°♄		minimum elong	600 Sep 29 j 17:16	8°♄24'47	7°23'49
morning set	598 Apr 04 j 16:24	6°♄47'39		min. Earth dist.	600 Sep 30 j 04:04	8°♄08'17	0.27242 AU
	598 Apr 23 j 13:12	0°♄		morning rise	600 Oct 04 j 00:10	5°♄51'24	
				direct	600 Oct 20 j 03:48	0°♄48'34	
superior conj	598 May 11 j 18:58	22°♄24'27	0°-17'-7	asc. node	600 Nov 02 j 20:10	4°♄15'02	
minimum elong	598 May 11 j 22:29	22°♄35'14	0°16'58	greatest brilliancy	600 Nov 02 j 19:39	4°♄14'25	-4.7m
max. Earth dist.	598 May 11 j 23:10	22°♄37'20	1.73600 AU		600 Dec 05 j 15:11	0°♄	
	598 May 17 j 23:20	0°♄		morning max el	600 Dec 09 j 22:27	4°♄19'49	46°56'24
asc. node	598 May 19 j 01:20	1°♄19'51					
	598 Jun 11 j 09:36	0°♄					
evening rise	598 Jun 16 j 23:01	6°♄49'48					
	598 Jul 05 j 19:35	0°♄					
	598 Jul 30 j 05:48	0°♄					
	598 Aug 23 j 17:35	0°♄					
desc. node	598 Sep 07 j 14:41	18°♄08'58					
	598 Sep 17 j 08:38	0°♄					
	598 Oct 12 j 05:10	0°♄					
	598 Nov 06 j 12:12	0°♄					
	598 Dec 02 j 20:27	0°♄					
evening max el	598 Dec 17 j 06:30	15°♄19'46	47°11'31				
asc. node	598 Dec 29 j 17:56	27°♄27'15					
	599 Jan 01 j 13:51	0°♄					
greatest brilliancy	599 Jan 23 j 07:21	15°♄24'31	-4.6m				
retrograde	599 Feb 06 j 03:52	18°♄56'41					
evening set	599 Feb 24 j 01:53	12°♄40'38					
min. Earth dist.	599 Feb 26 j 16:42	11°♄02'26	0.28184 AU				

superior conj	601 Jul 17 j 23:55	26° $\overline{54}$ 47'40	1°06'53	min. Earth dist.	603 Dec 13 j 06:37	24° $\overline{27}$ 48'59	0.26481 AU
minimum elong	601 Jul 17 j 15:24	26° $\overline{52}$ 21'22	1°06'37	morning rise	603 Dec 19 j 10:47	21° $\overline{27}$ 09'46	
	601 Jul 20 j 14:09	0° Ω		direct	604 Jan 03 j 03:41	16° $\overline{27}$ 50'11	
	601 Aug 13 j 18:57	0° $\overline{17}$		greatest brilliancy	604 Jan 14 j 10:37	19° $\overline{27}$ 13'05	-4.6m
evening rise	601 Aug 23 j 06:32	11° $\overline{17}$ 46'59			604 Feb 01 j 01:26	0° $\overline{2}$	
	601 Sep 06 j 22:00	0° $\overline{15}$		morning max el	604 Feb 22 j 03:57	18° $\overline{25}$ 58'04	46°33'41
	601 Oct 01 j 00:47	0° $\overline{14}$			604 Mar 03 j 23:19	0° \approx	
desc. node	601 Oct 05 j 02:42	5° $\overline{14}$ 04'24		desc. node	604 Mar 21 j 21:45	19° \approx 22'52	
	601 Oct 25 j 04:26	0° $\overline{27}$			604 Mar 31 j 09:31	0° $\overline{28}$	
	601 Nov 18 j 10:10	0° $\overline{2}$			604 Apr 26 j 12:20	0° $\overline{29}$	
	601 Dec 12 j 20:48	0° \approx			604 May 22 j 00:34	0° $\overline{30}$	
	602 Jan 06 j 18:45	0° $\overline{28}$			604 Jun 16 j 03:26	0° $\overline{31}$	
asc. node	602 Jan 26 j 05:40	22° $\overline{28}$ 39'04			604 Jul 10 j 22:11	0° $\overline{32}$	
	602 Feb 01 j 17:54	0° $\overline{29}$		asc. node	604 Jul 13 j 00:54	2° $\overline{33}$ 34'33	
evening max el	602 Feb 26 j 12:29	26° $\overline{29}$ 15'42	46°02'19		604 Aug 04 j 09:16	0° Ω	
	602 Mar 02 j 08:42	0° $\overline{30}$		morning set	604 Aug 18 j 20:19	17° $\overline{30}$ 53'58	
greatest brilliancy	602 Apr 02 j 04:00	23° $\overline{30}$ 32'20	-4.5m		604 Aug 28 j 13:47	0° $\overline{31}$	
retrograde	602 Apr 16 j 20:11	27° $\overline{30}$ 20'50			604 Sep 21 j 13:49	0° $\overline{32}$	
evening set	602 May 02 j 07:08	22° $\overline{30}$ 43'50		max. Earth dist.	604 Sep 22 j 19:30	1° $\overline{31}$ 32'59	1.71642 AU
inferior conj	602 May 08 j 07:15	19° $\overline{30}$ 05'37	2°12'23				
minimum elong	602 May 08 j 11:56	18° $\overline{30}$ 58'14	2°11'03	superior conj	604 Sep 25 j 09:27	4° $\overline{31}$ 47'09	1°13'25
min. Earth dist.	602 May 08 j 11:15	18° $\overline{30}$ 59'19	0.28940 AU	minimum elong	604 Sep 25 j 18:21	5° $\overline{31}$ 15'02	1°13'11
morning rise	602 May 14 j 16:46	15° $\overline{30}$ 13'53			604 Oct 15 j 11:39	0° $\overline{32}$	
desc. node	602 May 17 j 19:13	13° $\overline{30}$ 39'13		desc. node	604 Nov 01 j 14:34	21° $\overline{30}$ 30'03	
direct	602 May 29 j 21:14	10° $\overline{30}$ 47'40		evening rise	604 Nov 04 j 11:00	25° $\overline{30}$ 04'51	
greatest brilliancy	602 Jun 12 j 05:26	13° $\overline{30}$ 53'32	-4.5m		604 Nov 08 j 09:03	0° $\overline{33}$	
	602 Jul 06 j 01:34	0° $\overline{34}$			604 Dec 02 j 07:10	0° $\overline{34}$	
morning max el	602 Jul 17 j 15:48	10° $\overline{34}$ 31'02	45°48'57		604 Dec 26 j 07:14	0° \approx	
	602 Aug 05 j 20:25	0° $\overline{35}$			605 Jan 19 j 11:32	0° $\overline{36}$	
	602 Sep 01 j 19:03	0° Ω			605 Feb 12 j 23:58	0° $\overline{37}$	
asc. node	602 Sep 07 j 22:43	7° $\overline{34}$ 08'36		asc. node	605 Feb 22 j 17:44	11° $\overline{34}$ 44'31	
	602 Sep 27 j 04:30	0° $\overline{38}$			605 Mar 10 j 02:36	0° $\overline{39}$	
	602 Oct 21 j 18:07	0° $\overline{39}$			605 Apr 05 j 06:04	0° $\overline{40}$	
	602 Nov 14 j 21:28	0° $\overline{40}$			605 May 03 j 13:34	0° $\overline{41}$	
	602 Dec 08 j 20:29	0° $\overline{41}$		evening max el	605 May 08 j 03:21	4° $\overline{41}$ 27'12	45°19'50
desc. node	602 Dec 28 j 12:05	24° $\overline{41}$ 38'37			605 Jun 10 j 08:56	0° Ω	
	603 Jan 01 j 18:39	0° $\overline{42}$		greatest brilliancy	605 Jun 12 j 05:51	0° $\overline{42}$ 51'54	-4.5m
morning set	603 Jan 18 j 14:51	21° $\overline{42}$ 05'40		desc. node	605 Jun 14 j 07:07	1° $\overline{42}$ 42'27	
	603 Jan 25 j 17:43	0° \approx		retrograde	605 Jun 25 j 15:45	3° $\overline{42}$ 59'31	
	603 Feb 18 j 18:45	0° $\overline{43}$			605 Jul 10 j 01:03	30° $\overline{43}$ 00'00	
				evening set	605 Jul 11 j 19:25	29° $\overline{43}$ 02'09	
superior conj	603 Feb 28 j 03:50	11° $\overline{43}$ 39'58	-1°-24'-45	inferior conj	605 Jul 17 j 00:51	25° $\overline{43}$ 53'36	-6°-44'-2
minimum elong	603 Feb 28 j 06:50	11° $\overline{43}$ 49'16	1°24'45	minimum elong	605 Jul 16 j 14:59	26° $\overline{43}$ 08'51	6°42'13
max. Earth dist.	603 Mar 04 j 01:47	16° $\overline{43}$ 31'39	1.72395 AU	min. Earth dist.	605 Jul 17 j 04:12	25° $\overline{43}$ 48'23	0.28779 AU
	603 Mar 14 j 22:33	0° $\overline{44}$		morning rise	605 Jul 21 j 10:23	23° $\overline{43}$ 13'12	
evening rise	603 Apr 07 j 21:57	29° $\overline{44}$ 36'04		direct	605 Aug 07 j 15:20	17° $\overline{43}$ 38'56	
	603 Apr 08 j 05:44	0° $\overline{45}$		greatest brilliancy	605 Aug 22 j 02:12	21° $\overline{43}$ 19'43	-4.5m
asc. node	603 Apr 20 j 15:32	15° $\overline{44}$ 14'58			605 Sep 04 j 21:50	0° Ω	
	603 May 02 j 16:33	0° $\overline{46}$		morning max el	605 Sep 26 j 12:47	19° $\overline{43}$ 15'23	46°25'44
	603 May 27 j 07:11	0° $\overline{47}$		asc. node	605 Oct 05 j 10:28	28° $\overline{43}$ 22'59	
	603 Jun 21 j 02:26	0° Ω			605 Oct 06 j 23:09	0° $\overline{48}$	
	603 Jul 16 j 04:26	0° $\overline{49}$			605 Nov 02 j 17:56	0° $\overline{49}$	
desc. node	603 Aug 10 j 04:46	29° $\overline{49}$ 23'13			605 Nov 27 j 22:26	0° $\overline{50}$	
	603 Aug 10 j 17:27	0° $\overline{51}$			605 Dec 22 j 11:36	0° $\overline{51}$	
	603 Sep 06 j 02:19	0° $\overline{52}$			606 Jan 15 j 19:03	0° $\overline{52}$	
evening max el	603 Oct 03 j 16:47	29° $\overline{52}$ 19'01	47°06'45	desc. node	606 Jan 24 j 23:58	11° $\overline{52}$ 23'05	
	603 Oct 04 j 09:16	0° $\overline{53}$			606 Feb 09 j 01:05	0° \approx	
greatest brilliancy	603 Nov 11 j 14:26	29° $\overline{53}$ 38'30	-4.7m		606 Mar 05 j 07:30	0° $\overline{54}$	
	603 Nov 12 j 11:42	0° $\overline{54}$			606 Mar 29 j 15:09	0° $\overline{55}$	
retrograde	603 Nov 23 j 07:02	2° $\overline{54}$ 13'06		morning set	606 Apr 02 j 08:22	4° $\overline{55}$ 34'43	
asc. node	603 Dec 01 j 08:02	0° $\overline{55}$ 52'42			606 Apr 23 j 00:13	0° $\overline{56}$	
	603 Dec 03 j 16:22	30° $\overline{56}$ 00'00					
evening set	603 Dec 07 j 17:27	28° $\overline{56}$ 03'27		superior conj	606 May 09 j 12:28	20° $\overline{56}$ 17'05	0°-20'-16
inferior conj	603 Dec 13 j 20:47	24° $\overline{56}$ 27'17	3°11'00	minimum elong	606 May 09 j 16:36	20° $\overline{56}$ 29'47	0°20'04
minimum elong	603 Dec 13 j 13:58	24° $\overline{56}$ 37'44	3°08'56	max. Earth dist.	606 May 09 j 22:14	20° $\overline{56}$ 47'05	1.73583 AU

	606 May 17 j 10:17	0°♊		asc. node	608 Nov 01 j 22:12	2°♊34'49	
asc. node	606 May 18 j 03:19	0°♊52'15			608 Dec 05 j 15:12	0°♊	
	606 Jun 10 j 20:36	0°♊		morning max el	608 Dec 07 j 11:28	1°♊52'21	46°56'23
evening rise	606 Jun 14 j 17:56	4°♊46'42			609 Jan 02 j 08:42	0°♊	
	606 Jul 05 j 06:44	0°♊			609 Jan 28 j 04:27	0°♊	
	606 Jul 29 j 17:15	0°♊		desc. node	609 Feb 21 j 11:58	28°♊59'41	
	606 Aug 23 j 05:29	0°♊			609 Feb 22 j 08:03	0°♊	
desc. node	606 Sep 06 j 16:50	17°♊38'13			609 Mar 19 j 05:02	0°♊	
	606 Sep 16 j 21:10	0°♊			609 Apr 12 j 23:03	0°♊	
	606 Oct 11 j 18:38	0°♊			609 May 07 j 15:20	0°♊	
	606 Nov 06 j 03:15	0°♊			609 Jun 01 j 05:38	0°♊	
	606 Dec 02 j 14:57	0°♊		morning set	609 Jun 09 j 11:00	10°♊03'46	
evening max el	606 Dec 14 j 22:13	13°♊00'58	47°12'57	asc. node	609 Jun 14 j 15:10	16°♊24'08	
asc. node	606 Dec 28 j 19:54	26°♊26'23			609 Jun 25 j 17:02	0°♊	
	607 Jan 01 j 21:31	0°♊		max. Earth dist.	609 Jul 12 j 09:30	20°♊33'23	1.73181 AU
greatest brilliancy	607 Jan 21 j 01:01	13°♊08'54	-4.6m				
retrograde	607 Feb 03 j 19:30	16°♊38'17		superior conj	609 Jul 15 j 18:08	24°♊42'20	1°04'54
evening set	607 Feb 21 j 17:35	10°♊22'12		minimum elong	609 Jul 15 j 09:30	24°♊15'40	1°04'37
inferior conj	607 Feb 24 j 20:25	8°♊24'48	8°38'58		609 Jul 20 j 00:57	0°♊	
minimum elong	607 Feb 24 j 22:16	8°♊21'52	8°38'55		609 Aug 13 j 05:51	0°♊	
min. Earth dist.	607 Feb 24 j 06:46	8°♊46'24	0.28133 AU	evening rise	609 Aug 20 j 23:00	9°♊35'01	
morning rise	607 Feb 28 j 03:14	6°♊22'03			609 Sep 06 j 09:06	0°♊	
direct	607 Mar 17 j 20:33	0°♊21'54			609 Sep 30 j 12:09	0°♊	
greatest brilliancy	607 Mar 28 j 21:08	2°♊35'35	-4.5m	desc. node	609 Oct 04 j 04:42	4°♊35'10	
desc. node	607 Apr 19 j 09:24	16°♊01'12			609 Oct 24 j 16:07	0°♊	
	607 May 05 j 03:18	0°♊			609 Nov 17 j 22:16	0°♊	
morning max el	607 May 05 j 21:30	0°♊43'32	45°52'57		609 Dec 12 j 09:31	0°♊	
	607 Jun 03 j 06:03	0°♊			610 Jan 06 j 08:32	0°♊	
	607 Jun 30 j 00:57	0°♊		asc. node	610 Jan 25 j 07:54	22°♊01'53	
	607 Jul 25 j 17:32	0°♊			610 Feb 01 j 10:03	0°♊	
asc. node	607 Aug 10 j 12:52	18°♊54'41		evening max el	610 Feb 24 j 02:56	23°♊59'36	46°04'53
	607 Aug 19 j 16:37	0°♊			610 Mar 02 j 08:23	0°♊	
	607 Sep 13 j 02:58	0°♊		greatest brilliancy	610 Mar 30 j 19:16	21°♊21'51	-4.5m
	607 Oct 07 j 04:48	0°♊		retrograde	610 Apr 14 j 12:57	25°♊12'52	
morning set	607 Oct 30 j 23:29	29°♊51'41		evening set	610 Apr 30 j 01:29	20°♊32'50	
	607 Oct 31 j 02:07	0°♊		inferior conj	610 May 05 j 23:54	16°♊57'15	2°31'16
	607 Nov 23 j 21:56	0°♊		minimum elong	610 May 06 j 05:12	16°♊48'54	2°29'46
desc. node	607 Nov 30 j 02:18	7°♊47'11		min. Earth dist.	610 May 06 j 04:05	16°♊50'40	0.28937 AU
				morning rise	610 May 12 j 08:55	13°♊06'16	
superior conj	607 Dec 11 j 04:58	21°♊46'15	0°-26'-4	desc. node	610 May 16 j 21:11	10°♊54'07	
minimum elong	607 Dec 10 j 22:09	21°♊24'48	0°25'46	direct	610 May 27 j 13:09	8°♊39'07	
max. Earth dist.	607 Dec 13 j 07:40	24°♊25'44	1.71075 AU	greatest brilliancy	610 Jun 09 j 21:36	11°♊45'08	-4.5m
	607 Dec 17 j 17:59	0°♊			610 Jul 06 j 05:20	0°♊	
	608 Jan 10 j 15:25	0°♊		morning max el	610 Jul 15 j 08:17	8°♊22'30	45°48'16
evening rise	608 Jan 21 j 18:05	13°♊54'34			610 Aug 05 j 13:18	0°♊	
	608 Feb 03 j 15:27	0°♊			610 Sep 01 j 08:54	0°♊	
	608 Feb 27 j 19:49	0°♊		asc. node	610 Sep 07 j 00:47	6°♊35'17	
asc. node	608 Mar 22 j 05:42	28°♊44'11			610 Sep 26 j 17:03	0°♊	
	608 Mar 23 j 06:33	0°♊			610 Oct 21 j 06:02	0°♊	
	608 Apr 17 j 01:56	0°♊			610 Nov 14 j 09:01	0°♊	
	608 May 12 j 09:12	0°♊			610 Dec 08 j 07:48	0°♊	
	608 Jun 07 j 11:14	0°♊		desc. node	610 Dec 27 j 14:09	24°♊10'00	
	608 Jul 05 j 01:57	0°♊			611 Jan 01 j 05:48	0°♊	
desc. node	608 Jul 11 j 19:00	6°♊50'38		morning set	611 Jan 16 j 00:49	18°♊31'56	
evening max el	608 Jul 18 j 21:35	13°♊49'17	45°52'28		611 Jan 25 j 04:45	0°♊	
	608 Aug 06 j 08:01	0°♊			611 Feb 18 j 05:40	0°♊	
greatest brilliancy	608 Aug 26 j 12:27	12°♊01'57	-4.6m				
retrograde	608 Sep 05 j 23:34	14°♊00'37		superior conj	611 Feb 25 j 17:07	9°♊18'19	-1°-25'-11
evening set	608 Sep 23 j 02:00	8°♊32'19		minimum elong	611 Feb 25 j 19:14	9°♊24'55	1°25'12
inferior conj	608 Sep 26 j 20:36	6°♊16'29	-7°-37'-21	max. Earth dist.	611 Mar 01 j 13:27	14°♊05'10	1.72336 AU
minimum elong	608 Sep 27 j 06:02	6°♊02'03	7°35'50		611 Mar 14 j 09:22	0°♊	
min. Earth dist.	608 Sep 27 j 17:52	5°♊43'58	0.27308 AU	evening rise	611 Apr 05 j 13:50	27°♊24'02	
morning rise	608 Oct 01 j 09:39	3°♊33'05			611 Apr 07 j 16:31	0°♊	
	608 Oct 08 j 20:10	30°♊		asc. node	611 Apr 19 j 17:33	14°♊47'55	
direct	608 Oct 17 j 17:05	28°♊23'54			611 May 02 j 03:26	0°♊	
	608 Oct 26 j 21:36	0°♊			611 May 26 j 18:20	0°♊	
greatest brilliancy	608 Oct 31 j 11:48	1°♊52'17	-4.7m		611 Jun 20 j 14:06	0°♊	

	611 Jul 15 j 16:58	0° \mathfrak{M}		desc. node	614 Jan 24 j 02:09	10° \mathfrak{C} 54'03	
desc. node	611 Aug 09 j 06:54	28° \mathfrak{M} 48'59			614 Feb 08 j 12:25	0° \approx	
	611 Aug 10 j 07:27	0° $\underline{\mathfrak{A}}$			614 Mar 04 j 18:32	0° \mathfrak{H}	
	611 Sep 05 j 19:06	0° \mathfrak{M}			614 Mar 29 j 01:57	0° \mathfrak{Y}	
evening max el	611 Oct 01 j 06:52	26° \mathfrak{M} 56'23	47°04'57	morning set	614 Mar 31 j 00:17	2° \mathfrak{Y} 22'44	
	611 Oct 04 j 09:28	0° \mathfrak{A}			614 Apr 22 j 10:53	0° \mathfrak{B}	
greatest brilliancy	611 Nov 09 j 03:37	27° \mathfrak{A} 09'43	-4.7m				
retrograde	611 Nov 20 j 20:06	29° \mathfrak{A} 43'42		superior conj	614 May 07 j 06:08	18° \mathfrak{B} 11'18	0°-23'-21
asc. node	611 Nov 30 j 10:06	27° \mathfrak{A} 49'40		minimum elong	614 May 07 j 10:52	18° \mathfrak{B} 25'52	0°23'09
evening set	611 Dec 05 j 04:44	25° \mathfrak{A} 35'39		max. Earth dist.	614 May 07 j 20:28	18° \mathfrak{B} 55'20	1.73563 AU
inferior conj	611 Dec 11 j 09:02	21° \mathfrak{A} 58'28	2°47'58		614 May 16 j 20:54	0° \mathfrak{H}	
minimum elong	611 Dec 11 j 02:56	22° \mathfrak{A} 07'48	2°46'05	asc. node	614 May 17 j 05:26	0° \mathfrak{H} 26'12	
min. Earth dist.	611 Dec 10 j 19:49	22° \mathfrak{A} 18'39	0.26453 AU		614 Jun 10 j 07:14	0° \mathfrak{C}	
morning rise	611 Dec 17 j 01:27	18° \mathfrak{A} 38'12		evening rise	614 Jun 12 j 13:06	2° \mathfrak{C} 45'23	
direct	611 Dec 31 j 16:17	14° \mathfrak{A} 21'45			614 Jul 04 j 17:31	0° \mathfrak{Q}	
greatest brilliancy	612 Jan 12 j 00:10	16° \mathfrak{A} 46'21	-4.7m		614 Jul 29 j 04:20	0° \mathfrak{M}	
	612 Feb 01 j 15:10	0° \mathfrak{C}			614 Aug 22 j 17:02	0° $\underline{\mathfrak{A}}$	
morning max el	612 Feb 19 j 18:32	16° \mathfrak{C} 37'59	46°35'08	desc. node	614 Sep 05 j 18:51	17° $\underline{\mathfrak{A}}$ 08'03	
	612 Mar 03 j 18:42	0° \approx			614 Sep 16 j 09:26	0° \mathfrak{M}	
desc. node	612 Mar 20 j 23:43	18° \approx 43'37			614 Oct 11 j 07:56	0° \mathfrak{A}	
	612 Mar 31 j 00:30	0° \mathfrak{H}			614 Nov 05 j 18:17	0° \mathfrak{C}	
	612 Apr 26 j 01:20	0° \mathfrak{Y}			614 Dec 02 j 09:45	0° \approx	
	612 May 21 j 12:30	0° \mathfrak{B}		evening max el	614 Dec 12 j 13:11	10° \approx 40'26	47°14'20
	612 Jun 15 j 14:43	0° \mathfrak{H}		asc. node	614 Dec 27 j 22:08	25° \approx 24'58	
	612 Jul 10 j 09:08	0° \mathfrak{C}			615 Jan 02 j 07:46	0° \mathfrak{H}	
asc. node	612 Jul 12 j 03:06	2° \mathfrak{C} 07'58		greatest brilliancy	615 Jan 18 j 19:06	10° \mathfrak{H} 53'52	-4.6m
	612 Aug 03 j 20:03	0° \mathfrak{Q}		retrograde	615 Feb 01 j 10:35	14° \mathfrak{H} 19'59	
morning set	612 Aug 16 j 12:51	15° \mathfrak{Q} 42'57		evening set	615 Feb 19 j 08:48	8° \mathfrak{H} 04'39	
	612 Aug 28 j 00:33	0° \mathfrak{M}		inferior conj	615 Feb 22 j 11:28	6° \mathfrak{H} 07'25	8°41'01
max. Earth dist.	612 Sep 20 j 05:50	29° \mathfrak{M} 01'07	1.71689 AU	minimum elong	615 Feb 22 j 12:30	6° \mathfrak{H} 05'47	8°41'01
	612 Sep 21 j 00:38	0° $\underline{\mathfrak{A}}$		min. Earth dist.	615 Feb 21 j 21:03	6° \mathfrak{H} 30'14	0.28076 AU
				morning rise	615 Feb 25 j 16:27	4° \mathfrak{H} 07'17	
superior conj	612 Sep 22 j 23:39	2° $\underline{\mathfrak{A}}$ 27'16	1°15'08		615 Mar 05 j 17:19	30° \mathfrak{R} \approx	
minimum elong	612 Sep 23 j 08:01	2° $\underline{\mathfrak{A}}$ 53'29	1°14'56	direct	615 Mar 15 j 10:46	28° \approx 05'39	
	612 Oct 14 j 22:34	0° \mathfrak{M}			615 Mar 25 j 14:55	0° \mathfrak{H}	
desc. node	612 Oct 31 j 16:35	21° \mathfrak{M} 01'48		greatest brilliancy	615 Mar 26 j 09:40	0° \mathfrak{H} 17'21	-4.5m
evening rise	612 Nov 01 j 21:41	22° \mathfrak{M} 33'09		desc. node	615 Apr 18 j 11:27	14° \mathfrak{H} 58'28	
	612 Nov 07 j 20:05	0° \mathfrak{A}		morning max el	615 May 03 j 11:26	28° \mathfrak{H} 27'27	45°53'54
	612 Dec 01 j 18:20	0° \mathfrak{C}			615 May 05 j 01:46	0° \mathfrak{Y}	
	612 Dec 25 j 18:34	0° \approx			615 Jun 02 j 21:42	0° \mathfrak{B}	
	613 Jan 18 j 23:07	0° \mathfrak{H}			615 Jun 29 j 14:09	0° \mathfrak{H}	
	613 Feb 12 j 12:02	0° \mathfrak{Y}			615 Jul 25 j 05:33	0° \mathfrak{C}	
asc. node	613 Feb 21 j 19:47	11° \mathfrak{Y} 13'36		asc. node	615 Aug 09 j 14:55	18° \mathfrak{C} 25'59	
	613 Mar 09 j 15:37	0° \mathfrak{B}			615 Aug 19 j 04:01	0° \mathfrak{Q}	
	613 Apr 04 j 21:07	0° \mathfrak{H}			615 Sep 12 j 14:02	0° \mathfrak{M}	
	613 May 03 j 10:24	0° \mathfrak{C}			615 Oct 06 j 15:44	0° $\underline{\mathfrak{A}}$	
evening max el	613 May 05 j 19:56	2° \mathfrak{C} 19'02	45°20'08	morning set	615 Oct 28 j 11:39	27° $\underline{\mathfrak{A}}$ 24'37	
greatest brilliancy	613 Jun 09 j 20:09	28° \mathfrak{C} 41'01	-4.5m		615 Oct 30 j 13:03	0° \mathfrak{M}	
desc. node	613 Jun 13 j 09:15	0° \mathfrak{Q} 04'13			615 Nov 23 j 08:53	0° \mathfrak{A}	
	613 Jun 13 j 04:20	0° \mathfrak{Q}		desc. node	615 Nov 29 j 04:28	7° \mathfrak{A} 19'31	
retrograde	613 Jun 23 j 07:17	1° \mathfrak{Q} 49'45					
	613 Jul 02 j 23:01	30° \mathfrak{R} \mathfrak{C}		superior conj	615 Dec 08 j 14:27	19° \mathfrak{A} 10'41	0°-22'-12
evening set	613 Jul 09 j 08:20	26° \mathfrak{C} 56'38		minimum elong	615 Dec 08 j 08:35	18° \mathfrak{A} 52'13	0°21'56
inferior conj	613 Jul 14 j 16:43	23° \mathfrak{C} 43'29	-6°-30'-51	max. Earth dist.	615 Dec 10 j 09:31	21° \mathfrak{A} 26'06	1.71063 AU
minimum elong	613 Jul 14 j 06:46	23° \mathfrak{C} 58'55	6°28'57		615 Dec 17 j 04:57	0° \mathfrak{C}	
min. Earth dist.	613 Jul 14 j 19:29	23° \mathfrak{C} 39'10	0.28801 AU		616 Jan 10 j 02:23	0° \approx	
morning rise	613 Jul 19 j 05:02	20° \mathfrak{C} 58'43		evening rise	616 Jan 19 j 04:27	11° \approx 22'29	
direct	613 Aug 05 j 07:52	15° \mathfrak{C} 28'41			616 Feb 03 j 02:27	0° \mathfrak{H}	
greatest brilliancy	613 Aug 19 j 16:22	19° \mathfrak{C} 06'27	-4.5m		616 Feb 27 j 06:55	0° \mathfrak{Y}	
	613 Sep 05 j 09:39	0° \mathfrak{Q}		asc. node	616 Mar 21 j 07:43	28° \mathfrak{Y} 15'53	
morning max el	613 Sep 24 j 03:36	16° \mathfrak{Q} 58'57	46°24'01		616 Mar 22 j 17:53	0° \mathfrak{B}	
asc. node	613 Oct 04 j 12:30	27° \mathfrak{Q} 38'34			616 Apr 16 j 13:43	0° \mathfrak{H}	
	613 Oct 06 j 17:34	0° \mathfrak{M}			616 May 11 j 21:55	0° \mathfrak{C}	
	613 Nov 02 j 08:36	0° $\underline{\mathfrak{A}}$			616 Jun 07 j 01:47	0° \mathfrak{Q}	
	613 Nov 27 j 11:33	0° \mathfrak{M}			616 Jul 04 j 20:56	0° \mathfrak{M}	
	613 Dec 21 j 23:53	0° \mathfrak{A}		desc. node	616 Jul 10 j 21:09	6° \mathfrak{M} 04'07	
	614 Jan 15 j 06:48	0° \mathfrak{C}		evening max el	616 Jul 16 j 10:20	11° \mathfrak{M} 29'11	45°50'18

	616 Aug 06 j 23:09	0°♄			619 Feb 17 j 16:37	0°♁	
greatest brilliancy	616 Aug 24 j 00:16	9°♄40'14	-4.6m				
retrograde	616 Sep 03 j 12:13	11°♄40'07		superior conj	619 Feb 23 j 06:17	6°♁56'00	-1°-25'-29
evening set	616 Sep 20 j 18:09	6°♄06'52		minimum elong	619 Feb 23 j 07:30	6°♁59'46	1°25'30
inferior conj	616 Sep 24 j 10:04	3°♄55'08	-7°-48'-2	max. Earth dist.	619 Feb 27 j 02:29	11°♁42'38	1.72285 AU
minimum elong	616 Sep 24 j 19:03	3°♄41'25	7°46'44		619 Mar 13 j 20:17	0°♁	
min. Earth dist.	616 Sep 25 j 07:39	3°♄22'12	0.27375 AU	evening rise	619 Apr 03 j 05:25	25°♁10'41	
morning rise	616 Sep 28 j 19:31	1°♄16'58			619 Apr 07 j 03:26	0°♁	
	616 Oct 01 j 03:08	30°♁		asc. node	619 Apr 18 j 19:39	14°♁20'44	
direct	616 Oct 15 j 06:55	26°♁01'13			619 May 01 j 14:27	0°♁	
greatest brilliancy	616 Oct 29 j 04:41	29°♁32'54	-4.7m		619 May 26 j 05:39	0°♁	
	616 Oct 30 j 02:49	0°♄			619 Jun 20 j 01:56	0°♁	
asc. node	616 Nov 01 j 00:17	0°♄59'54			619 Jul 15 j 05:41	0°♁	
morning max el	616 Dec 05 j 01:25	29°♄28'13	46°56'06	desc. node	619 Aug 08 j 08:52	28°♁13'50	
	616 Dec 05 j 13:50	0°♁			619 Aug 09 j 21:41	0°♄	
	617 Jan 02 j 01:03	0°♁			619 Sep 05 j 12:20	0°♁	
	617 Jan 27 j 18:25	0°♁		evening max el	619 Sep 28 j 21:43	24°♁35'31	47°03'00
desc. node	617 Feb 20 j 13:55	28°♁27'12			619 Oct 04 j 10:59	0°♁	
	617 Feb 21 j 20:46	0°♁		greatest brilliancy	619 Nov 06 j 17:17	24°♁41'30	-4.7m
	617 Mar 18 j 16:58	0°♁		retrograde	619 Nov 18 j 09:13	27°♁14'03	
	617 Apr 12 j 10:27	0°♁		asc. node	619 Nov 29 j 12:16	24°♁41'21	
	617 May 07 j 02:22	0°♁		evening set	619 Dec 02 j 16:23	23°♁07'40	
	617 May 31 j 16:25	0°♁		inferior conj	619 Dec 08 j 21:19	19°♁29'34	2°24'38
morning set	617 Jun 07 j 05:16	7°♁59'50		minimum elong	619 Dec 08 j 15:59	19°♁37'42	2°22'57
asc. node	617 Jun 13 j 17:20	15°♁57'56		min. Earth dist.	619 Dec 08 j 09:07	19°♁48'11	0.26426 AU
	617 Jun 25 j 03:42	0°♁		morning rise	619 Dec 14 j 15:59	16°♁06'36	
max. Earth dist.	617 Jul 10 j 07:02	18°♁38'48	1.73222 AU	direct	619 Dec 29 j 05:10	11°♁53'26	
				greatest brilliancy	620 Jan 09 j 13:12	14°♁18'47	-4.7m
superior conj	617 Jul 13 j 12:29	22°♁37'48	1°02'50		620 Feb 02 j 01:26	0°♁	
minimum elong	617 Jul 13 j 03:46	22°♁10'55	1°02'33	morning max el	620 Feb 17 j 08:26	14°♁15'58	46°36'30
	617 Jul 19 j 11:38	0°♁			620 Mar 03 j 13:38	0°♁	
	617 Aug 12 j 16:39	0°♁		desc. node	620 Mar 20 j 01:49	18°♁04'51	
evening rise	617 Aug 18 j 15:55	7°♁24'46			620 Mar 30 j 15:25	0°♁	
	617 Sep 05 j 20:05	0°♄			620 Apr 25 j 14:27	0°♁	
	617 Sep 29 j 23:23	0°♁			620 May 21 j 00:36	0°♁	
desc. node	617 Oct 03 j 06:46	4°♁06'30			620 Jun 15 j 02:14	0°♁	
	617 Oct 24 j 03:40	0°♁			620 Jul 09 j 20:18	0°♁	
	617 Nov 17 j 10:15	0°♁		asc. node	620 Jul 11 j 05:07	1°♁40'07	
	617 Dec 11 j 22:11	0°♁			620 Aug 03 j 07:03	0°♁	
	618 Jan 05 j 22:23	0°♁		morning set	620 Aug 14 j 05:22	13°♁31'25	
asc. node	618 Jan 24 j 09:53	21°♁23'38			620 Aug 27 j 11:30	0°♁	
	618 Feb 01 j 02:31	0°♁		max. Earth dist.	620 Sep 17 j 15:32	26°♁26'48	1.71739 AU
evening max el	618 Feb 21 j 18:17	21°♁45'21	46°07'24		620 Sep 20 j 11:38	0°♄	
	618 Mar 02 j 09:26	0°♁					
greatest brilliancy	618 Mar 28 j 10:52	19°♁11'11	-4.5m	superior conj	620 Sep 20 j 14:04	0°♄07'38	1°16'41
retrograde	618 Apr 12 j 06:02	23°♁04'03		minimum elong	620 Sep 20 j 21:52	0°♄32'04	1°16'32
evening set	618 Apr 27 j 19:51	18°♁20'56			620 Oct 14 j 09:41	0°♁	
inferior conj	618 May 03 j 16:23	14°♁48'01	2°49'59	evening rise	620 Oct 30 j 08:35	20°♁01'26	
minimum elong	618 May 03 j 22:16	14°♁38'45	2°48'22	desc. node	620 Oct 30 j 18:44	20°♁33'18	
min. Earth dist.	618 May 03 j 20:27	14°♁41'37	0.28929 AU		620 Nov 07 j 07:21	0°♁	
morning rise	618 May 10 j 00:46	10°♁58'14			620 Dec 01 j 05:45	0°♁	
desc. node	618 May 15 j 23:19	8°♁12'13			620 Dec 25 j 06:09	0°♁	
direct	618 May 25 j 05:26	6°♁29'54			621 Jan 18 j 10:57	0°♁	
greatest brilliancy	618 Jun 07 j 13:11	9°♁35'45	-4.5m		621 Feb 12 j 00:20	0°♁	
	618 Jul 06 j 07:32	0°♁		asc. node	621 Feb 20 j 21:49	10°♁41'57	
morning max el	618 Jul 13 j 01:11	6°♁15'04	45°47'39		621 Mar 09 j 04:55	0°♁	
	618 Aug 05 j 05:50	0°♁			621 Apr 04 j 12:39	0°♁	
	618 Aug 31 j 22:36	0°♁			621 May 03 j 08:23	0°♁	
asc. node	618 Sep 06 j 02:45	6°♁01'58		evening max el	621 May 03 j 11:45	0°♁08'05	45°20'21
	618 Sep 26 j 05:31	0°♁		greatest brilliancy	621 Jun 07 j 10:57	26°♁29'36	-4.5m
	618 Oct 20 j 17:53	0°♄		desc. node	621 Jun 12 j 11:22	28°♁21'18	
	618 Nov 13 j 20:31	0°♁		retrograde	621 Jun 20 j 22:26	29°♁39'06	
	618 Dec 07 j 19:06	0°♁		evening set	621 Jul 06 j 21:23	24°♁50'01	
desc. node	618 Dec 26 j 16:18	23°♁41'45		inferior conj	621 Jul 12 j 08:38	21°♁32'36	-6°-17'-11
	618 Dec 31 j 16:56	0°♁		minimum elong	621 Jul 11 j 22:39	21°♁48'08	6°15'11
morning set	619 Jan 13 j 11:07	15°♁59'11		min. Earth dist.	621 Jul 12 j 11:14	21°♁28'35	0.28820 AU
	619 Jan 24 j 15:47	0°♁		morning rise	621 Jul 16 j 23:42	18°♁43'30	

direct	621 Aug 02 j 23:59	13°☿17'36			624 Feb 02 j 13:47	0°♄	
greatest brilliancy	621 Aug 17 j 07:02	16°☿52'55	-4.5m		624 Feb 26 j 18:22	0°♅	
	621 Sep 05 j 18:46	0°♁		asc. node	624 Mar 20 j 09:52	27°♅46'55	
morning max el	621 Sep 21 j 17:26	14°♁39'21	46°22'24		624 Mar 22 j 05:33	0°♄	
asc. node	621 Oct 03 j 14:41	26°♁54'26			624 Apr 16 j 01:52	0°♂	
	621 Oct 06 j 11:49	0°♅			624 May 11 j 11:00	0°☿	
	621 Nov 01 j 23:19	0°♂			624 Jun 06 j 16:50	0°♁	
	621 Nov 27 j 00:47	0°♂			624 Jul 04 j 16:51	0°♅	
	621 Dec 21 j 12:21	0°♄		desc. node	624 Jul 09 j 23:04	5°♅15'17	
	622 Jan 14 j 18:47	0°☿		evening max el	624 Jul 13 j 23:22	9°♅09'02	45°48'07
desc. node	622 Jan 23 j 04:04	10°☿23'21			624 Aug 07 j 20:13	0°♂	
	622 Feb 08 j 00:02	0°♂		greatest brilliancy	624 Aug 21 j 10:52	7°♂16'02	-4.6m
	622 Mar 04 j 05:50	0°♄		retrograde	624 Sep 01 j 01:19	9°♂18'10	
morning set	622 Mar 28 j 16:16	0°♅10'01		evening set	624 Sep 18 j 10:00	3°♂40'00	
	622 Mar 28 j 13:01	0°♅		inferior conj	624 Sep 21 j 23:21	1°♂32'05	-7°-57'-58
	622 Apr 21 j 21:49	0°♄		minimum elong	624 Sep 22 j 07:48	1°♂19'12	7°56'50
				min. Earth dist.	624 Sep 22 j 20:49	0°♂59'22	0.27445 AU
superior conj	622 May 04 j 23:52	16°♄04'55	0°-26'-25		624 Sep 24 j 12:03	30°♅	
minimum elong	622 May 05 j 05:12	16°♄21'16	0°26'11	morning rise	624 Sep 26 j 05:13	28°♅59'19	
max. Earth dist.	622 May 05 j 17:46	16°♄59'52	1.73543 AU	direct	624 Oct 12 j 21:02	23°♅36'56	
asc. node	622 May 16 j 07:34	29°♄59'16		greatest brilliancy	624 Oct 26 j 21:17	27°♅11'53	-4.6m
	622 May 16 j 07:48	0°♂		asc. node	624 Oct 31 j 02:24	29°♅26'58	
	622 Jun 09 j 18:13	0°☿			624 Nov 01 j 00:32	0°♂	
evening rise	622 Jun 10 j 08:12	0°☿42'58		morning max el	624 Dec 02 j 16:06	27°♂04'52	46°55'52
	622 Jul 04 j 04:41	0°♁			624 Dec 05 j 12:04	0°♂	
	622 Jul 28 j 15:48	0°♅			625 Jan 01 j 17:28	0°♄	
	622 Aug 22 j 05:00	0°♂			625 Jan 27 j 08:32	0°☿	
desc. node	622 Sep 04 j 20:53	16°♂36'50		desc. node	625 Feb 19 j 16:02	27°☿54'35	
	622 Sep 15 j 22:06	0°♂			625 Feb 21 j 09:40	0°♂	
	622 Oct 10 j 21:40	0°♄			625 Mar 18 j 05:07	0°♄	
	622 Nov 05 j 09:51	0°☿			625 Apr 11 j 22:06	0°♅	
	622 Dec 02 j 05:28	0°♂			625 May 06 j 13:39	0°♄	
evening max el	622 Dec 10 j 03:03	8°♂15'54	47°15'33		625 May 31 j 03:27	0°♂	
asc. node	622 Dec 27 j 00:08	24°♂20'23		morning set	625 Jun 04 j 23:38	5°♂55'24	
	623 Jan 02 j 22:11	0°♄		asc. node	625 Jun 12 j 19:20	15°♂30'28	
greatest brilliancy	623 Jan 16 j 12:39	8°♄36'32	-4.6m		625 Jun 24 j 14:37	0°☿	
retrograde	623 Jan 30 j 01:16	12°♄00'08		max. Earth dist.	625 Jul 08 j 05:35	16°☿46'36	1.73259 AU
evening set	623 Feb 16 j 23:27	5°♄45'59					
min. Earth dist.	623 Feb 19 j 11:27	4°♄12'05	0.28020 AU	superior conj	625 Jul 11 j 06:53	20°☿32'46	1°00'41
inferior conj	623 Feb 20 j 02:22	3°♄48'27	8°42'15	minimum elong	625 Jul 10 j 22:09	20°☿05'49	1°00'23
minimum elong	623 Feb 20 j 02:34	3°♄48'09	8°42'15		625 Jul 18 j 22:33	0°♁	
morning rise	623 Feb 23 j 05:54	1°♄50'28			625 Aug 12 j 03:42	0°♅	
	623 Feb 26 j 10:01	30°♅		evening rise	625 Aug 16 j 08:55	5°♅14'11	
direct	623 Mar 13 j 00:27	25°♅47'34			625 Sep 05 j 07:21	0°♂	
greatest brilliancy	623 Mar 23 j 23:09	27°♅58'41	-4.5m		625 Sep 29 j 10:56	0°♂	
	623 Mar 28 j 12:29	0°♄		desc. node	625 Oct 02 j 08:55	3°♂37'12	
desc. node	623 Apr 17 j 13:33	13°♄56'19			625 Oct 23 j 15:33	0°♄	
morning max el	623 May 01 j 01:10	26°♄09'42	45°55'03		625 Nov 16 j 22:36	0°☿	
	623 May 04 j 23:46	0°♅			625 Dec 11 j 11:12	0°♂	
	623 Jun 02 j 13:28	0°♄			626 Jan 05 j 12:39	0°♄	
	623 Jun 29 j 03:36	0°♂		asc. node	626 Jan 23 j 11:55	20°♄44'32	
	623 Jul 24 j 17:52	0°☿			626 Jan 31 j 19:32	0°♅	
asc. node	623 Aug 08 j 16:55	17°☿56'03		evening max el	626 Feb 19 j 10:12	19°♅31'44	46°09'59
	623 Aug 18 j 15:45	0°♁			626 Mar 02 j 12:08	0°♄	
	623 Sep 12 j 01:28	0°♅		greatest brilliancy	626 Mar 26 j 03:24	17°♄01'02	-4.5m
	623 Oct 06 j 03:03	0°♂		retrograde	626 Apr 09 j 23:11	20°♄54'12	
morning set	623 Oct 25 j 23:48	24°♂56'23		evening set	626 Apr 25 j 14:16	16°♄08'06	
	623 Oct 30 j 00:19	0°♂		inferior conj	626 May 01 j 08:45	12°♄37'47	3°08'39
	623 Nov 22 j 20:08	0°♄		minimum elong	626 May 01 j 15:12	12°♄27'39	3°06'53
desc. node	623 Nov 28 j 06:31	6°♄50'31		min. Earth dist.	626 May 01 j 12:25	12°♄32'01	0.28919 AU
				morning rise	626 May 07 j 16:19	8°♄49'25	
superior conj	623 Dec 05 j 23:53	16°♄33'57	0°-18'-17	desc. node	626 May 15 j 01:25	5°♄33'48	
minimum elong	623 Dec 05 j 19:00	16°♄18'36	0°18'03	direct	626 May 22 j 21:59	4°♄19'55	
max. Earth dist.	623 Dec 07 j 12:29	18°♄29'06	1.71053 AU	greatest brilliancy	626 Jun 05 j 03:47	7°♄24'27	-4.5m
	623 Dec 16 j 16:13	0°☿			626 Jul 06 j 08:38	0°♂	
	624 Jan 09 j 13:40	0°♂		morning max el	626 Jul 10 j 18:06	4°♂07'15	45°47'07
evening rise	624 Jan 16 j 14:49	8°♂49'30			626 Aug 04 j 22:14	0°☿	

	626 Aug 31 j 12:19	0°♈		evening max el	629 May 01 j 02:36	27°♊55'05	45°20'47
asc. node	626 Sep 05 j 04:57	5°♈29'09			629 May 03 j 07:08	0°♊	
	626 Sep 25 j 18:04	0°♎		greatest brilliancy	629 Jun 05 j 01:05	24°♊17'48	-4.5m
	626 Oct 20 j 05:51	0°♊		desc. node	629 Jun 11 j 13:19	26°♊34'57	
	626 Nov 13 j 08:11	0°♋		retrograde	629 Jun 18 j 13:33	27°♊29'09	
	626 Dec 07 j 06:34	0°♌		evening set	629 Jul 04 j 10:33	22°♊43'32	
desc. node	626 Dec 25 j 18:17	23°♌12'17		inferior conj	629 Jul 10 j 00:34	19°♊22'17	-6°-2'-59
	626 Dec 31 j 04:16	0°♍		minimum elong	629 Jul 09 j 14:36	19°♊37'47	6°00'54
morning set	627 Jan 10 j 20:56	13°♍24'22		min. Earth dist.	629 Jul 10 j 03:11	19°♊18'12	0.28840 AU
	627 Jan 24 j 02:59	0°♎		morning rise	629 Jul 14 j 18:23	16°♊28'54	
	627 Feb 17 j 03:43	0°♏		direct	629 Jul 31 j 15:41	11°♊06'52	
				greatest brilliancy	629 Aug 14 j 22:54	14°♊41'23	-4.5m
superior conj	627 Feb 20 j 18:56	4°♏31'33	-1°-25'-38		629 Sep 06 j 01:10	0°♈	
minimum elong	627 Feb 20 j 19:11	4°♏32'20	1°25'38	morning max el	629 Sep 19 j 07:13	12°♈20'15	46°21'00
max. Earth dist.	627 Feb 24 j 17:29	9°♏25'42	1.72230 AU	asc. node	629 Oct 02 j 16:42	26°♈11'01	
	627 Mar 13 j 07:17	0°♐			629 Oct 06 j 05:25	0°♐	
evening rise	627 Mar 31 j 20:42	22°♐56'01			629 Nov 01 j 13:37	0°♊	
	627 Apr 06 j 14:26	0°♑			629 Nov 26 j 13:41	0°♋	
asc. node	627 Apr 17 j 21:46	13°♑53'17			629 Dec 21 j 00:30	0°♌	
	627 May 01 j 01:36	0°♒			630 Jan 14 j 06:27	0°♍	
	627 May 25 j 17:06	0°♓		desc. node	630 Jan 22 j 06:11	9°♍54'13	
	627 Jun 19 j 13:54	0°♈			630 Feb 07 j 11:21	0°♎	
	627 Jul 14 j 18:31	0°♎			630 Mar 03 j 16:53	0°♏	
desc. node	627 Aug 07 j 11:00	27°♎38'56		morning set	630 Mar 26 j 07:48	27°♏56'27	
	627 Aug 09 j 12:04	0°♊			630 Mar 27 j 23:52	0°♐	
	627 Sep 05 j 05:54	0°♋			630 Apr 21 j 08:33	0°♑	
evening max el	627 Sep 26 j 12:13	22°♋13'52	47°00'50				
	627 Oct 04 j 13:54	0°♌		superior conj	630 May 02 j 17:16	13°♌58'10	0°-29'-28
greatest brilliancy	627 Nov 04 j 07:22	22°♌13'36	-4.7m	minimum elong	630 May 02 j 23:09	14°♌16'14	0°29'12
retrograde	627 Nov 15 j 21:39	24°♌43'39		max. Earth dist.	630 May 03 j 13:07	14°♌59'07	1.73519 AU
asc. node	627 Nov 28 j 14:15	21°♌27'36		asc. node	630 May 15 j 09:32	29°♌32'35	
evening set	627 Nov 30 j 04:09	20°♌38'51			630 May 15 j 18:28	0°♒	
inferior conj	627 Dec 06 j 09:27	17°♌00'04	2°00'46	evening rise	630 Jun 08 j 03:04	28°♒40'41	
minimum elong	627 Dec 06 j 04:57	17°♌06'56	1°59'20		630 Jun 09 j 04:55	0°♓	
min. Earth dist.	627 Dec 05 j 22:33	17°♌16'43	0.26405 AU		630 Jul 03 j 15:34	0°♈	
morning rise	627 Dec 12 j 06:10	13°♌34'21			630 Jul 28 j 03:01	0°♎	
direct	627 Dec 26 j 17:44	9°♌24'28			630 Aug 21 j 16:44	0°♊	
greatest brilliancy	628 Jan 07 j 02:33	11°♌50'40	-4.7m	desc. node	630 Sep 03 j 23:03	16°♊06'42	
	628 Feb 02 j 09:13	0°♍			630 Sep 15 j 10:34	0°♋	
morning max el	628 Feb 14 j 21:17	11°♍50'37	46°37'50		630 Oct 10 j 11:12	0°♌	
	628 Mar 03 j 08:13	0°♎			630 Nov 05 j 01:15	0°♍	
desc. node	628 Mar 19 j 03:58	17°♎26'16			630 Dec 02 j 01:15	0°♎	
	628 Mar 30 j 06:12	0°♏		evening max el	630 Dec 07 j 16:33	5°♎51'46	47°16'49
	628 Apr 25 j 03:27	0°♐		asc. node	630 Dec 26 j 02:09	23°♎15'36	
	628 May 20 j 12:37	0°♑			631 Jan 03 j 16:38	0°♏	
	628 Jun 14 j 13:40	0°♒		greatest brilliancy	631 Jan 14 j 05:05	6°♏19'01	-4.6m
	628 Jul 09 j 07:24	0°♓		retrograde	631 Jan 27 j 16:11	9°♏41'49	
asc. node	628 Jul 10 j 07:08	1°♓12'26		evening set	631 Feb 14 j 13:43	3°♏29'05	
	628 Aug 02 j 17:59	0°♈		min. Earth dist.	631 Feb 17 j 01:47	1°♏55'21	0.27966 AU
morning set	628 Aug 11 j 22:01	11°♈20'31		inferior conj	631 Feb 17 j 17:20	1°♏30'46	8°42'33
	628 Aug 26 j 22:22	0°♎		minimum elong	631 Feb 17 j 16:42	1°♏31'47	8°42'32
max. Earth dist.	628 Sep 15 j 01:36	23°♎54'03	1.71788 AU		631 Feb 20 j 03:13	30°♏	
				morning rise	631 Feb 20 j 19:52	29°♏34'26	
superior conj	628 Sep 18 j 04:54	27°♎49'43	1°18'07	direct	631 Mar 10 j 14:11	23°♏30'35	
minimum elong	628 Sep 18 j 12:07	28°♎12'18	1°17'59	greatest brilliancy	631 Mar 21 j 13:25	25°♏42'05	-4.5m
	628 Sep 19 j 22:31	0°♊			631 Mar 30 j 05:49	0°♏	
	628 Oct 13 j 20:40	0°♋		desc. node	631 Apr 16 j 15:37	12°♏56'37	
evening rise	628 Oct 27 j 19:51	17°♋31'26		morning max el	631 Apr 28 j 15:38	23°♏54'33	45°56'09
desc. node	628 Oct 29 j 20:47	20°♋04'59			631 May 04 j 20:36	0°♐	
	628 Nov 06 j 18:29	0°♌			631 Jun 02 j 04:40	0°♑	
	628 Nov 30 j 17:03	0°♍			631 Jun 28 j 16:36	0°♒	
	628 Dec 24 j 17:38	0°♎			631 Jul 24 j 05:47	0°♓	
	629 Jan 17 j 22:43	0°♏		asc. node	631 Aug 07 j 19:07	17°♓27'53	
	629 Feb 11 j 12:38	0°♐			631 Aug 18 j 03:05	0°♈	
asc. node	629 Feb 19 j 23:58	10°♐10'47			631 Sep 11 j 12:31	0°♎	
	629 Mar 08 j 18:15	0°♑			631 Oct 05 j 14:00	0°♊	
	629 Apr 04 j 04:20	0°♒		morning set	631 Oct 23 j 12:09	22°♊29'55	

	631 Oct 29 j 11:14	0°♌		retrograde	634 Apr 07 j 16:22	18°♏46'02	
	631 Nov 22 j 07:03	0°♍		evening set	634 Apr 23 j 09:03	13°♏57'09	
desc. node	631 Nov 27 j 08:32	6°♍22'30		inferior conj	634 Apr 29 j 01:21	10°♏29'27	3°26'54
				minimum elong	634 Apr 29 j 08:20	10°♏18'29	3°25'01
superior conj	631 Dec 03 j 09:31	13°♍58'54	0°-14'-20	min. Earth dist.	634 Apr 29 j 04:33	10°♏24'25	0.28907 AU
minimum elong	631 Dec 03 j 05:39	13°♍46'46	0°14'10	morning rise	634 May 05 j 07:53	6°♏42'32	
behind sun begin	631 Dec 02 j 16:08	13°♍04'11		desc. node	634 May 14 j 03:23	3°♏02'07	
behind sun end	631 Dec 03 j 19:11	14°♍29'20		direct	634 May 20 j 14:53	2°♏12'00	
max. Earth dist.	631 Dec 04 j 17:28	15°♍39'28	1.71042 AU	greatest brilliancy	634 Jun 02 j 17:30	5°♏13'41	-4.5m
	631 Dec 16 j 03:06	0°♎			634 Jul 06 j 08:02	0°♐	
evening rise	632 Jan 09 j 00:32	0°♎		morning max el	634 Jul 08 j 10:34	1°♐59'35	45°46'25
	632 Jan 14 j 01:30	6°♎18'46			634 Aug 04 j 14:00	0°♑	
	632 Feb 02 j 00:41	0°♏			634 Aug 31 j 01:37	0°♒	
asc. node	632 Feb 26 j 05:22	0°♑		asc. node	634 Sep 04 j 06:59	4°♒56'48	
	632 Mar 19 j 11:55	27°♑18'58			634 Sep 25 j 06:16	0°♓	
	632 Mar 21 j 16:49	0°♒			634 Oct 19 j 17:30	0°♓	
	632 Apr 15 j 13:38	0°♓			634 Nov 12 j 19:31	0°♌	
	632 May 10 j 23:47	0°♑			634 Dec 06 j 17:44	0°♍	
	632 Jun 06 j 07:42	0°♒		desc. node	634 Dec 24 j 20:23	22°♍44'02	
desc. node	632 Jul 04 j 12:57	0°♓			634 Dec 30 j 15:20	0°♎	
evening max el	632 Jul 09 j 01:14	4°♓27'26		morning set	635 Jan 08 j 06:42	10°♎50'04	
	632 Jul 11 j 13:27	6°♓52'44	45°46'05		635 Jan 23 j 13:57	0°♎	
	632 Aug 09 j 00:05	0°♓			635 Feb 16 j 14:34	0°♏	
greatest brilliancy	632 Aug 18 j 21:07	4°♓53'16	-4.5m				
retrograde	632 Aug 29 j 14:52	6°♓57'54		superior conj	635 Feb 18 j 07:29	2°♏07'26	-1°-25'-36
evening set	632 Sep 16 j 01:52	1°♓15'13		minimum elong	635 Feb 18 j 06:46	2°♏05'12	1°25'37
	632 Sep 18 j 04:22	30°♓		max. Earth dist.	635 Feb 22 j 09:15	7°♏11'46	1.72171 AU
inferior conj	632 Sep 19 j 12:46	29°♓10'45	-8°-6'-59		635 Mar 12 j 18:03	0°♑	
minimum elong	632 Sep 19 j 20:39	28°♓58'44	8°06'01	evening rise	635 Mar 29 j 11:56	20°♑41'53	
min. Earth dist.	632 Sep 20 j 09:43	28°♓38'50	0.27515 AU		635 Apr 06 j 01:11	0°♒	
morning rise	632 Sep 23 j 15:06	26°♓43'13		asc. node	635 Apr 16 j 23:46	13°♒26'18	
direct	632 Oct 10 j 11:45	21°♓14'34			635 Apr 30 j 12:28	0°♓	
greatest brilliancy	632 Oct 24 j 13:07	24°♓51'28	-4.6m		635 May 25 j 04:16	0°♑	
asc. node	632 Oct 30 j 04:26	27°♓58'30			635 Jun 19 j 01:38	0°♒	
	632 Nov 02 j 06:52	0°♓			635 Jul 14 j 07:12	0°♓	
morning max el	632 Nov 30 j 07:19	24°♓44'11	46°55'29	desc. node	635 Aug 06 j 13:05	27°♓04'13	
	632 Dec 05 j 09:02	0°♌			635 Aug 09 j 02:26	0°♓	
	633 Jan 01 j 09:12	0°♍			635 Sep 04 j 23:43	0°♌	
	633 Jan 26 j 22:07	0°♎		evening max el	635 Sep 24 j 01:53	19°♌50'34	46°58'33
desc. node	633 Feb 18 j 18:10	27°♎23'25			635 Oct 04 j 18:20	0°♍	
	633 Feb 20 j 22:05	0°♎		greatest brilliancy	635 Nov 01 j 22:24	19°♍47'10	-4.7m
	633 Mar 17 j 16:47	0°♏		retrograde	635 Nov 13 j 09:33	22°♍13'40	
	633 Apr 11 j 09:16	0°♑		evening set	635 Nov 27 j 16:07	18°♍10'06	
	633 May 06 j 00:28	0°♒		asc. node	635 Nov 27 j 16:18	18°♍09'52	
	633 May 30 j 14:05	0°♓		inferior conj	635 Dec 03 j 21:36	14°♍31'08	1°36'37
morning set	633 Jun 02 j 18:07	3°♓52'36		minimum elong	635 Dec 03 j 17:58	14°♍36'41	1°35'27
asc. node	633 Jun 11 j 21:25	15°♓04'22		min. Earth dist.	635 Dec 03 j 12:22	14°♍45'15	0.26387 AU
	633 Jun 24 j 01:09	0°♑		morning rise	635 Dec 09 j 20:08	11°♍02'44	
max. Earth dist.	633 Jul 06 j 03:16	14°♑52'55	1.73295 AU	direct	635 Dec 24 j 05:47	6°♍55'50	
				greatest brilliancy	636 Jan 04 j 16:37	9°♍23'40	-4.7m
superior conj	633 Jul 09 j 01:18	18°♑28'54	0°58'27		636 Feb 02 j 14:35	0°♎	
minimum elong	633 Jul 08 j 16:36	18°♑02'02	0°58'08	morning max el	636 Feb 12 j 09:18	9°♎23'20	46°39'10
	633 Jul 18 j 09:07	0°♒			636 Mar 03 j 02:12	0°♎	
	633 Aug 11 j 14:24	0°♓		desc. node	636 Mar 18 j 05:56	16°♎47'53	
evening rise	633 Aug 14 j 01:58	3°♓04'49			636 Mar 29 j 20:41	0°♏	
	633 Sep 04 j 18:15	0°♓			636 Apr 24 j 16:15	0°♑	
	633 Sep 28 j 22:08	0°♌			636 May 20 j 00:27	0°♒	
desc. node	633 Oct 01 j 10:54	3°♌08'30			636 Jun 14 j 00:56	0°♓	
	633 Oct 23 j 03:08	0°♍			636 Jul 08 j 18:20	0°♑	
	633 Nov 16 j 10:41	0°♎		asc. node	636 Jul 09 j 09:19	0°♑45'46	
	633 Dec 11 j 00:00	0°♎			636 Aug 02 j 04:46	0°♒	
	634 Jan 05 j 02:42	0°♏		morning set	636 Aug 09 j 14:52	9°♒10'42	
asc. node	634 Jan 22 j 14:08	20°♏06'40			636 Aug 26 j 09:09	0°♓	
	634 Jan 31 j 12:29	0°♑		max. Earth dist.	636 Sep 12 j 13:24	21°♓26'57	1.71845 AU
evening max el	634 Feb 17 j 02:34	17°♑20'23	46°12'39				
	634 Mar 02 j 15:51	0°♒		superior conj	636 Sep 15 j 19:54	25°♓32'30	1°19'24
greatest brilliancy	634 Mar 23 j 21:10	14°♒54'03	-4.5m	minimum elong	636 Sep 16 j 02:28	25°♓53'02	1°19'17

	636 Sep 19 j 09:23	0°♄			639 Mar 31 j 11:10	0°♁		
	636 Oct 13 j 07:39	0°♌		desc. node	639 Apr 15 j 17:41	11°♁57'10		
evening rise	636 Oct 25 j 07:05	15°♌01'25		morning max el	639 Apr 26 j 06:42	21°♁39'45	45°57'19	
desc. node	636 Oct 28 j 22:48	19°♌36'29			639 May 04 j 17:08	0°♍		
	636 Nov 06 j 05:37	0°♊			639 Jun 01 j 19:59	0°♌		
	636 Nov 30 j 04:21	0°♊			639 Jun 28 j 05:50	0°♌		
	636 Dec 24 j 05:07	0°♐			639 Jul 23 j 17:56	0°♍		
	637 Jan 17 j 10:31	0°♁		asc. node	639 Aug 06 j 21:07	16°♍58'17		
	637 Feb 11 j 01:00	0°♍			639 Aug 17 j 14:39	0°♌		
asc. node	637 Feb 19 j 01:58	9°♍38'59			639 Sep 10 j 23:48	0°♍		
	637 Mar 08 j 07:45	0°♌		greatest brilliancy	639 Sep 12 j 05:20	1°♍31'34	-3.9m	
	637 Apr 03 j 20:19	0°♌			639 Oct 05 j 01:10	0°♄		
evening max el	637 Apr 28 j 17:13	25°♌41'32	45°21'27	morning set	639 Oct 21 j 01:01	20°♄04'25		
	637 May 03 j 06:54	0°♍			639 Oct 28 j 22:24	0°♌		
greatest brilliancy	637 Jun 02 j 14:27	22°♍05'28	-4.5m		639 Nov 21 j 18:14	0°♊		
desc. node	637 Jun 10 j 15:29	24°♍45'19		desc. node	639 Nov 26 j 10:41	5°♊54'01		
retrograde	637 Jun 16 j 05:16	25°♍20'07						
evening set	637 Jul 02 j 00:01	20°♍37'27		superior conj	639 Nov 30 j 19:09	11°♊22'50	0°-10'-21	
inferior conj	637 Jul 07 j 16:41	17°♍12'44	-5°-48'-16	minimum elong	639 Nov 30 j 16:21	11°♊14'02	0°10'15	
minimum elong	637 Jul 07 j 06:48	17°♍28'06	5°46'08	behind sun begin	639 Nov 29 j 19:19	10°♊07'48		
min. Earth dist.	637 Jul 07 j 19:16	17°♍08'44	0.28859 AU	behind sun end	639 Dec 01 j 13:23	12°♊20'15		
morning rise	637 Jul 12 j 13:15	14°♍15'21		max. Earth dist.	639 Dec 02 j 01:25	12°♊58'07	1.71041 AU	
direct	637 Jul 29 j 07:22	8°♍56'50			639 Dec 15 j 14:19	0°♊		
greatest brilliancy	637 Aug 12 j 15:34	12°♍31'40	-4.5m		640 Jan 08 j 11:48	0°♐		
	637 Sep 06 j 05:24	0°♌		evening rise	640 Jan 11 j 11:46	3°♐45'21		
morning max el	637 Sep 16 j 21:48	10°♌03'27	46°19'27		640 Feb 01 j 12:00	0°♁		
asc. node	637 Oct 01 j 18:44	25°♌28'12			640 Feb 25 j 16:49	0°♍		
	637 Oct 05 j 22:40	0°♍		asc. node	640 Mar 18 j 13:55	26°♍49'31		
	637 Nov 01 j 03:53	0°♄			640 Mar 21 j 04:31	0°♌		
	637 Nov 26 j 02:41	0°♌			640 Apr 15 j 01:54	0°♌		
	637 Dec 20 j 12:48	0°♊			640 May 10 j 13:08	0°♍		
	638 Jan 13 j 18:17	0°♊			640 Jun 05 j 23:15	0°♌		
desc. node	638 Jan 21 j 08:21	9°♊24'36			640 Jul 04 j 10:15	0°♍		
	638 Feb 06 j 22:50	0°♐		desc. node	640 Jul 08 j 03:22	3°♍37'24		
	638 Mar 03 j 04:05	0°♁		evening max el	640 Jul 09 j 04:24	4°♍37'30	45°44'09	
morning set	638 Mar 23 j 22:57	25°♁41'05			640 Aug 10 j 16:43	0°♄		
	638 Mar 27 j 10:54	0°♍		greatest brilliancy	640 Aug 16 j 08:06	2°♄30'48	-4.5m	
	638 Apr 20 j 19:27	0°♌		retrograde	640 Aug 27 j 04:25	4°♄37'06		
					640 Sep 11 j 17:01	30°♌♍		
superior conj	638 Apr 30 j 10:34	11°♌50'30	0°-32'-29	evening set	640 Sep 13 j 17:45	28°♍50'34		
minimum elong	638 Apr 30 j 16:59	12°♌10'13	0°32'13	inferior conj	640 Sep 17 j 02:21	26°♍49'11	-8°-15'-3	
max. Earth dist.	638 May 01 j 07:38	12°♌55'13	1.73495 AU	minimum elong	640 Sep 17 j 09:36	26°♍38'07	8°14'16	
asc. node	638 May 14 j 11:39	29°♌05'44		min. Earth dist.	640 Sep 17 j 22:35	26°♍18'17	0.27578 AU	
	638 May 15 j 05:20	0°♌		morning rise	640 Sep 21 j 01:11	24°♍26'36		
evening rise	638 Jun 05 j 22:03	26°♌38'14		direct	640 Oct 08 j 02:41	18°♍52'18		
	638 Jun 08 j 15:49	0°♍		greatest brilliancy	640 Oct 22 j 03:35	22°♍28'59	-4.6m	
	638 Jul 03 j 02:37	0°♌		asc. node	640 Oct 29 j 06:31	26°♍32'41		
	638 Jul 27 j 14:25	0°♍			640 Nov 03 j 05:03	0°♄		
	638 Aug 21 j 04:39	0°♄		morning max el	640 Nov 27 j 22:08	22°♄21'56	46°54'54	
desc. node	638 Sep 03 j 01:03	15°♄35'39			640 Dec 05 j 05:35	0°♌		
	638 Sep 14 j 23:14	0°♌			641 Jan 01 j 01:01	0°♊		
	638 Oct 10 j 01:03	0°♊			641 Jan 26 j 11:59	0°♊		
	638 Nov 04 j 17:10	0°♊		desc. node	641 Feb 17 j 20:06	26°♊50'26		
	638 Dec 01 j 22:07	0°♐			641 Feb 20 j 10:52	0°♐		
evening max el	638 Dec 05 j 06:39	3°♐27'59	47°17'57		641 Mar 17 j 04:53	0°♁		
asc. node	638 Dec 25 j 04:22	22°♐08'03			641 Apr 10 j 20:53	0°♍		
	639 Jan 04 j 18:47	0°♁			641 May 05 j 11:44	0°♌		
greatest brilliancy	639 Jan 11 j 20:43	3°♁58'38	-4.7m		641 May 30 j 01:07	0°♌		
retrograde	639 Jan 25 j 07:23	7°♁21'29		morning set	641 May 31 j 12:17	1°♌47'34		
evening set	639 Feb 12 j 03:16	1°♁10'39		asc. node	641 Jun 10 j 23:32	14°♌37'08		
	639 Feb 14 j 00:49	30°♌♐			641 Jun 23 j 12:07	0°♍		
min. Earth dist.	639 Feb 14 j 15:30	29°♐36'55	0.27911 AU	max. Earth dist.	641 Jul 03 j 23:41	12°♍54'08	1.73329 AU	
inferior conj	639 Feb 15 j 08:00	29°♐10'54	8°41'51					
minimum elong	639 Feb 15 j 06:32	29°♐13'14	8°41'50	superior conj	641 Jul 06 j 19:34	16°♍23'22	0°56'08	
morning rise	639 Feb 18 j 10:00	27°♐15'41		minimum elong	641 Jul 06 j 10:57	15°♍56'46	0°55'49	
direct	639 Mar 08 j 03:52	21°♐11'29			641 Jul 17 j 20:07	0°♌		
greatest brilliancy	639 Mar 19 j 02:53	23°♐23'04	-4.5m		641 Aug 11 j 01:31	0°♍		

evening rise	641 Aug 11 j 19:05	0° \mathbb{M} 54'27			644 Mar 29 j 11:07	0° \mathbb{H}		
	641 Sep 04 j 05:35	0° \mathbb{L}			644 Apr 24 j 05:08	0° \mathbb{Y}		
	641 Sep 28 j 09:42	0° \mathbb{M}			644 May 19 j 12:28	0° \mathbb{B}		
desc. node	641 Sep 30 j 12:58	2° \mathbb{M} 38'55			644 Jun 13 j 12:26	0° \mathbb{H}		
	641 Oct 22 j 15:03	0° \mathbb{J}		asc. node	644 Jul 08 j 11:20	0° \mathbb{S} 17'43		
	641 Nov 15 j 23:04	0° \mathbb{Z}			644 Jul 08 j 05:32	0° \mathbb{S}		
	641 Dec 10 j 13:09	0° \approx			644 Aug 01 j 15:49	0° \mathbb{Q}		
	642 Jan 04 j 17:14	0° \mathbb{H}		morning set	644 Aug 07 j 07:34	6° \mathbb{Q} 59'41		
asc. node	642 Jan 21 j 16:05	19° \mathbb{H} 26'32			644 Aug 25 j 20:09	0° \mathbb{M}		
	642 Jan 31 j 06:14	0° \mathbb{Y}		max. Earth dist.	644 Sep 10 j 03:40	19° \mathbb{M} 06'57	1.71900 AU	
evening max el	642 Feb 14 j 18:32	15° \mathbb{Y} 06'21	46°15'03					
	642 Mar 02 j 22:18	0° \mathbb{B}		superior conj	644 Sep 13 j 10:50	23° \mathbb{M} 14'28	1°20'33	
greatest brilliancy	642 Mar 21 j 15:31	12° \mathbb{B} 45'43	-4.5m	minimum elong	644 Sep 13 j 16:43	23° \mathbb{M} 32'53	1°20'28	
retrograde	642 Apr 05 j 08:51	16° \mathbb{B} 35'25			644 Sep 18 j 20:26	0° \mathbb{L}		
evening set	642 Apr 21 j 03:43	11° \mathbb{B} 43'47			644 Oct 12 j 18:51	0° \mathbb{M}		
inferior conj	642 Apr 26 j 17:45	8° \mathbb{B} 18'53	3°44'56	evening rise	644 Oct 22 j 18:28	12° \mathbb{M} 31'19		
minimum elong	642 Apr 27 j 01:12	8° \mathbb{B} 07'08	3°42'58	desc. node	644 Oct 28 j 00:58	19° \mathbb{M} 07'54		
min. Earth dist.	642 Apr 26 j 20:46	8° \mathbb{B} 14'07	0.28894 AU		644 Nov 05 j 16:58	0° \mathbb{J}		
morning rise	642 May 02 j 23:00	4° \mathbb{B} 33'27			644 Nov 29 j 15:50	0° \mathbb{Z}		
desc. node	642 May 13 j 05:32	0° \mathbb{B} 32'26			644 Dec 23 j 16:47	0° \approx		
direct	642 May 18 j 07:20	0° \mathbb{B} 01'54			645 Jan 16 j 22:27	0° \mathbb{H}		
greatest brilliancy	642 May 31 j 06:46	3° \mathbb{B} 00'15	-4.5m		645 Feb 10 j 13:29	0° \mathbb{Y}		
morning max el	642 Jul 06 j 01:57	29° \mathbb{B} 47'45	45°45'50	asc. node	645 Feb 18 j 04:02	9° \mathbb{Y} 07'10		
	642 Jul 06 j 07:05	0° \mathbb{H}			645 Mar 07 j 21:23	0° \mathbb{B}		
	642 Aug 04 j 05:59	0° \mathbb{S}			645 Apr 03 j 12:36	0° \mathbb{H}		
	642 Aug 30 j 15:15	0° \mathbb{Q}		evening max el	645 Apr 26 j 08:13	23° \mathbb{H} 28'50	45°22'03	
asc. node	642 Sep 03 j 08:58	4° \mathbb{Q} 23'17			645 May 03 j 07:57	0° \mathbb{S}		
	642 Sep 24 j 18:49	0° \mathbb{M}		greatest brilliancy	645 May 31 j 02:49	19° \mathbb{S} 51'30	-4.5m	
	642 Oct 19 j 05:29	0° \mathbb{L}		desc. node	645 Jun 09 j 17:34	22° \mathbb{S} 51'00		
	642 Nov 12 j 07:10	0° \mathbb{M}		retrograde	645 Jun 13 j 21:22	23° \mathbb{S} 10'37		
	642 Dec 06 j 05:11	0° \mathbb{J}		evening set	645 Jun 29 j 13:34	18° \mathbb{S} 30'35		
desc. node	642 Dec 23 j 22:31	22° \mathbb{J} 15'08		inferior conj	645 Jul 05 j 08:46	15° \mathbb{S} 02'34	-5°-32'-59	
	642 Dec 30 j 02:38	0° \mathbb{Z}		minimum elong	645 Jul 04 j 23:00	15° \mathbb{S} 17'44	5°30'49	
morning set	643 Jan 05 j 16:50	8° \mathbb{Z} 16'07		min. Earth dist.	645 Jul 05 j 11:08	14° \mathbb{S} 58'54	0.28880 AU	
	643 Jan 23 j 01:09	0° \approx		morning rise	645 Jul 10 j 08:05	12° \mathbb{S} 01'21		
				direct	645 Jul 26 j 23:16	6° \mathbb{S} 46'09		
superior conj	643 Feb 15 j 20:10	29° \approx 42'51	-1°-25'-25	greatest brilliancy	645 Aug 10 j 08:47	10° \mathbb{S} 22'15	-4.5m	
minimum elong	643 Feb 15 j 18:29	29° \approx 37'38	1°25'26		645 Sep 06 j 08:12	0° \mathbb{Q}		
	643 Feb 16 j 01:40	0° \mathbb{H}		morning max el	645 Sep 14 j 13:22	7° \mathbb{Q} 48'49	46°17'58	
max. Earth dist.	643 Feb 20 j 01:10	4° \mathbb{H} 57'21	1.72116 AU	asc. node	645 Sep 30 j 20:55	24° \mathbb{Q} 45'51		
	643 Mar 12 j 05:06	0° \mathbb{Y}			645 Oct 05 j 15:42	0° \mathbb{M}		
evening rise	643 Mar 27 j 02:57	18° \mathbb{Y} 25'56			645 Oct 31 j 18:06	0° \mathbb{L}		
	643 Apr 05 j 12:17	0° \mathbb{B}			645 Nov 25 j 15:39	0° \mathbb{M}		
asc. node	643 Apr 16 j 01:53	12° \mathbb{B} 58'36			645 Dec 20 j 01:05	0° \mathbb{J}		
	643 Apr 29 j 23:43	0° \mathbb{H}			646 Jan 13 j 06:06	0° \mathbb{Z}		
	643 May 24 j 15:51	0° \mathbb{S}		desc. node	646 Jan 20 j 10:16	8° \mathbb{Z} 54'14		
	643 Jun 18 j 13:47	0° \mathbb{Q}			646 Feb 06 j 10:17	0° \approx		
	643 Jul 13 j 20:21	0° \mathbb{M}			646 Mar 02 j 15:15	0° \mathbb{H}		
desc. node	643 Aug 05 j 15:04	26° \mathbb{M} 27'52		morning set	646 Mar 21 j 14:20	23° \mathbb{H} 26'28		
	643 Aug 08 j 17:21	0° \mathbb{L}			646 Mar 26 j 21:50	0° \mathbb{Y}		
	643 Sep 04 j 18:21	0° \mathbb{M}			646 Apr 20 j 06:15	0° \mathbb{B}		
evening max el	643 Sep 21 j 14:37	17° \mathbb{M} 24'04	46°56'16					
	643 Oct 05 j 01:12	0° \mathbb{J}		superior conj	646 Apr 28 j 04:07	9° \mathbb{B} 43'50	0°-35'-26	
greatest brilliancy	643 Oct 30 j 13:53	17° \mathbb{J} 20'23	-4.7m	minimum elong	646 Apr 28 j 11:03	10° \mathbb{B} 05'10	0°35'09	
retrograde	643 Nov 10 j 21:15	19° \mathbb{J} 43'14		max. Earth dist.	646 Apr 29 j 04:00	10° \mathbb{B} 57'16	1.73472 AU	
evening set	643 Nov 25 j 04:21	15° \mathbb{J} 40'17		asc. node	646 May 13 j 13:48	28° \mathbb{B} 39'19		
asc. node	643 Nov 26 j 18:29	14° \mathbb{J} 47'50			646 May 14 j 16:05	0° \mathbb{H}		
inferior conj	643 Dec 01 j 09:48	12° \mathbb{J} 01'44	1°12'20	evening rise	646 Jun 03 j 17:16	24° \mathbb{H} 36'47		
minimum elong	643 Dec 01 j 07:04	12° \mathbb{J} 05'56	1°11'26		646 Jun 08 j 02:39	0° \mathbb{S}		
min. Earth dist.	643 Dec 01 j 02:33	12° \mathbb{J} 12'51	0.26369 AU		646 Jul 02 j 13:40	0° \mathbb{Q}		
morning rise	643 Dec 07 j 09:57	8° \mathbb{J} 30'58			646 Jul 27 j 01:49	0° \mathbb{M}		
direct	643 Dec 21 j 17:23	4° \mathbb{J} 26'30			646 Aug 20 j 16:36	0° \mathbb{L}		
greatest brilliancy	644 Jan 02 j 07:32	6° \mathbb{J} 57'10	-4.7m	desc. node	646 Sep 02 j 03:07	15° \mathbb{L} 04'43		
	644 Feb 02 j 18:16	0° \mathbb{Z}			646 Sep 14 j 11:58	0° \mathbb{M}		
morning max el	644 Feb 09 j 21:16	6° \mathbb{Z} 55'23	46°40'38		646 Oct 09 j 14:59	0° \mathbb{J}		
	644 Mar 02 j 19:52	0° \approx			646 Nov 04 j 09:17	0° \mathbb{Z}		
desc. node	644 Mar 17 j 08:04	16° \approx 09'58			646 Dec 01 j 19:37	0° \approx		

evening max el	646 Dec 02 j 21:41	1°06'50	47°19'02		649 Mar 16 j 16:38	0°✠	
asc. node	646 Dec 24 j 06:20	20°58'23			649 Apr 10 j 08:09	0°☿	
	647 Jan 06 j 07:40	0°✠			649 May 04 j 22:40	0°♄	
greatest brilliancy	647 Jan 09 j 12:12	1°✠38'16	-4.7m	morning set	649 May 29 j 06:50	29°♄44'45	
retrograde	647 Jan 22 j 23:04	5°✠01'09			649 May 29 j 11:49	0°♂	
	647 Feb 07 j 19:16	30°♁		asc. node	649 Jun 10 j 01:34	14°♂10'44	
evening set	647 Feb 09 j 16:25	28°52'50			649 Jun 22 j 22:42	0°♄	
min. Earth dist.	647 Feb 12 j 04:56	27°18'52	0.27850 AU	max. Earth dist.	649 Jul 01 j 19:31	10°♄54'48	1.73358 AU
inferior conj	647 Feb 12 j 22:37	26°51'03	8°40'23				
minimum elong	647 Feb 12 j 20:18	26°54'42	8°40'19	superior conj	649 Jul 04 j 14:20	14°♄20'39	0°53'47
morning rise	647 Feb 16 j 00:25	24°56'25		minimum elong	649 Jul 04 j 05:50	13°♄54'27	0°53'27
direct	647 Mar 05 j 17:56	18°52'36			649 Jul 17 j 06:44	0°♂	
greatest brilliancy	647 Mar 16 j 15:23	21°03'18	-4.6m	evening rise	649 Aug 09 j 12:44	28°♂47'01	
	647 Apr 01 j 08:14	0°✠			649 Aug 10 j 12:16	0°♁	
desc. node	647 Apr 14 j 19:47	10°✠59'42			649 Sep 03 j 16:33	0°♂	
morning max el	647 Apr 23 j 22:24	19°✠27'09	45°58'37		649 Sep 27 j 21:00	0°♁	
	647 May 04 j 12:46	0°☿		desc. node	649 Sep 29 j 15:09	2°♁10'34	
	647 Jun 01 j 10:48	0°♄			649 Oct 22 j 02:45	0°♄	
	647 Jun 27 j 18:41	0°♂			649 Nov 15 j 11:18	0°♄	
	647 Jul 23 j 05:49	0°♄			649 Dec 10 j 02:10	0°♁	
asc. node	647 Aug 05 j 23:10	16°♄29'30			650 Jan 04 j 07:40	0°✠	
	647 Aug 17 j 02:02	0°♂		asc. node	650 Jan 20 j 18:10	18°✠47'07	
	647 Sep 10 j 10:57	0°♁			650 Jan 31 j 00:04	0°☿	
greatest brilliancy	647 Sep 19 j 18:15	11°♁33'59	-3.9m	evening max el	650 Feb 12 j 09:35	12°☿50'44	46°17'34
	647 Oct 04 j 12:14	0°♂			650 Mar 03 j 06:43	0°♄	
morning set	647 Oct 18 j 13:50	17°♂39'14		greatest brilliancy	650 Mar 19 j 09:49	10°♄38'12	-4.5m
	647 Oct 28 j 09:26	0°♁		retrograde	650 Apr 03 j 01:03	14°♄26'00	
	647 Nov 21 j 05:15	0°♄		evening set	650 Apr 18 j 22:31	9°♄31'23	
desc. node	647 Nov 25 j 12:45	5°♄25'48		inferior conj	650 Apr 24 j 10:14	6°♄09'35	4°02'41
				minimum elong	650 Apr 24 j 18:06	5°♄57'08	4°00'39
superior conj	647 Nov 28 j 04:40	8°♄46'59	0°-6'-22	min. Earth dist.	650 Apr 24 j 13:21	6°♄04'40	0.28877 AU
minimum elong	647 Nov 28 j 02:57	8°♄41'33	0°06'18	morning rise	650 Apr 30 j 13:58	2°♄25'47	
behind sun begin	647 Nov 27 j 02:09	7°♄23'31			650 May 05 j 14:24	30°♁☿	
behind sun end	647 Nov 29 j 03:45	9°♄59'36		desc. node	650 May 12 j 07:38	28°☿08'40	
max. Earth dist.	647 Nov 29 j 10:23	10°♄20'30	1.71036 AU	direct	650 May 15 j 23:17	27°☿52'59	
	647 Dec 15 j 01:21	0°♄			650 May 26 j 20:02	0°♄	
	648 Jan 07 j 22:52	0°♁		greatest brilliancy	650 May 28 j 20:32	0°♄48'32	-4.5m
evening rise	648 Jan 08 j 21:54	1°12'10		morning max el	650 Jul 03 j 17:01	27°♄36'21	45°45'32
	648 Jan 31 j 23:08	0°✠			650 Jul 06 j 04:43	0°♂	
	648 Feb 25 j 04:04	0°☿			650 Aug 03 j 21:15	0°♄	
asc. node	648 Mar 17 j 16:06	26°☿21'16			650 Aug 30 j 04:17	0°♂	
	648 Mar 20 j 16:01	0°♄		asc. node	650 Sep 02 j 11:11	3°♂51'58	
	648 Apr 14 j 13:55	0°♂			650 Sep 24 j 06:51	0°♁	
	648 May 10 j 02:13	0°♄			650 Oct 18 j 17:01	0°♂	
	648 Jun 05 j 14:38	0°♂			650 Nov 11 j 18:28	0°♁	
	648 Jul 04 j 07:53	0°♁			650 Dec 05 j 16:20	0°♄	
evening max el	648 Jul 06 j 19:19	2°♁23'20	45°42'03	desc. node	650 Dec 23 j 00:30	21°♄46'34	
desc. node	648 Jul 07 j 05:18	2°♁47'08			650 Dec 29 j 13:42	0°♄	
	648 Aug 13 j 08:49	0°♂		morning set	651 Jan 03 j 02:24	5°♄41'01	
greatest brilliancy	648 Aug 13 j 19:53	0°♂10'25	-4.5m		651 Jan 22 j 12:06	0°♁	
retrograde	648 Aug 24 j 17:31	2°♂17'25					
	648 Sep 04 j 12:28	30°♁♁		superior conj	651 Feb 13 j 08:18	27°17'20	-1°-25'-5
evening set	648 Sep 11 j 09:27	26°♁27'38		minimum elong	651 Feb 13 j 05:38	27°09'02	1°25'04
inferior conj	648 Sep 14 j 16:03	24°♁28'51	-8°-22'-8		651 Feb 15 j 12:31	0°✠	
minimum elong	648 Sep 14 j 22:35	24°♁18'50	8°21'31	max. Earth dist.	651 Feb 17 j 14:02	2°✠34'16	1.72056 AU
min. Earth dist.	648 Sep 15 j 11:48	23°♁58'37	0.27645 AU		651 Mar 11 j 15:53	0°☿	
morning rise	648 Sep 18 j 11:30	22°♁10'52		evening rise	651 Mar 24 j 17:32	16°☿09'33	
direct	648 Oct 05 j 17:32	16°♁31'10			651 Apr 04 j 23:06	0°♄	
greatest brilliancy	648 Oct 19 j 17:50	20°♁06'53	-4.6m	asc. node	651 Apr 15 j 04:00	12°♄31'49	
asc. node	648 Oct 28 j 08:38	25°♁10'13			651 Apr 29 j 10:41	0°♂	
	648 Nov 03 j 21:16	0°♂			651 May 24 j 03:07	0°♄	
morning max el	648 Nov 25 j 12:15	19°♂58'20	46°54'16		651 Jun 18 j 01:37	0°♂	
	648 Dec 05 j 01:19	0°♁			651 Jul 13 j 09:09	0°♁	
	648 Dec 31 j 16:24	0°♄		desc. node	651 Aug 04 j 17:14	25°♁53'08	
	649 Jan 26 j 01:28	0°♄			651 Aug 08 j 07:57	0°♂	
desc. node	649 Feb 16 j 22:16	26°♄19'05			651 Sep 04 j 12:53	0°♁	
	649 Feb 19 j 23:18	0°♁		evening max el	651 Sep 19 j 02:50	14°♁58'06	46°53'57

	651 Oct 05 j 09:48	0°♊		superior conj	654 Apr 25 j 21:04	7°♊35'25	0°-38'-24
greatest brilliancy	651 Oct 28 j 04:23	14°♊53'58	-4.7m	minimum elong	654 Apr 26 j 04:29	7°♊58'15	0°38'05
retrograde	651 Nov 08 j 09:00	17°♊14'25		max. Earth dist.	654 Apr 27 j 00:40	9°♊00'17	1.73447 AU
evening set	651 Nov 22 j 16:47	13°♊11'12		asc. node	654 May 12 j 15:46	28°♊12'30	
asc. node	651 Nov 25 j 20:28	11°♊24'36			654 May 14 j 02:47	0°♊	
inferior conj	651 Nov 28 j 22:03	9°♊33'32	0°47'52	evening rise	654 Jun 01 j 11:59	22°♊34'03	
minimum elong	651 Nov 28 j 20:14	9°♊36'19	0°47'16		654 Jun 07 j 13:24	0°♊	
min. Earth dist.	651 Nov 28 j 16:43	9°♊41'40	0.26367 AU		654 Jul 02 j 00:38	0°♊	
morning rise	651 Dec 04 j 23:41	6°♊00'45			654 Jul 26 j 13:10	0°♊	
direct	651 Dec 19 j 05:03	1°♊57'52			654 Aug 20 j 04:30	0°♊	
greatest brilliancy	651 Dec 30 j 23:17	4°♊32'26	-4.7m	desc. node	654 Sep 01 j 05:15	14°♊34'13	
	652 Feb 02 j 20:11	0°♊			654 Sep 14 j 00:40	0°♊	
morning max el	652 Feb 07 j 10:14	4°♊30'12	46°41'59		654 Oct 09 j 04:54	0°♊	
	652 Mar 02 j 13:01	0°♊			654 Nov 04 j 01:28	0°♊	
desc. node	652 Mar 16 j 10:12	15°♊32'47		evening max el	654 Nov 30 j 13:37	28°♊48'41	47°20'02
	652 Mar 29 j 01:14	0°♊			654 Dec 01 j 17:39	0°♊	
	652 Apr 23 j 17:43	0°♊		asc. node	654 Dec 23 j 08:24	19°♊47'37	
	652 May 19 j 00:11	0°♊		greatest brilliancy	655 Jan 07 j 03:51	29°♊18'47	-4.7m
	652 Jun 12 j 23:37	0°♊			655 Jan 08 j 16:39	0°♊	
asc. node	652 Jul 07 j 13:22	29°♊50'43		retrograde	655 Jan 20 j 14:43	2°♊41'05	
	652 Jul 07 j 16:25	0°♊			655 Jan 31 j 23:18	30°♊	
	652 Aug 01 j 02:32	0°♊		evening set	655 Feb 07 j 05:13	26°♊35'59	
morning set	652 Aug 05 j 00:34	4°♊50'37		min. Earth dist.	655 Feb 09 j 18:15	25°♊01'18	0.27793 AU
	652 Aug 25 j 06:49	0°♊		inferior conj	655 Feb 10 j 13:13	24°♊31'30	8°38'01
max. Earth dist.	652 Sep 07 j 19:36	16°♊53'15	1.71950 AU	minimum elong	655 Feb 10 j 10:06	24°♊36'23	8°37'52
				morning rise	655 Feb 13 j 15:15	22°♊36'41	
superior conj	652 Sep 11 j 02:16	20°♊59'08	1°21'32	direct	655 Mar 03 j 08:28	16°♊34'08	
minimum elong	652 Sep 11 j 07:28	21°♊15'23	1°21'29	greatest brilliancy	655 Mar 14 j 03:12	18°♊42'54	-4.6m
	652 Sep 18 j 07:10	0°♊			655 Apr 01 j 23:50	0°♊	
	652 Oct 12 j 05:41	0°♊		desc. node	655 Apr 13 j 21:51	10°♊03'21	
evening rise	652 Oct 20 j 06:30	10°♊04'26		morning max el	655 Apr 21 j 13:57	17°♊14'02	45°59'39
desc. node	652 Oct 27 j 03:00	18°♊40'02			655 May 04 j 07:54	0°♊	
	652 Nov 05 j 03:58	0°♊			655 Jun 01 j 01:32	0°♊	
	652 Nov 29 j 03:01	0°♊			655 Jun 27 j 07:33	0°♊	
	652 Dec 23 j 04:11	0°♊			655 Jul 22 j 17:43	0°♊	
	653 Jan 16 j 10:13	0°♊		asc. node	655 Aug 05 j 01:21	16°♊01'01	
	653 Feb 10 j 01:53	0°♊			655 Aug 16 j 13:25	0°♊	
asc. node	653 Feb 17 j 06:12	8°♊35'51			655 Sep 09 j 22:06	0°♊	
	653 Mar 07 j 11:00	0°♊		greatest brilliancy	655 Sep 22 j 23:42	16°♊15'44	-3.9m
	653 Apr 03 j 05:04	0°♊			655 Oct 03 j 23:17	0°♊	
evening max el	653 Apr 23 j 23:58	21°♊18'21	45°22'57	morning set	655 Oct 16 j 02:43	15°♊14'18	
	653 May 03 j 10:12	0°♊			655 Oct 27 j 20:28	0°♊	
greatest brilliancy	653 May 28 j 15:21	17°♊38'18	-4.5m		655 Nov 20 j 16:17	0°♊	
desc. node	653 Jun 08 j 19:31	20°♊52'48		desc. node	655 Nov 24 j 14:45	4°♊57'20	
retrograde	653 Jun 11 j 13:44	21°♊01'32					
evening set	653 Jun 27 j 03:18	16°♊23'59		superior conj	655 Nov 25 j 14:30	6°♊12'05	0°-2'-22
inferior conj	653 Jul 03 j 00:45	12°♊52'48	-5°-17'-21	minimum elong	655 Nov 25 j 13:51	6°♊10'01	0°02'21
minimum elong	653 Jul 02 j 15:11	13°♊07'39	5°15'08	behind sun begin	655 Nov 24 j 11:31	4°♊47'10	
min. Earth dist.	653 Jul 03 j 02:38	12°♊49'52	0.28896 AU	behind sun end	655 Nov 26 j 16:10	7°♊32'53	
morning rise	653 Jul 08 j 02:48	9°♊47'55		max. Earth dist.	655 Nov 26 j 17:22	7°♊36'39	1.71029 AU
direct	653 Jul 24 j 15:39	4°♊36'00			655 Dec 14 j 12:23	0°♊	
greatest brilliancy	653 Aug 08 j 01:22	8°♊12'46	-4.5m	evening rise	656 Jan 06 j 08:15	28°♊39'35	
	653 Sep 06 j 09:17	0°♊			656 Jan 07 j 09:55	0°♊	
morning max el	653 Sep 12 j 05:44	5°♊37'11	46°16'35		656 Jan 31 j 10:14	0°♊	
asc. node	653 Sep 29 j 22:56	24°♊04'22			656 Feb 24 j 15:18	0°♊	
	653 Oct 05 j 08:07	0°♊		asc. node	656 Mar 16 j 18:08	25°♊52'34	
	653 Oct 31 j 07:53	0°♊			656 Mar 20 j 03:33	0°♊	
	653 Nov 25 j 04:15	0°♊			656 Apr 14 j 02:04	0°♊	
	653 Dec 19 j 13:01	0°♊			656 May 09 j 15:34	0°♊	
	654 Jan 12 j 17:37	0°♊			656 Jun 05 j 06:29	0°♊	
desc. node	654 Jan 19 j 12:25	8°♊25'25			656 Jul 04 j 06:40	0°♊	
	654 Feb 05 j 21:30	0°♊		evening max el	656 Jul 04 j 09:35	0°♊07'00	45°40'04
	654 Mar 02 j 02:16	0°♊		desc. node	656 Jul 06 j 07:30	1°♊55'53	
morning set	654 Mar 19 j 05:13	21°♊10'33		greatest brilliancy	656 Aug 11 j 08:26	27°♊50'27	-4.5m
	654 Mar 26 j 08:42	0°♊		retrograde	656 Aug 22 j 06:09	29°♊57'29	
	654 Apr 19 j 17:00	0°♊		evening set	656 Sep 09 j 00:55	24°♊04'54	
				inferior conj	656 Sep 12 j 05:48	22°♊08'26	-8°-28'-24

minimum elong	656 Sep 12 j 11:35	21° \mathbb{M} 59'34	8°27'55	max. Earth dist.	659 Feb 14 j 23:56	0° \mathbb{X} 00'58	1.71997 AU
min. Earth dist.	656 Sep 13 j 01:20	21° \mathbb{M} 38'29	0.27708 AU		659 Mar 11 j 02:57	0° \mathbb{Y}	
morning rise	656 Sep 15 j 22:01	19° \mathbb{M} 54'50		evening rise	659 Mar 22 j 08:06	13° \mathbb{Y} 52'10	
direct	656 Oct 03 j 07:53	14° \mathbb{M} 09'52			659 Apr 04 j 10:11	0° \mathbb{Z}	
greatest brilliancy	656 Oct 17 j 08:32	17° \mathbb{M} 45'07	-4.6m	asc. node	659 Apr 14 j 06:00	12° \mathbb{Z} 03'54	
asc. node	656 Oct 27 j 10:40	23° \mathbb{M} 49'53			659 Apr 28 j 21:55	0° \mathbb{I}	
	656 Nov 04 j 09:32	0° \mathbb{A}			659 May 23 j 14:41	0° \mathbb{B}	
morning max el	656 Nov 23 j 01:25	17° \mathbb{A} 32'01	46°53'36		659 Jun 17 j 13:48	0° \mathbb{C}	
	656 Dec 04 j 20:36	0° \mathbb{M}			659 Jul 12 j 22:25	0° \mathbb{D}	
	656 Dec 31 j 07:40	0° \mathbb{N}		desc. node	659 Aug 03 j 19:18	25° \mathbb{D} 16'33	
	657 Jan 25 j 14:57	0° \mathbb{O}			659 Aug 07 j 23:13	0° \mathbb{E}	
desc. node	657 Feb 16 j 00:22	25° \mathbb{O} 47'21			659 Sep 04 j 08:31	0° \mathbb{F}	
	657 Feb 19 j 11:46	0° \mathbb{P}		evening max el	659 Sep 16 j 15:18	12° \mathbb{F} 31'26	46°51'38
	657 Mar 16 j 04:27	0° \mathbb{Q}			659 Oct 05 j 22:12	0° \mathbb{R}	
	657 Apr 09 j 19:30	0° \mathbb{Y}		greatest brilliancy	659 Oct 25 j 17:56	12° \mathbb{R} 24'52	-4.7m
	657 May 04 j 09:42	0° \mathbb{S}		retrograde	659 Nov 05 j 21:02	14° \mathbb{R} 44'02	
morning set	657 May 27 j 01:12	27° \mathbb{S} 40'48		evening set	659 Nov 20 j 05:16	10° \mathbb{S} 39'59	
	657 May 28 j 22:42	0° \mathbb{I}		asc. node	659 Nov 24 j 22:33	7° \mathbb{S} 57'29	
asc. node	657 Jun 09 j 03:39	13° \mathbb{I} 43'52		inferior conj	659 Nov 26 j 10:05	7° \mathbb{S} 03'33	0°23'08
	657 Jun 22 j 09:32	0° \mathbb{B}		minimum elong	659 Nov 26 j 09:12	7° \mathbb{S} 04'54	0°22'50
max. Earth dist.	657 Jun 29 j 13:56	8° \mathbb{B} 50'22	1.73391 AU	min. Earth dist.	659 Nov 26 j 06:28	7° \mathbb{S} 09'05	0.26364 AU
				morning rise	659 Dec 02 j 13:04	3° \mathbb{S} 29'18	
superior conj	657 Jul 02 j 08:51	12° \mathbb{B} 16'26	0°51'20		659 Dec 11 j 14:23	30° \mathbb{R} \mathbb{M}	
minimum elong	657 Jul 02 j 00:30	11° \mathbb{B} 50'45	0°50'59	direct	659 Dec 16 j 17:01	29° \mathbb{M} 27'29	
	657 Jul 16 j 17:36	0° \mathbb{C}			659 Dec 21 j 22:50	0° \mathbb{S}	
evening rise	657 Aug 07 j 06:06	26° \mathbb{C} 38'02		greatest brilliancy	659 Dec 28 j 14:31	2° \mathbb{S} 05'52	-4.7m
	657 Aug 09 j 23:16	0° \mathbb{D}			660 Feb 02 j 21:11	0° \mathbb{Z}	
	657 Sep 03 j 03:46	0° \mathbb{A}		morning max el	660 Feb 04 j 23:58	2° \mathbb{Z} 05'56	46°43'19
	657 Sep 27 j 08:31	0° \mathbb{M}			660 Mar 02 j 06:08	0° \mathbb{P}	
desc. node	657 Sep 28 j 17:07	1° \mathbb{M} 40'55		desc. node	660 Mar 15 j 12:10	14° \mathbb{P} 54'34	
	657 Oct 21 j 14:41	0° \mathbb{N}			660 Mar 28 j 15:30	0° \mathbb{Q}	
	657 Nov 14 j 23:48	0° \mathbb{O}			660 Apr 23 j 06:33	0° \mathbb{Y}	
	657 Dec 09 j 15:29	0° \mathbb{P}			660 May 18 j 12:10	0° \mathbb{S}	
asc. node	658 Jan 03 j 22:29	0° \mathbb{Q}			660 Jun 12 j 11:05	0° \mathbb{I}	
	658 Jan 19 j 20:22	18° \mathbb{Q} 06'58		asc. node	660 Jul 06 j 15:35	29° \mathbb{I} 23'21	
	658 Jan 30 j 18:34	0° \mathbb{Y}			660 Jul 07 j 03:35	0° \mathbb{B}	
evening max el	658 Feb 09 j 23:53	10° \mathbb{Y} 32'31	46°20'12		660 Jul 31 j 13:33	0° \mathbb{C}	
	658 Mar 03 j 18:27	0° \mathbb{S}		morning set	660 Aug 02 j 17:42	2° \mathbb{C} 41'04	
greatest brilliancy	658 Mar 17 j 03:08	8° \mathbb{S} 28'48	-4.5m		660 Aug 24 j 17:51	0° \mathbb{D}	
retrograde	658 Mar 31 j 17:13	12° \mathbb{S} 16'17		max. Earth dist.	660 Sep 05 j 11:08	14° \mathbb{D} 37'09	1.72006 AU
evening set	658 Apr 16 j 17:24	7° \mathbb{S} 18'17					
inferior conj	658 Apr 22 j 02:46	3° \mathbb{S} 59'56	4°20'01	superior conj	660 Sep 08 j 17:38	18° \mathbb{D} 42'24	1°22'25
minimum elong	658 Apr 22 j 11:02	3° \mathbb{S} 46'51	4°17'55	minimum elong	660 Sep 08 j 22:06	18° \mathbb{D} 56'23	1°22'21
min. Earth dist.	658 Apr 22 j 06:08	3° \mathbb{S} 54'37	0.28863 AU		660 Sep 17 j 18:18	0° \mathbb{A}	
morning rise	658 Apr 28 j 04:52	0° \mathbb{S} 18'02			660 Oct 11 j 16:58	0° \mathbb{M}	
	658 Apr 28 j 17:57	30° \mathbb{R} \mathbb{Y}		evening rise	660 Oct 17 j 18:13	7° \mathbb{M} 35'15	
desc. node	658 May 11 j 09:35	25° \mathbb{Y} 49'14		desc. node	660 Oct 26 j 05:02	18° \mathbb{M} 10'50	
direct	658 May 13 j 14:52	25° \mathbb{Y} 43'28			660 Nov 04 j 15:24	0° \mathbb{N}	
greatest brilliancy	658 May 26 j 11:11	28° \mathbb{Y} 37'21	-4.5m		660 Nov 28 j 14:36	0° \mathbb{O}	
	658 May 29 j 10:22	0° \mathbb{S}			660 Dec 22 j 15:59	0° \mathbb{P}	
morning max el	658 Jul 01 j 08:09	25° \mathbb{S} 24'16	45°45'07		661 Jan 15 j 22:22	0° \mathbb{Q}	
	658 Jul 06 j 01:53	0° \mathbb{I}			661 Feb 09 j 14:41	0° \mathbb{Y}	
	658 Aug 03 j 12:40	0° \mathbb{B}		asc. node	661 Feb 16 j 08:11	8° \mathbb{Y} 02'57	
	658 Aug 29 j 17:38	0° \mathbb{C}			661 Mar 07 j 01:05	0° \mathbb{S}	
asc. node	658 Sep 01 j 13:12	3° \mathbb{C} 18'59			661 Apr 02 j 22:10	0° \mathbb{I}	
	658 Sep 23 j 19:13	0° \mathbb{D}		evening max el	661 Apr 21 j 16:36	19° \mathbb{I} 09'13	45°23'55
	658 Oct 18 j 04:52	0° \mathbb{A}			661 May 03 j 14:25	0° \mathbb{B}	
	658 Nov 11 j 06:02	0° \mathbb{M}		greatest brilliancy	661 May 26 j 05:14	15° \mathbb{B} 26'22	-4.5m
	658 Dec 05 j 03:45	0° \mathbb{N}		desc. node	661 Jun 07 j 21:43	18° \mathbb{B} 49'59	
desc. node	658 Dec 22 j 02:37	21° \mathbb{N} 17'37		retrograde	661 Jun 09 j 06:21	18° \mathbb{B} 52'07	
	658 Dec 29 j 01:01	0° \mathbb{O}		evening set	661 Jun 24 j 17:26	14° \mathbb{O} 17'11	
morning set	658 Dec 31 j 11:50	3° \mathbb{O} 04'37		inferior conj	661 Jun 30 j 16:56	10° \mathbb{O} 42'49	-5°-1'-16
	659 Jan 21 j 23:19	0° \mathbb{P}		minimum elong	661 Jun 30 j 07:37	10° \mathbb{O} 57'17	4°59'03
				min. Earth dist.	661 Jun 30 j 18:10	10° \mathbb{O} 40'53	0.28910 AU
superior conj	659 Feb 10 j 20:23	24° \mathbb{P} 50'40	-1°-24'-34	morning rise	661 Jul 05 j 21:37	7° \mathbb{O} 34'18	
minimum elong	659 Feb 10 j 16:44	24° \mathbb{P} 39'16	1°24'33	direct	661 Jul 22 j 08:33	2° \mathbb{O} 25'57	
	659 Feb 14 j 23:38	0° \mathbb{Q}		greatest brilliancy	661 Aug 05 j 16:49	6° \mathbb{O} 01'37	-4.5m

	661 Sep 06 j 09:27	0°♈			664 Jan 06 j 21:11	0°♊		
morning max el	661 Sep 09 j 21:59	3°♈24'45	46°14'55		664 Jan 30 j 21:33	0°♋		
asc. node	661 Sep 29 j 01:00	23°♈22'34			664 Feb 24 j 02:43	0°♌		
	661 Oct 05 j 00:35	0°♍		asc. node	664 Mar 15 j 20:09	25°♌23'13		
	661 Oct 30 j 21:56	0°♎			664 Mar 19 j 15:16	0°♏		
	661 Nov 24 j 17:12	0°♐			664 Apr 13 j 14:23	0°♑		
	661 Dec 19 j 01:21	0°♒			664 May 09 j 05:06	0°♓		
	662 Jan 12 j 05:30	0°♈			664 Jun 04 j 22:39	0°♈		
desc. node	662 Jan 18 j 14:35	7°♈55'28		evening max el	664 Jul 01 j 23:10	27°♈49'06	45°38'12	
	662 Feb 05 j 09:03	0°♉			664 Jul 04 j 06:26	0°♊		
	662 Mar 01 j 13:34	0°♋		desc. node	664 Jul 05 j 09:34	1°♊03'20		
morning set	662 Mar 16 j 19:58	18°♋53'20		greatest brilliancy	664 Aug 08 j 21:11	25°♊31'19	-4.5m	
	662 Mar 25 j 19:48	0°♌		retrograde	664 Aug 19 j 18:56	27°♊38'48		
	662 Apr 19 j 03:59	0°♍		evening set	664 Sep 06 j 16:19	21°♊43'38		
				inferior conj	664 Sep 09 j 19:50	19°♊49'11	-8°-33'-39	
superior conj	662 Apr 23 j 14:02	5°♍26'13	0°-41'-18	minimum elong	664 Sep 10 j 00:51	19°♊41'30	8°33'18	
minimum elong	662 Apr 23 j 21:53	5°♍50'25	0°40'59	min. Earth dist.	664 Sep 10 j 15:19	19°♊19'17	0.27770 AU	
max. Earth dist.	662 Apr 24 j 22:56	7°♍07'27	1.73419 AU	morning rise	664 Sep 13 j 09:07	17°♊39'41		
asc. node	662 May 11 j 17:54	27°♍45'28		direct	664 Sep 30 j 22:04	11°♊49'35		
	662 May 13 j 13:44	0°♎		greatest brilliancy	664 Oct 15 j 00:20	15°♊25'41	-4.6m	
evening rise	662 May 30 j 06:53	20°♎31'04		asc. node	664 Oct 26 j 12:45	22°♊32'39		
	662 Jun 07 j 00:25	0°♏			664 Nov 04 j 18:24	0°♋		
	662 Jul 01 j 11:51	0°♐		morning max el	664 Nov 20 j 14:25	15°♋05'38	46°52'56	
	662 Jul 26 j 00:44	0°♑			664 Dec 04 j 15:15	0°♌		
	662 Aug 19 j 16:38	0°♒			664 Dec 30 j 22:41	0°♍		
desc. node	662 Aug 31 j 07:15	14°♒02'35			665 Jan 25 j 04:20	0°♎		
	662 Sep 13 j 13:39	0°♐		desc. node	665 Feb 15 j 02:19	25°♐15'10		
	662 Oct 08 j 19:14	0°♒			665 Feb 19 j 00:14	0°♉		
	662 Nov 03 j 18:18	0°♈			665 Mar 15 j 16:17	0°♋		
evening max el	662 Nov 28 j 05:39	26°♈29'16	47°20'40		665 Apr 09 j 06:52	0°♌		
	662 Dec 01 j 17:09	0°♉			665 May 03 j 20:44	0°♍		
asc. node	662 Dec 22 j 10:35	18°♉33'19		morning set	665 May 24 j 19:21	25°♍36'15		
greatest brilliancy	663 Jan 04 j 20:29	26°♉58'36	-4.7m		665 May 28 j 09:31	0°♎		
	663 Jan 14 j 07:42	0°♋		asc. node	665 Jun 08 j 05:46	13°♎17'20		
retrograde	663 Jan 18 j 05:51	0°♋18'34			665 Jun 21 j 20:17	0°♏		
	663 Jan 22 j 02:08	30°♌00'00		max. Earth dist.	665 Jun 27 j 09:39	6°♏50'17	1.73423 AU	
evening set	663 Feb 04 j 17:23	24°♌17'41						
min. Earth dist.	663 Feb 07 j 07:33	22°♌41'15	0.27727 AU	superior conj	665 Jun 30 j 03:21	10°♏12'33	0°48'48	
inferior conj	663 Feb 08 j 03:31	22°♌09'52	8°34'42	minimum elong	665 Jun 29 j 19:13	9°♏47'29	0°48'29	
minimum elong	663 Feb 07 j 23:37	22°♌16'01	8°34'29		665 Jul 16 j 04:24	0°♐		
morning rise	663 Feb 11 j 06:08	20°♌14'13		evening rise	665 Aug 04 j 23:48	24°♐30'28		
direct	663 Feb 28 j 22:39	14°♌13'54			665 Aug 09 j 10:12	0°♑		
greatest brilliancy	663 Mar 11 j 14:34	16°♌20'20	-4.6m		665 Sep 02 j 14:55	0°♒		
	663 Apr 02 j 11:57	0°♍			665 Sep 26 j 19:57	0°♓		
desc. node	663 Apr 12 j 23:55	9°♍07'23		desc. node	665 Sep 27 j 19:11	1°♓11'53		
morning max el	663 Apr 19 j 04:27	14°♍57'32	46°00'50		665 Oct 21 j 02:31	0°♈		
	663 May 04 j 02:44	0°♎			665 Nov 14 j 12:10	0°♉		
	663 May 31 j 16:14	0°♏			665 Dec 09 j 04:41	0°♊		
	663 Jun 26 j 20:28	0°♐			666 Jan 03 j 13:18	0°♋		
	663 Jul 22 j 05:42	0°♑		asc. node	666 Jan 18 j 22:18	17°♋26'02		
asc. node	663 Aug 04 j 03:20	15°♑31'38			666 Jan 30 j 13:25	0°♌		
	663 Aug 16 j 00:54	0°♒		evening max el	666 Feb 07 j 13:57	8°♌13'53	46°22'42	
	663 Sep 09 j 09:19	0°♓			666 Mar 04 j 10:12	0°♍		
greatest brilliancy	663 Sep 25 j 11:39	20°♓03'05	-3.9m	greatest brilliancy	666 Mar 14 j 19:34	6°♍18'03	-4.5m	
	663 Oct 03 j 10:25	0°♈		retrograde	666 Mar 29 j 09:31	10°♍06'25		
morning set	663 Oct 13 j 16:02	12°♈50'32		evening set	666 Apr 14 j 12:14	5°♍04'35		
	663 Oct 27 j 07:35	0°♉		inferior conj	666 Apr 19 j 19:12	1°♍49'58	4°37'02	
	663 Nov 20 j 03:26	0°♋		minimum elong	666 Apr 20 j 03:49	1°♍36'20	4°34'54	
				min. Earth dist.	666 Apr 19 j 22:43	1°♍44'24	0.28849 AU	
superior conj	663 Nov 23 j 00:31	3°♋37'27	0°01'39		666 Apr 22 j 17:22	30°♌00'00		
minimum elong	663 Nov 23 j 00:57	3°♋38'48	0°01'38	morning rise	666 Apr 25 j 19:32	28°♌10'27		
behind sun begin	663 Nov 21 j 22:37	2°♋15'54		desc. node	666 May 10 j 11:46	23°♌34'15		
behind sun end	663 Nov 24 j 03:17	5°♋01'42		direct	666 May 11 j 06:19	23°♌33'33		
desc. node	663 Nov 23 j 16:55	4°♋29'04		greatest brilliancy	666 May 24 j 02:43	26°♌27'13	-4.5m	
max. Earth dist.	663 Nov 23 j 21:44	4°♋44'13	1.71032 AU		666 May 31 j 01:15	0°♍		
	663 Dec 13 j 23:36	0°♎		morning max el	666 Jun 28 j 23:51	23°♍13'58	45°44'55	
evening rise	664 Jan 03 j 18:14	26°♎05'08			666 Jul 05 j 22:11	0°♏		

	666 Aug 03 j 03:39	0°☿		668 Dec 22 j 03:27	0°♊	
	666 Aug 29 j 06:37	0°♈		669 Jan 15 j 10:11	0°♋	
asc. node	666 Aug 31 j 15:13	2°♈46'58		669 Feb 09 j 03:07	0°♌	
	666 Sep 23 j 07:16	0°♍	asc. node	669 Feb 15 j 10:16	7°♌31'24	
	666 Oct 17 j 16:26	0°♎		669 Mar 06 j 14:50	0°♏	
	666 Nov 10 j 17:21	0°♐		669 Apr 02 j 15:08	0°♑	
	666 Dec 04 j 14:55	0°♒	evening max el	669 Apr 19 j 09:23	17°♑01'35	45°24'46
desc. node	666 Dec 21 j 04:43	20°♒49'31		669 May 03 j 20:02	0°♓	
morning set	666 Dec 28 j 21:43	0°♓03'23	greatest brilliancy	669 May 23 j 20:16	13°♓16'53	-4.5m
	666 Dec 28 j 12:03	0°♓	retrograde	669 Jun 06 j 22:37	16°♓43'30	
	667 Jan 21 j 10:14	0°♊	desc. node	669 Jun 06 j 23:46	16°♓43'30	
			evening set	669 Jun 22 j 07:45	12°♓11'17	
superior conj	667 Feb 08 j 08:35	22°♊25'10	inferior conj	669 Jun 28 j 09:05	8°♓33'52	-4°-44'-43
minimum elong	667 Feb 08 j 03:58	22°♊10'47	minimum elong	669 Jun 28 j 00:05	8°♓47'52	4°42'32
max. Earth dist.	667 Feb 12 j 09:16	27°♊26'40	min. Earth dist.	669 Jun 28 j 09:53	8°♓32'37	0.28922 AU
	667 Feb 14 j 10:28	0°♋	morning rise	669 Jul 03 j 16:18	5°♓21'36	
	667 Mar 10 j 13:45	0°♌	direct	669 Jul 20 j 01:29	0°♓17'01	
evening rise	667 Mar 19 j 22:38	11°♌35'26	greatest brilliancy	669 Aug 03 j 07:30	3°♓50'24	-4.5m
	667 Apr 03 j 21:03	0°♍		669 Sep 06 j 08:09	0°♎	
asc. node	667 Apr 13 j 08:07	11°♍37'02	morning max el	669 Sep 07 j 13:25	1°♎11'26	46°13'20
	667 Apr 28 j 08:57	0°♐	asc. node	669 Sep 28 j 03:09	22°♎42'32	
	667 May 23 j 02:03	0°♑		669 Oct 04 j 16:23	0°♏	
	667 Jun 17 j 01:46	0°♒		669 Oct 30 j 11:28	0°♎	
	667 Jul 12 j 11:29	0°♑		669 Nov 24 j 05:40	0°♐	
desc. node	667 Aug 02 j 21:17	24°♑40'25		669 Dec 18 j 13:13	0°♒	
	667 Aug 07 j 14:22	0°♑		670 Jan 11 j 16:59	0°♓	
	667 Sep 04 j 04:21	0°♒	desc. node	670 Jan 17 j 16:28	7°♓25'55	
evening max el	667 Sep 14 j 04:36	10°♒08'10		670 Feb 04 j 20:14	0°♊	
	667 Oct 06 j 14:05	0°♒		670 Mar 01 j 00:30	0°♋	
greatest brilliancy	667 Oct 23 j 06:39	9°♒56'06	morning set	670 Mar 14 j 10:39	16°♋36'59	
retrograde	667 Nov 03 j 09:31	12°♒14'50		670 Mar 25 j 06:32	0°♌	
evening set	667 Nov 17 j 18:02	8°♒09'43		670 Apr 18 j 14:35	0°♍	
inferior conj	667 Nov 23 j 22:07	4°♒34'33				
minimum elong	667 Nov 23 j 22:11	4°♒34'27	superior conj	670 Apr 21 j 06:59	3°♍18'10	0°-44'-8
transit middle	667 Nov 23 j 22:11	4°♒34'27	minimum elong	670 Apr 21 j 15:16	3°♍43'37	0°43'49
transit begin	667 Nov 23 j 18:08	4°♒40'37	max. Earth dist.	670 Apr 22 j 22:01	5°♍18'14	1.73387 AU
transit end	667 Nov 24 j 02:15	4°♒28'18	asc. node	670 May 10 j 20:01	27°♍19'31	
min. Earth dist.	667 Nov 23 j 19:53	4°♒37'56		670 May 13 j 00:17	0°♐	
asc. node	667 Nov 24 j 00:42	4°♒30'38	evening rise	670 May 28 j 01:45	18°♐29'07	
morning rise	667 Nov 30 j 02:16	0°♒59'17		670 Jun 06 j 11:05	0°♑	
	667 Dec 02 j 01:17	30°♒		670 Jun 30 j 22:45	0°♒	
direct	667 Dec 14 j 05:38	26°♒58'16		670 Jul 25 j 12:02	0°♑	
greatest brilliancy	667 Dec 26 j 05:06	29°♒39'37		670 Aug 19 j 04:31	0°♑	
	667 Dec 26 j 23:50	0°♒	desc. node	670 Aug 30 j 09:19	13°♑31'57	
morning max el	668 Feb 02 j 14:18	29°♒44'19		670 Sep 13 j 02:23	0°♒	
	668 Feb 02 j 20:34	0°♓		670 Oct 08 j 09:21	0°♒	
	668 Mar 01 j 22:29	0°♊		670 Nov 03 j 11:05	0°♓	
desc. node	668 Mar 14 j 14:18	14°♊18'19	evening max el	670 Nov 25 j 20:43	24°♓08'24	47°21'12
	668 Mar 28 j 05:12	0°♋		670 Dec 01 j 17:17	0°♊	
	668 Apr 22 j 18:55	0°♌	asc. node	670 Dec 21 j 12:32	17°♊17'21	
	668 May 17 j 23:47	0°♍	greatest brilliancy	671 Jan 02 j 13:48	24°♊40'04	-4.7m
	668 Jun 11 j 22:13	0°♎	retrograde	671 Jan 15 j 20:26	27°♊56'40	
asc. node	668 Jul 05 j 17:32	28°♎56'14	evening set	671 Feb 02 j 05:12	22°♊00'44	
	668 Jul 06 j 14:25	0°♏	min. Earth dist.	671 Feb 04 j 21:11	20°♊21'28	0.27662 AU
morning set	668 Jul 31 j 10:52	0°♏32'49	inferior conj	671 Feb 05 j 17:47	19°♊49'04	8°30'29
	668 Jul 31 j 00:14	0°♐	minimum elong	671 Feb 05 j 13:06	19°♊56'27	8°30'09
	668 Aug 24 j 04:30	0°♑	morning rise	671 Feb 08 j 21:18	17°♊51'57	
max. Earth dist.	668 Sep 03 j 01:57	12°♑20'10	direct	671 Feb 26 j 12:25	11°♊54'23	
			greatest brilliancy	671 Mar 09 j 02:50	13°♊59'16	-4.6m
superior conj	668 Sep 06 j 09:10	16°♑27'30		671 Apr 02 j 20:32	0°♋	
minimum elong	668 Sep 06 j 12:53	16°♑39'06	desc. node	671 Apr 12 j 02:01	8°♋13'30	
	668 Sep 17 j 05:03	0°♒	morning max el	671 Apr 16 j 18:00	12°♋39'25	46°02'08
	668 Oct 11 j 03:52	0°♓		671 May 03 j 20:43	0°♌	
evening rise	668 Oct 15 j 06:10	5°♓08'03		671 May 31 j 06:25	0°♍	
desc. node	668 Oct 25 j 07:11	17°♓43'08		671 Jun 26 j 08:57	0°♎	
	668 Nov 04 j 02:28	0°♒		671 Jul 21 j 17:19	0°♏	
	668 Nov 28 j 01:51	0°♓	asc. node	671 Aug 03 j 05:23	15°♏03'23	

	671 Aug 15 j 12:06	0°♈		evening max el	674 Feb 05 j 04:18	5°♊55'44	46°25'25
	671 Sep 08 j 20:20	0°♉			674 Mar 05 j 07:37	0°♊	
greatest brilliancy	671 Sep 27 j 20:27	23°♉41'32	-3.9m	greatest brilliancy	674 Mar 12 j 11:24	4°♊06'18	-4.5m
	671 Oct 02 j 21:21	0°♊		retrograde	674 Mar 27 j 02:12	7°♊56'15	
morning set	671 Oct 11 j 05:16	10°♊27'03		evening set	674 Apr 12 j 07:04	2°♊50'15	
	671 Oct 26 j 18:29	0°♋			674 Apr 16 j 22:29	30°♋♊	
	671 Nov 19 j 14:21	0°♌		inferior conj	674 Apr 17 j 11:32	29°♊39'25	4°53'41
				minimum elong	674 Apr 17 j 20:27	29°♊25'20	4°51'32
superior conj	671 Nov 20 j 10:30	1°♌03'25	0°05'38	min. Earth dist.	674 Apr 17 j 14:49	29°♊34'13	0.28835 AU
minimum elong	671 Nov 20 j 12:00	1°♌08'08	0°05'33	morning rise	674 Apr 23 j 09:59	26°♊02'47	
behind sun begin	671 Nov 19 j 10:56	29°♋49'16		direct	674 May 08 j 22:01	21°♊23'02	
behind sun end	671 Nov 21 j 13:03	2°♌26'59		desc. node	674 May 09 j 13:50	21°♊23'32	
max. Earth dist.	671 Nov 20 j 23:39	1°♌44'50	1.71034 AU	greatest brilliancy	674 May 21 j 18:14	24°♊16'47	-4.5m
desc. node	671 Nov 22 j 18:58	4°♌01'07			674 Jun 01 j 04:33	0°♋	
	671 Dec 13 j 10:33	0°♌		morning max el	674 Jun 26 j 16:24	21°♋05'31	45°44'48
evening rise	672 Jan 01 j 04:05	23°♌31'04			674 Jul 05 j 17:57	0°♋	
	672 Jan 06 j 08:11	0°♍			674 Aug 02 j 18:29	0°♌	
	672 Jan 30 j 08:39	0°♍			674 Aug 28 j 19:34	0°♌	
	672 Feb 23 j 13:58	0°♎		asc. node	674 Aug 30 j 17:24	2°♌15'25	
asc. node	672 Mar 14 j 22:19	24°♎54'52			674 Sep 22 j 19:19	0°♎	
	672 Mar 19 j 02:49	0°♏			674 Oct 17 j 04:03	0°♏	
	672 Apr 13 j 02:33	0°♐			674 Nov 10 j 04:45	0°♏	
	672 May 08 j 18:32	0°♑			674 Dec 04 j 02:13	0°♏	
evening max el	672 Jun 04 j 14:51	0°♑		desc. node	674 Dec 20 j 06:43	20°♏20'33	
desc. node	672 Jun 29 j 11:59	25°♑30'08	45°36'24	morning set	674 Dec 26 j 07:13	27°♏54'19	
	672 Jul 04 j 11:32	0°♒			674 Dec 27 j 23:15	0°♑	
	672 Jul 04 j 07:06	0°♒			675 Jan 20 j 21:20	0°♑	
greatest brilliancy	672 Aug 06 j 08:54	23°♒11'39	-4.5m				
retrograde	672 Aug 17 j 07:56	25°♒20'50		superior conj	675 Feb 05 j 20:06	19°♑56'49	-1°-23'-2
evening set	672 Sep 04 j 07:16	19°♒23'15		minimum elong	675 Feb 05 j 14:33	19°♑39'29	1°22'59
inferior conj	672 Sep 07 j 09:50	17°♒30'19	-8°-37'-52	max. Earth dist.	675 Feb 09 j 18:39	24°♑51'53	1.71890 AU
minimum elong	672 Sep 07 j 14:01	17°♒23'53	8°37'39		675 Feb 13 j 21:29	0°♒	
min. Earth dist.	672 Sep 08 j 05:10	17°♒00'38	0.27837 AU		675 Mar 10 j 00:45	0°♒	
morning rise	672 Sep 10 j 20:31	15°♒24'39		evening rise	675 Mar 17 j 12:42	9°♒16'42	
direct	672 Sep 28 j 12:14	9°♒29'26			675 Apr 03 j 08:05	0°♒	
greatest brilliancy	672 Oct 12 j 17:16	13°♒08'04	-4.6m	asc. node	675 Apr 12 j 10:12	11°♒09'29	
asc. node	672 Oct 25 j 14:52	21°♒17'50			675 Apr 27 j 20:10	0°♒	
	672 Nov 05 j 00:47	0°♓			675 May 22 j 13:38	0°♓	
morning max el	672 Nov 18 j 03:58	12°♓40'47	46°52'17		675 Jun 16 j 14:00	0°♓	
	672 Dec 04 j 09:25	0°♓			675 Jul 12 j 00:52	0°♓	
	672 Dec 30 j 13:28	0°♓		desc. node	675 Aug 01 j 23:28	24°♓04'01	
	673 Jan 24 j 17:33	0°♓			675 Aug 07 j 05:55	0°♓	
desc. node	673 Feb 14 j 04:29	24°♓44'08			675 Sep 04 j 00:57	0°♓	
	673 Feb 18 j 12:31	0°♔		evening max el	675 Sep 11 j 18:40	7°♓46'41	46°46'57
	673 Mar 15 j 03:57	0°♔			675 Oct 07 j 11:29	0°♓	
	673 Apr 08 j 18:06	0°♔		greatest brilliancy	675 Oct 20 j 19:03	7°♓26'59	-4.7m
	673 May 03 j 07:41	0°♕		retrograde	675 Oct 31 j 22:09	9°♓45'14	
morning set	673 May 22 j 13:32	23°♕31'58		evening set	675 Nov 15 j 07:06	5°♓39'01	
	673 May 27 j 20:17	0°♖		inferior conj	675 Nov 21 j 10:09	2°♓05'05	0°-26'-22
asc. node	673 Jun 07 j 07:46	12°♖50'38		minimum elong	675 Nov 21 j 11:10	2°♓03'33	0°26'03
	673 Jun 21 j 06:58	0°♗		min. Earth dist.	675 Nov 21 j 09:04	2°♓06'45	0.26372 AU
max. Earth dist.	673 Jun 25 j 06:54	4°♗55'06	1.73451 AU	asc. node	675 Nov 23 j 02:40	1°♓03'51	
					675 Nov 24 j 21:50	30°♗♓	
superior conj	673 Jun 27 j 22:01	8°♗09'24	0°46'14	morning rise	675 Nov 27 j 15:14	28°♓29'00	
minimum elong	673 Jun 27 j 14:07	7°♗45'05	0°45'54	direct	675 Dec 11 j 18:36	24°♓28'47	
	673 Jul 15 j 15:06	0°♘		greatest brilliancy	675 Dec 23 j 18:55	27°♓11'43	-4.7m
evening rise	673 Aug 02 j 17:48	22°♘24'12			675 Dec 29 j 08:53	0°♓	
	673 Aug 08 j 21:03	0°♙		morning max el	676 Jan 31 j 04:33	27°♓21'26	46°45'44
	673 Sep 02 j 02:00	0°♙			676 Feb 02 j 19:21	0°♓	
	673 Sep 26 j 07:25	0°♙			676 Mar 01 j 14:55	0°♓	
desc. node	673 Sep 26 j 21:22	0°♙43'09		desc. node	676 Mar 13 j 16:25	13°♓41'16	
	673 Oct 20 j 14:26	0°♓			676 Mar 27 j 19:09	0°♓	
	673 Nov 14 j 00:40	0°♓			676 Apr 22 j 07:33	0°♓	
	673 Dec 08 j 18:04	0°♓			676 May 17 j 11:38	0°♓	
	674 Jan 03 j 04:22	0°♓			676 Jun 11 j 09:35	0°♓	
asc. node	674 Jan 18 j 00:24	16°♓44'56		asc. node	676 Jul 04 j 19:37	28°♓28'40	
	674 Jan 30 j 08:52	0°♓			676 Jul 06 j 01:30	0°♓	

morning set	676 Jul 29 j 04:06	28° \mathfrak{S} 23'59		evening set	679 Jan 30 j 16:57	19° \approx 43'52	
	676 Jul 30 j 11:12	0° \mathfrak{Q}		min. Earth dist.	679 Feb 02 j 11:18	18° \approx 01'07	0.27597 AU
	676 Aug 23 j 15:28	0° \mathfrak{M}		inferior conj	679 Feb 03 j 08:16	17° \approx 28'07	8°25'28
max. Earth dist.	676 Aug 31 j 14:37	9° \mathfrak{M} 55'38	1.72107 AU	minimum elong	679 Feb 03 j 02:49	17° \approx 36'42	8°25'00
				morning rise	679 Feb 06 j 12:59	15° \approx 29'07	
superior conj	676 Sep 04 j 01:03	14° \mathfrak{M} 12'53	1°23'42	direct	679 Feb 24 j 01:54	9° \approx 34'33	
minimum elong	676 Sep 04 j 04:01	14° \mathfrak{M} 22'08	1°23'42	greatest brilliancy	679 Mar 06 j 16:15	11° \approx 38'58	-4.6m
	676 Sep 16 j 16:05	0° \mathfrak{A}			679 Apr 03 j 02:59	0° \mathfrak{H}	
	676 Oct 10 j 15:01	0° \mathfrak{M}		desc. node	679 Apr 11 j 04:06	7° \mathfrak{H} 19'54	
evening rise	676 Oct 12 j 18:31	2° \mathfrak{M} 41'20		morning max el	679 Apr 14 j 07:11	10° \mathfrak{H} 19'22	46°03'21
desc. node	676 Oct 24 j 09:12	17° \mathfrak{M} 14'20			679 May 03 j 14:38	0° \mathfrak{Y}	
	676 Nov 03 j 13:46	0° \mathfrak{J}			679 May 30 j 20:48	0° \mathfrak{B}	
	676 Nov 27 j 13:20	0° \mathfrak{Z}			679 Jun 25 j 21:45	0° \mathfrak{H}	
	676 Dec 21 j 15:12	0° \approx			679 Jul 21 j 05:17	0° \mathfrak{S}	
	677 Jan 14 j 22:20	0° \mathfrak{H}		asc. node	679 Aug 02 j 07:36	14° \mathfrak{S} 34'39	
	677 Feb 08 j 15:59	0° \mathfrak{Y}			679 Aug 14 j 23:36	0° \mathfrak{Q}	
asc. node	677 Feb 14 j 12:24	6° \mathfrak{Y} 58'44			679 Sep 08 j 07:37	0° \mathfrak{M}	
	677 Mar 06 j 05:09	0° \mathfrak{B}		greatest brilliancy	679 Sep 29 j 12:25	26° \mathfrak{M} 26'35	-3.9m
	677 Apr 02 j 08:57	0° \mathfrak{H}			679 Oct 02 j 08:34	0° \mathfrak{A}	
evening max el	677 Apr 17 j 01:41	14° \mathfrak{H} 51'29	45°25'46	morning set	679 Oct 08 j 18:34	8° \mathfrak{A} 02'56	
	677 May 04 j 04:37	0° \mathfrak{S}			679 Oct 26 j 05:42	0° \mathfrak{M}	
greatest brilliancy	677 May 21 j 12:06	11° \mathfrak{S} 07'13	-4.5m				
retrograde	677 Jun 04 j 14:28	14° \mathfrak{S} 33'53		superior conj	679 Nov 17 j 20:39	28° \mathfrak{M} 28'56	0°09'35
desc. node	677 Jun 06 j 01:44	14° \mathfrak{S} 31'22		minimum elong	679 Nov 17 j 23:11	28° \mathfrak{M} 36'54	0°09'28
evening set	677 Jun 19 j 22:16	10° \mathfrak{S} 04'12		behind sun begin	679 Nov 17 j 01:26	27° \mathfrak{M} 28'26	
inferior conj	677 Jun 26 j 01:17	6° \mathfrak{S} 24'02	-4°-27'-55	behind sun end	679 Nov 18 j 20:56	29° \mathfrak{M} 45'21	
minimum elong	677 Jun 25 j 16:38	6° \mathfrak{S} 37'32	4°25'45	max. Earth dist.	679 Nov 18 j 02:12	28° \mathfrak{M} 46'23	1.71040 AU
min. Earth dist.	677 Jun 26 j 01:57	6° \mathfrak{S} 23'01	0.28931 AU		679 Nov 19 j 01:35	0° \mathfrak{J}	
morning rise	677 Jul 01 j 10:54	3° \mathfrak{S} 08'00		desc. node	679 Nov 21 j 21:00	3° \mathfrak{J} 32'06	
	677 Jul 07 j 22:57	30° \mathfrak{R} \mathfrak{H}			679 Dec 12 j 21:49	0° \mathfrak{Z}	
direct	677 Jul 17 j 18:03	28° \mathfrak{H} 07'10		evening rise	679 Dec 29 j 14:08	20° \mathfrak{Z} 56'44	
	677 Jul 27 j 22:37	0° \mathfrak{S}			680 Jan 05 j 19:29	0° \approx	
greatest brilliancy	677 Jul 31 j 21:53	1° \mathfrak{S} 37'42	-4.5m		680 Jan 29 j 19:58	0° \mathfrak{H}	
morning max el	677 Sep 05 j 04:04	28° \mathfrak{S} 55'10	46°11'49		680 Feb 23 j 01:25	0° \mathfrak{Y}	
	677 Sep 06 j 06:25	0° \mathfrak{Q}		asc. node	680 Mar 14 j 00:21	24° \mathfrak{Y} 25'22	
asc. node	677 Sep 27 j 05:10	22° \mathfrak{Q} 01'30			680 Mar 18 j 14:37	0° \mathfrak{B}	
	677 Oct 04 j 08:20	0° \mathfrak{M}			680 Apr 12 j 15:03	0° \mathfrak{H}	
	677 Oct 30 j 01:13	0° \mathfrak{A}			680 May 08 j 08:24	0° \mathfrak{S}	
	677 Nov 23 j 18:23	0° \mathfrak{M}			680 Jun 04 j 07:43	0° \mathfrak{Q}	
	677 Dec 18 j 01:19	0° \mathfrak{J}		evening max el	680 Jun 27 j 01:23	23° \mathfrak{Q} 11'54	45°34'46
	678 Jan 11 j 04:42	0° \mathfrak{Z}		desc. node	680 Jul 03 j 13:44	29° \mathfrak{Q} 15'34	
desc. node	678 Jan 16 j 18:40	6° \mathfrak{Z} 56'34			680 Jul 04 j 09:29	0° \mathfrak{M}	
	678 Feb 04 j 07:41	0° \approx		greatest brilliancy	680 Aug 03 j 19:45	20° \mathfrak{M} 50'39	-4.5m
	678 Feb 28 j 11:45	0° \mathfrak{H}		retrograde	680 Aug 14 j 21:43	23° \mathfrak{M} 02'46	
morning set	678 Mar 12 j 01:08	14° \mathfrak{H} 18'53		evening set	680 Sep 01 j 21:58	17° \mathfrak{M} 03'08	
	678 Mar 24 j 17:38	0° \mathfrak{Y}		inferior conj	680 Sep 04 j 23:58	15° \mathfrak{M} 11'10	-8°-41'-12
	678 Apr 18 j 01:34	0° \mathfrak{B}		minimum elong	680 Sep 05 j 03:19	15° \mathfrak{M} 06'01	8°41'04
				min. Earth dist.	680 Sep 05 j 18:48	14° \mathfrak{M} 42'16	0.27904 AU
superior conj	678 Apr 18 j 23:44	1° \mathfrak{B} 08'11	0°-46'-56	morning rise	680 Sep 08 j 08:25	13° \mathfrak{M} 08'57	
minimum elong	678 Apr 19 j 08:21	1° \mathfrak{B} 34'44	0°46'36	direct	680 Sep 26 j 02:51	7° \mathfrak{M} 09'05	
max. Earth dist.	678 Apr 20 j 19:16	3° \mathfrak{B} 22'09	1.73353 AU	greatest brilliancy	680 Oct 10 j 10:29	10° \mathfrak{M} 50'42	-4.6m
asc. node	678 May 09 j 22:00	26° \mathfrak{B} 52'00		asc. node	680 Oct 24 j 16:55	20° \mathfrak{M} 04'31	
	678 May 12 j 11:15	0° \mathfrak{H}			680 Nov 05 j 05:26	0° \mathfrak{A}	
evening rise	678 May 25 j 20:18	16° \mathfrak{H} 25'01		morning max el	680 Nov 15 j 18:33	10° \mathfrak{A} 18'06	46°51'30
	678 Jun 05 j 22:07	0° \mathfrak{S}			680 Dec 04 j 03:26	0° \mathfrak{M}	
	678 Jun 30 j 10:02	0° \mathfrak{Q}			680 Dec 30 j 04:20	0° \mathfrak{J}	
	678 Jul 24 j 23:44	0° \mathfrak{M}			681 Jan 24 j 06:54	0° \mathfrak{Z}	
	678 Aug 18 j 16:50	0° \mathfrak{A}		desc. node	681 Feb 13 j 06:34	24° \mathfrak{Z} 12'17	
desc. node	678 Aug 29 j 11:27	13° \mathfrak{A} 00'13			681 Feb 18 j 00:57	0° \approx	
	678 Sep 12 j 15:36	0° \mathfrak{M}			681 Mar 14 j 15:45	0° \mathfrak{H}	
	678 Oct 08 j 00:01	0° \mathfrak{J}			681 Apr 08 j 05:28	0° \mathfrak{Y}	
	678 Nov 03 j 04:32	0° \mathfrak{Z}			681 May 02 j 18:45	0° \mathfrak{B}	
evening max el	678 Nov 23 j 10:58	21° \mathfrak{Z} 44'35	47°21'46	morning set	681 May 20 j 07:55	21° \mathfrak{B} 27'46	
	678 Dec 01 j 18:56	0° \approx			681 May 27 j 07:12	0° \mathfrak{H}	
asc. node	678 Dec 20 j 14:39	15° \approx 58'46		asc. node	681 Jun 06 j 09:54	12° \mathfrak{H} 23'48	
greatest brilliancy	678 Dec 31 j 07:17	22° \approx 21'08	-4.7m		681 Jun 20 j 17:50	0° \mathfrak{S}	
retrograde	679 Jan 13 j 10:46	25° \approx 34'34		max. Earth dist.	681 Jun 23 j 05:32	3° \mathfrak{S} 03'39	1.73481 AU

superior conj	681 Jun 25 j 16:44	6°50'548	0°43'36	morning rise	683 Nov 25 j 03:56	25°15'58'52	
minimum elong	681 Jun 25 j 09:07	5°54'22'21	0°43'16	direct	683 Dec 09 j 07:27	21°15'59'34	
	681 Jul 15 j 02:01	0°50		greatest brilliancy	683 Dec 21 j 08:22	24°15'43'19	-4.7m
evening rise	681 Jul 31 j 11:53	20°50'17'34			683 Dec 30 j 21:42	0°50	
	681 Aug 08 j 08:05	0°50		morning max el	684 Jan 28 j 17:55	24°50'56'21	46°46'43
	681 Sep 01 j 13:18	0°50			684 Feb 02 j 17:11	0°50	
desc. node	681 Sep 25 j 23:19	0°15'13'12			684 Mar 01 j 06:59	0°50	
	681 Sep 25 j 19:03	0°15		desc. node	684 Mar 12 j 18:24	13°50'04'21	
	681 Oct 20 j 02:32	0°50			684 Mar 27 j 08:53	0°50	
	681 Nov 13 j 13:23	0°50			684 Apr 21 j 20:03	0°50	
	681 Dec 08 j 07:43	0°50			684 May 16 j 23:21	0°50	
	682 Jan 02 j 19:50	0°50			684 Jun 10 j 20:48	0°50	
asc. node	682 Jan 17 j 02:36	16°50'03'03		asc. node	684 Jul 03 j 21:49	28°50'01'59	
	682 Jan 30 j 05:04	0°50			684 Jul 05 j 12:25	0°50	
evening max el	682 Feb 02 j 19:44	3°50'39'48	46°28'13	morning set	684 Jul 26 j 21:40	26°50'16'43	
	682 Mar 06 j 13:29	0°50			684 Jul 29 j 22:00	0°50	
greatest brilliancy	682 Mar 10 j 03:45	1°50'55'04	-4.6m		684 Aug 23 j 02:17	0°50	
retrograde	682 Mar 24 j 19:28	5°50'45'58		max. Earth dist.	684 Aug 29 j 03:16	7°50'31'42	1.72164 AU
evening set	682 Apr 10 j 02:04	0°50'35'55					
	682 Apr 11 j 02:25	30°50'50		superior conj	684 Sep 01 j 17:13	11°50'59'45	1°24'09
inferior conj	682 Apr 15 j 03:56	27°50'28'49	5°09'55	minimum elong	684 Sep 01 j 19:25	12°50'06'38	1°24'09
minimum elong	682 Apr 15 j 13:07	27°50'14'21	5°07'46		684 Sep 16 j 03:00	0°50	
min. Earth dist.	682 Apr 15 j 06:37	27°50'24'35	0.28817 AU	evening rise	684 Oct 10 j 06:54	0°15'03	
morning rise	682 Apr 21 j 00:22	23°50'55'24			684 Oct 10 j 02:05	0°15	
direct	682 May 06 j 14:13	19°50'12'45		desc. node	684 Oct 23 j 11:16	16°50'45'53	
desc. node	682 May 08 j 15:48	19°50'17'42			684 Nov 03 j 01:00	0°50	
greatest brilliancy	682 May 19 j 08:50	22°50'05'32	-4.5m		684 Nov 27 j 00:45	0°50	
	682 Jun 02 j 00:25	0°50			684 Dec 21 j 02:53	0°50	
morning max el	682 Jun 24 j 09:23	18°50'58'15	45°44'36		685 Jan 14 j 10:26	0°50	
	682 Jul 05 j 13:09	0°50			685 Feb 08 j 04:49	0°50	
	682 Aug 02 j 09:13	0°50		asc. node	685 Feb 13 j 14:25	6°50'25'54	
	682 Aug 28 j 08:32	0°50			685 Mar 05 j 19:28	0°50	
asc. node	682 Aug 29 j 19:24	1°50'43'11			685 Apr 02 j 03:01	0°50	
	682 Sep 22 j 07:26	0°50		evening max el	685 Apr 14 j 17:15	12°50'39'56	45°26'50
	682 Oct 16 j 15:44	0°50			685 May 04 j 15:56	0°50	
	682 Nov 09 j 16:12	0°15		greatest brilliancy	685 May 19 j 03:52	8°50'58'04	-4.5m
	682 Dec 03 j 13:32	0°50		retrograde	685 Jun 02 j 06:10	12°50'25'18	
desc. node	682 Dec 19 j 08:52	19°50'51'57		desc. node	685 Jun 05 j 03:56	12°50'15'26	
morning set	682 Dec 23 j 16:44	25°50'18'12		evening set	685 Jun 17 j 13:02	7°50'57'46	
	682 Dec 27 j 10:29	0°50		inferior conj	685 Jun 23 j 17:37	4°50'15'23	-4°-10'-46
	683 Jan 20 j 08:29	0°50		minimum elong	685 Jun 23 j 09:22	4°50'28'16	4°08'39
				min. Earth dist.	685 Jun 23 j 18:29	4°50'14'01	0.28936 AU
superior conj	683 Feb 03 j 07:27	17°50'27'39	-1°-22'-1	morning rise	685 Jun 29 j 05:32	0°50'55'41	
minimum elong	683 Feb 03 j 00:59	17°50'07'25	1°21'56		685 Jun 30 j 22:11	30°50'50	
max. Earth dist.	683 Feb 07 j 05:45	22°50'22'07	1.71839 AU	direct	685 Jul 15 j 10:08	25°50'58'28	
	683 Feb 13 j 08:33	0°50		greatest brilliancy	685 Jul 29 j 12:36	29°50'26'34	-4.5m
	683 Mar 09 j 11:47	0°50			685 Jul 30 j 16:39	0°50	
evening rise	683 Mar 15 j 02:44	6°50'57'37		morning max el	685 Sep 02 j 18:09	26°50'38'40	46°10'21
	683 Apr 02 j 19:09	0°50			685 Sep 06 j 03:27	0°50	
asc. node	683 Apr 11 j 12:14	10°50'41'42		asc. node	685 Sep 26 j 07:14	21°50'22'00	
	683 Apr 27 j 07:22	0°50			685 Oct 03 j 23:42	0°50	
	683 May 22 j 01:10	0°50			685 Oct 29 j 14:37	0°50	
	683 Jun 16 j 02:13	0°50			685 Nov 23 j 06:49	0°15	
	683 Jul 11 j 14:18	0°50			685 Dec 17 j 13:13	0°50	
desc. node	683 Aug 01 j 01:30	23°50'57'02			686 Jan 10 j 16:14	0°50	
	683 Aug 06 j 21:40	0°50		desc. node	686 Jan 15 j 20:47	6°50'27'28	
	683 Sep 03 j 22:17	0°15			686 Feb 03 j 18:56	0°50	
evening max el	683 Sep 09 j 09:06	5°15'26'06	46°44'24		686 Feb 27 j 22:46	0°50	
	683 Oct 08 j 16:48	0°50		morning set	686 Mar 09 j 15:10	11°50'59'57	
greatest brilliancy	683 Oct 18 j 08:25	4°50'59'05	-4.6m		686 Mar 24 j 04:29	0°50	
retrograde	683 Oct 29 j 10:36	7°50'15'28					
evening set	683 Nov 12 j 20:26	3°50'08'17		superior conj	686 Apr 16 j 16:16	28°50'58'18	0°-49'-41
	683 Nov 18 j 06:15	30°50'50		minimum elong	686 Apr 17 j 01:12	29°50'25'47	0°49'20
inferior conj	683 Nov 18 j 22:13	29°50'35'46	0°-51'-2		686 Apr 17 j 12:19	0°50	
minimum elong	683 Nov 19 j 00:10	29°50'32'48	0°50'26	max. Earth dist.	686 Apr 18 j 14:48	1°50'21'30	1.73317 AU
min. Earth dist.	683 Nov 18 j 22:25	29°50'35'28	0.26380 AU	asc. node	686 May 09 j 00:09	26°50'25'41	
asc. node	683 Nov 22 j 04:48	27°50'38'02			686 May 11 j 21:58	0°50	

evening rise	686 May 23 j 14:45	14° \cap 21'23		morning max el	688 Nov 13 j 09:55	7° Δ 58'58	46°50'46
	686 Jun 05 j 08:56	0° Σ			688 Dec 03 j 20:34	0° \mathbb{M}	
	686 Jun 29 j 21:04	0° Ω			688 Dec 29 j 18:35	0° \mathcal{Z}	
	686 Jul 24 j 11:09	0° \mathfrak{M}			689 Jan 23 j 19:47	0° \mathcal{Z}	
	686 Aug 18 j 04:49	0° Δ		desc. node	689 Feb 12 j 08:32	23° \mathcal{Z} 41'11	
desc. node	686 Aug 28 j 13:27	12° Δ 29'06			689 Feb 17 j 13:01	0° \approx	
	686 Sep 12 j 04:30	0° \mathbb{M}			689 Mar 14 j 03:16	0° \mathcal{H}	
	686 Oct 07 j 14:28	0° \mathcal{Z}			689 Apr 07 j 16:35	0° \mathcal{Y}	
	686 Nov 02 j 22:05	0° \mathcal{Z}			689 May 02 j 05:35	0° \mathcal{B}	
evening max el	686 Nov 21 j 00:18	19° \mathcal{Z} 18'53	47°22'00	morning set	689 May 18 j 01:52	19° \mathcal{B} 23'03	
	686 Dec 01 j 21:51	0° \approx			689 May 26 j 17:52	0° \mathbb{I}	
asc. node	686 Dec 19 j 16:49	14° \approx 37'44		asc. node	689 Jun 05 j 12:01	11° \mathbb{I} 57'45	
greatest brilliancy	686 Dec 28 j 23:59	20° \approx 00'40	-4.7m		689 Jun 20 j 04:27	0° Σ	
retrograde	687 Jan 11 j 00:44	23° \approx 11'43		max. Earth dist.	689 Jun 21 j 04:55	1° Σ 15'15	1.73506 AU
evening set	687 Jan 28 j 03:57	17° \approx 26'28					
min. Earth dist.	687 Jan 31 j 01:11	15° \approx 39'36	0.27535 AU	superior conj	689 Jun 23 j 11:04	4° Σ 01'50	0°40'52
inferior conj	687 Jan 31 j 22:20	15° \approx 06'20	8°19'17	minimum elong	689 Jun 23 j 03:46	3° Σ 39'22	0°40'34
minimum elong	687 Jan 31 j 16:10	15° \approx 16'02	8°18'41		689 Jul 14 j 12:41	0° Ω	
morning rise	687 Feb 04 j 04:41	13° \approx 04'57		evening rise	689 Jul 29 j 05:49	18° Ω 11'20	
direct	687 Feb 21 j 14:42	7° \approx 13'39			689 Aug 07 j 18:54	0° \mathfrak{M}	
greatest brilliancy	687 Mar 04 j 06:05	9° \approx 18'44	-4.6m		689 Sep 01 j 00:22	0° Δ	
	687 Apr 03 j 07:17	0° \mathcal{H}		desc. node	689 Sep 25 j 01:25	29° Δ 44'27	
desc. node	687 Apr 10 j 06:10	6° \mathcal{H} 27'44			689 Sep 25 j 06:27	0° \mathbb{M}	
morning max el	687 Apr 11 j 20:26	7° \mathcal{H} 59'48	46°04'45		689 Oct 19 j 14:21	0° \mathcal{Z}	
	687 May 03 j 07:55	0° \mathcal{Y}			689 Nov 13 j 01:46	0° \mathcal{Z}	
	687 May 30 j 10:46	0° \mathcal{B}			689 Dec 07 j 21:03	0° \approx	
	687 Jun 25 j 10:11	0° \mathbb{I}			690 Jan 02 j 11:06	0° \mathcal{H}	
	687 Jul 20 j 16:54	0° Σ		asc. node	690 Jan 16 j 04:32	15° \mathcal{H} 21'07	
asc. node	687 Aug 01 j 09:32	14° Σ 06'06			690 Jan 30 j 01:34	0° \mathcal{Y}	
	687 Aug 14 j 10:47	0° Ω		evening max el	690 Jan 31 j 11:51	1° \mathcal{Y} 26'25	46°30'43
	687 Sep 07 j 18:34	0° \mathfrak{M}		greatest brilliancy	690 Mar 07 j 20:48	29° \mathcal{Y} 45'05	-4.6m
greatest brilliancy	687 Oct 01 j 01:03	29° \mathfrak{M} 02'30	-3.9m		690 Mar 08 j 09:11	0° \mathcal{B}	
	687 Oct 01 j 19:24	0° Δ		retrograde	690 Mar 22 j 12:30	3° \mathcal{B} 35'25	
morning set	687 Oct 06 j 08:22	5° Δ 41'38			690 Apr 04 j 21:24	30° \mathcal{R} \mathcal{Y}	
	687 Oct 25 j 16:32	0° \mathbb{M}		evening set	690 Apr 07 j 20:59	28° \mathcal{Y} 21'28	
				inferior conj	690 Apr 12 j 20:08	25° \mathcal{Y} 18'02	5°25'50
superior conj	687 Nov 15 j 07:06	25° \mathbb{M} 56'29	0°13'29	minimum elong	690 Apr 13 j 05:31	25° \mathcal{Y} 03'14	5°23'42
minimum elong	687 Nov 15 j 10:38	26° \mathbb{M} 07'37	0°13'18	min. Earth dist.	690 Apr 12 j 22:04	25° \mathcal{Y} 15'00	0.28800 AU
behind sun begin	687 Nov 14 j 19:11	25° \mathbb{M} 18'58		morning rise	690 Apr 18 j 14:21	21° \mathcal{Y} 47'56	
behind sun end	687 Nov 16 j 02:05	26° \mathbb{M} 56'15		direct	690 May 04 j 06:33	17° \mathcal{Y} 02'26	
max. Earth dist.	687 Nov 15 j 09:22	26° \mathbb{M} 03'37	1.71054 AU	desc. node	690 May 07 j 17:59	17° \mathcal{Y} 16'21	
	687 Nov 18 j 12:28	0° \mathcal{Z}		greatest brilliancy	690 May 16 j 22:23	19° \mathcal{Y} 53'01	-4.5m
desc. node	687 Nov 20 j 23:10	3° \mathcal{Z} 04'44			690 Jun 02 j 15:07	0° \mathcal{B}	
	687 Dec 12 j 08:46	0° \mathcal{Z}		morning max el	690 Jun 22 j 02:04	16° \mathcal{B} 50'34	45°44'23
evening rise	687 Dec 27 j 00:09	18° \mathcal{Z} 23'12			690 Jul 05 j 07:40	0° \mathbb{I}	
	688 Jan 05 j 06:30	0° \approx			690 Aug 01 j 23:34	0° Σ	
	688 Jan 29 j 07:04	0° \mathcal{H}			690 Aug 27 j 21:12	0° Ω	
	688 Feb 22 j 12:41	0° \mathcal{Y}		asc. node	690 Aug 28 j 21:28	1° Ω 11'55	
asc. node	688 Mar 13 j 02:23	23° \mathcal{Y} 56'31			690 Sep 21 j 19:17	0° \mathfrak{M}	
	688 Mar 18 j 02:13	0° \mathcal{B}			690 Oct 16 j 03:11	0° Δ	
	688 Apr 12 j 03:22	0° \mathbb{I}			690 Nov 09 j 03:26	0° \mathbb{M}	
	688 May 07 j 22:08	0° Σ			690 Dec 03 j 00:37	0° \mathcal{Z}	
	688 Jun 04 j 00:37	0° Ω		desc. node	690 Dec 18 j 10:56	19° \mathcal{Z} 23'59	
evening max el	688 Jun 24 j 15:39	20° Ω 56'41	45°33'16	morning set	690 Dec 21 j 02:42	22° \mathcal{Z} 44'18	
desc. node	688 Jul 02 j 15:47	28° Ω 20'14			690 Dec 26 j 21:26	0° \mathcal{Z}	
	688 Jul 04 j 13:06	0° \mathfrak{M}			691 Jan 19 j 19:19	0° \approx	
greatest brilliancy	688 Aug 01 j 06:02	18° \mathfrak{M} 30'06	-4.5m				
retrograde	688 Aug 12 j 11:57	20° \mathfrak{M} 45'38		superior conj	691 Jan 31 j 19:04	15° \approx 00'09	-1°-20'-50
evening set	688 Aug 30 j 12:20	14° \mathfrak{M} 44'34		minimum elong	691 Jan 31 j 11:44	14° \approx 37'12	1°20'44
inferior conj	688 Sep 02 j 14:04	12° \mathfrak{M} 53'01	-8°-43'-46	max. Earth dist.	691 Feb 04 j 19:37	20° \approx 01'48	1.71788 AU
minimum elong	688 Sep 02 j 16:35	12° \mathfrak{M} 49'10	8°43'42		691 Feb 12 j 19:20	0° \mathcal{H}	
min. Earth dist.	688 Sep 03 j 08:05	12° \mathfrak{M} 25'25	0.27964 AU		691 Mar 08 j 22:34	0° \mathcal{Y}	
morning rise	688 Sep 05 j 20:35	10° \mathfrak{M} 53'48		evening rise	691 Mar 12 j 16:49	4° \mathcal{Y} 39'26	
direct	688 Sep 23 j 17:49	4° \mathfrak{M} 50'00			691 Apr 02 j 06:00	0° \mathcal{B}	
greatest brilliancy	688 Oct 08 j 02:40	8° \mathfrak{M} 33'27	-4.6m	asc. node	691 Apr 10 j 14:22	10° \mathcal{B} 14'53	
asc. node	688 Oct 23 j 19:00	18° \mathfrak{M} 54'37			691 Apr 26 j 18:25	0° \mathbb{I}	
	688 Nov 05 j 07:50	0° Δ			691 May 21 j 12:37	0° Σ	

	691 Jun 15 j 14:22	0°♈			693 Nov 22 j 19:18	0°♍	
	691 Jul 11 j 03:44	0°♍			693 Dec 17 j 01:10	0°♈	
desc. node	691 Jul 31 j 03:31	22°♍49'55			694 Jan 10 j 03:49	0°♈	
	691 Aug 06 j 13:36	0°♊		desc. node	694 Jan 14 j 22:42	5°♈57'32	
	691 Sep 03 j 20:20	0°♍			694 Feb 03 j 06:16	0°♌	
evening max el	691 Sep 06 j 22:54	3°♍04'19	46°41'46		694 Feb 27 j 09:53	0°♈	
	691 Oct 10 j 10:45	0°♈		morning set	694 Mar 07 j 05:14	9°♈40'43	
greatest brilliancy	691 Oct 15 j 22:38	2°♈32'23	-4.6m		694 Mar 23 j 15:24	0°♍	
retrograde	691 Oct 26 j 22:20	4°♈45'46					
evening set	691 Nov 10 j 09:54	0°♈37'25		superior conj	694 Apr 14 j 09:04	26°♍49'04	0°-52'-19
	691 Nov 11 j 13:13	30°♍		minimum elong	694 Apr 14 j 18:15	27°♍17'22	0°51'59
inferior conj	691 Nov 16 j 10:12	27°♍06'43	-1°-15'-45	max. Earth dist.	694 Apr 16 j 09:23	29°♍17'48	1.73277 AU
minimum elong	691 Nov 16 j 13:05	27°♍02'19	1°14'49		694 Apr 16 j 23:05	0°♈	
min. Earth dist.	691 Nov 16 j 12:04	27°♍03'52	0.26389 AU	asc. node	694 May 08 j 02:15	25°♈59'05	
asc. node	691 Nov 21 j 06:57	24°♍14'12			694 May 11 j 08:44	0°♈	
morning rise	691 Nov 22 j 16:14	23°♍29'03		evening rise	694 May 21 j 09:30	12°♈18'32	
direct	691 Dec 06 j 19:47	19°♍30'26			694 Jun 04 j 19:49	0°♌	
greatest brilliancy	691 Dec 18 j 22:13	22°♍15'29	-4.7m		694 Jun 29 j 08:14	0°♈	
	691 Dec 31 j 23:38	0°♈			694 Jul 23 j 22:44	0°♍	
morning max el	692 Jan 26 j 06:22	22°♈29'18	46°47'54		694 Aug 17 j 17:04	0°♊	
	692 Feb 02 j 14:01	0°♈		desc. node	694 Aug 27 j 15:32	11°♊57'26	
	692 Feb 29 j 22:34	0°♌			694 Sep 11 j 17:45	0°♍	
desc. node	692 Mar 11 j 20:33	12°♌28'55			694 Oct 07 j 05:21	0°♈	
	692 Mar 26 j 22:17	0°♈			694 Nov 02 j 16:17	0°♈	
	692 Apr 21 j 08:17	0°♍		evening max el	694 Nov 18 j 13:41	16°♈52'46	47°22'19
	692 May 16 j 10:53	0°♈			694 Dec 02 j 02:47	0°♌	
	692 Jun 10 j 07:55	0°♈		asc. node	694 Dec 18 j 18:46	13°♌13'01	
asc. node	692 Jul 02 j 23:46	27°♈34'43		greatest brilliancy	694 Dec 26 j 15:43	17°♌38'05	-4.7m
	692 Jul 04 j 23:17	0°♌		retrograde	695 Jan 08 j 15:02	20°♌48'07	
morning set	692 Jul 24 j 14:58	24°♌08'46		evening set	695 Jan 25 j 14:38	15°♌08'14	
	692 Jul 29 j 08:46	0°♈		min. Earth dist.	695 Jan 28 j 14:51	13°♌17'14	0.27472 AU
	692 Aug 22 j 13:03	0°♍		inferior conj	695 Jan 29 j 12:20	12°♌43'34	8°12'10
max. Earth dist.	692 Aug 26 j 16:34	5°♍09'55	1.72221 AU	minimum elong	695 Jan 29 j 05:29	12°♌54'20	8°11'26
				morning rise	695 Feb 01 j 20:36	10°♌39'33	
superior conj	692 Aug 30 j 09:14	9°♍46'18	1°24'28	direct	695 Feb 19 j 03:29	4°♌51'37	
minimum elong	692 Aug 30 j 10:39	9°♍50'45	1°24'27	greatest brilliancy	695 Mar 01 j 19:57	6°♌57'44	-4.6m
	692 Sep 15 j 13:53	0°♊			695 Apr 03 j 10:09	0°♈	
evening rise	692 Oct 07 j 19:15	27°♊48'54		desc. node	695 Apr 09 j 08:16	5°♈36'07	
	692 Oct 09 j 13:08	0°♍		morning max el	695 Apr 09 j 10:43	5°♈42'03	46°06'21
desc. node	692 Oct 22 j 13:24	16°♍17'40			695 May 03 j 01:00	0°♍	
	692 Nov 02 j 12:13	0°♈			695 May 30 j 00:44	0°♈	
	692 Nov 26 j 12:11	0°♈			695 Jun 24 j 22:41	0°♈	
	692 Dec 20 j 14:35	0°♌			695 Jul 20 j 04:39	0°♌	
	693 Jan 13 j 22:31	0°♈		asc. node	695 Jul 31 j 11:39	13°♌37'34	
	693 Feb 07 j 17:37	0°♍			695 Aug 13 j 22:09	0°♈	
asc. node	693 Feb 12 j 16:30	5°♍53'28			695 Sep 07 j 05:46	0°♍	
	693 Mar 05 j 09:48	0°♈			695 Oct 01 j 06:33	0°♊	
	693 Apr 01 j 21:22	0°♈		greatest brilliancy	695 Oct 02 j 16:58	1°♊47'51	-3.9m
evening max el	693 Apr 12 j 08:09	10°♈27'09	45°27'57	morning set	695 Oct 03 j 22:09	3°♊19'19	
	693 May 05 j 06:56	0°♌			695 Oct 25 j 03:41	0°♍	
greatest brilliancy	693 May 16 j 18:22	6°♌47'37	-4.5m				
retrograde	693 May 30 j 21:56	10°♌17'13		superior conj	695 Nov 12 j 17:20	23°♍22'20	0°17'23
desc. node	693 Jun 04 j 05:57	9°♌55'09		minimum elong	695 Nov 12 j 21:50	23°♍36'29	0°17'09
evening set	693 Jun 15 j 03:59	5°♌51'09		max. Earth dist.	695 Nov 12 j 18:06	23°♍24'46	1.71066 AU
inferior conj	693 Jun 21 j 10:01	2°♌06'57	-3°-53'-10		695 Nov 17 j 23:40	0°♈	
minimum elong	693 Jun 21 j 02:13	2°♌19'09	3°51'09	desc. node	695 Nov 20 j 01:11	2°♈35'49	
min. Earth dist.	693 Jun 21 j 11:17	2°♌04'59	0.28948 AU		695 Dec 11 j 20:01	0°♈	
	693 Jun 24 j 20:10	30°♌		evening rise	695 Dec 24 j 09:58	15°♈48'06	
morning rise	693 Jun 27 j 00:11	28°♌43'48			696 Jan 04 j 17:48	0°♌	
direct	693 Jul 13 j 02:02	23°♌49'39			696 Jan 28 j 18:27	0°♈	
greatest brilliancy	693 Jul 27 j 04:45	27°♌17'07	-4.5m		696 Feb 22 j 00:15	0°♍	
	693 Aug 01 j 09:06	0°♌		asc. node	696 Mar 12 j 04:32	23°♍27'04	
morning max el	693 Aug 31 j 08:41	24°♌22'56	46°08'55		696 Mar 17 j 14:10	0°♈	
	693 Sep 05 j 23:57	0°♈			696 Apr 11 j 16:01	0°♈	
asc. node	693 Sep 25 j 09:24	20°♈42'47			696 May 07 j 12:13	0°♌	
	693 Oct 03 j 15:01	0°♍			696 Jun 03 j 18:04	0°♈	
	693 Oct 29 j 04:01	0°♊		evening max el	696 Jun 22 j 06:55	18°♈43'37	45°31'51

desc. node	696 Jul 01 j 17:46	27°Ω23'17			698 Dec 26 j 08:46	0°☾	
	696 Jul 04 j 18:44	0°♊			699 Jan 19 j 06:35	0°♋	
greatest brilliancy	696 Jul 29 j 16:20	16°♊09'44	-4.5m				
retrograde	696 Aug 10 j 02:15	18°♊28'31		superior conj	699 Jan 29 j 06:00	12°♋29'07	-1°-19'-28
evening set	696 Aug 28 j 02:31	12°♊26'48		minimum elong	699 Jan 28 j 21:51	12°♋03'40	1°19'20
inferior conj	696 Aug 31 j 04:24	10°♊34'52	-8°-45'-18	max. Earth dist.	699 Feb 02 j 07:54	17°♋35'10	1.71734 AU
minimum elong	696 Aug 31 j 06:04	10°♊32'19	8°45'16		699 Feb 12 j 06:32	0°♋	
min. Earth dist.	696 Aug 31 j 21:19	10°♊08'56	0.28028 AU		699 Mar 08 j 09:44	0°♌	
morning rise	696 Sep 03 j 09:25	8°♊37'52		evening rise	699 Mar 10 j 06:11	2°♌17'39	
direct	696 Sep 21 j 09:29	2°♊31'02			699 Apr 01 j 17:13	0°♍	
greatest brilliancy	696 Oct 05 j 18:12	6°♊14'47	-4.6m	asc. node	699 Apr 09 j 16:24	9°♍46'36	
asc. node	696 Oct 22 j 21:07	17°♊45'43			699 Apr 26 j 05:49	0°♎	
	696 Nov 05 j 09:21	0°♏			699 May 21 j 00:24	0°♏	
morning max el	696 Nov 11 j 01:31	5°♏39'19	46°49'43		699 Jun 15 j 02:54	0°♐	
	696 Dec 03 j 13:52	0°♑			699 Jul 10 j 17:34	0°♑	
	696 Dec 29 j 09:10	0°♒		desc. node	699 Jul 30 j 05:41	22°♑12'22	
	697 Jan 23 j 09:01	0°☾			699 Aug 06 j 06:00	0°♒	
desc. node	697 Feb 11 j 10:43	23°☾09'43			699 Sep 03 j 19:25	0°♓	
	697 Feb 17 j 01:25	0°♋		evening max el	699 Sep 04 j 11:56	0°♓40'30	46°39'11
	697 Mar 13 j 15:05	0°♌			699 Oct 13 j 06:42	0°♓	
	697 Apr 07 j 04:00	0°♍		greatest brilliancy	699 Oct 13 j 13:09	0°♓06'14	-4.6m
	697 May 01 j 16:44	0°♎		retrograde	699 Oct 24 j 09:45	2°♓16'38	
morning set	697 May 15 j 20:03	17°♎18'00			699 Nov 04 j 01:19	30°♓	
	697 May 26 j 04:51	0°♏		evening set	699 Nov 07 j 23:43	28°♓06'33	
asc. node	697 Jun 04 j 14:00	11°♏30'20		inferior conj	699 Nov 13 j 22:26	24°♓38'05	-1°-39'-55
max. Earth dist.	697 Jun 19 j 03:52	29°♏24'44	1.73523 AU	minimum elong	699 Nov 14 j 02:13	24°♓32'20	1°38'43
	697 Jun 19 j 15:21	0°♐		min. Earth dist.	699 Nov 14 j 02:13	24°♓32'21	0.26409 AU
				morning rise	699 Nov 20 j 04:33	20°♓59'54	
superior conj	697 Jun 21 j 05:44	1°♐58'04	0°38'07	asc. node	699 Nov 20 j 08:52	20°♓54'13	
minimum elong	697 Jun 20 j 22:48	1°♐36'44	0°37'49	direct	699 Dec 04 j 07:55	17°♓01'21	
	697 Jul 13 j 23:36	0°♑		greatest brilliancy	699 Dec 16 j 13:18	19°♓48'52	-4.7m
evening rise	697 Jul 27 j 00:13	16°♑05'46			700 Jan 01 j 18:58	0°♓	
	697 Aug 07 j 05:58	0°♒		morning max el	700 Jan 23 j 18:38	20°♓00'37	46°48'49
	697 Aug 31 j 11:43	0°♓			700 Feb 02 j 10:34	0°☾	
desc. node	697 Sep 24 j 03:34	29°♓14'49			700 Feb 29 j 14:20	0°♋	
	697 Sep 24 j 18:12	0°♓		desc. node	700 Mar 10 j 22:37	11°♋52'19	
	697 Oct 19 j 02:36	0°♌			700 Mar 26 j 11:58	0°♌	
	697 Nov 12 j 14:41	0°☾			700 Apr 20 j 20:48	0°♍	
	697 Dec 07 j 11:00	0°♋			700 May 15 j 22:42	0°♎	
	698 Jan 02 j 03:07	0°♌			700 Jun 09 j 19:16	0°♏	
asc. node	698 Jan 15 j 06:39	14°♌37'41		asc. node	700 Jul 02 j 01:51	27°♏07'11	
evening max el	698 Jan 29 j 03:59	29°♌11'26	46°33'21		700 Jul 04 j 10:22	0°♐	
	698 Jan 29 j 23:23	0°♍		morning set	700 Jul 22 j 08:21	22°♐00'33	
greatest brilliancy	698 Mar 05 j 14:55	27°♍35'05	-4.6m		700 Jul 28 j 19:43	0°♑	
	698 Mar 11 j 14:57	0°♎			700 Aug 22 j 00:01	0°♒	
retrograde	698 Mar 20 j 05:12	1°♎23'20		max. Earth dist.	700 Aug 24 j 07:43	2°♒53'25	1.72275 AU
	698 Mar 28 j 10:59	30°♒					
evening set	698 Apr 05 j 15:57	26°♒05'44		superior conj	700 Aug 28 j 01:40	7°♒33'43	1°24'38
inferior conj	698 Apr 10 j 12:19	23°♒06'01	5°41'17	minimum elong	700 Aug 28 j 02:20	7°♒35'47	1°24'38
minimum elong	698 Apr 10 j 21:51	22°♒50'58	5°39'11		700 Sep 15 j 00:55	0°♓	
min. Earth dist.	698 Apr 10 j 13:36	23°♒04'00	0.28776 AU	evening rise	700 Oct 05 j 08:19	25°♓24'44	
morning rise	698 Apr 16 j 04:06	19°♒39'16			700 Oct 09 j 00:17	0°♓	
direct	698 May 01 j 22:49	14°♒51'03		desc. node	700 Oct 21 j 15:24	15°♓48'45	
desc. node	698 May 06 j 20:02	15°♒18'14			700 Nov 01 j 23:32	0°♓	
greatest brilliancy	698 May 14 j 10:56	17°♒38'07	-4.5m		700 Nov 25 j 23:43	0°☾	
	698 Jun 03 j 02:32	0°♓			700 Dec 20 j 02:25	0°♋	
morning max el	698 Jun 19 j 18:10	14°♓40'37	45°44'19		701 Jan 13 j 10:48	0°♌	
	698 Jul 05 j 02:03	0°♔			701 Feb 07 j 06:43	0°♍	
	698 Aug 01 j 14:01	0°♕		asc. node	701 Feb 11 j 18:37	5°♍20'13	
	698 Aug 27 j 10:01	0°♑			701 Mar 05 j 00:36	0°♎	
asc. node	698 Aug 27 j 23:37	0°♑40'22			701 Apr 01 j 16:34	0°♏	
	698 Sep 21 j 07:19	0°♒		evening max el	701 Apr 09 j 22:52	8°♏13'00	45°29'17
	698 Oct 15 j 14:50	0°♓			701 May 06 j 03:50	0°♐	
	698 Nov 08 j 14:55	0°♓		greatest brilliancy	701 May 14 j 08:06	4°♐35'15	-4.5m
	698 Dec 02 j 12:01	0°♌		retrograde	701 May 28 j 14:03	8°♐08'19	
desc. node	698 Dec 17 j 12:55	18°♌54'33		desc. node	701 Jun 03 j 07:56	7°♐29'17	
morning set	698 Dec 18 j 12:20	20°♌08'06		evening set	701 Jun 12 j 19:00	3°♐43'17	

inferior conj	701 Jun 19 j 02:19	29°II57'37	-3°-35'-18	desc. node	703 Nov 19 j 03:13	2°X07'33	
minimum elong	701 Jun 18 j 18:59	0°S09'04	3°33'21		703 Dec 11 j 07:05	0°S	
min. Earth dist.	701 Jun 19 j 03:48	29°II55'18	0.28956 AU	evening rise	703 Dec 21 j 19:56	13°S14'05	
	701 Jun 19 j 00:47	30°RII			704 Jan 04 j 04:52	0°≈	
morning rise	701 Jun 24 j 18:40	26°II31'22			704 Jan 28 j 05:35	0°X	
direct	701 Jul 10 j 17:46	21°II39'55			704 Feb 21 j 11:32	0°Y	
greatest brilliancy	701 Jul 24 j 21:27	25°II07'56	-4.5m	asc. node	704 Mar 11 j 06:33	22°Y58'00	
	701 Aug 02 j 13:26	0°S			704 Mar 17 j 01:51	0°X	
morning max el	701 Aug 29 j 00:04	22°S09'11	46°07'37		704 Apr 11 j 04:30	0°II	
	701 Sep 05 j 19:54	0°Q			704 May 07 j 02:16	0°S	
asc. node	701 Sep 24 j 11:24	20°Q03'22			704 Jun 03 j 11:46	0°Q	
	701 Oct 03 j 06:09	0°P		evening max el	704 Jun 19 j 22:32	16°Q31'39	45°30'22
	701 Oct 28 j 17:19	0°A		desc. node	704 Jun 30 j 19:58	26°Q25'50	
	701 Nov 22 j 07:41	0°M			704 Jul 05 j 02:32	0°P	
	701 Dec 16 j 13:02	0°X		greatest brilliancy	704 Jul 27 j 03:40	13°P50'50	-4.5m
	702 Jan 09 j 15:21	0°S		retrograde	704 Aug 07 j 16:11	16°P11'34	
desc. node	702 Jan 14 j 00:53	5°S28'40		evening set	704 Aug 25 j 16:14	10°P10'13	
	702 Feb 02 j 17:33	0°≈		inferior conj	704 Aug 28 j 18:38	8°P17'14	-8°-46'00
	702 Feb 26 j 20:59	0°X		minimum elong	704 Aug 28 j 19:26	8°P16'00	8°46'01
morning set	702 Mar 04 j 18:55	7°X20'06		min. Earth dist.	704 Aug 29 j 10:31	7°P52'51	0.28085 AU
	702 Mar 23 j 02:21	0°Y		morning rise	704 Aug 31 j 22:29	6°P21'49	
				direct	704 Sep 19 j 01:02	0°P12'49	
superior conj	702 Apr 12 j 01:21	24°Y37'54	0°-54'-55	greatest brilliancy	704 Oct 03 j 08:36	3°P55'20	-4.6m
minimum elong	702 Apr 12 j 10:46	25°Y06'56	0°54'36	asc. node	704 Oct 21 j 23:08	16°P39'12	
max. Earth dist.	702 Apr 14 j 02:13	27°Y08'25	1.73241 AU		704 Nov 05 j 09:19	0°A	
	702 Apr 16 j 09:57	0°X		morning max el	704 Nov 08 j 16:09	3°A18'11	46°48'38
asc. node	702 May 07 j 04:13	25°X31'46			704 Dec 03 j 06:31	0°M	
	702 May 10 j 19:35	0°II			704 Dec 28 j 23:17	0°X	
evening rise	702 May 19 j 03:42	10°II13'48			705 Jan 22 j 21:49	0°S	
	702 Jun 04 j 06:47	0°S		desc. node	705 Feb 10 j 12:45	22°S38'56	
	702 Jun 28 j 19:27	0°Q			705 Feb 16 j 13:25	0°≈	
	702 Jul 23 j 10:23	0°P			705 Mar 13 j 02:31	0°X	
	702 Aug 17 j 05:22	0°A			705 Apr 06 j 15:02	0°Y	
desc. node	702 Aug 26 j 17:39	11°A25'47			705 May 01 j 03:31	0°X	
	702 Sep 11 j 07:03	0°M		morning set	705 May 13 j 14:16	15°X14'11	
	702 Oct 06 j 20:22	0°X			705 May 25 j 15:29	0°II	
	702 Nov 02 j 10:48	0°S		asc. node	705 Jun 03 j 16:08	11°II04'21	
evening max el	702 Nov 16 j 04:12	14°S30'08	47°22'40	max. Earth dist.	705 Jun 17 j 01:18	27°II30'28	1.73545 AU
	702 Dec 02 j 09:29	0°≈					
asc. node	702 Dec 17 j 20:53	11°≈46'32		superior conj	705 Jun 19 j 00:19	29°II55'01	0°35'19
greatest brilliancy	702 Dec 24 j 06:31	15°≈15'05	-4.7m	minimum elong	705 Jun 18 j 17:48	29°II34'57	0°35'01
retrograde	703 Jan 06 j 05:52	18°≈25'20			705 Jun 19 j 01:57	0°S	
evening set	703 Jan 23 j 01:16	12°≈50'51			705 Jul 13 j 10:16	0°Q	
min. Earth dist.	703 Jan 26 j 04:15	10°≈56'05	0.27411 AU	evening rise	705 Jul 24 j 18:26	14°Q00'27	
inferior conj	703 Jan 27 j 02:23	10°≈21'29	8°04'13		705 Aug 06 j 16:49	0°P	
minimum elong	703 Jan 26 j 18:53	10°≈33'13	8°03'17		705 Aug 30 j 22:50	0°A	
morning rise	703 Jan 30 j 12:48	8°≈14'35		desc. node	705 Sep 23 j 05:32	28°A45'30	
direct	703 Feb 16 j 16:48	2°≈30'23			705 Sep 24 j 05:41	0°M	
greatest brilliancy	703 Feb 27 j 09:07	4°≈36'49	-4.6m		705 Oct 18 j 14:33	0°X	
	703 Apr 03 j 11:20	0°X			705 Nov 12 j 03:18	0°S	
morning max el	703 Apr 07 j 01:52	3°X26'53	46°07'40		705 Dec 07 j 00:42	0°≈	
desc. node	703 Apr 08 j 10:19	4°X45'53			706 Jan 01 j 19:01	0°X	
	703 May 02 j 17:37	0°Y		asc. node	706 Jan 14 j 08:48	13°X54'58	
	703 May 29 j 14:30	0°X		evening max el	706 Jan 26 j 19:39	26°X56'11	46°35'56
	703 Jun 24 j 11:05	0°II			706 Jan 29 j 21:34	0°Y	
	703 Jul 19 j 16:18	0°S		greatest brilliancy	706 Mar 03 j 09:36	25°Y26'58	-4.6m
asc. node	703 Jul 30 j 13:48	13°S09'30		retrograde	706 Mar 17 j 21:30	29°Y12'35	
	703 Aug 13 j 09:23	0°Q		evening set	706 Apr 03 j 11:03	23°Y51'27	
	703 Sep 06 j 16:47	0°P		inferior conj	706 Apr 08 j 04:38	20°Y55'32	5°56'11
	703 Sep 30 j 17:30	0°A		minimum elong	706 Apr 08 j 14:14	20°Y40'20	5°54'10
morning set	703 Oct 01 j 11:59	0°A57'54		min. Earth dist.	706 Apr 08 j 05:29	20°Y54'11	0.28750 AU
	703 Oct 24 j 14:39	0°M		morning rise	706 Apr 13 j 17:45	17°Y32'11	
				direct	706 Apr 29 j 14:49	12°Y41'13	
superior conj	703 Nov 10 j 03:46	20°M49'25	0°21'12	desc. node	706 May 05 j 22:01	13°Y25'52	
minimum elong	703 Nov 10 j 09:10	21°M06'26	0°20'57	greatest brilliancy	706 May 11 j 23:41	15°Y24'48	-4.5m
max. Earth dist.	703 Nov 10 j 03:10	20°M47'32	1.71078 AU		706 Jun 03 j 10:20	0°X	
	703 Nov 17 j 10:41	0°X		morning max el	706 Jun 17 j 09:22	12°X29'39	45°44'10

	706 Jul 04 j 19:32	0°♈			709 Mar 04 j 15:17	0°♈	
	706 Aug 01 j 03:57	0°♉			709 Apr 01 j 12:00	0°♈	
	706 Aug 26 j 22:28	0°♊		evening max el	709 Apr 07 j 14:14	6°♈01'21	45°30'46
asc. node	706 Aug 27 j 01:37	0°♊09'20			709 May 07 j 07:52	0°♉	
	706 Sep 20 j 19:04	0°♊		greatest brilliancy	709 May 11 j 21:49	2°♉24'04	-4.5m
	706 Oct 15 j 02:13	0°♋		retrograde	709 May 26 j 06:47	6°♉00'49	
	706 Nov 08 j 02:07	0°♌		desc. node	709 Jun 02 j 10:10	5°♉00'08	
	706 Dec 01 j 23:04	0°♍		evening set	709 Jun 10 j 10:22	1°♉36'32	
morning set	706 Dec 15 j 21:55	17°♍32'52			709 Jun 13 j 05:49	30°♊	
desc. node	706 Dec 16 j 15:06	18°♍26'52		inferior conj	709 Jun 16 j 18:45	27°♊49'33	-3°-17'-11
	706 Dec 25 j 19:43	0°♎		minimum elong	709 Jun 16 j 11:56	28°♊00'10	3°15'20
	707 Jan 18 j 17:28	0°♏		min. Earth dist.	709 Jun 16 j 20:11	27°♊47'19	0.28963 AU
				morning rise	709 Jun 22 j 13:14	24°♊20'32	
superior conj	707 Jan 26 j 16:55	9°♏59'12	-1°-17'-57	direct	709 Jul 08 j 10:07	19°♊31'32	
minimum elong	707 Jan 26 j 08:02	9°♏31'23	1°17'47	greatest brilliancy	709 Jul 22 j 14:13	23°♊00'13	-4.5m
max. Earth dist.	707 Jan 30 j 18:42	15°♏04'56	1.71681 AU		709 Aug 03 j 09:25	0°♋	
	707 Feb 11 j 17:22	0°♌		morning max el	709 Aug 26 j 16:16	19°♋58'39	46°06'16
evening rise	707 Mar 07 j 19:30	29°♌56'45			709 Sep 05 j 14:55	0°♌	
	707 Mar 07 j 20:33	0°♍		asc. node	709 Sep 23 j 13:29	19°♌25'26	
	707 Apr 01 j 04:05	0°♎			709 Oct 02 j 20:50	0°♍	
asc. node	707 Apr 08 j 18:27	9°♎19'26			709 Oct 28 j 06:21	0°♎	
	707 Apr 25 j 16:51	0°♏			709 Nov 21 j 19:56	0°♏	
	707 May 20 j 11:50	0°♉			709 Dec 16 j 00:48	0°♍	
	707 Jun 14 j 15:06	0°♊		desc. node	710 Jan 09 j 02:49	0°♎	
	707 Jul 10 j 07:11	0°♋			710 Jan 13 j 02:59	4°♎59'39	
desc. node	707 Jul 29 j 07:43	21°♋35'00			710 Feb 02 j 04:46	0°♏	
	707 Aug 05 j 22:24	0°♌			710 Feb 26 j 07:58	0°♌	
evening max el	707 Sep 02 j 00:04	28°♌15'05	46°36'24	morning set	710 Mar 02 j 08:14	4°♌58'38	
	707 Sep 03 j 19:18	0°♍			710 Mar 22 j 13:10	0°♍	
greatest brilliancy	707 Oct 11 j 03:25	27°♍39'56	-4.6m				
retrograde	707 Oct 21 j 20:59	29°♍47'46		superior conj	710 Apr 09 j 17:30	22°♍26'41	0°-57'-28
evening set	707 Nov 05 j 13:30	25°♍35'19		minimum elong	710 Apr 10 j 03:06	22°♍56'16	0°57'08
inferior conj	707 Nov 11 j 10:30	22°♍09'38	-2°-4'00	max. Earth dist.	710 Apr 11 j 20:46	25°♍04'40	1.73204 AU
minimum elong	707 Nov 11 j 15:09	22°♍02'33	2°02'33		710 Apr 15 j 20:40	0°♎	
min. Earth dist.	707 Nov 11 j 16:19	22°♍00'47	0.26430 AU	asc. node	710 May 06 j 06:23	25°♎05'27	
morning rise	707 Nov 17 j 16:28	18°♍31'23			710 May 10 j 06:19	0°♏	
asc. node	707 Nov 19 j 11:02	17°♍37'36		evening rise	710 May 16 j 22:03	8°♏09'58	
direct	707 Dec 01 j 19:41	14°♍32'10			710 Jun 03 j 17:39	0°♉	
greatest brilliancy	707 Dec 14 j 05:07	17°♍23'36	-4.7m		710 Jun 28 j 06:33	0°♊	
	708 Jan 02 j 09:08	0°♋			710 Jul 22 j 21:53	0°♋	
morning max el	708 Jan 21 j 07:00	17°♋32'55	46°49'54		710 Aug 16 j 17:32	0°♌	
	708 Feb 02 j 06:08	0°♍		desc. node	710 Aug 25 j 19:40	10°♌54'18	
	708 Feb 29 j 05:31	0°♎			710 Sep 10 j 20:18	0°♍	
desc. node	708 Mar 10 j 00:38	11°♎16'58			710 Oct 06 j 11:27	0°♋	
	708 Mar 26 j 01:11	0°♌			710 Nov 02 j 05:47	0°♎	
	708 Apr 20 j 08:55	0°♍		evening max el	710 Nov 13 j 19:29	12°♎09'21	47°22'37
	708 May 15 j 10:07	0°♎			710 Dec 02 j 18:56	0°♏	
	708 Jun 09 j 06:14	0°♏		asc. node	710 Dec 16 j 23:01	10°♏16'20	
asc. node	708 Jul 01 j 04:02	26°♏41'02		greatest brilliancy	710 Dec 21 j 21:11	12°♏50'59	-4.7m
	708 Jul 03 j 21:05	0°♉		retrograde	711 Jan 03 j 20:38	16°♏00'56	
morning set	708 Jul 20 j 02:03	19°♉54'18		evening set	711 Jan 20 j 11:27	10°♏32'11	
	708 Jul 28 j 06:21	0°♊		min. Earth dist.	711 Jan 23 j 17:13	8°♏33'30	0.27347 AU
	708 Aug 21 j 10:42	0°♋		inferior conj	711 Jan 24 j 16:05	7°♏57'51	7°55'12
max. Earth dist.	708 Aug 22 j 01:36	0°♌46'24	1.72335 AU	minimum elong	711 Jan 24 j 08:01	8°♏10'26	7°54'07
				morning rise	711 Jan 28 j 04:57	5°♏47'41	
superior conj	708 Aug 25 j 18:15	5°♌22'30	1°24'40	direct	711 Feb 14 j 06:22	0°♏07'49	
minimum elong	708 Aug 25 j 18:11	5°♌22'16	1°24'41	greatest brilliancy	711 Feb 24 j 21:21	2°♏13'44	-4.6m
	708 Sep 14 j 11:43	0°♍			711 Apr 03 j 11:27	0°♌	
evening rise	708 Oct 02 j 21:24	23°♍01'20		morning max el	711 Apr 04 j 16:58	1°♌11'16	46°09'07
	708 Oct 08 j 11:15	0°♎		desc. node	711 Apr 07 j 12:25	3°♌56'24	
desc. node	708 Oct 20 j 17:30	15°♎20'36			711 May 02 j 09:58	0°♍	
	708 Nov 01 j 10:41	0°♋			711 May 29 j 04:07	0°♎	
	708 Nov 25 j 11:06	0°♌			711 Jun 23 j 23:24	0°♏	
	708 Dec 19 j 14:05	0°♍			711 Jul 19 j 03:54	0°♉	
	709 Jan 12 j 22:55	0°♌		asc. node	711 Jul 29 j 15:45	12°♉40'53	
	709 Feb 06 j 19:39	0°♍			711 Aug 12 j 20:36	0°♊	
asc. node	709 Feb 10 j 20:36	4°♍47'16			711 Sep 06 j 03:48	0°♋	

morning set	711 Sep 29 j 02:28	28° \mathbb{M} 38'39		evening set	714 Apr 01 j 06:04	21° Υ 35'37	
	711 Sep 30 j 04:26	0° $\underline{\mathbf{A}}$		inferior conj	714 Apr 05 j 20:52	18° Υ 43'43	6°10'41
	711 Oct 24 j 01:36	0° \mathbb{M}		minimum elong	714 Apr 06 j 06:29	18° Υ 28'28	6°08'43
				min. Earth dist.	714 Apr 05 j 21:34	18° Υ 42'36	0.28728 AU
superior conj	711 Nov 07 j 14:46	18° \mathbb{M} 18'24	0°24'56	morning rise	714 Apr 11 j 07:12	15° Υ 24'00	
minimum elong	711 Nov 07 j 21:01	18° \mathbb{M} 38'04	0°24'39	direct	714 Apr 27 j 06:18	10° Υ 29'52	
max. Earth dist.	711 Nov 07 j 11:23	18° \mathbb{M} 07'45	1.71094 AU	desc. node	714 May 05 j 00:13	11° Υ 36'21	
	711 Nov 16 j 21:43	0° \mathcal{X}		greatest brilliancy	714 May 09 j 13:36	13° Υ 11'19	-4.5m
desc. node	711 Nov 18 j 05:24	1° \mathcal{X} 39'43			714 Jun 03 j 16:23	0° \mathcal{B}	
	711 Dec 10 j 18:11	0° \mathcal{Z}		morning max el	714 Jun 15 j 00:09	10° \mathcal{B} 16'22	45°44'13
evening rise	711 Dec 19 j 05:56	10° \mathcal{Z} 39'54			714 Jul 04 j 13:02	0° \mathbb{I}	
	712 Jan 03 j 16:03	0° \approx			714 Jul 31 j 18:05	0° \mathcal{G}	
	712 Jan 27 j 16:52	0° \mathcal{H}		asc. node	714 Aug 26 j 03:41	29° \mathcal{G} 37'50	
	712 Feb 20 j 23:03	0° Υ			714 Aug 26 j 11:08	0° \mathcal{Q}	
asc. node	712 Mar 10 j 08:36	22° Υ 28'27			714 Sep 20 j 07:02	0° \mathbb{M}	
	712 Mar 16 j 13:46	0° \mathcal{B}			714 Oct 14 j 13:51	0° $\underline{\mathbf{A}}$	
	712 Apr 10 j 17:12	0° \mathbb{I}			714 Nov 07 j 13:33	0° \mathbb{M}	
	712 May 06 j 16:35	0° \mathcal{G}			714 Dec 01 j 10:23	0° \mathcal{X}	
	712 Jun 03 j 06:00	0° \mathcal{Q}		morning set	714 Dec 13 j 07:50	14° \mathcal{X} 57'41	
evening max el	712 Jun 17 j 13:43	14° \mathcal{Q} 18'30	45°28'59	desc. node	714 Dec 15 j 17:08	17° \mathcal{X} 57'53	
desc. node	712 Jun 29 j 22:00	25° \mathcal{Q} 26'34			714 Dec 25 j 06:56	0° \mathcal{Z}	
	712 Jul 05 j 13:12	0° \mathbb{M}			715 Jan 18 j 04:36	0° \approx	
greatest brilliancy	712 Jul 24 j 16:20	11° \mathbb{M} 33'41	-4.5m				
retrograde	712 Aug 05 j 05:58	13° \mathbb{M} 55'15		superior conj	715 Jan 24 j 04:05	7° \approx 29'14	-1°-16'-16
evening set	712 Aug 23 j 05:53	7° \mathbb{M} 55'00		minimum elong	715 Jan 23 j 18:30	6° \approx 59'15	1°16'04
inferior conj	712 Aug 26 j 09:11	6° \mathbb{M} 00'22	-8°-45'-57	max. Earth dist.	715 Jan 28 j 03:40	12° \approx 28'11	1.71629 AU
minimum elong	712 Aug 26 j 09:07	6° \mathbb{M} 00'29	8°45'58		715 Feb 11 j 04:28	0° \mathcal{H}	
min. Earth dist.	712 Aug 27 j 00:18	5° \mathbb{M} 37'05	0.28137 AU	evening rise	715 Mar 05 j 08:56	27° \mathcal{H} 35'18	
morning rise	712 Aug 29 j 12:11	4° \mathbb{M} 05'55			715 Mar 07 j 07:39	0° Υ	
	712 Sep 06 j 11:32	30° \mathcal{R} \mathcal{Q}			715 Mar 31 j 15:15	0° \mathcal{B}	
direct	712 Sep 16 j 16:22	27° \mathcal{Q} 55'23		asc. node	715 Apr 07 j 20:36	8° \mathcal{B} 51'37	
	712 Sep 27 j 05:48	0° \mathbb{M}			715 Apr 25 j 04:14	0° \mathbb{I}	
greatest brilliancy	712 Sep 30 j 23:01	1° \mathbb{M} 36'12	-4.6m		715 May 19 j 23:40	0° \mathcal{G}	
asc. node	712 Oct 21 j 01:15	15° \mathbb{M} 34'43			715 Jun 14 j 03:44	0° \mathcal{Q}	
	712 Nov 05 j 08:17	0° $\underline{\mathbf{A}}$			715 Jul 09 j 21:17	0° \mathbb{M}	
morning max el	712 Nov 06 j 05:58	0° $\underline{\mathbf{A}}$ 54'58	46°47'36	desc. node	715 Jul 28 j 09:44	20° \mathbb{M} 56'19	
	712 Dec 02 j 22:54	0° \mathbb{M}			715 Aug 05 j 15:28	0° $\underline{\mathbf{A}}$	
	712 Dec 28 j 13:20	0° \mathcal{X}		evening max el	715 Aug 30 j 12:02	25° $\underline{\mathbf{A}}$ 48'49	46°33'48
	713 Jan 22 j 10:41	0° \mathcal{Z}			715 Sep 03 j 20:42	0° \mathbb{M}	
desc. node	713 Feb 09 j 14:44	22° \mathcal{Z} 07'30		greatest brilliancy	715 Oct 08 j 16:42	25° \mathbb{M} 12'10	-4.6m
	713 Feb 16 j 01:33	0° \approx		retrograde	715 Oct 19 j 08:37	27° \mathbb{M} 18'51	
	713 Mar 12 j 14:10	0° \mathcal{H}		evening set	715 Nov 03 j 03:33	23° \mathbb{M} 03'19	
	713 Apr 06 j 02:20	0° Υ		inferior conj	715 Nov 08 j 22:39	19° \mathbb{M} 40'40	-2°-27'-50
	713 Apr 30 j 14:34	0° \mathcal{B}		minimum elong	715 Nov 09 j 04:09	19° \mathbb{M} 32'19	2°26'07
morning set	713 May 11 j 08:14	13° \mathcal{B} 08'46		min. Earth dist.	715 Nov 09 j 06:14	19° \mathbb{M} 29'10	0.26458 AU
	713 May 25 j 02:22	0° \mathbb{I}		morning rise	715 Nov 15 j 04:18	16° \mathbb{M} 02'57	
asc. node	713 Jun 02 j 18:14	10° \mathbb{I} 37'32		asc. node	715 Nov 18 j 13:09	14° \mathbb{M} 25'15	
max. Earth dist.	713 Jun 14 j 21:30	25° \mathbb{I} 31'48	1.73561 AU	direct	715 Nov 29 j 07:55	12° \mathbb{M} 02'17	
				greatest brilliancy	715 Dec 11 j 21:19	14° \mathbb{M} 58'11	-4.7m
superior conj	713 Jun 16 j 18:50	27° \mathbb{I} 51'07	0°32'28		716 Jan 02 j 20:06	0° \mathcal{X}	
minimum elong	713 Jun 16 j 12:44	27° \mathbb{I} 32'23	0°32'11	morning max el	716 Jan 18 j 20:28	15° \mathcal{X} 07'02	46°51'01
	713 Jun 18 j 12:46	0° \mathcal{G}			716 Feb 02 j 01:28	0° \mathcal{Z}	
	713 Jul 12 j 21:08	0° \mathcal{Q}			716 Feb 28 j 20:46	0° \approx	
evening rise	713 Jul 22 j 12:47	11° \mathcal{Q} 54'59		desc. node	716 Mar 09 j 02:46	10° \approx 41'23	
	713 Aug 06 j 03:53	0° \mathbb{M}			716 Mar 25 j 14:34	0° \mathcal{H}	
	713 Aug 30 j 10:11	0° $\underline{\mathbf{A}}$			716 Apr 19 j 21:16	0° Υ	
desc. node	713 Sep 22 j 07:39	28° $\underline{\mathbf{A}}$ 15'56			716 May 14 j 21:49	0° \mathcal{B}	
	713 Sep 23 j 17:24	0° \mathbb{M}			716 Jun 08 j 17:33	0° \mathbb{I}	
	713 Oct 18 j 02:45	0° \mathcal{X}		asc. node	716 Jun 30 j 05:59	26° \mathbb{I} 13'02	
	713 Nov 11 j 16:09	0° \mathcal{Z}			716 Jul 03 j 08:10	0° \mathcal{G}	
	713 Dec 06 j 14:42	0° \approx		morning set	716 Jul 17 j 19:39	17° \mathcal{G} 46'44	
	714 Jan 01 j 11:22	0° \mathcal{H}			716 Jul 27 j 17:21	0° \mathcal{Q}	
asc. node	714 Jan 13 j 10:46	13° \mathcal{H} 10'38		max. Earth dist.	716 Aug 19 j 20:06	28° \mathcal{Q} 40'19	1.72388 AU
evening max el	714 Jan 24 j 10:16	24° \mathcal{H} 37'26	46°38'17		716 Aug 20 j 21:42	0° \mathbb{M}	
	714 Jan 29 j 21:01	0° Υ					
greatest brilliancy	714 Mar 01 j 03:49	23° Υ 16'56	-4.6m	superior conj	716 Aug 23 j 10:46	3° \mathbb{M} 10'06	1°24'35
retrograde	714 Mar 15 j 13:22	27° Υ 00'32		minimum elong	716 Aug 23 j 09:56	3° \mathbb{M} 07'32	1°24'35

	716 Sep 13 j 22:49	0°♄		greatest brilliancy	719 Feb 22 j 09:15	29°♄49'18	-4.6m
evening rise	716 Sep 30 j 10:35	20°♄37'23			719 Feb 22 j 20:27	0°♁	
	716 Oct 07 j 22:30	0°♄		morning max el	719 Apr 02 j 07:22	28°♁53'12	46°10'31
desc. node	716 Oct 19 j 19:37	14°♄51'41			719 Apr 03 j 10:46	0°♁	
	716 Oct 31 j 22:09	0°♄		desc. node	719 Apr 06 j 14:31	3°♁07'13	
	716 Nov 24 j 22:49	0°♄			719 May 02 j 02:14	0°♁	
	716 Dec 19 j 02:07	0°♁			719 May 28 j 17:48	0°♁	
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	717 Feb 06 j 08:58	0°♁			719 Jul 18 j 15:37	0°♁	
asc. node	717 Feb 09 j 22:44	4°♁13'36		asc. node	719 Jul 28 j 17:54	12°♁12'31	
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evening max el	717 Apr 05 j 06:16	3°♁50'32	45°32'17	morning set	719 Sep 26 j 16:40	26°♁18'01	
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desc. node	717 Jun 01 j 12:08	2°♁25'30					
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evening set	717 Jun 08 j 01:54	29°♄28'36		minimum elong	719 Nov 05 j 08:36	16°♄08'21	0°28'19
inferior conj	717 Jun 14 j 11:06	25°♄40'14	-2°-58'-42		719 Nov 16 j 08:55	0°♄	
minimum elong	717 Jun 14 j 04:51	25°♄49'59	2°56'59	desc. node	719 Nov 17 j 07:25	1°♄10'48	
min. Earth dist.	717 Jun 14 j 12:12	25°♄38'31	0.28971 AU		719 Dec 10 j 05:25	0°♄	
morning rise	717 Jun 20 j 07:38	22°♄08'38		evening rise	719 Dec 16 j 15:34	8°♄04'09	
direct	717 Jul 06 j 02:57	17°♄22'04			720 Jan 03 j 03:20	0°♁	
greatest brilliancy	717 Jul 20 j 06:31	20°♄50'50	-4.5m		720 Jan 27 j 04:16	0°♁	
	717 Aug 04 j 00:51	0°♁			720 Feb 20 j 10:40	0°♁	
morning max el	717 Aug 24 j 08:50	17°♁48'04	46°04'54	asc. node	720 Mar 09 j 10:45	21°♁58'53	
	717 Sep 05 j 09:52	0°♁			720 Mar 16 j 01:48	0°♁	
asc. node	717 Sep 22 j 15:38	18°♁46'59			720 Apr 10 j 06:04	0°♁	
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	717 Oct 27 j 19:36	0°♁			720 Jun 03 j 00:44	0°♁	
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	717 Dec 15 j 12:46	0°♄		desc. node	720 Jun 29 j 00:00	24°♁25'54	
	718 Jan 08 j 14:29	0°♄			720 Jul 06 j 03:29	0°♁	
desc. node	718 Jan 12 j 04:55	4°♄29'27		greatest brilliancy	720 Jul 22 j 05:09	9°♁16'47	-4.5m
	718 Feb 01 j 16:13	0°♁		retrograde	720 Aug 02 j 19:25	11°♁39'15	
	718 Feb 25 j 19:13	0°♁		evening set	720 Aug 20 j 19:06	5°♁40'36	
morning set	718 Feb 27 j 21:29	2°♁36'01		inferior conj	720 Aug 23 j 23:47	3°♁43'48	-8°-44'-58
	718 Mar 22 j 00:14	0°♁		minimum elong	720 Aug 23 j 22:51	3°♁45'15	8°44'58
				min. Earth dist.	720 Aug 24 j 14:25	3°♁21'13	0.28192 AU
superior conj	718 Apr 07 j 09:38	20°♁14'35	0°-59'-55	morning rise	720 Aug 27 j 02:25	1°♁49'38	
minimum elong	718 Apr 07 j 19:21	20°♁44'31	0°59'35		720 Aug 30 j 06:45	30°♄	
max. Earth dist.	718 Apr 09 j 16:57	23°♁05'06	1.73162 AU	direct	720 Sep 14 j 07:14	25°♁38'00	
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asc. node	718 May 05 j 08:28	24°♁38'15			720 Sep 29 j 23:41	0°♁	
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evening rise	718 May 14 j 16:27	6°♄05'33		morning max el	720 Nov 03 j 19:02	28°♁29'32	46°46'27
	718 Jun 03 j 04:44	0°♁			720 Nov 05 j 06:28	0°♁	
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	718 Jul 22 j 09:42	0°♁			720 Dec 28 j 03:21	0°♄	
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desc. node	718 Aug 24 j 21:45	10°♁22'00		desc. node	721 Feb 08 j 16:57	21°♄36'49	
	718 Sep 10 j 09:57	0°♄			721 Feb 15 j 13:38	0°♁	
	718 Oct 06 j 03:01	0°♄			721 Mar 12 j 01:45	0°♁	
	718 Nov 02 j 01:32	0°♄			721 Apr 05 j 13:34	0°♁	
evening max el	718 Nov 11 j 11:02	9°♄48'39	47°22'33		721 Apr 30 j 01:33	0°♁	
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asc. node	718 Dec 16 j 00:58	8°♁42'02			721 May 24 j 13:12	0°♁	
greatest brilliancy	718 Dec 19 j 12:26	10°♁27'04	-4.7m	asc. node	721 Jun 01 j 20:14	10°♄10'30	
retrograde	719 Jan 01 j 11:14	13°♁35'33		max. Earth dist.	721 Jun 12 j 16:36	23°♄29'57	1.73575 AU
evening set	719 Jan 17 j 21:33	8°♁12'53					
min. Earth dist.	719 Jan 21 j 06:12	6°♁09'58	0.27283 AU	superior conj	721 Jun 14 j 13:25	25°♄47'38	0°29'33
inferior conj	719 Jan 22 j 05:43	5°♁33'20	7°45'14	minimum elong	721 Jun 14 j 07:47	25°♄30'19	0°29'18
minimum elong	719 Jan 21 j 21:08	5°♁46'42	7°43'59		721 Jun 17 j 23:31	0°♁	
morning rise	719 Jan 25 j 21:09	3°♁19'32			721 Jul 12 j 07:57	0°♁	
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



































































































































	721 Aug 29 j 21:27	0°♄			724 Apr 19 j 09:18	0°♅		
desc. node	721 Sep 21 j 09:47	27°♄46'41			724 May 14 j 09:12	0°♄		
	721 Sep 23 j 05:04	0°♄			724 Jun 08 j 04:31	0°♄		
	721 Oct 17 j 14:55	0°♄		asc. node	724 Jun 29 j 08:06	25°♄46'32		
	721 Nov 11 j 05:04	0°♄			724 Jul 02 j 18:55	0°♄		
	721 Dec 06 j 04:50	0°♄		morning set	724 Jul 15 j 13:15	15°♄40'13		
	722 Jan 01 j 04:01	0°♄			724 Jul 27 j 04:02	0°♄		
asc. node	722 Jan 12 j 12:54	12°♄26'11		max. Earth dist.	724 Aug 17 j 13:30	26°♄31'48	1.72440 AU	
evening max el	722 Jan 21 j 23:53	22°♄16'02	46°40'50		724 Aug 20 j 08:25	0°♄		
	722 Jan 29 j 21:34	0°♄						
greatest brilliancy	722 Feb 26 j 21:08	21°♄05'33	-4.6m	superior conj	724 Aug 21 j 03:24	0°♄59'05	1°24'22	
retrograde	722 Mar 13 j 05:13	24°♄48'28		minimum elong	724 Aug 21 j 01:50	0°♄54'13	1°24'21	
evening set	722 Mar 30 j 00:57	19°♄19'26			724 Sep 13 j 09:37	0°♄		
inferior conj	722 Apr 03 j 12:58	16°♄31'47	6°24'37	evening rise	724 Sep 28 j 00:03	18°♄15'19		
minimum elong	722 Apr 03 j 22:33	16°♄16'34	6°22'44		724 Oct 07 j 09:26	0°♄		
min. Earth dist.	722 Apr 03 j 13:32	16°♄30'53	0.28704 AU	desc. node	724 Oct 18 j 21:37	14°♄23'25		
morning rise	722 Apr 08 j 20:24	13°♄16'02			724 Oct 31 j 09:16	0°♄		
direct	722 Apr 24 j 21:18	8°♄18'14			724 Nov 24 j 10:10	0°♄		
desc. node	722 May 04 j 02:15	9°♄50'46			724 Dec 18 j 13:47	0°♄		
greatest brilliancy	722 May 07 j 04:13	10°♄58'50	-4.5m		725 Jan 11 j 23:33	0°♄		
	722 Jun 03 j 20:20	0°♄			725 Feb 05 j 22:02	0°♄		
morning max el	722 Jun 12 j 15:10	8°♄04'02	45°44'24	asc. node	725 Feb 09 j 00:50	3°♄40'45		
	722 Jul 04 j 06:00	0°♄			725 Mar 03 j 21:31	0°♄		
	722 Jul 31 j 07:52	0°♄			725 Apr 01 j 05:05	0°♄		
asc. node	722 Aug 25 j 05:51	29°♄07'17		evening max el	725 Apr 02 j 22:56	1°♄42'00	45°33'52	
	722 Aug 25 j 23:33	0°♄		greatest brilliancy	725 May 07 j 03:34	28°♄03'46	-4.5m	
	722 Sep 19 j 18:45	0°♄			725 May 11 j 21:40	0°♄		
	722 Oct 14 j 01:14	0°♄		retrograde	725 May 21 j 16:34	1°♄44'11		
	722 Nov 07 j 00:46	0°♄			725 May 31 j 00:48	30°♄		
	722 Nov 30 j 21:30	0°♄		desc. node	725 May 31 j 14:09	29°♄47'22		
morning set	722 Dec 10 j 17:33	12°♄22'22		evening set	725 Jun 05 j 17:40	27°♄21'33		
desc. node	722 Dec 14 j 19:10	17°♄29'22		inferior conj	725 Jun 12 j 03:27	23°♄31'53	-2°-40'00	
	722 Dec 24 j 17:59	0°♄		minimum elong	725 Jun 11 j 21:47	23°♄40'43	2°38'26	
	723 Jan 17 j 15:36	0°♄		min. Earth dist.	725 Jun 12 j 04:10	23°♄30'47	0.28974 AU	
				morning rise	725 Jun 18 j 01:53	19°♄57'45		
superior conj	723 Jan 21 j 14:41	4°♄57'47	-1°-14'-24	direct	725 Jul 03 j 19:53	15°♄13'50		
minimum elong	723 Jan 21 j 04:29	4°♄25'51	1°14'10	greatest brilliancy	725 Jul 17 j 21:34	18°♄41'00	-4.5m	
max. Earth dist.	723 Jan 25 j 09:23	9°♄41'38	1.71579 AU		725 Aug 04 j 11:51	0°♄		
	723 Feb 10 j 15:25	0°♄		morning max el	725 Aug 22 j 01:03	15°♄37'54	46°03'26	
evening rise	723 Mar 02 j 21:48	25°♄12'31			725 Sep 05 j 03:56	0°♄		
	723 Mar 06 j 18:34	0°♄		asc. node	725 Sep 21 j 17:38	18°♄09'34		
	723 Mar 31 j 02:14	0°♄			725 Oct 02 j 02:02	0°♄		
asc. node	723 Apr 06 j 22:38	8°♄24'04			725 Oct 27 j 08:23	0°♄		
	723 Apr 24 j 15:26	0°♄			725 Nov 20 j 20:22	0°♄		
	723 May 19 j 11:20	0°♄			725 Dec 15 j 00:20	0°♄		
	723 Jun 13 j 16:14	0°♄			726 Jan 08 j 01:44	0°♄		
	723 Jul 09 j 11:17	0°♄		desc. node	726 Jan 11 j 07:07	4°♄01'22		
desc. node	723 Jul 27 j 11:55	20°♄18'32			726 Feb 01 j 03:13	0°♄		
	723 Aug 05 j 08:35	0°♄		morning set	726 Feb 25 j 10:46	0°♄14'43		
evening max el	723 Aug 28 j 00:42	23°♄25'27	46°31'21		726 Feb 25 j 06:01	0°♄		
	723 Sep 03 j 23:02	0°♄			726 Mar 21 j 10:54	0°♄		
greatest brilliancy	723 Oct 06 j 05:02	22°♄44'52	-4.6m					
retrograde	723 Oct 16 j 20:56	24°♄51'29		superior conj	726 Apr 05 j 01:35	18°♄02'56	-1°-2'-16	
evening set	723 Oct 31 j 17:52	20°♄32'33		minimum elong	726 Apr 05 j 11:21	18°♄33'04	1°01'58	
inferior conj	723 Nov 06 j 10:51	17°♄13'00	-2°-51'-10	max. Earth dist.	726 Apr 07 j 13:48	21°♄08'38	1.73122 AU	
minimum elong	723 Nov 06 j 17:09	17°♄03'27	2°49'14		726 Apr 14 j 18:15	0°♄		
min. Earth dist.	723 Nov 06 j 19:44	16°♄59'33	0.26491 AU	asc. node	726 May 04 j 10:27	24°♄11'41		
morning rise	723 Nov 12 j 16:00	13°♄36'22			726 May 09 j 03:55	0°♄		
asc. node	723 Nov 17 j 15:06	11°♄19'41		evening rise	726 May 12 j 10:30	4°♄01'09		
direct	723 Nov 26 j 20:44	9°♄33'51			726 Jun 02 j 15:29	0°♄		
greatest brilliancy	723 Dec 09 j 12:45	12°♄33'16	-4.7m		726 Jun 27 j 04:55	0°♄		
	724 Jan 03 j 03:44	0°♄			726 Jul 21 j 21:12	0°♄		
morning max el	724 Jan 16 j 10:50	12°♄44'21	46°51'51		726 Aug 15 j 18:18	0°♄		
	724 Feb 01 j 20:00	0°♄		desc. node	726 Aug 23 j 23:50	9°♄50'41		
	724 Feb 28 j 11:35	0°♄			726 Sep 09 j 23:23	0°♄		
desc. node	724 Mar 08 j 04:50	10°♄06'31			726 Oct 05 j 18:30	0°♄		
	724 Mar 25 j 03:38	0°♄			726 Nov 01 j 21:32	0°♄		

evening max el	726 Nov 09 j 02:26	7°☾28'29	47°22'20		729 Apr 29 j 12:20	0°♄	
	726 Dec 04 j 00:30	0°♊		morning set	729 May 06 j 20:07	8°♄58'28	
asc. node	726 Dec 15 j 03:08	7°♊05'45			729 May 23 j 23:50	0°♊	
greatest brilliancy	726 Dec 17 j 04:49	8°♊05'37	-4.7m	asc. node	729 May 31 j 22:22	9°♊44'27	
retrograde	726 Dec 30 j 01:32	11°♊11'09		max. Earth dist.	729 Jun 10 j 13:06	21°♊32'53	1.73593 AU
evening set	727 Jan 15 j 07:42	5°♊55'01					
min. Earth dist.	727 Jan 18 j 19:33	3°♊47'20	0.27215 AU	superior conj	729 Jun 12 j 08:10	23°♊45'13	0°26'38
inferior conj	727 Jan 19 j 19:22	3°♊10'10	7°34'29	minimum elong	729 Jun 12 j 03:02	23°♊29'26	0°26'23
minimum elong	727 Jan 19 j 10:20	3°♊24'16	7°33'03		729 Jun 17 j 10:08	0°☾	
morning rise	727 Jan 23 j 13:27	0°♊52'30			729 Jul 11 j 18:39	0°♊	
	727 Jan 25 j 01:58	30°♋☾		evening rise	729 Jul 18 j 02:02	7°♊46'55	
direct	727 Feb 09 j 09:35	25°☾22'49			729 Aug 05 j 01:45	0°♋	
greatest brilliancy	727 Feb 19 j 21:18	27°☾26'17	-4.6m		729 Aug 29 j 08:39	0°♊	
	727 Feb 25 j 12:58	0°♊		desc. node	729 Sep 20 j 11:44	27°♊17'06	
morning max el	727 Mar 30 j 20:47	26°♊33'52	46°11'53		729 Sep 22 j 16:40	0°♋	
	727 Apr 03 j 08:36	0°♋			729 Oct 17 j 03:04	0°♋	
desc. node	727 Apr 05 j 16:33	2°♋19'59			729 Nov 10 j 18:00	0°☾	
	727 May 01 j 17:48	0°♋			729 Dec 05 j 19:04	0°♊	
	727 May 28 j 07:01	0°♄			729 Dec 31 j 20:59	0°♋	
	727 Jun 22 j 23:50	0°♊		asc. node	730 Jan 11 j 15:02	11°♋41'07	
	727 Jul 18 j 02:59	0°☾		evening max el	730 Jan 19 j 13:49	19°♋55'19	46°43'24
asc. node	727 Jul 27 j 20:01	11°☾45'01			730 Jan 29 j 23:25	0°♋	
	727 Aug 11 j 18:56	0°♊		greatest brilliancy	730 Feb 24 j 13:43	18°♋53'06	-4.6m
	727 Sep 05 j 01:47	0°♋		retrograde	730 Mar 10 j 21:30	22°♋36'35	
morning set	727 Sep 24 j 06:55	23°♋58'31		evening set	730 Mar 27 j 19:49	17°♋03'11	
	727 Sep 29 j 02:21	0°♊		inferior conj	730 Apr 01 j 05:05	14°♋19'52	6°37'56
	727 Oct 22 j 23:37	0°♋		minimum elong	730 Apr 01 j 14:35	14°♋04'50	6°36'10
max. Earth dist.	727 Nov 01 j 19:07	12°♋20'40	1.71132 AU	min. Earth dist.	730 Apr 01 j 05:17	14°♋19'34	0.28676 AU
				morning rise	730 Apr 06 j 09:33	11°♋08'33	
superior conj	727 Nov 02 j 12:35	13°♋15'37	0°32'17	direct	730 Apr 22 j 12:23	6°♋06'38	
minimum elong	727 Nov 02 j 20:19	13°♋39'57	0°31'55	desc. node	730 May 03 j 04:14	8°♋09'15	
	727 Nov 15 j 19:51	0°♋		greatest brilliancy	730 May 04 j 19:06	8°♋46'59	-4.5m
desc. node	727 Nov 16 j 09:26	0°♋42'46			730 Jun 03 j 22:31	0°♄	
	727 Dec 09 j 16:24	0°☾		morning max el	730 Jun 10 j 06:55	5°♄53'47	45°44'41
evening rise	727 Dec 14 j 01:16	5°☾29'18			730 Jul 03 j 22:31	0°♊	
	728 Jan 02 j 14:22	0°♊			730 Jul 30 j 21:29	0°☾	
	728 Jan 26 j 15:23	0°♋		asc. node	730 Aug 24 j 07:49	28°☾36'14	
	728 Feb 19 j 21:59	0°♋			730 Aug 25 j 11:54	0°♊	
asc. node	728 Mar 08 j 12:46	21°♋29'51			730 Sep 19 j 06:30	0°♋	
	728 Mar 15 j 13:33	0°♄			730 Oct 13 j 12:40	0°♊	
	728 Apr 09 j 18:39	0°♊			730 Nov 06 j 12:02	0°♋	
	728 May 05 j 21:32	0°☾			730 Nov 30 j 08:40	0°♋	
	728 Jun 02 j 19:41	0°♊		morning set	730 Dec 08 j 03:20	9°♋47'04	
evening max el	728 Jun 12 j 17:50	9°♊47'29	45°26'26	desc. node	730 Dec 13 j 21:19	17°♋01'04	
desc. node	728 Jun 28 j 02:12	23°♊24'53			730 Dec 24 j 05:06	0°☾	
	728 Jul 06 j 22:09	0°♋			731 Jan 17 j 02:40	0°♊	
greatest brilliancy	728 Jul 19 j 17:37	7°♋00'23	-4.5m				
retrograde	728 Jul 31 j 09:09	9°♋24'40		superior conj	731 Jan 19 j 01:03	2°♋25'18	-1°-12'-23
evening set	728 Aug 18 j 08:03	3°♋27'59		minimum elong	731 Jan 18 j 14:19	1°♋51'41	1°12'07
inferior conj	728 Aug 21 j 14:34	1°♋28'30	-8°-42'-59	max. Earth dist.	731 Jan 22 j 15:24	6°♋55'39	1.71536 AU
minimum elong	728 Aug 21 j 12:46	1°♋31'16	8°42'58		731 Feb 10 j 02:28	0°♋	
min. Earth dist.	728 Aug 22 j 04:49	1°♋06'30	0.28247 AU	evening rise	731 Feb 28 j 10:33	22°♋48'59	
	728 Aug 24 j 00:09	30°♌♊			731 Mar 06 j 05:37	0°♋	
morning rise	728 Aug 24 j 17:18	29°♊34'05			731 Mar 30 j 13:20	0°♄	
direct	728 Sep 11 j 21:59	23°♊21'44		asc. node	731 Apr 06 j 00:40	7°♄56'06	
greatest brilliancy	728 Sep 26 j 06:45	27°♊02'52	-4.6m		731 Apr 24 j 02:45	0°♊	
	728 Oct 01 j 15:36	0°♋			731 May 18 j 23:06	0°☾	
asc. node	728 Oct 19 j 05:22	13°♋30'36			731 Jun 13 j 04:51	0°♊	
morning max el	728 Nov 01 j 08:26	26°♋05'47	46°45'16		731 Jul 09 j 01:30	0°♋	
	728 Nov 05 j 03:35	0°♊		desc. node	731 Jul 26 j 13:55	19°♋39'37	
	728 Dec 02 j 06:56	0°♋			731 Aug 05 j 02:11	0°♊	
	728 Dec 27 j 17:04	0°♋		evening max el	731 Aug 25 j 14:16	21°♊04'01	46°28'41
	729 Jan 21 j 12:07	0°☾			731 Sep 04 j 03:14	0°♋	
desc. node	729 Feb 07 j 18:56	21°☾05'58		greatest brilliancy	731 Oct 03 j 16:54	20°♋16'24	-4.6m
	729 Feb 15 j 01:32	0°♊		retrograde	731 Oct 14 j 09:28	22°♋22'59	
	729 Mar 11 j 13:09	0°♋		evening set	731 Oct 29 j 08:16	18°♋00'40	
	729 Apr 05 j 00:36	0°♋		inferior conj	731 Nov 03 j 22:55	14°♋44'11	-3°-14'-8

minimum elong	731 Nov 04 j 05:59	14° \mathbb{M} 33'30	3°12'01			734 May 08 j 14:59	0° \mathbb{I}	
min. Earth dist.	731 Nov 04 j 08:52	14° \mathbb{M} 29'08	0.26527 AU	evening rise		734 May 10 j 04:16	1° \mathbb{I} 54'26	
morning rise	731 Nov 10 j 03:17	11° \mathbb{M} 08'55				734 Jun 02 j 02:41	0° \mathfrak{S}	
asc. node	731 Nov 16 j 17:15	8° \mathbb{M} 18'11				734 Jun 26 j 16:23	0° \mathcal{O}	
direct	731 Nov 24 j 09:52	7° \mathbb{M} 04'27				734 Jul 21 j 09:06	0° \mathfrak{M}	
greatest brilliancy	731 Dec 07 j 03:13	10° \mathbb{M} 06'05	-4.7m			734 Aug 15 j 06:58	0° \mathfrak{L}	
	732 Jan 03 j 09:32	0° \mathfrak{X}		desc. node		734 Aug 23 j 01:51	9° \mathfrak{L} 18'00	
morning max el	732 Jan 14 j 01:16	10° \mathfrak{X} 20'59	46°52'36			734 Sep 09 j 13:15	0° \mathbb{M}	
	732 Feb 01 j 14:22	0° \mathfrak{Z}				734 Oct 05 j 10:32	0° \mathfrak{X}	
	732 Feb 28 j 02:28	0° \approx				734 Nov 01 j 18:34	0° \mathfrak{Z}	
desc. node	732 Mar 07 j 06:50	9° \approx 30'55		evening max el		734 Nov 06 j 16:41	5° \mathfrak{Z} 04'14	47°21'45
	732 Mar 24 j 16:51	0° \mathfrak{H}				734 Dec 04 j 23:50	0° \approx	
	732 Apr 18 j 21:32	0° \mathcal{Y}		asc. node		734 Dec 14 j 05:13	5° \approx 23'49	
	732 May 13 j 20:48	0° \mathfrak{B}		greatest brilliancy		734 Dec 14 j 21:37	5° \approx 42'40	-4.7m
	732 Jun 07 j 15:43	0° \mathbb{I}		retrograde		734 Dec 27 j 15:05	8° \approx 44'25	
asc. node	732 Jun 28 j 10:14	25° \mathbb{I} 19'25		evening set		735 Jan 12 j 17:34	3° \approx 34'51	
	732 Jul 02 j 05:53	0° \mathfrak{S}		min. Earth dist.		735 Jan 16 j 09:10	1° \approx 21'40	0.27152 AU
morning set	732 Jul 13 j 07:13	13° \mathfrak{S} 34'22		inferior conj		735 Jan 17 j 08:48	0° \approx 44'47	7°22'43
	732 Jul 26 j 14:55	0° \mathcal{O}		minimum elong		735 Jan 16 j 23:23	0° \approx 59'29	7°21'06
max. Earth dist.	732 Aug 15 j 06:25	24° \mathcal{O} 21'22	1.72493 AU			735 Jan 18 j 13:35	30° \mathfrak{R} \mathfrak{Z}	
				morning rise		735 Jan 21 j 05:41	28° \mathfrak{Z} 22'52	
superior conj	732 Aug 18 j 20:26	28° \mathcal{O} 48'47	1°24'00	direct		735 Feb 06 j 22:16	22° \mathfrak{Z} 58'33	
minimum elong	732 Aug 18 j 18:11	28° \mathcal{O} 41'46	1°24'00	greatest brilliancy		735 Feb 17 j 10:21	25° \mathfrak{Z} 01'56	-4.6m
	732 Aug 19 j 19:19	0° \mathfrak{M}				735 Feb 27 j 06:11	0° \approx	
	732 Sep 12 j 20:39	0° \mathfrak{L}		morning max el		735 Mar 28 j 09:20	24° \approx 10'26	46°13'21
evening rise	732 Sep 25 j 13:47	15° \mathfrak{L} 53'22				735 Apr 03 j 06:18	0° \mathfrak{H}	
	732 Oct 06 j 20:39	0° \mathbb{M}		desc. node		735 Apr 04 j 18:39	1° \mathfrak{H} 32'00	
desc. node	732 Oct 17 j 23:42	13° \mathbb{M} 54'32				735 May 01 j 09:41	0° \mathcal{Y}	
	732 Oct 30 j 20:44	0° \mathfrak{X}				735 May 27 j 20:36	0° \mathfrak{B}	
	732 Nov 23 j 21:54	0° \mathfrak{Z}				735 Jun 22 j 12:15	0° \mathbb{I}	
	732 Dec 18 j 01:49	0° \approx				735 Jul 17 j 14:44	0° \mathfrak{S}	
	733 Jan 11 j 12:06	0° \mathfrak{H}		asc. node		735 Jul 26 j 21:57	11° \mathfrak{S} 15'43	
	733 Feb 05 j 11:34	0° \mathcal{Y}				735 Aug 11 j 06:18	0° \mathcal{O}	
asc. node	733 Feb 08 j 02:48	3° \mathcal{Y} 06'17				735 Sep 04 j 12:59	0° \mathfrak{M}	
	733 Mar 03 j 13:12	0° \mathfrak{B}		morning set		735 Sep 21 j 21:36	21° \mathfrak{M} 39'23	
evening max el	733 Mar 31 j 15:31	29° \mathfrak{B} 32'03	45°35'28			735 Sep 28 j 13:30	0° \mathfrak{L}	
	733 Apr 01 j 03:04	0° \mathbb{I}				735 Oct 22 j 10:47	0° \mathbb{M}	
greatest brilliancy	733 May 04 j 20:07	25° \mathbb{I} 55'00	-4.5m	max. Earth dist.		735 Oct 30 j 01:04	9° \mathbb{M} 33'18	1.71157 AU
retrograde	733 May 19 j 09:04	29° \mathbb{I} 34'59						
desc. node	733 May 30 j 16:21	27° \mathbb{I} 03'38		superior conj		735 Oct 31 j 00:10	10° \mathbb{M} 46'00	0°35'46
evening set	733 Jun 03 j 09:37	25° \mathbb{I} 13'18		minimum elong		735 Oct 31 j 08:33	11° \mathbb{M} 12'22	0°35'24
inferior conj	733 Jun 09 j 19:49	21° \mathbb{I} 22'35	-2°-21'-7	desc. node		735 Nov 15 j 11:37	0° \mathfrak{X} 14'21	
minimum elong	733 Jun 09 j 14:46	21° \mathbb{I} 30'28	2°19'42			735 Nov 15 j 07:04	0° \mathfrak{X}	
min. Earth dist.	733 Jun 09 j 20:27	21° \mathbb{I} 21'35	0.28972 AU			735 Dec 09 j 03:41	0° \mathfrak{Z}	
morning rise	733 Jun 15 j 19:58	17° \mathbb{I} 45'49		evening rise		735 Dec 11 j 11:17	2° \mathfrak{Z} 54'36	
direct	733 Jul 01 j 12:38	13° \mathbb{I} 04'44				736 Jan 02 j 01:45	0° \approx	
greatest brilliancy	733 Jul 15 j 11:31	16° \mathbb{I} 28'50	-4.5m			736 Jan 26 j 02:54	0° \mathfrak{H}	
	733 Aug 04 j 20:20	0° \mathfrak{S}				736 Feb 19 j 09:46	0° \mathcal{Y}	
morning max el	733 Aug 19 j 16:28	13° \mathfrak{S} 25'02	46°02'07	asc. node		736 Mar 07 j 14:48	20° \mathcal{Y} 59'30	
	733 Sep 04 j 21:50	0° \mathcal{O}				736 Mar 15 j 01:47	0° \mathfrak{B}	
asc. node	733 Sep 20 j 19:42	17° \mathcal{O} 31'51				736 Apr 09 j 07:48	0° \mathbb{I}	
	733 Oct 01 j 16:27	0° \mathfrak{M}				736 May 05 j 12:37	0° \mathfrak{S}	
	733 Oct 26 j 21:24	0° \mathfrak{L}				736 Jun 02 j 15:44	0° \mathcal{O}	
	733 Nov 20 j 08:41	0° \mathbb{M}		evening max el		736 Jun 10 j 07:26	7° \mathcal{O} 30'02	45°25'24
	733 Dec 14 j 12:16	0° \mathfrak{X}		desc. node		736 Jun 27 j 04:11	22° \mathcal{O} 20'31	
	734 Jan 07 j 13:25	0° \mathfrak{Z}				736 Jul 08 j 00:30	0° \mathfrak{M}	
desc. node	734 Jan 10 j 09:10	3° \mathfrak{Z} 31'27		greatest brilliancy		736 Jul 17 j 04:56	4° \mathfrak{M} 41'28	-4.5m
	734 Jan 31 j 14:40	0° \approx		retrograde		736 Jul 28 j 23:16	7° \mathfrak{M} 08'56	
morning set	734 Feb 22 j 23:26	27° \approx 50'05		evening set		736 Aug 15 j 20:32	1° \mathfrak{M} 14'25	
	734 Feb 24 j 17:16	0° \mathfrak{H}				736 Aug 17 j 21:56	30° \mathfrak{R} \mathcal{O}	
	734 Mar 20 j 22:00	0° \mathcal{Y}		inferior conj		736 Aug 19 j 05:14	29° \mathcal{O} 11'52	-8°-40'-19
				minimum elong		736 Aug 19 j 02:35	29° \mathcal{O} 15'57	8°40'14
superior conj	734 Apr 02 j 17:05	15° \mathcal{Y} 48'32	-1°-4'-34	min. Earth dist.		736 Aug 19 j 18:59	28° \mathcal{O} 50'39	0.28298 AU
minimum elong	734 Apr 03 j 02:51	16° \mathcal{Y} 18'39	1°04'17	morning rise		736 Aug 22 j 08:24	27° \mathcal{O} 16'51	
max. Earth dist.	734 Apr 05 j 10:46	19° \mathcal{Y} 11'09	1.73078 AU	direct		736 Sep 09 j 12:41	21° \mathcal{O} 04'04	
	734 Apr 14 j 05:17	0° \mathfrak{B}		greatest brilliancy		736 Sep 23 j 23:38	24° \mathcal{O} 47'12	-4.6m
asc. node	734 May 03 j 12:36	23° \mathfrak{B} 44'22				736 Oct 02 j 19:56	0° \mathfrak{M}	

asc. node	736 Oct 18 j 07:29	12°♍30'21			739 Jun 12 j 17:37	0°♏	
morning max el	736 Oct 29 j 22:48	23°♍43'51	46°44'21		739 Jul 08 j 15:57	0°♍	
	736 Nov 05 j 00:17	0°♌		desc. node	739 Jul 25 j 15:57	19°♍00'15	
	736 Dec 01 j 22:41	0°♌			739 Aug 04 j 20:16	0°♌	
	736 Dec 27 j 06:50	0°♌		evening max el	739 Aug 23 j 04:28	18°♌44'10	46°26'01
	737 Jan 21 j 00:51	0°♌			739 Sep 04 j 09:24	0°♌	
desc. node	737 Feb 06 j 20:58	20°♌34'38		greatest brilliancy	739 Oct 01 j 05:04	17°♌48'33	-4.6m
	737 Feb 14 j 13:37	0°♌		retrograde	739 Oct 11 j 21:46	19°♌54'25	
	737 Mar 11 j 00:48	0°♌		evening set	739 Oct 26 j 22:51	15°♌28'53	
	737 Apr 04 j 11:57	0°♌		inferior conj	739 Nov 01 j 10:58	12°♌15'30	-3°-36'-46
	737 Apr 28 j 23:26	0°♌		minimum elong	739 Nov 01 j 18:42	12°♌03'46	3°34'29
morning set	737 May 04 j 13:39	6°♌51'15		min. Earth dist.	739 Nov 01 j 21:55	11°♌58'54	0.26563 AU
	737 May 23 j 10:47	0°♌		morning rise	739 Nov 07 j 14:14	8°♌41'41	
asc. node	737 May 31 j 00:26	9°♌17'16		asc. node	739 Nov 15 j 19:22	5°♌22'26	
max. Earth dist.	737 Jun 08 j 10:47	19°♌38'35	1.73608 AU	direct	739 Nov 21 j 23:03	4°♌35'19	
				greatest brilliancy	739 Dec 04 j 16:55	7°♌37'56	-4.7m
superior conj	737 Jun 10 j 02:28	21°♌40'27	0°23'38		740 Jan 03 j 13:24	0°♌	
minimum elong	737 Jun 09 j 21:50	21°♌26'15	0°23'25	morning max el	740 Jan 11 j 15:20	7°♌56'53	46°53'26
	737 Jun 16 j 21:02	0°♌			740 Feb 01 j 08:11	0°♌	
	737 Jul 11 j 05:38	0°♌			740 Feb 27 j 17:00	0°♌	
evening rise	737 Jul 15 j 20:33	5°♌42'00		desc. node	740 Mar 06 j 08:59	8°♌56'34	
	737 Aug 04 j 12:57	0°♌			740 Mar 24 j 05:45	0°♌	
	737 Aug 28 j 20:09	0°♌			740 Apr 18 j 09:30	0°♌	
desc. node	737 Sep 19 j 13:51	26°♌47'10			740 May 13 j 08:11	0°♌	
	737 Sep 22 j 04:33	0°♌			740 Jun 07 j 02:44	0°♌	
	737 Oct 16 j 15:28	0°♌		asc. node	740 Jun 27 j 12:12	24°♌52'08	
	737 Nov 10 j 07:08	0°♌			740 Jul 01 j 16:44	0°♌	
	737 Dec 05 j 09:31	0°♌		morning set	740 Jul 11 j 01:08	11°♌28'40	
	737 Dec 31 j 14:19	0°♌			740 Jul 26 j 01:42	0°♌	
asc. node	738 Jan 10 j 16:58	10°♌54'49		max. Earth dist.	740 Aug 12 j 21:02	22°♌04'07	1.72545 AU
evening max el	738 Jan 17 j 04:34	17°♌36'35	46°45'53				
	738 Jan 30 j 02:49	0°♌		superior conj	740 Aug 16 j 13:25	26°♌38'45	1°23'32
greatest brilliancy	738 Feb 22 j 05:31	16°♌39'18	-4.6m	minimum elong	740 Aug 16 j 10:29	26°♌29'39	1°23'31
retrograde	738 Mar 08 j 14:12	20°♌24'06			740 Aug 19 j 06:08	0°♌	
evening set	738 Mar 25 j 14:39	14°♌46'11			740 Sep 12 j 07:33	0°♌	
inferior conj	738 Mar 29 j 21:09	12°♌07'09	6°50'46	evening rise	740 Sep 23 j 03:28	13°♌31'43	
minimum elong	738 Mar 30 j 06:30	11°♌52'22	6°49'06		740 Oct 06 j 07:44	0°♌	
min. Earth dist.	738 Mar 29 j 20:37	12°♌08'01	0.28654 AU	desc. node	740 Oct 17 j 01:50	13°♌26'12	
morning rise	738 Apr 03 j 22:35	9°♌00'32			740 Oct 30 j 08:03	0°♌	
direct	738 Apr 20 j 03:52	3°♌54'13			740 Nov 23 j 09:29	0°♌	
desc. node	738 May 02 j 06:27	6°♌30'49			740 Dec 17 j 13:43	0°♌	
greatest brilliancy	738 May 02 j 09:40	6°♌34'06	-4.5m		741 Jan 11 j 00:30	0°♌	
	738 Jun 03 j 23:39	0°♌			741 Feb 05 j 00:56	0°♌	
morning max el	738 Jun 07 j 23:34	3°♌44'56	45°44'54	asc. node	741 Feb 07 j 04:56	2°♌32'54	
	738 Jul 03 j 14:59	0°♌			741 Mar 03 j 04:46	0°♌	
	738 Jul 30 j 11:11	0°♌		evening max el	741 Mar 29 j 07:40	27°♌22'06	45°37'08
asc. node	738 Aug 23 j 09:56	28°♌05'16			741 Apr 01 j 01:26	0°♌	
	738 Aug 25 j 00:21	0°♌		greatest brilliancy	741 May 02 j 12:47	23°♌47'47	-4.5m
	738 Sep 18 j 18:20	0°♌		retrograde	741 May 17 j 01:13	27°♌27'35	
	738 Oct 13 j 00:11	0°♌		desc. node	741 May 29 j 18:19	24°♌18'06	
	738 Nov 05 j 23:22	0°♌		evening set	741 Jun 01 j 01:58	23°♌06'30	
	738 Nov 29 j 19:54	0°♌		inferior conj	741 Jun 07 j 12:27	19°♌15'06	-2°-2'-9
morning set	738 Dec 05 j 13:27	7°♌12'41		minimum elong	741 Jun 07 j 08:03	19°♌21'59	2°00'55
desc. node	738 Dec 12 j 23:21	16°♌32'15		min. Earth dist.	741 Jun 07 j 13:19	19°♌13'44	0.28975 AU
	738 Dec 23 j 16:14	0°♌		morning rise	741 Jun 13 j 14:09	15°♌35'43	
				direct	741 Jun 29 j 05:18	10°♌57'18	
superior conj	739 Jan 16 j 11:39	29°♌53'28	-1°-10'-13	greatest brilliancy	741 Jul 13 j 01:57	14°♌18'24	-4.5m
minimum elong	739 Jan 16 j 00:27	29°♌18'24	1°09'54		741 Aug 05 j 02:00	0°♌	
	739 Jan 16 j 13:44	0°♌		morning max el	741 Aug 17 j 07:23	11°♌11'45	46°00'43
max. Earth dist.	739 Jan 20 j 00:17	4°♌18'40	1.71490 AU		741 Sep 04 j 15:07	0°♌	
	739 Feb 09 j 13:27	0°♌		asc. node	741 Sep 19 j 21:51	16°♌55'16	
evening rise	739 Feb 25 j 23:35	20°♌26'27			741 Oct 01 j 06:32	0°♌	
	739 Mar 05 j 16:36	0°♌			741 Oct 26 j 10:06	0°♌	
	739 Mar 30 j 00:25	0°♌			741 Nov 19 j 20:43	0°♌	
asc. node	739 Apr 05 j 02:49	7°♌28'36			741 Dec 13 j 23:54	0°♌	
	739 Apr 23 j 14:05	0°♌			742 Jan 07 j 00:47	0°♌	
	739 May 18 j 10:57	0°♌		desc. node	742 Jan 09 j 11:08	3°♌02'12	

	742 Jan 31 j 01:48	0°♊		retrograde	744 Jul 26 j 14:09	4°♎55'46	
morning set	742 Feb 20 j 12:03	25°♊26'09			744 Aug 11 j 17:56	30°♎	
	742 Feb 24 j 04:12	0°♋		evening set	744 Aug 13 j 09:02	29°♎03'43	
	742 Mar 20 j 08:47	0°♌		inferior conj	744 Aug 16 j 20:12	26°♎57'40	-8°-36'-47
				minimum elong	744 Aug 16 j 16:46	27°♎02'57	8°36'37
superior conj	742 Mar 31 j 08:49	13°♌35'52	-1°-6'-46	min. Earth dist.	744 Aug 17 j 09:04	26°♎37'49	0.28352 AU
minimum elong	742 Mar 31 j 18:29	14°♌05'43	1°06'29	morning rise	744 Aug 20 j 00:15	25°♎01'28	
max. Earth dist.	742 Apr 03 j 06:33	17°♌11'04	1.73026 AU	direct	744 Sep 07 j 04:13	18°♎48'55	
	742 Apr 13 j 15:57	0°♍		greatest brilliancy	744 Sep 21 j 16:42	22°♎33'58	-4.6m
asc. node	742 May 02 j 14:40	23°♍18'02			744 Oct 03 j 15:43	0°♎	
evening rise	742 May 07 j 22:16	29°♍49'37		asc. node	744 Oct 17 j 09:33	11°♎32'39	
	742 May 08 j 01:39	0°♎		morning max el	744 Oct 27 j 14:15	21°♎26'01	46°43'04
	742 Jun 01 j 13:28	0°♏			744 Nov 04 j 19:58	0°♏	
	742 Jun 26 j 03:28	0°♐			744 Dec 01 j 13:56	0°♐	
	742 Jul 20 j 20:43	0°♑			744 Dec 26 j 20:16	0°♑	
	742 Aug 14 j 19:24	0°♒			745 Jan 20 j 13:17	0°♒	
desc. node	742 Aug 22 j 03:57	8°♒46'23		desc. node	745 Feb 05 j 23:10	20°♒04'39	
	742 Sep 09 j 02:58	0°♓			745 Feb 14 j 01:24	0°♓	
	742 Oct 05 j 02:33	0°♑			745 Mar 10 j 12:08	0°♋	
	742 Nov 01 j 16:02	0°♒			745 Apr 03 j 22:57	0°♌	
evening max el	742 Nov 04 j 06:06	2°♒38'40	47°21'12		745 Apr 28 j 10:12	0°♍	
	742 Dec 06 j 07:29	0°♓		morning set	745 May 02 j 07:16	4°♍45'12	
greatest brilliancy	742 Dec 12 j 14:12	3°♓20'10	-4.7m		745 May 22 j 21:24	0°♎	
asc. node	742 Dec 13 j 07:10	3°♓38'42		asc. node	745 May 30 j 02:26	8°♎50'51	
retrograde	742 Dec 25 j 04:20	6°♓18'39		max. Earth dist.	745 Jun 06 j 09:45	17°♎49'07	1.73617 AU
evening set	743 Jan 10 j 03:25	1°♓15'18					
	743 Jan 12 j 05:57	30°♋		superior conj	745 Jun 07 j 21:00	19°♎37'24	0°20'37
min. Earth dist.	743 Jan 13 j 23:06	28°♋56'26	0.27089 AU	minimum elong	745 Jun 07 j 16:55	19°♎24'52	0°20'26
inferior conj	743 Jan 14 j 22:14	28°♋20'21	7°10'02		745 Jun 16 j 07:36	0°♏	
minimum elong	743 Jan 14 j 12:30	28°♋35'33	7°08'14		745 Jul 10 j 16:16	0°♐	
morning rise	743 Jan 18 j 22:01	25°♋54'09		evening rise	745 Jul 13 j 15:31	3°♐39'39	
direct	743 Feb 04 j 10:34	20°♋34'59			745 Aug 03 j 23:46	0°♑	
greatest brilliancy	743 Feb 15 j 00:24	22°♋39'35	-4.6m		745 Aug 28 j 07:16	0°♒	
	743 Feb 28 j 10:18	0°♓		desc. node	745 Sep 18 j 15:59	26°♒18'27	
morning max el	743 Mar 25 j 22:03	21°♓48'19	46°14'59		745 Sep 21 j 16:06	0°♓	
	743 Apr 03 j 02:48	0°♋			745 Oct 16 j 03:36	0°♑	
desc. node	743 Apr 03 j 20:45	0°♋45'55			745 Nov 09 j 20:09	0°♒	
	743 May 01 j 00:53	0°♌			745 Dec 04 j 23:59	0°♓	
	743 May 27 j 09:37	0°♍			745 Dec 31 j 07:56	0°♋	
	743 Jun 22 j 00:08	0°♎		asc. node	746 Jan 09 j 19:08	10°♋08'39	
	743 Jul 17 j 02:00	0°♏		evening max el	746 Jan 14 j 20:17	15°♋20'23	46°48'23
asc. node	743 Jul 26 j 00:07	10°♏48'30			746 Jan 30 j 07:58	0°♌	
	743 Aug 10 j 17:14	0°♐		greatest brilliancy	746 Feb 19 j 21:54	14°♌26'16	-4.6m
	743 Sep 03 j 23:47	0°♑		retrograde	746 Mar 06 j 07:02	18°♌11'18	
morning set	743 Sep 19 j 12:21	19°♑21'32		evening set	746 Mar 23 j 09:20	12°♌29'05	
	743 Sep 28 j 00:19	0°♒		inferior conj	746 Mar 27 j 13:02	9°♌54'15	7°03'04
	743 Oct 21 j 21:40	0°♓		minimum elong	746 Mar 27 j 22:12	9°♌39'46	7°01'30
max. Earth dist.	743 Oct 27 j 08:30	6°♓51'27	1.71187 AU	min. Earth dist.	746 Mar 27 j 11:29	9°♌56'41	0.28625 AU
				morning rise	746 Apr 01 j 11:18	6°♌52'29	
superior conj	743 Oct 28 j 11:37	8°♓16'45	0°39'14	direct	746 Apr 17 j 19:31	1°♌41'51	
minimum elong	743 Oct 28 j 20:34	8°♓44'55	0°38'50	greatest brilliancy	746 Apr 29 j 22:51	4°♌19'55	-4.5m
desc. node	743 Nov 14 j 13:37	29°♓46'14		desc. node	746 May 01 j 08:26	4°♌55'51	
	743 Nov 14 j 18:00	0°♑			746 Jun 03 j 23:20	0°♍	
evening rise	743 Dec 08 j 21:01	0°♒19'54		morning max el	746 Jun 05 j 16:25	1°♍37'17	45°45'12
	743 Dec 08 j 14:40	0°♒			746 Jul 03 j 06:53	0°♎	
	744 Jan 01 j 12:49	0°♓			746 Jul 30 j 00:29	0°♏	
	744 Jan 25 j 14:07	0°♋		asc. node	746 Aug 22 j 12:02	27°♏35'13	
	744 Feb 18 j 21:13	0°♌			746 Aug 24 j 12:28	0°♐	
asc. node	744 Mar 06 j 16:58	20°♌30'32			746 Sep 18 j 05:50	0°♑	
	744 Mar 14 j 13:42	0°♍			746 Oct 12 j 11:23	0°♒	
	744 Apr 08 j 20:38	0°♎			746 Nov 05 j 10:26	0°♓	
	744 May 05 j 03:25	0°♏			746 Nov 29 j 06:54	0°♑	
	744 Jun 02 j 11:48	0°♐		morning set	746 Dec 02 j 23:43	4°♑39'22	
evening max el	744 Jun 07 j 22:00	5°♐16'41	45°24'36	desc. node	746 Dec 12 j 01:23	16°♑04'02	
desc. node	744 Jun 26 j 06:14	21°♐16'23			746 Dec 23 j 03:13	0°♒	
	744 Jul 09 j 12:12	0°♑					
greatest brilliancy	744 Jul 14 j 15:15	2°♑23'45	-4.5m	superior conj	747 Jan 13 j 21:44	27°♒20'12	-1°-7'-51

minimum elong	747 Jan 13 j 10:12	26°  44'03	1°07'32		749 Aug 05 j 06:04	0° 	
	747 Jan 16 j 00:42	0° 		morning max el	749 Aug 14 j 21:50	8°  56'48	45°59'29
max. Earth dist.	747 Jan 17 j 10:00	1°  44'20	1.71451 AU		749 Sep 04 j 08:11	0° 	
	747 Feb 09 j 00:24	0° 		asc. node	749 Sep 18 j 23:52	16°  18'12	
evening rise	747 Feb 23 j 11:55	18°  01'49			749 Sep 30 j 20:34	0° 	
	747 Mar 05 j 03:32	0° 			749 Oct 25 j 22:51	0° 	
	747 Mar 29 j 11:26	0° 			749 Nov 19 j 08:47	0° 	
asc. node	747 Apr 04 j 04:50	7°  00'55			749 Dec 13 j 11:35	0° 	
	747 Apr 23 j 01:22	0° 			750 Jan 06 j 12:10	0° 	
	747 May 17 j 22:45	0° 		desc. node	750 Jan 08 j 13:21	2°  33'34	
	747 Jun 12 j 06:21	0° 			750 Jan 30 j 12:58	0° 	
	747 Jul 08 j 06:24	0° 		morning set	750 Feb 18 j 00:39	23°  01'46	
desc. node	747 Jul 24 j 18:08	18°  21'21			750 Feb 23 j 15:12	0° 	
	747 Aug 04 j 14:32	0° 			750 Mar 19 j 19:42	0° 	
evening max el	747 Aug 20 j 18:50	16°  25'38	46°23'28				
	747 Sep 04 j 17:25	0° 		superior conj	750 Mar 29 j 00:23	11°  22'06	-1°-8'-51
greatest brilliancy	747 Sep 28 j 18:16	15°  23'38	-4.6m	minimum elong	750 Mar 29 j 09:54	11°  51'31	1°08'36
retrograde	747 Oct 09 j 09:54	17°  27'53		max. Earth dist.	750 Apr 01 j 00:01	15°  03'15	1.72981 AU
evening set	747 Oct 24 j 13:57	12°  59'10			750 Apr 13 j 02:51	0° 	
inferior conj	747 Oct 29 j 23:27	9°  49'02	-3°-58'-37	asc. node	750 May 01 j 16:40	22°  55'04	
minimum elong	747 Oct 30 j 07:48	9°  36'21	3°56'12	evening rise	750 May 05 j 15:50	27°  42'45	
min. Earth dist.	747 Oct 30 j 11:30	9°  30'43	0.26601 AU		750 May 07 j 12:35	0° 	
morning rise	747 Nov 05 j 01:18	6°  16'45			750 Jun 01 j 00:33	0° 	
asc. node	747 Nov 14 j 21:18	2°  34'55			750 Jun 25 j 14:51	0° 	
direct	747 Nov 19 j 12:23	2°  08'25			750 Jul 20 j 08:37	0° 	
greatest brilliancy	747 Dec 02 j 06:53	5°  11'34	-4.7m		750 Aug 14 j 08:08	0° 	
	748 Jan 03 j 15:22	0° 		desc. node	750 Aug 21 j 06:01	8°  13'46	
morning max el	748 Jan 09 j 04:40	5°  31'23	46°53'51		750 Sep 08 j 17:04	0° 	
	748 Feb 01 j 01:30	0° 			750 Oct 04 j 19:05	0° 	
	748 Feb 27 j 07:22	0° 			750 Nov 01 j 14:33	0° 	
desc. node	748 Mar 05 j 11:02	8°  21'58		evening max el	750 Nov 01 j 19:21	0°  12'11	47°20'43
	748 Mar 23 j 18:39	0° 			750 Dec 08 j 06:34	0° 	
	748 Apr 17 j 21:29	0° 		greatest brilliancy	750 Dec 10 j 05:56	0°  56'03	-4.7m
	748 May 12 j 19:35	0° 		asc. node	750 Dec 12 j 09:22	1°  49'13	
	748 Jun 06 j 13:47	0° 		retrograde	750 Dec 22 j 17:47	3°  52'41	
asc. node	748 Jun 26 j 14:21	24°  25'25			751 Jan 05 j 14:14	30°  R 	
	748 Jul 01 j 03:35	0° 		evening set	751 Jan 07 j 13:19	28°  55'02	
morning set	748 Jul 08 j 18:54	9°  22'35		min. Earth dist.	751 Jan 11 j 12:57	26°  30'54	0.27027 AU
	748 Jul 25 j 12:28	0° 		inferior conj	751 Jan 12 j 11:42	25°  55'32	6°56'25
max. Earth dist.	748 Aug 10 j 11:19	19°  46'01	1.72598 AU	minimum elong	751 Jan 12 j 01:42	26°  11'05	6°54'29
				morning rise	751 Jan 16 j 14:27	23°  25'09	
superior conj	748 Aug 14 j 06:33	24°  29'19	1°22'57	direct	751 Feb 01 j 22:48	18°  10'51	
minimum elong	748 Aug 14 j 02:57	24°  18'09	1°22'54	greatest brilliancy	751 Feb 12 j 14:43	20°  17'16	-4.6m
	748 Aug 18 j 16:56	0° 			751 Mar 01 j 06:56	0° 	
	748 Sep 11 j 18:28	0° 		morning max el	751 Mar 23 j 11:29	19°  27'27	46°16'32
evening rise	748 Sep 20 j 17:31	11°  11'24		desc. node	751 Apr 02 j 22:47	29°  59'52	
	748 Oct 05 j 18:49	0° 			751 Apr 02 j 22:50	0° 	
desc. node	748 Oct 16 j 03:49	12°  57'34			751 Apr 30 j 16:07	0° 	
	748 Oct 29 j 19:19	0° 			751 May 26 j 22:52	0° 	
	748 Nov 22 j 21:00	0° 			751 Jun 21 j 12:20	0° 	
	748 Dec 17 j 01:36	0° 			751 Jul 16 j 13:36	0° 	
	749 Jan 10 j 12:58	0° 		asc. node	751 Jul 25 j 02:15	10°  20'06	
	749 Feb 04 j 14:30	0° 			751 Aug 10 j 04:30	0° 	
asc. node	749 Feb 06 j 07:02	1°  58'54			751 Sep 03 j 10:55	0° 	
	749 Mar 02 j 20:49	0° 		morning set	751 Sep 17 j 03:01	17°  22'37	
evening max el	749 Mar 26 j 22:52	25°  08'49	45°38'44		751 Sep 27 j 11:25	0° 	
	749 Apr 01 j 01:10	0° 			751 Oct 21 j 08:48	0° 	
greatest brilliancy	749 Apr 30 j 04:59	21°  23'38	-4.5m	max. Earth dist.	751 Oct 24 j 18:24	4°  16'34	1.71216 AU
retrograde	749 May 14 j 17:01	25°  21'51					
desc. node	749 May 28 j 20:21	21°  27'02		superior conj	751 Oct 25 j 23:02	5°  46'36	0°42'36
evening set	749 May 29 j 18:12	20°  27'56		minimum elong	751 Oct 26 j 08:29	6°  16'18	0°42'11
inferior conj	749 Jun 05 j 04:52	17°  22'09	-1°-42'-51	desc. node	751 Nov 13 j 15:40	29°  17'25	
minimum elong	749 Jun 05 j 01:08	17°  22'09	1°41'48		751 Nov 14 j 05:13	0° 	
min. Earth dist.	749 Jun 05 j 06:15	17°  22'09	0.28975 AU	evening rise	751 Dec 06 j 06:51	27°  27'44'39	
morning rise	749 Jun 11 j 07:59	13°  24'32			751 Dec 08 j 01:58	0° 	
direct	749 Jun 26 j 21:14	8°  24'28			752 Jan 01 j 00:10	0° 	
greatest brilliancy	749 Jul 10 j 16:51	12°  27'36	-4.5m		752 Jan 25 j 01:36	0° 	

	752 Feb 18 j 08:56	0°Υ			754 Jul 29 j 13:59	0°Ϣ		
asc. node	752 Mar 05 j 18:58	20°Υ00'20		asc. node	754 Aug 21 j 14:02	27°Ϣ03'53		
	752 Mar 14 j 01:54	0°Ϡ			754 Aug 24 j 00:52	0°Ω		
	752 Apr 08 j 09:50	0°Π			754 Sep 17 j 17:43	0°ϯ		
	752 May 04 j 18:47	0°ϣ			754 Oct 11 j 22:58	0°Δ		
	752 Jun 02 j 09:06	0°Ω			754 Nov 04 j 21:51	0°ϯ		
evening max el	752 Jun 05 j 13:22	3°Ω04'06	45°23'41		754 Nov 28 j 18:14	0°Ϡ		
desc. node	752 Jun 25 j 08:25	20°Ω09'16		morning set	754 Nov 30 j 09:49	2°Ϡ04'31		
	752 Jul 11 j 21:07	0°ϯ		desc. node	754 Dec 11 j 03:33	15°Ϡ35'17		
greatest brilliancy	752 Jul 12 j 01:39	0°ϯ04'38	-4.5m		754 Dec 22 j 14:30	0°ϣ		
retrograde	752 Jul 24 j 05:06	2°ϯ40'47						
	752 Aug 04 j 21:59	30°ϠΩ		superior conj	755 Jan 11 j 07:39	24°ϣ45'33	-1°-5'-21	
evening set	752 Aug 10 j 21:07	26°Ω51'50		minimum elong	755 Jan 10 j 19:54	24°ϣ08'42	1°05'00	
inferior conj	752 Aug 14 j 11:00	24°Ω41'43	-8°-32'-21	max. Earth dist.	755 Jan 14 j 20:57	29°ϣ13'02	1.71408 AU	
minimum elong	752 Aug 14 j 06:48	24°Ω48'10	8°32'08		755 Jan 15 j 11:56	0°≈		
min. Earth dist.	752 Aug 14 j 22:42	24°Ω23'41	0.28401 AU		755 Feb 08 j 11:36	0°Ϡ		
morning rise	752 Aug 17 j 16:17	22°Ω43'47		evening rise	755 Feb 21 j 00:10	15°Ϡ35'55		
direct	752 Sep 04 j 20:05	16°Ω32'20			755 Mar 04 j 14:44	0°Υ		
greatest brilliancy	752 Sep 19 j 08:50	20°Ω18'14	-4.6m		755 Mar 28 j 22:44	0°Ϡ		
	752 Oct 04 j 07:06	0°ϯ		asc. node	755 Apr 03 j 06:53	6°Ϡ32'31		
asc. node	752 Oct 16 j 11:36	10°ϯ34'54			755 Apr 22 j 12:55	0°Π		
morning max el	752 Oct 25 j 05:52	19°ϯ07'44	46°41'45		755 May 17 j 10:49	0°ϣ		
	752 Nov 04 j 15:29	0°Δ			755 Jun 11 j 19:21	0°Ω		
	752 Dec 01 j 05:19	0°ϯ			755 Jul 07 j 21:16	0°ϯ		
	752 Dec 26 j 09:54	0°Ϡ		desc. node	755 Jul 23 j 20:07	17°ϯ40'45		
	753 Jan 20 j 01:57	0°ϣ			755 Aug 04 j 09:37	0°Δ		
desc. node	753 Feb 05 j 01:09	19°ϣ33'10		evening max el	755 Aug 18 j 08:05	14°Δ03'24	46°20'35	
	753 Feb 13 j 13:28	0°≈			755 Sep 05 j 04:57	0°ϯ		
	753 Mar 09 j 23:45	0°Ϡ		greatest brilliancy	755 Sep 26 j 07:54	12°ϯ57'36	-4.6m	
	753 Apr 03 j 10:13	0°Υ		retrograde	755 Oct 06 j 21:10	14°ϯ59'30		
	753 Apr 27 j 21:14	0°Ϡ		evening set	755 Oct 22 j 04:55	10°ϯ27'18		
morning set	753 Apr 30 j 01:02	2°Ϡ38'47		inferior conj	755 Oct 27 j 11:40	7°ϯ20'48	-4°-20'-2	
	753 May 22 j 08:18	0°Π		minimum elong	755 Oct 27 j 20:34	7°ϯ07'15	4°17'32	
asc. node	753 May 29 j 04:36	8°Π24'04		min. Earth dist.	755 Oct 28 j 01:12	7°ϯ00'13	0.26644 AU	
max. Earth dist.	753 Jun 04 j 09:47	16°Π02'03	1.73628 AU	morning rise	755 Nov 02 j 11:49	3°ϯ50'17		
					755 Nov 12 j 22:56	30°ϠΔ		
superior conj	753 Jun 05 j 15:31	17°Π33'22	0°17'35	asc. node	755 Nov 13 j 23:30	29°Δ50'59		
minimum elong	753 Jun 05 j 12:00	17°Π22'35	0°17'25	direct	755 Nov 17 j 01:00	29°Δ39'28		
	753 Jun 15 j 18:30	0°ϣ			755 Nov 21 j 04:36	0°ϯ		
	753 Jul 10 j 03:17	0°Ω		greatest brilliancy	755 Nov 29 j 21:43	2°ϯ44'31	-4.7m	
evening rise	753 Jul 11 j 10:24	1°Ω35'53			756 Jan 03 j 16:31	0°Ϡ		
	753 Aug 03 j 11:00	0°ϯ		morning max el	756 Jan 06 j 16:52	3°Ϡ01'41	46°54'29	
	753 Aug 27 j 18:49	0°Δ			756 Jan 31 j 18:47	0°ϣ		
desc. node	753 Sep 17 j 17:55	25°Δ47'50			756 Feb 26 j 21:48	0°≈		
	753 Sep 21 j 04:04	0°ϯ		desc. node	756 Mar 04 j 13:04	7°≈46'57		
	753 Oct 15 j 16:10	0°Ϡ			756 Mar 23 j 07:37	0°Ϡ		
	753 Nov 09 j 09:36	0°ϣ			756 Apr 17 j 09:34	0°Υ		
	753 Dec 04 j 14:58	0°≈			756 May 12 j 07:07	0°Ϡ		
	753 Dec 31 j 02:19	0°Ϡ			756 Jun 06 j 00:58	0°Π		
asc. node	754 Jan 08 j 21:14	9°Ϡ20'34		asc. node	756 Jun 25 j 16:27	23°Π58'14		
evening max el	754 Jan 12 j 12:34	13°Ϡ04'32	46°50'47		756 Jun 30 j 14:33	0°ϣ		
	754 Jan 30 j 15:46	0°Υ		morning set	756 Jul 06 j 13:00	7°ϣ17'09		
greatest brilliancy	754 Feb 17 j 15:16	12°Υ13'30	-4.6m		756 Jul 24 j 23:21	0°Ω		
retrograde	754 Mar 03 j 23:40	15°Υ57'11		max. Earth dist.	756 Aug 08 j 04:21	17°Ω36'06	1.72653 AU	
evening set	754 Mar 21 j 04:00	10°Υ11'04						
inferior conj	754 Mar 25 j 04:52	7°Υ40'16	7°14'43	superior conj	756 Aug 12 j 00:02	22°Ω20'42	1°22'13	
minimum elong	754 Mar 25 j 13:47	7°Υ26'11	7°13'18	minimum elong	756 Aug 11 j 19:49	22°Ω07'35	1°22'11	
min. Earth dist.	754 Mar 25 j 02:15	7°Υ44'24	0.28591 AU		756 Aug 18 j 03:51	0°ϯ		
morning rise	754 Mar 29 j 23:52	4°Υ43'22			756 Sep 11 j 05:31	0°Δ		
	754 Apr 10 j 09:12	30°ϠϠ		evening rise	756 Sep 18 j 07:53	8°Δ51'38		
direct	754 Apr 15 j 11:22	29°Ϡ28'40			756 Oct 05 j 06:05	0°ϯ		
	754 Apr 20 j 16:57	0°Υ		desc. node	756 Oct 15 j 05:55	12°ϯ28'41		
greatest brilliancy	754 Apr 27 j 11:04	2°Υ03'40	-4.5m		756 Oct 29 j 06:51	0°Ϡ		
desc. node	754 Apr 30 j 10:28	3°Υ23'18			756 Nov 22 j 08:48	0°ϣ		
morning max el	754 Jun 03 j 08:38	29°Υ27'22	45°45'30		756 Dec 16 j 13:45	0°≈		
	754 Jun 03 j 22:17	0°Ϡ			757 Jan 10 j 01:41	0°Ϡ		
	754 Jul 02 j 22:47	0°Π			757 Feb 04 j 04:21	0°Υ		

asc. node	757 Feb 05 j 09:01	1° Υ 23'55			759 Sep 02 j 21:48	0° \mathfrak{M}		
	757 Mar 02 j 13:14	0° \mathfrak{B}		morning set	759 Sep 14 j 18:13	14° \mathfrak{M} 46'15		
evening max el	757 Mar 24 j 13:24	22° \mathfrak{B} 53'44	45°40'35		759 Sep 26 j 22:17	0° \mathfrak{L}		
	757 Apr 01 j 02:08	0° \mathfrak{H}			759 Oct 20 j 19:42	0° \mathfrak{M}		
greatest brilliancy	757 Apr 27 j 20:21	19° \mathfrak{H} 28'30	-4.5m	max. Earth dist.	759 Oct 22 j 05:48	1° \mathfrak{M} 47'11	1.71245 AU	
retrograde	757 May 12 j 09:14	23° \mathfrak{H} 10'41						
evening set	757 May 27 j 10:44	18° \mathfrak{H} 49'20		superior conj	759 Oct 23 j 11:06	3° \mathfrak{M} 19'18	0°45'49	
desc. node	757 May 27 j 22:34	18° \mathfrak{H} 33'04		minimum elong	759 Oct 23 j 20:56	3° \mathfrak{M} 50'14	0°45'24	
inferior conj	757 Jun 02 j 21:26	14° \mathfrak{H} 57'55	-1°-23'-31	desc. node	759 Nov 12 j 17:50	28° \mathfrak{M} 49'46		
minimum elong	757 Jun 02 j 18:23	15° \mathfrak{H} 02'41	1°22'39		759 Nov 13 j 16:10	0° \mathfrak{J}		
min. Earth dist.	757 Jun 02 j 23:20	14° \mathfrak{H} 54'55	0.28974 AU	evening rise	759 Dec 03 j 17:03	25° \mathfrak{J} 11'19		
morning rise	757 Jun 09 j 01:53	11° \mathfrak{H} 14'06			759 Dec 07 j 13:00	0° \mathfrak{C}		
direct	757 Jun 24 j 13:04	6° \mathfrak{H} 39'52			759 Dec 31 j 11:20	0° \approx		
greatest brilliancy	757 Jul 08 j 08:57	9° \mathfrak{H} 58'38	-4.5m		760 Jan 24 j 12:55	0° \mathfrak{H}		
	757 Aug 05 j 08:24	0° \mathfrak{C}			760 Feb 17 j 20:31	0° Υ		
morning max el	757 Aug 12 j 12:52	6° \mathfrak{C} 43'36	45°58'25	asc. node	760 Mar 04 j 21:01	19° Υ 30'38		
	757 Sep 04 j 00:51	0° \mathfrak{Q}			760 Mar 13 j 13:59	0° \mathfrak{B}		
asc. node	757 Sep 18 j 01:56	15° \mathfrak{Q} 41'47			760 Apr 07 j 22:57	0° \mathfrak{H}		
	757 Sep 30 j 10:26	0° \mathfrak{M}			760 May 04 j 10:09	0° \mathfrak{C}		
	757 Oct 25 j 11:31	0° \mathfrak{L}			760 Jun 02 j 06:52	0° \mathfrak{Q}		
	757 Nov 18 j 20:53	0° \mathfrak{M}		evening max el	760 Jun 03 j 05:15	0° \mathfrak{Q} 53'36	45°22'59	
	757 Dec 12 j 23:20	0° \mathfrak{J}		desc. node	760 Jun 24 j 10:22	19° \mathfrak{Q} 00'51		
desc. node	758 Jan 05 j 23:40	0° \mathfrak{C}		greatest brilliancy	760 Jul 09 j 13:18	27° \mathfrak{Q} 48'18	-4.5m	
	758 Jan 07 j 15:21	2° \mathfrak{C} 04'00			760 Jul 16 j 21:51	0° \mathfrak{M}		
	758 Jan 30 j 00:14	0° \approx		retrograde	760 Jul 21 j 20:06	0° \mathfrak{M} 27'12		
morning set	758 Feb 15 j 12:38	20° \approx 35'02			760 Jul 26 j 15:21	30° \mathfrak{R} \mathfrak{Q}		
	758 Feb 23 j 02:17	0° \mathfrak{H}		evening set	760 Aug 08 j 09:13	24° \mathfrak{Q} 41'59		
	758 Mar 19 j 06:38	0° Υ		inferior conj	760 Aug 12 j 01:58	22° \mathfrak{Q} 27'21	-8°-27'-16	
				minimum elong	760 Aug 11 j 21:03	22° \mathfrak{Q} 34'57	8°26'56	
superior conj	758 Mar 26 j 15:37	9° Υ 07'14	-1°-10'-51	min. Earth dist.	760 Aug 12 j 12:25	22° \mathfrak{Q} 11'15	0.28446 AU	
minimum elong	758 Mar 27 j 00:57	9° Υ 36'05	1°10'37	morning rise	760 Aug 15 j 08:42	20° \mathfrak{Q} 27'13		
max. Earth dist.	758 Mar 29 j 16:17	12° Υ 51'40	1.72930 AU	direct	760 Sep 02 j 12:16	14° \mathfrak{Q} 17'32		
	758 Apr 12 j 13:43	0° \mathfrak{B}		greatest brilliancy	760 Sep 16 j 23:59	18° \mathfrak{Q} 02'37	-4.6m	
asc. node	758 Apr 30 j 18:50	22° \mathfrak{B} 23'59			760 Oct 04 j 18:02	0° \mathfrak{M}		
evening rise	758 May 03 j 09:22	25° \mathfrak{B} 35'52		asc. node	760 Oct 15 j 13:42	9° \mathfrak{M} 39'36		
	758 May 06 j 23:28	0° \mathfrak{H}		morning max el	760 Oct 22 j 21:14	16° \mathfrak{M} 50'10	46°40'28	
	758 May 31 j 11:34	0° \mathfrak{C}			760 Nov 04 j 10:02	0° \mathfrak{L}		
	758 Jun 25 j 02:10	0° \mathfrak{Q}			760 Nov 30 j 20:05	0° \mathfrak{M}		
	758 Jul 19 j 20:28	0° \mathfrak{M}			760 Dec 25 j 23:02	0° \mathfrak{J}		
	758 Aug 13 j 20:49	0° \mathfrak{L}			761 Jan 19 j 14:12	0° \mathfrak{C}		
desc. node	758 Aug 20 j 08:02	7° \mathfrak{L} 41'19		desc. node	761 Feb 04 j 03:09	19° \mathfrak{C} 02'53		
	758 Sep 08 j 07:07	0° \mathfrak{M}			761 Feb 13 j 01:09	0° \approx		
	758 Oct 04 j 11:43	0° \mathfrak{J}			761 Mar 09 j 11:03	0° \mathfrak{H}		
evening max el	758 Oct 30 j 08:45	27° \mathfrak{J} 46'34	47°19'54		761 Apr 02 j 21:13	0° Υ		
	758 Nov 01 j 13:52	0° \mathfrak{C}			761 Apr 27 j 08:00	0° \mathfrak{B}		
greatest brilliancy	758 Dec 07 j 20:23	28° \mathfrak{C} 29'51	-4.7m	morning set	761 Apr 27 j 18:27	0° \mathfrak{B} 32'03		
asc. node	758 Dec 11 j 11:25	29° \mathfrak{C} 54'35			761 May 21 j 18:55	0° \mathfrak{H}		
	758 Dec 11 j 18:01	0° \approx		asc. node	761 May 28 j 06:39	7° \mathfrak{H} 57'49		
retrograde	758 Dec 20 j 07:20	1° \approx 25'50		max. Earth dist.	761 Jun 02 j 08:54	14° \mathfrak{H} 13'06	1.73631 AU	
	758 Dec 28 j 14:04	30° \mathfrak{R} \mathfrak{C}						
evening set	759 Jan 04 j 22:56	26° \mathfrak{C} 33'27		superior conj	761 Jun 03 j 09:44	15° \mathfrak{H} 29'20	0°14'30	
min. Earth dist.	759 Jan 09 j 02:20	24° \mathfrak{C} 04'24	0.26972 AU	minimum elong	761 Jun 03 j 06:49	15° \mathfrak{H} 20'22	0°14'21	
inferior conj	759 Jan 10 j 00:49	23° \mathfrak{C} 29'32	6°41'49	behind sun begin	761 Jun 02 j 21:18	14° \mathfrak{H} 51'10		
minimum elong	759 Jan 09 j 14:37	23° \mathfrak{C} 45'20	6°39'42	behind sun end	761 Jun 03 j 16:19	15° \mathfrak{H} 49'35		
morning rise	759 Jan 14 j 06:42	20° \mathfrak{C} 55'01			761 Jun 15 j 05:05	0° \mathfrak{C}		
direct	759 Jan 30 j 11:10	15° \mathfrak{C} 45'25		evening rise	761 Jul 09 j 05:08	29° \mathfrak{C} 32'47		
greatest brilliancy	759 Feb 10 j 04:46	17° \mathfrak{C} 53'47	-4.6m		761 Jul 09 j 13:58	0° \mathfrak{Q}		
	759 Mar 01 j 22:33	0° \approx			761 Aug 02 j 21:54	0° \mathfrak{M}		
morning max el	759 Mar 21 j 01:39	17° \approx 08'02	46°18'13		761 Aug 27 j 06:02	0° \mathfrak{L}		
desc. node	759 Apr 02 j 00:52	29° \approx 14'29		desc. node	761 Sep 16 j 20:03	25° \mathfrak{L} 18'48		
	759 Apr 02 j 18:19	0° \mathfrak{H}			761 Sep 20 j 15:44	0° \mathfrak{M}		
	759 Apr 30 j 07:05	0° Υ			761 Oct 15 j 04:26	0° \mathfrak{J}		
	759 May 26 j 11:52	0° \mathfrak{B}			761 Nov 08 j 22:45	0° \mathfrak{C}		
	759 Jun 21 j 00:18	0° \mathfrak{H}			761 Dec 04 j 05:40	0° \approx		
	759 Jul 16 j 00:57	0° \mathfrak{C}			761 Dec 30 j 20:38	0° \mathfrak{H}		
asc. node	759 Jul 24 j 04:09	9° \mathfrak{C} 51'44		asc. node	762 Jan 07 j 23:11	8° \mathfrak{H} 32'40		
	759 Aug 09 j 15:33	0° \mathfrak{Q}		evening max el	762 Jan 10 j 04:26	10° \mathfrak{H} 48'45	46°53'00	

	762 Jan 31 j 01:42	0° Υ		morning set	764 Jul 04 j 06:56	5° \ominus 12'06	
greatest brilliancy	762 Feb 15 j 09:26	10° Υ 02'50	-4.6m		764 Jul 24 j 09:58	0° Ω	
retrograde	762 Mar 01 j 15:51	13° Υ 43'57		max. Earth dist.	764 Aug 05 j 22:36	15° Ω 30'51	1.72707 AU
evening set	762 Mar 18 j 22:36	7° Υ 54'14					
inferior conj	762 Mar 22 j 20:43	5° Υ 27'18	7°25'47	superior conj	764 Aug 09 j 17:23	20° Ω 12'32	1°21'23
minimum elong	762 Mar 23 j 05:17	5° Υ 13'43	7°24'30	minimum elong	764 Aug 09 j 12:35	19° Ω 57'36	1°21'20
min. Earth dist.	762 Mar 22 j 17:09	5° Υ 32'56	0.28558 AU		764 Aug 17 j 14:30	0° \mathbb{M}	
morning rise	762 Mar 27 j 12:19	2° Υ 35'14			764 Sep 10 j 16:17	0° $\underline{\Delta}$	
	762 Apr 01 j 10:27	30° \mathbb{R} \mathbb{H}		evening rise	764 Sep 15 j 22:19	6° $\underline{\Delta}$ 33'07	
direct	762 Apr 13 j 03:12	27° \mathbb{H} 16'33			764 Oct 04 j 17:04	0° \mathbb{M}	
greatest brilliancy	762 Apr 24 j 23:22	29° \mathbb{H} 48'14	-4.5m	desc. node	764 Oct 14 j 08:01	12° \mathbb{M} 00'42	
	762 Apr 25 j 10:50	0° Υ			764 Oct 28 j 18:05	0° \mathbb{H}	
desc. node	762 Apr 29 j 12:38	1° Υ 54'54			764 Nov 21 j 20:20	0° \ominus	
morning max el	762 Jun 01 j 00:02	27° Υ 16'15	45°45'48		764 Dec 16 j 01:39	0° \approx	
	762 Jun 03 j 19:59	0° \mathbb{H}			765 Jan 09 j 14:13	0° \mathbb{H}	
	762 Jul 02 j 14:08	0° \mathbb{H}			765 Feb 03 j 18:04	0° Υ	
	762 Jul 29 j 03:02	0° \ominus		asc. node	765 Feb 04 j 11:09	0° Υ 49'54	
asc. node	762 Aug 20 j 16:08	26° \ominus 34'09			765 Mar 02 j 05:40	0° \mathbb{H}	
	762 Aug 23 j 12:50	0° Ω		evening max el	765 Mar 22 j 04:01	20° \mathbb{H} 39'42	45°42'34
	762 Sep 17 j 05:08	0° \mathbb{M}			765 Apr 01 j 04:04	0° \mathbb{H}	
	762 Oct 11 j 10:07	0° $\underline{\Delta}$		greatest brilliancy	765 Apr 25 j 10:50	17° \mathbb{H} 18'06	-4.5m
	762 Nov 04 j 08:52	0° \mathbb{M}		retrograde	765 May 10 j 01:49	21° \mathbb{H} 03'24	
morning set	762 Nov 27 j 20:11	29° \mathbb{M} 31'40		evening set	765 May 25 j 03:23	16° \mathbb{H} 41'10	
	762 Nov 28 j 05:11	0° \mathbb{H}		desc. node	765 May 27 j 00:28	15° \mathbb{H} 37'32	
desc. node	762 Dec 10 j 05:32	15° \mathbb{H} 07'11		inferior conj	765 May 31 j 13:58	12° \mathbb{H} 50'09	-1°-4'-6
	762 Dec 22 j 01:24	0° \ominus		minimum elong	765 May 31 j 11:37	12° \mathbb{H} 53'49	1°03'25
				min. Earth dist.	765 May 31 j 16:06	12° \mathbb{H} 46'47	0.28977 AU
superior conj	763 Jan 08 j 17:49	22° \ominus 12'54	-1°-2'-44	morning rise	765 Jun 06 j 19:40	9° \mathbb{H} 04'42	
minimum elong	763 Jan 08 j 05:57	21° \ominus 35'38	1°02'21	direct	765 Jun 22 j 05:07	4° \mathbb{H} 31'48	
max. Earth dist.	763 Jan 12 j 06:28	26° \ominus 38'22	1.71364 AU	greatest brilliancy	765 Jul 06 j 01:50	7° \mathbb{H} 51'20	-4.5m
	763 Jan 14 j 22:47	0° \approx			765 Aug 05 j 09:09	0° \ominus	
	763 Feb 07 j 22:23	0° \mathbb{H}		morning max el	765 Aug 10 j 04:48	4° \ominus 33'08	45°57'17
evening rise	763 Feb 18 j 12:29	13° \mathbb{H} 11'27			765 Sep 03 j 17:04	0° Ω	
	763 Mar 04 j 01:31	0° Υ		asc. node	765 Sep 17 j 04:03	15° Ω 06'05	
	763 Mar 28 j 09:39	0° \mathbb{H}			765 Sep 30 j 00:02	0° \mathbb{M}	
asc. node	763 Apr 02 j 09:02	6° \mathbb{H} 05'36			765 Oct 24 j 23:59	0° $\underline{\Delta}$	
	763 Apr 22 j 00:08	0° \mathbb{H}			765 Nov 18 j 08:45	0° \mathbb{M}	
	763 May 16 j 22:35	0° \ominus			765 Dec 12 j 10:51	0° \mathbb{H}	
	763 Jun 11 j 08:07	0° Ω			766 Jan 05 j 10:56	0° \ominus	
	763 Jul 07 j 11:58	0° \mathbb{M}		desc. node	766 Jan 06 j 17:21	1° \ominus 35'02	
desc. node	763 Jul 22 j 22:10	17° \mathbb{M} 00'52			766 Jan 29 j 11:19	0° \approx	
	763 Aug 04 j 04:49	0° $\underline{\Delta}$		morning set	766 Feb 13 j 00:22	18° \approx 07'51	
evening max el	763 Aug 15 j 20:24	11° $\underline{\Delta}$ 40'10	46°17'54		766 Feb 22 j 13:14	0° \mathbb{H}	
	763 Sep 05 j 19:33	0° \mathbb{M}			766 Mar 18 j 17:28	0° Υ	
greatest brilliancy	763 Sep 23 j 21:35	10° \mathbb{M} 33'17	-4.6m				
retrograde	763 Oct 04 j 08:29	12° \mathbb{M} 33'16		superior conj	766 Mar 24 j 06:40	6° Υ 52'07	-1°-12'-45
evening set	763 Oct 19 j 20:05	7° \mathbb{M} 57'02		minimum elong	766 Mar 24 j 15:45	7° Υ 20'11	1°12'31
inferior conj	763 Oct 25 j 00:05	4° \mathbb{M} 54'29	-4°-40'-42	max. Earth dist.	766 Mar 27 j 07:39	10° Υ 37'39	1.72880 AU
minimum elong	763 Oct 25 j 09:28	4° \mathbb{M} 40'12	4°38'09		766 Apr 12 j 00:28	0° \mathbb{H}	
min. Earth dist.	763 Oct 25 j 15:09	4° \mathbb{M} 31'33	0.26692 AU	asc. node	766 Apr 29 j 20:52	21° \mathbb{H} 57'16	
morning rise	763 Oct 30 j 22:20	1° \mathbb{M} 26'07		evening rise	766 May 01 j 02:48	23° \mathbb{H} 29'08	
	763 Nov 02 j 19:00	30° \mathbb{R} $\underline{\Delta}$			766 May 06 j 10:13	0° \mathbb{H}	
asc. node	763 Nov 13 j 01:33	27° $\underline{\Delta}$ 14'49			766 May 30 j 22:29	0° \ominus	
direct	763 Nov 14 j 13:25	27° $\underline{\Delta}$ 12'05			766 Jun 24 j 13:25	0° Ω	
	763 Nov 26 j 19:22	0° \mathbb{M}			766 Jul 19 j 08:17	0° \mathbb{M}	
greatest brilliancy	763 Nov 27 j 13:38	0° \mathbb{M} 20'19	-4.7m		766 Aug 13 j 09:33	0° $\underline{\Delta}$	
	764 Jan 03 j 16:04	0° \mathbb{H}		desc. node	766 Aug 19 j 10:08	7° $\underline{\Delta}$ 08'57	
morning max el	764 Jan 04 j 05:16	0° \mathbb{H} 33'27	46°55'05		766 Sep 07 j 21:19	0° \mathbb{M}	
	764 Jan 31 j 11:20	0° \ominus			766 Oct 04 j 04:42	0° \mathbb{H}	
	764 Feb 26 j 11:43	0° \approx		evening max el	766 Oct 27 j 23:02	25° \mathbb{H} 23'18	47°19'12
desc. node	764 Mar 03 j 15:11	7° \approx 13'25			766 Nov 01 j 14:16	0° \ominus	
	764 Mar 22 j 20:08	0° \mathbb{H}		greatest brilliancy	766 Dec 05 j 10:14	26° \ominus 03'00	-4.7m
	764 Apr 16 j 21:15	0° Υ		asc. node	766 Dec 10 j 13:22	27° \ominus 55'12	
	764 May 11 j 18:17	0° \mathbb{H}		retrograde	766 Dec 17 j 21:14	28° \ominus 58'50	
	764 Jun 05 j 11:49	0° \mathbb{H}		evening set	767 Jan 02 j 08:39	24° \ominus 11'28	
asc. node	764 Jun 24 j 18:24	23° \mathbb{H} 31'28		min. Earth dist.	767 Jan 06 j 15:18	21° \ominus 38'05	0.26916 AU
	764 Jun 30 j 01:14	0° \ominus		inferior conj	767 Jan 07 j 13:49	21° \ominus 03'16	6°26'23

minimum elong	767 Jan 07 j 03:33	21°☾19'09	6°24'08	evening rise	769 Jul 07 j 00:00	27°☾29'16	
morning rise	767 Jan 11 j 22:54	18°☾24'40			769 Jul 09 j 00:56	0°♈	
direct	767 Jan 28 j 00:05	13°☾19'56			769 Aug 02 j 09:04	0°♍	
greatest brilliancy	767 Feb 07 j 17:51	15°☾29'13	-4.6m		769 Aug 26 j 17:31	0°♊	
	767 Mar 02 j 10:11	0°♋		desc. node	769 Sep 15 j 22:10	24°♊48'53	
morning max el	767 Mar 18 j 16:13	14°♋49'41	46°19'44		769 Sep 20 j 03:41	0°♌	
desc. node	767 Apr 01 j 02:59	28°♋29'52			769 Oct 14 j 17:03	0°♎	
	767 Apr 02 j 13:14	0°♏			769 Nov 08 j 12:21	0°♐	
	767 Apr 29 j 21:51	0°♑			769 Dec 03 j 20:59	0°♒	
	767 May 26 j 00:47	0°♓			769 Dec 30 j 15:56	0°♈	
	767 Jun 20 j 12:12	0°♉		asc. node	770 Jan 07 j 01:21	7°♈43'08	
	767 Jul 15 j 12:18	0°♊		evening max el	770 Jan 07 j 19:18	8°♈28'50	46°55'12
asc. node	767 Jul 23 j 06:21	9°♊24'13			770 Jan 31 j 15:56	0°♑	
	767 Aug 09 j 02:36	0°♋		greatest brilliancy	770 Feb 13 j 04:06	7°♑51'03	-4.6m
	767 Sep 02 j 08:46	0°♌		retrograde	770 Feb 27 j 07:34	11°♑28'59	
morning set	767 Sep 12 j 09:24	12°♌29'38		evening set	770 Mar 16 j 17:03	5°♑35'49	
	767 Sep 26 j 09:15	0°♍		inferior conj	770 Mar 20 j 12:28	3°♑12'46	7°36'17
max. Earth dist.	767 Oct 19 j 14:45	29°♍09'44	1.71276 AU	minimum elong	770 Mar 20 j 20:40	2°♑59'46	7°35'07
	767 Oct 20 j 06:44	0°♎		min. Earth dist.	770 Mar 20 j 08:14	3°♑19'29	0.28521 AU
				morning rise	770 Mar 25 j 00:35	0°♑25'33	
superior conj	767 Oct 20 j 23:02	0°♎51'14	0°48'58		770 Mar 25 j 18:09	30°♒♈	
minimum elong	767 Oct 21 j 09:11	1°♎23'08	0°48'33	direct	770 Apr 10 j 18:23	25°♒02'53	
desc. node	767 Nov 11 j 19:49	28°♎21'06		greatest brilliancy	770 Apr 22 j 12:04	27°♒31'48	-4.5m
	767 Nov 13 j 03:16	0°♓			770 Apr 27 j 18:10	0°♑	
evening rise	767 Dec 01 j 02:50	22°♓36'12		desc. node	770 Apr 28 j 14:39	0°♑27'53	
	767 Dec 07 j 00:11	0°♐		morning max el	770 May 29 j 14:28	25°♑01'35	45°46'10
	767 Dec 30 j 22:37	0°♑			770 Jun 03 j 17:20	0°♒	
	768 Jan 24 j 00:22	0°♒			770 Jul 02 j 05:38	0°♉	
	768 Feb 17 j 08:15	0°♑			770 Jul 28 j 16:21	0°♊	
asc. node	768 Mar 03 j 23:09	19°♑00'41		asc. node	770 Aug 19 j 18:14	26°♊03'24	
	768 Mar 13 j 02:16	0°♓			770 Aug 23 j 01:07	0°♋	
	768 Apr 07 j 12:19	0°♉			770 Sep 16 j 16:51	0°♌	
	768 May 04 j 01:56	0°♊			770 Oct 10 j 21:33	0°♍	
evening max el	768 May 31 j 21:10	28°♊42'46	45°22'19		770 Nov 03 j 20:10	0°♎	
	768 Jun 02 j 05:42	0°♋		morning set	770 Nov 25 j 06:43	26°♎58'15	
desc. node	768 Jun 23 j 12:28	17°♋50'25			770 Nov 27 j 16:28	0°♎	
greatest brilliancy	768 Jul 07 j 02:02	25°♋33'03	-4.5m	desc. node	770 Dec 09 j 07:36	14°♎38'16	
retrograde	768 Jul 19 j 10:48	28°♋13'29			770 Dec 21 j 12:40	0°♐	
evening set	768 Aug 05 j 21:16	22°♋32'33					
inferior conj	768 Aug 09 j 17:03	20°♋13'05	-8°-21'-29	superior conj	771 Jan 06 j 03:45	19°♐38'13	0°-59'-57
minimum elong	768 Aug 09 j 11:25	20°♋21'46	8°21'01	minimum elong	771 Jan 05 j 15:50	19°♐00'51	0°59'32
min. Earth dist.	768 Aug 10 j 02:28	19°♋58'31	0.28488 AU	max. Earth dist.	771 Jan 09 j 12:12	23°♐50'37	1.71325 AU
morning rise	768 Aug 13 j 01:26	18°♋10'14			771 Jan 14 j 10:01	0°♑	
direct	768 Aug 31 j 04:17	12°♋02'55			771 Feb 07 j 09:35	0°♒	
greatest brilliancy	768 Sep 14 j 14:20	15°♋45'47	-4.6m	evening rise	771 Feb 16 j 00:15	10°♒43'48	
	768 Oct 05 j 02:16	0°♌			771 Mar 03 j 12:44	0°♑	
asc. node	768 Oct 14 j 15:47	8°♌44'47			771 Mar 27 j 21:00	0°♓	
morning max el	768 Oct 20 j 11:37	14°♌29'33	46°38'57	asc. node	771 Apr 01 j 11:01	5°♓36'52	
	768 Nov 04 j 04:25	0°♍			771 Apr 21 j 11:47	0°♉	
	768 Nov 30 j 10:59	0°♎			771 May 16 j 10:48	0°♊	
	768 Dec 25 j 12:24	0°♏			771 Jun 10 j 21:24	0°♋	
	769 Jan 19 j 02:42	0°♐			771 Jul 07 j 03:18	0°♌	
desc. node	769 Feb 03 j 05:22	18°♐32'27		desc. node	771 Jul 22 j 00:21	16°♌19'37	
	769 Feb 12 j 13:05	0°♑			771 Aug 04 j 01:03	0°♍	
	769 Mar 08 j 22:34	0°♒		evening max el	771 Aug 13 j 08:16	9°♍14'59	46°15'20
	769 Apr 02 j 08:25	0°♑			771 Sep 06 j 15:38	0°♎	
morning set	769 Apr 25 j 11:44	28°♑24'08		greatest brilliancy	771 Sep 21 j 10:47	8°♎07'46	-4.6m
	769 Apr 26 j 18:59	0°♓		retrograde	771 Oct 01 j 20:14	10°♎06'48	
	769 May 21 j 05:48	0°♉		evening set	771 Oct 17 j 11:26	5°♎26'00	
asc. node	769 May 27 j 08:38	7°♉30'33		inferior conj	771 Oct 22 j 12:36	2°♎27'41	-5°00'-43
max. Earth dist.	769 May 31 j 06:17	12°♉17'59	1.73632 AU	minimum elong	771 Oct 22 j 22:24	2°♎12'48	4°58'07
				min. Earth dist.	771 Oct 23 j 05:02	2°♎02'42	0.26742 AU
superior conj	769 Jun 01 j 03:59	13°♉24'37	0°11'23		771 Oct 26 j 15:23	30°♒♊	
minimum elong	769 Jun 01 j 01:41	13°♉17'32	0°11'16	morning rise	771 Oct 28 j 08:46	29°♊02'04	
behind sun begin	769 May 31 j 09:46	12°♉28'40		direct	771 Nov 12 j 01:58	24°♊44'07	
behind sun end	769 Jun 01 j 17:36	14°♉06'24		asc. node	771 Nov 12 j 03:30	24°♊44'07	
	769 Jun 14 j 15:58	0°♊		greatest brilliancy	771 Nov 25 j 05:54	27°♊56'13	-4.7m

	771 Nov 29 j 06:21	0°♌			774 Aug 12 j 22:35	0°♊		
morning max el	772 Jan 01 j 18:25	28°♌06'16	46°55'36	desc. node	774 Aug 18 j 12:12	6°♊35'42		
	772 Jan 03 j 14:57	0°♊			774 Sep 07 j 11:54	0°♌		
	772 Jan 31 j 03:58	0°♊			774 Oct 03 j 22:15	0°♊		
desc. node	772 Feb 26 j 01:54	0°♊		evening max el	774 Oct 25 j 14:14	23°♊01'50	47°18'19	
	772 Mar 02 j 17:13	6°♊38'39			774 Nov 01 j 16:08	0°♊		
	772 Mar 22 j 09:00	0°♊		greatest brilliancy	774 Dec 03 j 00:44	23°♊36'29	-4.7m	
	772 Apr 16 j 09:20	0°♊		asc. node	774 Dec 09 j 15:35	25°♊50'39		
	772 May 11 j 05:50	0°♊		retrograde	774 Dec 15 j 11:20	26°♊31'12		
	772 Jun 04 j 23:02	0°♊		evening set	774 Dec 30 j 18:35	21°♊49'03		
asc. node	772 Jun 23 j 20:33	23°♊04'13		min. Earth dist.	775 Jan 04 j 04:17	19°♊11'23	0.26856 AU	
	772 Jun 29 j 12:16	0°♊		inferior conj	775 Jan 05 j 02:50	18°♊36'34	6°10'04	
morning set	772 Jul 02 j 00:48	3°♊05'44		minimum elong	775 Jan 04 j 16:34	18°♊52'25	6°07'44	
	772 Jul 23 j 20:57	0°♊		morning rise	775 Jan 09 j 15:05	15°♊53'52		
max. Earth dist.	772 Aug 03 j 18:28	13°♊29'27	1.72760 AU	direct	775 Jan 25 j 13:17	10°♊54'22		
				greatest brilliancy	775 Feb 05 j 06:01	13°♊03'20	-4.6m	
superior conj	772 Aug 07 j 10:47	18°♊03'22	1°20'26		775 Mar 02 j 18:48	0°♊		
minimum elong	772 Aug 07 j 05:24	17°♊46'40	1°20'21	morning max el	775 Mar 16 j 06:35	12°♊30'40	46°21'17	
	772 Aug 17 j 01:32	0°♊		desc. node	775 Mar 31 j 04:59	27°♊45'34		
	772 Sep 10 j 03:28	0°♊			775 Apr 02 j 07:41	0°♊		
evening rise	772 Sep 13 j 13:03	4°♊14'26			775 Apr 29 j 12:29	0°♊		
	772 Oct 04 j 04:26	0°♊			775 May 25 j 13:42	0°♊		
desc. node	772 Oct 13 j 10:00	11°♊31'15			775 Jun 20 j 00:11	0°♊		
	772 Oct 28 j 05:39	0°♊			775 Jul 14 j 23:44	0°♊		
	772 Nov 21 j 08:09	0°♊		asc. node	775 Jul 22 j 08:26	8°♊56'05		
	772 Dec 15 j 13:52	0°♊			775 Aug 08 j 13:45	0°♊		
	773 Jan 09 j 03:05	0°♊			775 Sep 01 j 19:48	0°♊		
	773 Feb 03 j 08:12	0°♊		morning set	775 Sep 10 j 00:41	10°♊13'16		
asc. node	773 Feb 03 j 13:13	0°♊14'37			775 Sep 25 j 20:17	0°♊		
	773 Mar 01 j 22:47	0°♊		max. Earth dist.	775 Oct 16 j 22:05	26°♊27'12	1.71310 AU	
evening max el	773 Mar 19 j 19:27	18°♊26'32	45°44'34					
	773 Apr 01 j 08:07	0°♊		superior conj	775 Oct 18 j 11:15	28°♊23'57	0°52'00	
greatest brilliancy	773 Apr 23 j 01:40	15°♊06'58	-4.5m	minimum elong	775 Oct 18 j 21:37	28°♊56'31	0°51'35	
retrograde	773 May 07 j 18:54	18°♊54'53			775 Oct 19 j 17:49	0°♊		
evening set	773 May 22 j 20:15	14°♊31'41		desc. node	775 Nov 10 j 21:54	27°♊52'35		
desc. node	773 May 26 j 02:33	12°♊38'31			775 Nov 12 j 14:26	0°♊		
inferior conj	773 May 29 j 06:29	10°♊41'06	0°-44'-28	evening rise	775 Nov 28 j 12:43	20°♊01'08		
minimum elong	773 May 29 j 04:50	10°♊43'40	0°44'01		775 Dec 06 j 11:27	0°♊		
min. Earth dist.	773 May 29 j 08:35	10°♊37'49	0.28978 AU		775 Dec 30 j 09:59	0°♊		
morning rise	773 Jun 04 j 13:20	6°♊54'22			776 Jan 23 j 11:52	0°♊		
direct	773 Jun 19 j 21:34	2°♊22'38			776 Feb 16 j 19:59	0°♊		
greatest brilliancy	773 Jul 03 j 18:17	5°♊42'35	-4.5m	asc. node	776 Mar 03 j 01:09	18°♊30'23		
	773 Aug 05 j 09:08	0°♊			776 Mar 12 j 14:32	0°♊		
morning max el	773 Aug 07 j 21:26	2°♊23'40	45°56'09		776 Apr 07 j 01:43	0°♊		
	773 Sep 03 j 09:19	0°♊			776 May 03 j 17:54	0°♊		
asc. node	773 Sep 16 j 06:04	14°♊29'29		evening max el	776 May 29 j 12:37	26°♊30'58	45°21'33	
	773 Sep 29 j 13:49	0°♊			776 Jun 02 j 05:31	0°♊		
	773 Oct 24 j 12:40	0°♊		desc. node	776 Jun 22 j 14:37	16°♊38'09		
	773 Nov 17 j 20:52	0°♊		greatest brilliancy	776 Jul 04 j 15:36	23°♊18'54	-4.5m	
	773 Dec 11 j 22:36	0°♊		retrograde	776 Jul 17 j 01:12	26°♊00'17		
	774 Jan 04 j 22:25	0°♊		evening set	776 Aug 03 j 09:19	20°♊23'55		
desc. node	774 Jan 05 j 19:33	1°♊06'05		inferior conj	776 Aug 07 j 08:18	17°♊59'29	-8°-14'-51	
	774 Jan 28 j 22:35	0°♊		minimum elong	776 Aug 07 j 02:02	18°♊09'11	8°14'17	
morning set	774 Feb 10 j 12:21	15°♊40'52		min. Earth dist.	776 Aug 07 j 17:07	17°♊45'50	0.28528 AU	
	774 Feb 22 j 00:20	0°♊		morning rise	776 Aug 10 j 18:36	15°♊53'28		
	774 Mar 18 j 04:28	0°♊		direct	776 Aug 28 j 19:53	9°♊48'53		
				greatest brilliancy	776 Sep 12 j 05:03	13°♊29'45	-4.6m	
superior conj	774 Mar 21 j 21:48	4°♊36'28	-1°-14'-31		776 Oct 05 j 08:05	0°♊		
minimum elong	774 Mar 22 j 06:33	5°♊03'31	1°14'19	asc. node	776 Oct 13 j 17:48	7°♊51'06		
max. Earth dist.	774 Mar 25 j 00:33	8°♊27'36	1.72834 AU	morning max el	776 Oct 18 j 01:17	12°♊07'27	46°37'29	
	774 Apr 11 j 11:26	0°♊			776 Nov 03 j 22:16	0°♊		
evening rise	774 Apr 28 j 20:12	21°♊21'33			776 Nov 30 j 01:36	0°♊		
asc. node	774 Apr 28 j 22:53	21°♊29'47			776 Dec 25 j 01:35	0°♊		
	774 May 05 j 21:14	0°♊			777 Jan 18 j 15:04	0°♊		
	774 May 30 j 09:38	0°♊		desc. node	777 Feb 02 j 07:20	18°♊01'35		
	774 Jun 24 j 00:55	0°♊			777 Feb 12 j 00:54	0°♊		
	774 Jul 18 j 20:23	0°♊			777 Mar 08 j 09:58	0°♊		

	777 Apr 01 j 19:29	0°♄			779 Sep 07 j 18:13	0°♌	
morning set	777 Apr 23 j 05:16	26°♄17'26		greatest brilliancy	779 Sep 18 j 22:51	5°♌42'13	-4.6m
	777 Apr 26 j 05:48	0°♄		retrograde	779 Sep 29 j 08:27	7°♌41'30	
	777 May 20 j 16:29	0°♄		evening set	779 Oct 15 j 02:53	2°♌55'43	
asc. node	777 May 26 j 10:50	7°♄04'29		inferior conj	779 Oct 20 j 01:08	0°♌01'43	-5°-20'-2
max. Earth dist.	777 May 29 j 03:16	10°♄22'16	1.73633 AU	minimum elong	779 Oct 20 j 11:16	29°♌46'20	5°17'26
					779 Oct 20 j 02:15	30°♌46'20	
superior conj	777 May 29 j 22:33	11°♄21'28	0°08'17	min. Earth dist.	779 Oct 20 j 18:37	29°♌35'10	0.26800 AU
minimum elong	777 May 29 j 20:52	11°♄16'17	0°08'13	morning rise	779 Oct 25 j 19:02	26°♌39'22	
behind sun begin	777 May 29 j 01:29	10°♄16'47		direct	779 Nov 09 j 15:04	22°♌16'56	
behind sun end	777 May 30 j 16:15	12°♄15'48		asc. node	779 Nov 11 j 05:43	22°♌20'05	
	777 Jun 14 j 02:40	0°♄		greatest brilliancy	779 Nov 22 j 22:11	25°♌33'00	-4.7m
evening rise	777 Jul 04 j 19:08	25°♄27'07			779 Nov 30 j 19:41	0°♌	
	777 Jul 08 j 11:46	0°♄		morning max el	779 Dec 30 j 08:40	25°♌42'32	46°56'04
	777 Aug 01 j 20:07	0°♄			780 Jan 03 j 12:40	0°♌	
	777 Aug 26 j 04:54	0°♄			780 Jan 30 j 20:00	0°♌	
desc. node	777 Sep 15 j 00:07	24°♄18'48			780 Feb 25 j 15:37	0°♌	
	777 Sep 19 j 15:32	0°♌		desc. node	780 Mar 01 j 19:16	6°♌05'03	
	777 Oct 14 j 05:34	0°♌			780 Mar 21 j 21:29	0°♌	
	777 Nov 08 j 01:53	0°♌			780 Apr 15 j 21:03	0°♌	
	777 Dec 03 j 12:19	0°♌			780 May 10 j 17:04	0°♌	
	777 Dec 30 j 11:36	0°♌			780 Jun 04 j 09:56	0°♌	
evening max el	778 Jan 05 j 09:20	6°♌07'05	46°57'19	asc. node	780 Jun 22 j 22:40	22°♌37'52	
asc. node	778 Jan 06 j 03:25	6°♌52'57			780 Jun 28 j 22:57	0°♌	
	778 Feb 01 j 10:45	0°♄		morning set	780 Jun 29 j 19:01	1°♌01'34	
greatest brilliancy	778 Feb 10 j 22:17	5°♄38'46	-4.6m		780 Jul 23 j 07:33	0°♌	
retrograde	778 Feb 24 j 23:06	9°♄14'25		max. Earth dist.	780 Aug 01 j 15:23	11°♌32'34	1.72808 AU
evening set	778 Mar 14 j 11:21	3°♄17'51					
inferior conj	778 Mar 18 j 04:12	0°♄58'42	7°46'00	superior conj	780 Aug 05 j 04:32	15°♌56'33	1°19'22
minimum elong	778 Mar 18 j 11:58	0°♄46'23	7°45'00	minimum elong	780 Aug 04 j 22:37	15°♌38'14	1°19'16
min. Earth dist.	778 Mar 17 j 23:33	1°♄06'06	0.28481 AU		780 Aug 16 j 12:11	0°♌	
	778 Mar 19 j 17:18	30°♌			780 Sep 09 j 14:16	0°♌	
morning rise	778 Mar 22 j 12:50	28°♌16'26		evening rise	780 Sep 11 j 04:11	1°♌58'14	
direct	778 Apr 08 j 09:01	22°♌49'29			780 Oct 03 j 15:27	0°♌	
greatest brilliancy	778 Apr 20 j 01:41	25°♌16'54	-4.5m	desc. node	780 Oct 12 j 12:08	11°♌03'17	
desc. node	778 Apr 27 j 16:41	29°♌04'19			780 Oct 27 j 16:57	0°♌	
	778 Apr 29 j 05:40	0°♄			780 Nov 20 j 19:45	0°♌	
morning max el	778 May 27 j 04:48	22°♄47'21	45°46'49		780 Dec 15 j 01:52	0°♌	
	778 Jun 03 j 13:37	0°♌			781 Jan 08 j 15:47	0°♌	
	778 Jul 01 j 20:34	0°♄		asc. node	781 Feb 02 j 15:13	29°♌39'36	
	778 Jul 28 j 05:16	0°♄			781 Feb 02 j 22:14	0°♄	
asc. node	778 Aug 18 j 20:14	25°♄33'19			781 Mar 01 j 15:59	0°♌	
	778 Aug 22 j 13:04	0°♌		evening max el	781 Mar 17 j 11:32	16°♌15'39	45°46'39
	778 Sep 16 j 04:19	0°♌			781 Apr 01 j 13:46	0°♄	
	778 Oct 10 j 08:46	0°♌		greatest brilliancy	781 Apr 20 j 17:13	12°♌57'28	-4.5m
	778 Nov 03 j 07:17	0°♌		retrograde	781 May 05 j 12:01	16°♌46'42	
morning set	778 Nov 22 j 17:11	24°♌25'18		evening set	781 May 20 j 13:11	12°♌22'38	
	778 Nov 27 j 03:31	0°♌		desc. node	781 May 25 j 04:45	9°♌38'09	
desc. node	778 Dec 08 j 09:46	14°♌10'28		inferior conj	781 May 26 j 22:51	8°♌32'30	0°-24'-42
	778 Dec 20 j 23:40	0°♌		minimum elong	781 May 26 j 21:56	8°♌33'56	0°24'27
				min. Earth dist.	781 May 27 j 00:46	8°♌29'30	0.28974 AU
superior conj	779 Jan 03 j 13:28	17°♌03'39	0°-57'-1	morning rise	781 Jun 02 j 06:43	4°♌44'39	
minimum elong	779 Jan 03 j 01:38	16°♌26'29	0°56'36	direct	781 Jun 17 j 14:15	0°♌14'06	
max. Earth dist.	779 Jan 06 j 15:38	20°♌56'24	1.71289 AU	greatest brilliancy	781 Jul 01 j 09:31	3°♌33'09	-4.5m
	779 Jan 13 j 20:59	0°♌			781 Aug 05 j 07:39	0°♌	
	779 Feb 06 j 20:32	0°♌		morning max el	781 Aug 05 j 14:11	0°♌15'41	45°55'11
evening rise	779 Feb 13 j 11:55	8°♌16'35			781 Sep 03 j 00:52	0°♌	
	779 Mar 02 j 23:43	0°♄		asc. node	781 Sep 15 j 08:10	13°♌54'36	
	779 Mar 27 j 08:07	0°♌			781 Sep 29 j 03:05	0°♌	
asc. node	779 Mar 31 j 13:06	5°♌09'10			781 Oct 24 j 00:55	0°♌	
	779 Apr 20 j 23:11	0°♄			781 Nov 17 j 08:36	0°♌	
	779 May 15 j 22:44	0°♄			781 Dec 11 j 10:01	0°♌	
	779 Jun 10 j 10:24	0°♌			782 Jan 04 j 09:37	0°♌	
	779 Jul 06 j 18:26	0°♌		desc. node	782 Jan 04 j 21:33	0°♌37'19	
desc. node	779 Jul 21 j 02:19	15°♌38'33			782 Jan 28 j 09:37	0°♌	
	779 Aug 03 j 21:30	0°♌		morning set	782 Feb 07 j 23:44	13°♌12'35	
evening max el	779 Aug 10 j 20:40	6°♌52'27	46°12'43		782 Feb 21 j 11:13	0°♌	

	782 Mar 17 j 15:14	0°♄		morning rise	784 Aug 08 j 11:51	13°♌36'42	
				direct	784 Aug 26 j 11:00	7°♌34'44	
superior conj	782 Mar 19 j 12:20	2°♄19'37	-1°-16'-11	greatest brilliancy	784 Sep 09 j 20:32	11°♌14'53	-4.6m
minimum elong	782 Mar 19 j 20:41	2°♄45'30	1°16'01		784 Oct 05 j 11:53	0°♍	
max. Earth dist.	782 Mar 22 j 18:42	6°♄22'06	1.72785 AU	asc. node	784 Oct 12 j 19:57	6°♍58'59	
	782 Apr 10 j 22:09	0°♄		morning max el	784 Oct 15 j 14:46	9°♍45'14	46°36'15
evening rise	782 Apr 26 j 13:13	19°♄13'32			784 Nov 03 j 15:35	0°♎	
asc. node	782 Apr 28 j 01:03	21°♄03'31			784 Nov 29 j 15:54	0°♎	
greatest brilliancy	782 May 01 j 19:11	25°♄40'03	-3.9m		784 Dec 24 j 14:29	0°♏	
	782 May 05 j 07:59	0°♎			785 Jan 18 j 03:11	0°♏	
	782 May 29 j 20:34	0°♏		desc. node	785 Feb 01 j 09:22	17°♏31'38	
	782 Jun 23 j 12:12	0°♐			785 Feb 11 j 12:31	0°♑	
	782 Jul 18 j 08:14	0°♐			785 Mar 07 j 21:13	0°♑	
	782 Aug 12 j 11:21	0°♑			785 Apr 01 j 06:28	0°♒	
desc. node	782 Aug 17 j 14:14	6°♑03'12		morning set	785 Apr 20 j 22:21	24°♒09'23	
	782 Sep 07 j 02:14	0°♒			785 Apr 25 j 16:36	0°♒	
	782 Oct 03 j 15:43	0°♓			785 May 20 j 03:12	0°♓	
evening max el	782 Oct 23 j 05:20	20°♓41'21	47°17'11	asc. node	785 May 25 j 12:51	6°♓37'55	
	782 Nov 01 j 18:58	0°♓		max. Earth dist.	785 May 26 j 22:48	8°♓22'04	1.73634 AU
greatest brilliancy	782 Nov 30 j 15:47	21°♓11'26	-4.7m				
asc. node	782 Dec 08 j 17:36	23°♓41'24		superior conj	785 May 27 j 16:43	9°♔17'05	0°05'10
retrograde	782 Dec 13 j 01:02	24°♓03'43		minimum elong	785 May 27 j 15:39	9°♔13'50	0°05'06
evening set	782 Dec 28 j 04:33	19°♓26'50		behind sun begin	785 May 26 j 18:13	8°♔08'03	
min. Earth dist.	783 Jan 01 j 17:29	16°♓44'28	0.26803 AU	behind sun end	785 May 28 j 13:05	10°♔19'38	
inferior conj	783 Jan 02 j 15:43	16°♓10'08	5°52'53		785 Jun 13 j 13:22	0°♕	
minimum elong	783 Jan 02 j 05:31	16°♓25'53	5°50'28	evening rise	785 Jul 02 j 13:57	23°♕24'05	
morning rise	783 Jan 07 j 07:05	13°♓23'05			785 Jul 07 j 22:35	0°♌	
direct	783 Jan 23 j 02:16	8°♓29'02			785 Aug 01 j 07:10	0°♌	
greatest brilliancy	783 Feb 02 j 18:23	10°♓37'34	-4.6m		785 Aug 25 j 16:18	0°♌	
	783 Mar 03 j 00:55	0°♍		desc. node	785 Sep 14 j 02:16	23°♌49'09	
morning max el	783 Mar 13 j 20:04	10°♍09'34	46°22'42		785 Sep 19 j 03:27	0°♍	
desc. node	783 Mar 30 j 07:06	27°♍02'25			785 Oct 13 j 18:10	0°♎	
	783 Apr 02 j 01:35	0°♎			785 Nov 07 j 15:30	0°♎	
	783 Apr 29 j 02:48	0°♏			785 Dec 03 j 03:46	0°♏	
	783 May 25 j 02:21	0°♏			785 Dec 30 j 07:41	0°♏	
	783 Jun 19 j 11:55	0°♐		evening max el	786 Jan 02 j 23:02	3°♏44'53	46°59'31
	783 Jul 14 j 10:57	0°♐		asc. node	786 Jan 05 j 05:26	6°♏02'13	
asc. node	783 Jul 21 j 10:22	8°♐28'10			786 Feb 02 j 12:07	0°♑	
	783 Aug 08 j 00:42	0°♑		greatest brilliancy	786 Feb 08 j 15:11	3°♑25'12	-4.6m
	783 Sep 01 j 06:38	0°♒		retrograde	786 Feb 22 j 14:48	7°♑00'26	
morning set	783 Sep 07 j 16:07	7°♒58'00		evening set	786 Mar 12 j 05:32	1°♑00'17	
	783 Sep 25 j 07:05	0°♓			786 Mar 13 j 20:31	30°♒♏	
max. Earth dist.	783 Oct 14 j 04:17	23°♓41'56	1.71341 AU	inferior conj	786 Mar 15 j 20:01	28°♒44'56	7°54'57
				minimum elong	786 Mar 16 j 03:16	28°♒33'25	7°54'06
superior conj	783 Oct 15 j 23:57	25°♓59'05	0°54'53	min. Earth dist.	786 Mar 15 j 14:48	28°♒53'11	0.28447 AU
minimum elong	783 Oct 16 j 10:27	26°♓32'03	0°54'28	morning rise	786 Mar 20 j 01:14	26°♒07'44	
	783 Oct 19 j 04:39	0°♔		direct	786 Apr 05 j 23:36	20°♒36'08	
desc. node	783 Nov 10 j 00:02	27°♔25'06		greatest brilliancy	786 Apr 17 j 16:05	23°♒03'02	-4.5m
	783 Nov 12 j 01:20	0°♓		desc. node	786 Apr 26 j 18:52	27°♒43'45	
evening rise	783 Nov 25 j 22:57	17°♓28'03			786 Apr 30 j 06:47	0°♒	
	783 Dec 05 j 22:27	0°♓		morning max el	786 May 24 j 19:59	20°♒34'53	45°47'22
	783 Dec 29 j 21:07	0°♑			786 Jun 03 j 09:24	0°♓	
	784 Jan 22 j 23:11	0°♑			786 Jul 01 j 11:28	0°♓	
	784 Feb 16 j 07:37	0°♒			786 Jul 27 j 18:14	0°♓	
asc. node	784 Mar 02 j 03:14	18°♒00'31		asc. node	786 Aug 17 j 22:22	25°♓03'25	
	784 Mar 12 j 02:46	0°♓			786 Aug 22 j 01:05	0°♌	
	784 Apr 06 j 15:10	0°♔			786 Sep 15 j 15:51	0°♍	
	784 May 03 j 10:05	0°♕			786 Oct 09 j 20:03	0°♎	
evening max el	784 May 27 j 03:05	24°♕16'53	45°20'58		786 Nov 02 j 18:28	0°♏	
	784 Jun 02 j 06:28	0°♌		morning set	786 Nov 20 j 03:44	21°♏52'16	
desc. node	784 Jun 21 j 16:34	15°♌23'32			786 Nov 26 j 14:40	0°♏	
greatest brilliancy	784 Jul 02 j 04:36	21°♌04'12	-4.5m	desc. node	786 Dec 07 j 11:43	13°♏41'37	
retrograde	784 Jul 14 j 15:20	23°♌47'20			786 Dec 20 j 10:46	0°♐	
evening set	784 Jul 31 j 21:06	18°♌15'27					
inferior conj	784 Aug 04 j 23:29	15°♌46'03	-8°-7'-28	superior conj	786 Dec 31 j 23:15	14°♐28'55	0°-53'-59
minimum elong	784 Aug 04 j 16:35	15°♌56'45	8°06'46	minimum elong	786 Dec 31 j 11:35	13°♐52'17	0°53'33
min. Earth dist.	784 Aug 05 j 08:00	15°♌32'51	0.28567 AU	max. Earth dist.	787 Jan 03 j 19:15	18°♐02'27	1.71252 AU

	787 Jan 13 j 08:01	0°♊		morning rise	789 May 31 j 00:08	2°♊35'08	
	787 Feb 06 j 07:31	0°♋			789 Jun 05 j 11:46	30°♋♌	
evening rise	787 Feb 10 j 23:49	5°♋49'59		direct	789 Jun 15 j 07:17	28°♌05'56	
	787 Mar 02 j 10:45	0°♌			789 Jun 25 j 13:46	0°♍	
	787 Mar 26 j 19:17	0°♍		greatest brilliancy	789 Jun 28 j 23:45	1°♍22'20	-4.5m
asc. node	787 Mar 30 j 15:15	4°♌41'30		morning max el	789 Aug 03 j 06:37	28°♍06'19	45°53'58
	787 Apr 20 j 10:40	0°♎			789 Aug 05 j 05:35	0°♏	
	787 May 15 j 10:52	0°♏			789 Sep 02 j 16:32	0°♐	
	787 Jun 09 j 23:40	0°♑		asc. node	789 Sep 14 j 10:16	13°♑19'00	
	787 Jul 06 j 10:02	0°♒			789 Sep 28 j 16:37	0°♓	
desc. node	787 Jul 20 j 04:24	14°♒56'34			789 Oct 23 j 13:28	0°♈	
	787 Aug 03 j 18:58	0°♈			789 Nov 16 j 20:38	0°♉	
evening max el	787 Aug 08 j 10:02	4°♈31'49	46°10'13		789 Dec 10 j 21:44	0°♊	
	787 Sep 09 j 08:22	0°♉		desc. node	790 Jan 03 j 23:33	0°♋07'40	
greatest brilliancy	787 Sep 16 j 09:59	3°♉15'19	-4.6m		790 Jan 03 j 21:06	0°♌	
retrograde	787 Sep 26 j 21:04	5°♉15'34			790 Jan 27 j 20:56	0°♍	
evening set	787 Oct 12 j 18:23	0°♉24'49		morning set	790 Feb 05 j 10:58	10°♍42'51	
	787 Oct 13 j 11:58	30°♊♋			790 Feb 20 j 22:24	0°♋	
inferior conj	787 Oct 17 j 13:35	27°♋35'01	-5°-38'-36				
minimum elong	787 Oct 17 j 23:58	27°♋19'15	5°36'03	superior conj	790 Mar 17 j 02:51	0°♌01'39	-1°-17'-44
min. Earth dist.	787 Oct 18 j 07:43	27°♋07'32	0.26858 AU	minimum elong	790 Mar 17 j 10:45	0°♌26'08	1°17'36
morning rise	787 Oct 23 j 05:01	24°♋16'17			790 Mar 17 j 02:18	0°♌	
direct	787 Nov 07 j 04:37	19°♋49'13		max. Earth dist.	790 Mar 20 j 13:18	4°♌16'56	1.72730 AU
asc. node	787 Nov 10 j 07:45	20°♋01'02			790 Apr 10 j 09:08	0°♍	
greatest brilliancy	787 Nov 20 j 13:31	23°♋08'00	-4.7m	evening rise	790 Apr 24 j 06:17	17°♍04'45	
	787 Dec 01 j 22:23	0°♎		asc. node	790 Apr 27 j 03:04	20°♍35'58	
morning max el	787 Dec 27 j 23:40	23°♎20'08	46°56'28		790 May 04 j 18:59	0°♎	
	788 Jan 03 j 09:53	0°♏			790 May 29 j 07:45	0°♏	
	788 Jan 30 j 11:59	0°♐			790 Jun 22 j 23:45	0°♑	
	788 Feb 25 j 05:23	0°♑			790 Jul 17 j 20:25	0°♒	
desc. node	788 Feb 29 j 21:22	5°♑31'19			790 Aug 12 j 00:33	0°♈	
	788 Mar 21 j 10:02	0°♋		desc. node	790 Aug 16 j 16:20	5°♈29'44	
	788 Apr 15 j 08:52	0°♌			790 Sep 06 j 17:09	0°♉	
	788 May 10 j 04:24	0°♍			790 Oct 03 j 10:06	0°♊	
	788 Jun 03 j 20:58	0°♎		evening max el	790 Oct 20 j 19:55	18°♊18'08	47°15'53
asc. node	788 Jun 22 j 00:37	22°♎10'29			790 Nov 02 j 00:07	0°♋	
morning set	788 Jun 27 j 13:17	28°♎56'58		greatest brilliancy	790 Nov 28 j 07:35	18°♋45'41	-4.7m
	788 Jun 28 j 09:50	0°♏		asc. node	790 Dec 07 j 19:35	21°♋25'10	
	788 Jul 22 j 18:24	0°♑		retrograde	790 Dec 10 j 14:04	21°♋34'25	
max. Earth dist.	788 Jul 30 j 10:22	9°♑29'00	1.72857 AU	evening set	790 Dec 25 j 14:35	17°♋02'45	
				min. Earth dist.	790 Dec 30 j 07:02	14°♋15'22	0.26749 AU
superior conj	788 Aug 02 j 22:11	13°♑48'41	1°18'11	inferior conj	790 Dec 31 j 04:28	13°♋42'13	5°35'01
minimum elong	788 Aug 02 j 15:48	13°♑28'56	1°18'04	minimum elong	790 Dec 30 j 18:27	13°♋57'44	5°32'31
	788 Aug 15 j 23:06	0°♒		morning rise	791 Jan 04 j 22:53	10°♋50'44	
evening rise	788 Sep 08 j 19:11	29°♒40'47		direct	791 Jan 20 j 14:41	6°♋02'08	
	788 Sep 09 j 01:21	0°♈		greatest brilliancy	791 Jan 31 j 07:28	8°♋11'00	-4.6m
	788 Oct 03 j 02:45	0°♉			791 Mar 03 j 05:32	0°♌	
desc. node	788 Oct 11 j 14:12	10°♉34'15		morning max el	791 Mar 11 j 08:38	7°♌44'52	46°24'12
	788 Oct 27 j 04:30	0°♊		desc. node	791 Mar 29 j 09:11	26°♌18'45	
	788 Nov 20 j 07:38	0°♋			791 Apr 01 j 19:26	0°♌	
	788 Dec 14 j 14:13	0°♍			791 Apr 28 j 17:17	0°♌	
	789 Jan 08 j 04:51	0°♎			791 May 24 j 15:12	0°♍	
asc. node	789 Feb 01 j 17:21	29°♎03'58			791 Jun 18 j 23:52	0°♎	
	789 Feb 02 j 12:41	0°♏			791 Jul 13 j 22:23	0°♏	
	789 Mar 01 j 09:48	0°♐		asc. node	791 Jul 20 j 12:34	8°♏00'22	
evening max el	789 Mar 15 j 04:20	14°♐05'59	45°48'54		791 Aug 07 j 11:52	0°♑	
	789 Apr 01 j 21:54	0°♑			791 Aug 31 j 17:43	0°♒	
greatest brilliancy	789 Apr 18 j 09:58	10°♑49'26	-4.5m	morning set	791 Sep 05 j 07:45	5°♒42'36	
retrograde	789 May 03 j 05:06	14°♑38'33			791 Sep 24 j 18:12	0°♈	
evening set	789 May 18 j 06:34	10°♑13'43		max. Earth dist.	791 Oct 11 j 10:53	20°♈56'56	1.71384 AU
desc. node	789 May 24 j 06:38	6°♑37'57					
inferior conj	789 May 24 j 15:28	6°♑24'07	0°-5'-10	superior conj	791 Oct 13 j 12:44	23°♈33'25	0°57'39
minimum elong	789 May 24 j 15:17	6°♑24'25	0°05'07	minimum elong	791 Oct 13 j 23:17	24°♈06'34	0°57'16
transit middle	789 May 24 j 15:17	6°♑24'25	0°05'07		791 Oct 18 j 15:50	0°♉	
transit begin	789 May 24 j 11:26	6°♑30'27		desc. node	791 Nov 09 j 02:01	26°♉55'51	
transit end	789 May 24 j 19:08	6°♑18'23			791 Nov 11 j 12:37	0°♊	
min. Earth dist.	789 May 24 j 17:10	6°♑21'27	0.28969 AU	evening rise	791 Nov 23 j 08:53	14°♊52'53	

	791 Dec 05 j 09:50	0°☾		morning max el	794 May 22 j 11:43	18°☿23'05	45°48'05
	791 Dec 29 j 08:38	0°≈			794 Jun 03 j 04:48	0°♄	
	792 Jan 22 j 10:52	0°♁			794 Jul 01 j 02:17	0°♂	
	792 Feb 15 j 19:36	0°☿			794 Jul 27 j 07:11	0°♁	
asc. node	792 Mar 01 j 05:21	17°☿29'42		asc. node	794 Aug 17 j 00:25	24°♁33'13	
	792 Mar 11 j 15:23	0°♄			794 Aug 21 j 13:06	0°♂	
	792 Apr 06 j 05:03	0°♂			794 Sep 15 j 03:21	0°♁	
	792 May 03 j 02:53	0°♁			794 Oct 09 j 07:19	0°♂	
evening max el	792 May 24 j 17:28	22°♁02'09	45°20'41		794 Nov 02 j 05:38	0°♂	
	792 Jun 02 j 09:00	0°♂		morning set	794 Nov 17 j 14:52	19°♂21'14	
desc. node	792 Jun 20 j 18:40	14°♂06'50			794 Nov 26 j 01:48	0°♄	
greatest brilliancy	792 Jun 29 j 16:51	18°♂48'48	-4.5m	desc. node	794 Dec 06 j 13:49	13°♄13'14	
retrograde	792 Jul 12 j 06:06	21°♂35'19			794 Dec 19 j 21:54	0°☾	
evening set	792 Jul 29 j 09:09	16°♂07'38					
inferior conj	792 Aug 02 j 15:02	13°♂33'21	-7°-59'-27	superior conj	794 Dec 29 j 08:55	11°☾53'32	0°-50'-48
minimum elong	792 Aug 02 j 07:33	13°♂44'56	7°58'36	minimum elong	794 Dec 28 j 21:31	11°☾17'46	0°50'21
min. Earth dist.	792 Aug 02 j 23:08	13°♂20'47	0.28604 AU	max. Earth dist.	795 Jan 01 j 01:33	15°☾16'35	1.71228 AU
morning rise	792 Aug 06 j 05:40	11°♂20'36			795 Jan 12 j 19:08	0°≈	
direct	792 Aug 24 j 02:23	5°♂21'18			795 Feb 05 j 18:39	0°♁	
greatest brilliancy	792 Sep 07 j 13:10	9°♂02'03	-4.6m	evening rise	795 Feb 08 j 11:14	3°♁21'21	
	792 Oct 05 j 14:11	0°♁			795 Mar 01 j 21:55	0°☿	
asc. node	792 Oct 11 j 21:59	6°♁07'16			795 Mar 26 j 06:36	0°♄	
morning max el	792 Oct 13 j 04:55	7°♁24'33	46°34'45	asc. node	795 Mar 29 j 17:13	4°♄12'47	
	792 Nov 03 j 08:46	0°♂			795 Apr 19 j 22:18	0°♂	
	792 Nov 29 j 06:20	0°♂			795 May 14 j 23:06	0°♁	
	792 Dec 24 j 03:39	0°♄			795 Jun 09 j 13:06	0°♂	
	793 Jan 17 j 15:38	0°☾			795 Jul 06 j 01:54	0°♁	
desc. node	793 Jan 31 j 11:34	17°☾01'07		desc. node	795 Jul 19 j 06:32	14°♁14'16	
	793 Feb 11 j 00:27	0°≈			795 Aug 03 j 17:11	0°♂	
	793 Mar 07 j 08:44	0°♁		evening max el	795 Aug 06 j 00:23	2°♂13'56	46°07'49
	793 Mar 31 j 17:41	0°☿			795 Sep 11 j 18:54	0°♂	
morning set	793 Apr 18 j 15:12	21°☿59'42		greatest brilliancy	795 Sep 13 j 21:20	0°♂49'48	-4.6m
	793 Apr 25 j 03:38	0°♄		retrograde	795 Sep 24 j 09:56	2°♂50'44	
	793 May 19 j 14:07	0°♂			795 Oct 06 j 09:17	30°♂♂	
asc. node	793 May 24 j 14:51	6°♂10'35		evening set	795 Oct 10 j 10:12	27°♂55'20	
				inferior conj	795 Oct 15 j 02:16	25°♂09'39	-5°-56'-23
superior conj	793 May 25 j 10:52	7°♂12'00	0°02'00	minimum elong	795 Oct 15 j 12:50	24°♂53'38	5°53'54
minimum elong	793 May 25 j 10:28	7°♂10'46	0°01'58	min. Earth dist.	795 Oct 15 j 20:44	24°♂41'39	0.26914 AU
behind sun begin	793 May 24 j 12:07	6°♂02'12		morning rise	795 Oct 20 j 15:00	21°♂54'42	
behind sun end	793 May 26 j 08:48	8°♂19'22		direct	795 Nov 04 j 18:39	17°♂23'10	
max. Earth dist.	793 May 24 j 18:46	6°♂22'34	1.73631 AU	asc. node	795 Nov 09 j 09:42	17°♂48'48	
	793 Jun 13 j 00:17	0°♁		greatest brilliancy	795 Nov 18 j 03:53	20°♂42'57	-4.7m
evening rise	793 Jun 30 j 09:03	21°♁21'28			795 Dec 02 j 17:30	0°♂	
	793 Jul 07 j 09:35	0°♂		morning max el	795 Dec 25 j 14:20	20°♂57'40	46°56'35
	793 Jul 31 j 18:22	0°♁			796 Jan 03 j 06:08	0°♄	
	793 Aug 25 j 03:50	0°♂			796 Jan 30 j 03:35	0°☾	
desc. node	793 Sep 13 j 04:21	23°♂19'02			796 Feb 24 j 18:59	0°≈	
	793 Sep 18 j 15:30	0°♂		desc. node	796 Feb 28 j 23:24	4°≈57'43	
	793 Oct 13 j 06:58	0°♄			796 Mar 20 j 22:32	0°♁	
	793 Nov 07 j 05:25	0°☾			796 Apr 14 j 20:39	0°☿	
	793 Dec 02 j 19:45	0°≈			796 May 09 j 15:43	0°♄	
	793 Dec 30 j 04:53	0°♁			796 Jun 03 j 07:57	0°♂	
evening max el	793 Dec 31 j 13:14	1°♁22'41	47°01'33	asc. node	796 Jun 21 j 02:47	21°♂43'58	
asc. node	794 Jan 04 j 07:34	5°♁09'42		morning set	796 Jun 25 j 07:17	26°♂51'51	
	794 Feb 04 j 01:27	0°☿			796 Jun 27 j 20:38	0°♁	
greatest brilliancy	794 Feb 06 j 07:07	1°☿08'32	-4.6m		796 Jul 22 j 05:09	0°♂	
retrograde	794 Feb 20 j 06:39	4°☿44'21		max. Earth dist.	796 Jul 28 j 04:01	7°♂21'44	1.72903 AU
	794 Mar 07 j 17:25	30°♂♂					
evening set	794 Mar 09 j 23:15	28°♁40'39		superior conj	796 Jul 31 j 15:47	11°♂41'06	1°16'54
inferior conj	794 Mar 13 j 11:27	26°♁29'01	8°03'20	minimum elong	796 Jul 31 j 08:59	11°♂20'02	1°16'46
minimum elong	794 Mar 13 j 18:11	26°♁18'23	8°02'36		796 Aug 15 j 09:55	0°♁	
min. Earth dist.	794 Mar 13 j 05:30	26°♁38'27	0.28408 AU	evening rise	796 Sep 06 j 10:22	27°♁24'22	
morning rise	794 Mar 17 j 13:18	23°♁57'05			796 Sep 08 j 12:19	0°♂	
direct	794 Apr 03 j 14:01	18°♁20'43			796 Oct 02 j 13:55	0°♂	
greatest brilliancy	794 Apr 15 j 06:02	20°♁47'19	-4.5m	desc. node	796 Oct 10 j 16:10	10°♂05'22	
desc. node	794 Apr 25 j 20:49	26°♁24'15			796 Oct 26 j 15:53	0°♄	
	794 May 01 j 01:48	0°☿			796 Nov 19 j 19:18	0°☾	

	796 Dec 14 j 02:19	0°♊			799 Apr 28 j 07:09	0°♎		
	797 Jan 07 j 17:42	0°♋			799 May 24 j 03:36	0°♏		
asc. node	797 Jan 31 j 19:24	28°♋28'33			799 Jun 18 j 11:27	0°♐		
	797 Feb 02 j 03:02	0°♌			799 Jul 13 j 09:31	0°♑		
	797 Mar 01 j 03:51	0°♍		asc. node	799 Jul 19 j 14:37	7°♑33'00		
evening max el	797 Mar 12 j 20:42	11°♍55'20	45°50'51		799 Aug 06 j 22:45	0°♒		
	797 Apr 02 j 08:59	0°♎			799 Aug 31 j 04:30	0°♓		
greatest brilliancy	797 Apr 16 j 03:30	8°♎42'03	-4.5m	morning set	799 Sep 02 j 23:12	3°♓27'37		
retrograde	797 Apr 30 j 21:27	12°♎29'45			799 Sep 24 j 04:58	0°♈		
evening set	797 May 15 j 23:52	8°♎04'07		max. Earth dist.	799 Oct 08 j 20:24	18°♈22'09	1.71427 AU	
inferior conj	797 May 22 j 07:53	4°♎15'19	0°14'36					
minimum elong	797 May 22 j 08:25	4°♎14'28	0°14'27	superior conj	799 Oct 11 j 01:29	21°♈08'48	1°00'19	
transit middle	797 May 22 j 08:25	4°♎14'28	0°14'27	minimum elong	799 Oct 11 j 12:02	21°♈41'54	0°59'57	
transit begin	797 May 22 j 06:34	4°♎17'22			799 Oct 18 j 02:39	0°♉		
transit end	797 May 22 j 10:16	4°♎11'35		desc. node	799 Nov 08 j 04:06	26°♉28'06		
min. Earth dist.	797 May 22 j 09:42	4°♎12'27	0.28963 AU		799 Nov 10 j 23:33	0°♊		
desc. node	797 May 23 j 08:45	3°♎36'19		evening rise	799 Nov 20 j 18:57	12°♊19'17		
morning rise	797 May 28 j 17:08	0°♎25'11			799 Dec 04 j 20:54	0°♋		
	797 May 29 j 11:51	30°♌♋			799 Dec 28 j 19:48	0°♌		
direct	797 Jun 12 j 23:53	25°♌57'24			800 Jan 21 j 22:10	0°♍		
greatest brilliancy	797 Jun 26 j 13:20	29°♌10'28	-4.5m		800 Feb 15 j 07:12	0°♎		
	797 Jun 28 j 07:41	0°♎		asc. node	800 Feb 29 j 07:20	16°♎59'43		
morning max el	797 Jul 31 j 21:56	25°♎54'40	45°52'53		800 Mar 11 j 03:36	0°♏		
	797 Aug 05 j 02:34	0°♏			800 Apr 05 j 18:37	0°♐		
	797 Sep 02 j 07:46	0°♑			800 May 02 j 19:33	0°♑		
asc. node	797 Sep 13 j 12:17	12°♑44'05		evening max el	800 May 22 j 07:54	19°♑48'39	45°20'18	
	797 Sep 28 j 05:47	0°♒			800 Jun 02 j 12:46	0°♒		
	797 Oct 23 j 01:42	0°♓		desc. node	800 Jun 19 j 20:49	12°♒48'29		
	797 Nov 16 j 08:21	0°♓		greatest brilliancy	800 Jun 27 j 04:02	16°♒32'44	-4.5m	
desc. node	797 Dec 10 j 09:07	0°♊		retrograde	800 Jul 09 j 21:13	19°♒23'41		
	798 Jan 03 j 01:45	29°♊39'38		evening set	800 Jul 26 j 20:56	14°♒00'04		
	798 Jan 03 j 08:15	0°♋		inferior conj	800 Jul 31 j 06:21	11°♒20'50	-7°-50'-36	
	798 Jan 27 j 07:54	0°♌		minimum elong	800 Jul 30 j 22:22	11°♒23'11	7°49'36	
morning set	798 Feb 02 j 22:27	8°♌14'57		min. Earth dist.	800 Jul 31 j 13:51	11°♒09'12	0.28644 AU	
	798 Feb 20 j 09:14	0°♍		morning rise	800 Aug 03 j 23:29	9°♒04'30		
				direct	800 Aug 21 j 17:49	3°♒07'59		
superior conj	798 Mar 14 j 17:24	27°♍44'47	-1°-19'-9	greatest brilliancy	800 Sep 05 j 06:23	6°♒50'34	-4.6m	
minimum elong	798 Mar 15 j 00:45	28°♍07'35	1°19'02		800 Oct 05 j 14:52	0°♓		
	798 Mar 16 j 13:03	0°♎		morning max el	800 Oct 10 j 19:50	5°♓06'42	46°33'24	
max. Earth dist.	798 Mar 18 j 08:14	2°♎13'43	1.72680 AU	asc. node	800 Oct 11 j 00:01	5°♓17'11		
	798 Apr 09 j 19:51	0°♏			800 Nov 03 j 01:19	0°♈		
evening rise	798 Apr 21 j 23:04	14°♏55'49			800 Nov 28 j 20:17	0°♉		
asc. node	798 Apr 26 j 05:05	20°♏09'10			800 Dec 23 j 16:23	0°♊		
	798 May 04 j 05:46	0°♐			801 Jan 17 j 03:39	0°♋		
	798 May 28 j 18:44	0°♑		desc. node	801 Jan 30 j 13:30	16°♋31'01		
	798 Jun 22 j 11:07	0°♒			801 Feb 10 j 11:59	0°♌		
	798 Jul 17 j 08:25	0°♓			801 Mar 06 j 19:53	0°♍		
	798 Aug 11 j 13:34	0°♈			801 Mar 31 j 04:32	0°♎		
desc. node	798 Aug 15 j 18:22	4°♈56'43		morning set	801 Apr 16 j 08:09	19°♎51'26		
	798 Sep 06 j 07:56	0°♉			801 Apr 24 j 14:17	0°♏		
	798 Oct 03 j 04:34	0°♊			801 May 19 j 00:41	0°♐		
evening max el	798 Oct 18 j 09:31	15°♊53'25	47°14'30	max. Earth dist.	801 May 22 j 16:51	4°♐30'40	1.73630 AU	
	798 Nov 02 j 06:55	0°♋						
greatest brilliancy	798 Nov 25 j 23:42	16°♋21'11	-4.7m	superior conj	801 May 23 j 05:09	5°♐08'26	0°-1'-11	
asc. node	798 Dec 06 j 21:47	19°♋04'29		minimum elong	801 May 23 j 05:22	5°♐09'07	0°01'10	
retrograde	798 Dec 08 j 02:35	19°♋06'14		behind sun begin	801 May 22 j 06:56	4°♐00'13		
evening set	798 Dec 23 j 00:46	14°♋39'19		behind sun end	801 May 24 j 03:48	6°♐18'00		
min. Earth dist.	798 Dec 27 j 20:58	11°♋46'50	0.26695 AU	asc. node	801 May 23 j 17:02	5°♐44'57		
inferior conj	798 Dec 28 j 17:14	11°♋15'30	5°16'19		801 Jun 12 j 10:52	0°♑		
minimum elong	798 Dec 28 j 07:27	11°♋30'38	5°13'47	evening rise	801 Jun 28 j 04:15	19°♑20'12		
morning rise	799 Jan 02 j 14:39	8°♋19'41			801 Jul 06 j 20:17	0°♒		
direct	799 Jan 18 j 02:37	3°♋36'12			801 Jul 31 j 05:20	0°♓		
greatest brilliancy	799 Jan 28 j 21:31	5°♋46'40	-4.6m		801 Aug 24 j 15:12	0°♈		
	799 Mar 03 j 07:53	0°♌		desc. node	801 Sep 12 j 06:19	22°♈49'03		
morning max el	799 Mar 08 j 20:46	5°♌20'19	46°25'50		801 Sep 18 j 03:24	0°♉		
desc. node	799 Mar 28 j 11:12	25°♌36'55			801 Oct 12 j 19:36	0°♊		
	799 Apr 01 j 12:24	0°♍			801 Nov 06 j 19:11	0°♋		

	801 Dec 02 j 11:39	0°♊			804 May 09 j 02:57	0°♋		
evening max el	801 Dec 29 j 04:21	29°♊03'49	47°03'39		804 Jun 02 j 18:53	0°♌		
	801 Dec 30 j 02:29	0°♋		asc. node	804 Jun 20 j 04:50	21°♌17'14		
asc. node	802 Jan 03 j 09:37	4°♋16'57		morning set	804 Jun 23 j 01:39	24°♌48'02		
greatest brilliancy	802 Feb 03 j 22:47	28°♋52'29	-4.6m		804 Jun 27 j 07:23	0°♍		
	802 Feb 06 j 11:16	0°♌			804 Jul 21 j 15:51	0°♎		
retrograde	802 Feb 17 j 22:56	2°♌29'06		max. Earth dist.	804 Jul 25 j 21:18	5°♎13'38	1.72948 AU	
	802 Feb 28 j 22:31	30°♌℞						
evening set	802 Mar 07 j 16:51	26°♌22'01		superior conj	804 Jul 29 j 09:52	9°♎35'18	1°15'31	
inferior conj	802 Mar 11 j 02:55	24°♌13'50	8°10'56	minimum elong	804 Jul 29 j 02:40	9°♎13'00	1°15'21	
minimum elong	802 Mar 11 j 09:04	24°♌04'07	8°10'20		804 Aug 14 j 20:42	0°♏		
min. Earth dist.	802 Mar 10 j 19:51	24°♌25'00	0.28368 AU	evening rise	804 Sep 04 j 02:01	25°♏09'35		
morning rise	802 Mar 15 j 01:30	21°♌47'06			804 Sep 07 j 23:16	0°♐		
direct	802 Apr 01 j 04:56	16°♌06'11			804 Oct 02 j 01:06	0°♑		
greatest brilliancy	802 Apr 12 j 19:18	18°♌31'47	-4.5m	desc. node	804 Oct 09 j 18:21	9°♑36'56		
desc. node	802 Apr 24 j 22:55	25°♌08'25			804 Oct 26 j 03:22	0°♒		
	802 May 01 j 15:31	0°♌			804 Nov 19 j 07:09	0°♓		
morning max el	802 May 20 j 04:05	16°♌13'45	45°48'51		804 Dec 13 j 14:39	0°♊		
	802 Jun 02 j 23:18	0°♋			805 Jan 07 j 06:49	0°♋		
	802 Jun 30 j 16:37	0°♌		asc. node	805 Jan 30 j 21:24	27°♋52'21		
	802 Jul 26 j 19:47	0°♍			805 Feb 01 j 17:42	0°♌		
asc. node	802 Aug 16 j 02:25	24°♍03'39			805 Feb 28 j 22:29	0°♋		
	802 Aug 21 j 00:51	0°♎		evening max el	805 Mar 10 j 12:08	9°♋42'01	45°53'03	
	802 Sep 14 j 14:41	0°♏			805 Apr 02 j 23:56	0°♌		
	802 Oct 08 j 18:28	0°♐		greatest brilliancy	805 Apr 13 j 21:05	6°♌34'42	-4.5m	
	802 Nov 01 j 16:43	0°♑		retrograde	805 Apr 28 j 13:35	10°♌21'20		
morning set	802 Nov 15 j 01:52	16°♑50'05		evening set	805 May 13 j 17:28	5°♌54'32		
	802 Nov 25 j 12:50	0°♒		inferior conj	805 May 20 j 00:29	2°♌06'53	0°34'18	
desc. node	802 Dec 05 j 15:58	12°♒45'25		minimum elong	805 May 20 j 01:45	2°♌04'55	0°33'56	
	802 Dec 19 j 08:53	0°♓		min. Earth dist.	805 May 20 j 02:41	2°♌03'26	0.28955 AU	
				desc. node	805 May 22 j 10:55	0°♌35'34		
superior conj	802 Dec 26 j 18:17	9°♓17'41	0°-47'-29		805 May 23 j 10:11	30°♌℞		
minimum elong	802 Dec 26 j 07:17	8°♓43'07	0°47'03	morning rise	805 May 26 j 10:08	28°♌15'45		
max. Earth dist.	802 Dec 29 j 10:40	12°♓40'00	1.71199 AU	direct	805 Jun 10 j 16:14	23°♌49'07		
	803 Jan 12 j 06:04	0°♊		greatest brilliancy	805 Jun 24 j 03:43	26°♌59'34	-4.5m	
	803 Feb 05 j 05:35	0°♋			805 Jun 30 j 00:02	0°♌		
evening rise	803 Feb 05 j 22:35	0°♋52'59		morning max el	805 Jul 29 j 12:44	23°♌41'39	45°51'59	
	803 Mar 01 j 08:55	0°♌			805 Aug 04 j 22:52	0°♍		
	803 Mar 25 j 17:45	0°♋			805 Sep 01 j 22:49	0°♎		
asc. node	803 Mar 28 j 19:18	3°♋45'00		asc. node	805 Sep 12 j 14:21	12°♎09'29		
	803 Apr 19 j 09:46	0°♌			805 Sep 27 j 18:56	0°♏		
	803 May 14 j 11:13	0°♍			805 Oct 22 j 13:58	0°♐		
	803 Jun 09 j 02:27	0°♎			805 Nov 15 j 20:09	0°♑		
	803 Jul 05 j 17:49	0°♏			805 Dec 09 j 20:41	0°♒		
desc. node	803 Jul 18 j 08:32	13°♏31'40		desc. node	806 Jan 02 j 03:44	29°♒10'13		
evening max el	803 Aug 03 j 14:43	29°♏56'33	46°05'09		806 Jan 02 j 19:38	0°♓		
	803 Aug 03 j 16:10	0°♐			806 Jan 26 j 19:09	0°♊		
greatest brilliancy	803 Sep 11 j 09:05	28°♐24'58	-4.6m	morning set	806 Jan 31 j 09:17	5°♊43'58		
	803 Sep 17 j 04:05	0°♑			806 Feb 19 j 20:20	0°♋		
retrograde	803 Sep 21 j 22:10	0°♑25'43						
	803 Sep 26 j 13:29	30°♑℞		superior conj	806 Mar 12 j 07:28	25°♋25'37	-1°-20'-27	
evening set	803 Oct 08 j 01:59	25°♑25'46		minimum elong	806 Mar 12 j 14:14	25°♋46'34	1°20'22	
inferior conj	803 Oct 12 j 14:53	22°♑44'11	-6°-13'-30	max. Earth dist.	806 Mar 16 j 01:21	0°♌04'05	1.72621 AU	
minimum elong	803 Oct 13 j 01:31	22°♑28'00	6°11'05		806 Mar 16 j 00:02	0°♌		
min. Earth dist.	803 Oct 13 j 09:46	22°♑15'28	0.26975 AU		806 Apr 09 j 06:46	0°♋		
morning rise	803 Oct 18 j 00:38	19°♑33'02		evening rise	806 Apr 19 j 15:32	12°♋45'16		
direct	803 Nov 02 j 08:36	14°♑56'55		asc. node	806 Apr 25 j 07:15	19°♋42'08		
asc. node	803 Nov 08 j 11:55	15°♑41'30			806 May 03 j 16:45	0°♌		
greatest brilliancy	803 Nov 15 j 18:06	18°♑17'08	-4.7m		806 May 28 j 05:55	0°♍		
	803 Dec 03 j 08:01	0°♑			806 Jun 21 j 22:43	0°♎		
morning max el	803 Dec 23 j 04:04	18°♑32'18	46°56'44		806 Jul 16 j 20:39	0°♏		
	804 Jan 03 j 01:55	0°♒			806 Aug 11 j 02:50	0°♐		
	804 Jan 29 j 18:59	0°♓		desc. node	806 Aug 14 j 20:25	4°♐23'03		
	804 Feb 24 j 08:26	0°♊			806 Sep 05 j 23:04	0°♑		
desc. node	804 Feb 28 j 01:27	4°♊24'26			806 Oct 02 j 23:39	0°♒		
	804 Mar 20 j 10:54	0°♋		evening max el	806 Oct 15 j 22:12	13°♒26'10	47°13'01	
	804 Apr 14 j 08:21	0°♌			806 Nov 02 j 16:25	0°♓		

greatest brilliancy	806 Nov 23 j 15:04	13°☾55'08	-4.7m	minimum elong	809 May 21 j 00:01	3°♊05'24	0°04'20
retrograde	806 Dec 05 j 14:59	16°☾37'32		behind sun begin	809 May 20 j 02:09	1°♊58'14	
asc. node	806 Dec 05 j 23:45	16°☾37'22		behind sun end	809 May 21 j 21:53	4°♊12'32	
evening set	806 Dec 20 j 11:04	12°☾14'32		max. Earth dist.	809 May 20 j 15:27	2°♊39'04	1.73625 AU
min. Earth dist.	806 Dec 25 j 10:58	9°☾17'18	0.26653 AU	asc. node	809 May 22 j 19:03	5°♊17'33	
inferior conj	806 Dec 26 j 06:00	8°☾47'57	4°56'49		809 Jun 11 j 21:49	0°☾	
minimum elong	806 Dec 25 j 20:31	9°☾02'34	4°54'18	evening rise	809 Jun 25 j 23:19	17°☾17'24	
morning rise	806 Dec 31 j 06:23	5°☾47'59			809 Jul 06 j 07:21	0°♊	
direct	807 Jan 15 j 14:27	1°☾08'59			809 Jul 30 j 16:38	0°♊	
greatest brilliancy	807 Jan 26 j 12:41	3°☾22'23	-4.6m		809 Aug 24 j 02:54	0°♊	
	807 Mar 03 j 09:21	0°♊		desc. node	809 Sep 11 j 08:28	22°♊18'37	
morning max el	807 Mar 06 j 09:25	2°♊55'31	46°27'26		809 Sep 17 j 15:40	0°♊	
desc. node	807 Mar 27 j 13:19	24°♊54'37			809 Oct 12 j 08:38	0°♊	
	807 Apr 01 j 05:28	0°♊			809 Nov 06 j 09:24	0°☾	
	807 Apr 27 j 21:17	0°♊			809 Dec 02 j 04:06	0°♊	
	807 May 23 j 16:16	0°♊		evening max el	809 Dec 26 j 20:17	26°♊46'13	47°05'40
	807 Jun 17 j 23:18	0°♊			809 Dec 30 j 01:11	0°♊	
	807 Jul 12 j 20:54	0°☾		asc. node	810 Jan 02 j 11:38	3°♊22'28	
asc. node	807 Jul 18 j 16:35	7°☾04'35		greatest brilliancy	810 Feb 01 j 15:09	26°♊36'43	-4.6m
	807 Aug 06 j 09:54	0°♊			810 Feb 12 j 08:28	0°♊	
	807 Aug 30 j 15:33	0°♊		retrograde	810 Feb 15 j 15:23	0°♊13'02	
morning set	807 Aug 31 j 15:04	1°♊13'10			810 Feb 18 j 21:01	30°♊	
	807 Sep 23 j 16:00	0°♊		evening set	810 Mar 05 j 10:18	24°♊03'06	
max. Earth dist.	807 Oct 06 j 08:47	15°♊55'36	1.71467 AU	inferior conj	810 Mar 08 j 18:25	21°♊57'53	8°17'43
				minimum elong	810 Mar 08 j 23:57	21°♊49'09	8°17'15
superior conj	807 Oct 08 j 14:49	18°♊45'11	1°02'50	min. Earth dist.	810 Mar 08 j 09:56	22°♊11'16	0.28327 AU
minimum elong	807 Oct 09 j 01:16	19°♊18'00	1°02'28	morning rise	810 Mar 12 j 13:50	19°♊36'06	
	807 Oct 17 j 13:45	0°♊		direct	810 Mar 29 j 20:23	13°♊51'04	
desc. node	807 Nov 07 j 06:14	25°♊59'41		greatest brilliancy	810 Apr 10 j 07:44	16°♊14'27	-4.5m
	807 Nov 10 j 10:44	0°♊		desc. node	810 Apr 24 j 01:04	23°♊54'12	
evening rise	807 Nov 18 j 05:37	9°♊46'51			810 May 02 j 02:07	0°♊	
	807 Dec 04 j 08:12	0°☾		morning max el	810 May 17 j 20:25	14°♊03'21	45°49'27
	807 Dec 28 j 07:15	0°♊			810 Jun 02 j 17:45	0°♊	
	808 Jan 21 j 09:49	0°♊			810 Jun 30 j 07:10	0°♊	
	808 Feb 14 j 19:14	0°♊			810 Jul 26 j 08:39	0°☾	
asc. node	808 Feb 28 j 09:25	16°♊28'43		asc. node	810 Aug 15 j 04:35	23°☾33'41	
	808 Mar 10 j 16:20	0°♊			810 Aug 20 j 12:52	0°♊	
	808 Apr 05 j 08:46	0°♊			810 Sep 14 j 02:16	0°♊	
	808 May 02 j 13:03	0°☾			810 Oct 08 j 05:50	0°♊	
evening max el	808 May 19 j 23:07	17°☾36'00	45°20'14		810 Nov 01 j 04:01	0°♊	
	808 Jun 02 j 18:58	0°♊		morning set	810 Nov 12 j 13:02	14°♊18'43	
desc. node	808 Jun 18 j 22:45	11°♊26'34			810 Nov 25 j 00:06	0°♊	
greatest brilliancy	808 Jun 24 j 15:13	14°♊16'06	-4.5m	desc. node	810 Dec 04 j 17:55	12°♊16'07	
retrograde	808 Jul 07 j 12:55	17°♊11'34			810 Dec 18 j 20:07	0°☾	
evening set	808 Jul 24 j 08:56	11°♊52'02					
inferior conj	808 Jul 28 j 21:49	9°♊07'48	-7°-41'-6	superior conj	810 Dec 24 j 03:47	6°☾41'20	0°-44'-5
minimum elong	808 Jul 28 j 13:23	9°♊20'50	7°39'58	minimum elong	810 Dec 23 j 17:17	6°☾08'22	0°43'39
min. Earth dist.	808 Jul 29 j 04:22	8°♊57'40	0.28679 AU	max. Earth dist.	810 Dec 26 j 19:55	10°☾02'54	1.71169 AU
morning rise	808 Aug 01 j 17:35	6°♊47'45			811 Jan 11 j 17:16	0°♊	
direct	808 Aug 19 j 09:55	0°♊54'20		evening rise	811 Feb 03 j 09:58	28°♊23'57	
greatest brilliancy	808 Sep 02 j 23:19	4°♊38'15	-4.6m		811 Feb 04 j 16:46	0°♊	
	808 Oct 05 j 14:45	0°♊			811 Feb 28 j 20:08	0°♊	
morning max el	808 Oct 08 j 11:40	2°♊50'30	46°32'01		811 Mar 25 j 05:08	0°♊	
asc. node	808 Oct 10 j 02:10	4°♊27'27		asc. node	811 Mar 27 j 21:27	3°♊16'40	
	808 Nov 02 j 17:52	0°♊			811 Apr 18 j 21:30	0°♊	
	808 Nov 28 j 10:24	0°♊			811 May 13 j 23:38	0°☾	
	808 Dec 23 j 05:20	0°♊			811 Jun 08 j 16:12	0°♊	
	809 Jan 16 j 15:54	0°☾			811 Jul 05 j 10:21	0°♊	
desc. node	809 Jan 29 j 15:35	16°☾00'35		desc. node	811 Jul 17 j 10:36	12°♊47'55	
	809 Feb 09 j 23:45	0°♊		evening max el	811 Aug 01 j 04:32	27°♊37'12	46°02'37
	809 Mar 06 j 07:20	0°♊			811 Aug 03 j 16:31	0°♊	
	809 Mar 30 j 15:44	0°♊		greatest brilliancy	811 Sep 08 j 21:57	26°♊01'16	-4.6m
morning set	809 Apr 14 j 00:54	17°♊41'15		retrograde	811 Sep 19 j 10:10	28°♊00'53	
	809 Apr 24 j 01:19	0°♊		evening set	811 Oct 05 j 18:01	22°♊56'29	
	809 May 18 j 11:38	0°♊		inferior conj	811 Oct 10 j 03:44	20°♊19'03	-6°-29'-38
				minimum elong	811 Oct 10 j 14:22	20°♊02'51	6°27'20
superior conj	809 May 20 j 23:07	3°♊02'37	0°-4'-22	min. Earth dist.	811 Oct 10 j 23:12	19°♊49'24	0.27034 AU

morning rise	811 Oct 15 j 10:19	17°♌11'50		evening rise	814 Apr 17 j 07:58	10°♏34'42	
direct	811 Oct 30 j 22:10	12°♌31'00		asc. node	814 Apr 24 j 09:16	19°♏14'47	
asc. node	811 Nov 07 j 13:56	13°♌39'15			814 May 03 j 03:41	0°♐	
greatest brilliancy	811 Nov 13 j 08:39	15°♌51'45	-4.7m		814 May 27 j 17:04	0°♐	
	811 Dec 03 j 18:58	0°♑			814 Jun 21 j 10:15	0°♑	
morning max el	811 Dec 20 j 16:59	16°♑04'25	46°56'44		814 Jul 16 j 08:51	0°♑	
	812 Jan 02 j 21:15	0°♒			814 Aug 10 j 16:10	0°♒	
	812 Jan 29 j 10:20	0°♓		desc. node	814 Aug 13 j 22:32	3°♒49'35	
	812 Feb 23 j 21:57	0°♓			814 Sep 05 j 14:24	0°♓	
desc. node	812 Feb 27 j 03:34	3°♓51'04			814 Oct 02 j 19:19	0°♓	
	812 Mar 19 j 23:21	0°♈		evening max el	814 Oct 13 j 10:55	10°♓59'05	47°11'32
	812 Apr 13 j 20:07	0°♈			814 Nov 03 j 05:13	0°♈	
	812 May 08 j 14:16	0°♉		greatest brilliancy	814 Nov 21 j 05:35	11°♈27'48	-4.7m
	812 Jun 02 j 05:55	0°♐		retrograde	814 Dec 03 j 03:40	14°♈08'44	
asc. node	812 Jun 19 j 06:50	20°♐49'52		asc. node	814 Dec 05 j 01:48	14°♈04'09	
morning set	812 Jun 20 j 19:58	22°♐43'39		evening set	814 Dec 17 j 21:25	9°♈49'01	
	812 Jun 26 j 18:17	0°♐		min. Earth dist.	814 Dec 23 j 00:35	6°♈47'44	0.26611 AU
	812 Jul 21 j 02:44	0°♑		inferior conj	814 Dec 23 j 18:35	6°♈20'03	4°36'39
max. Earth dist.	812 Jul 23 j 14:11	3°♑03'44	1.72997 AU	minimum elong	814 Dec 23 j 09:29	6°♈34'03	4°34'08
				morning rise	814 Dec 28 j 21:56	3°♈16'20	
superior conj	812 Jul 27 j 03:55	7°♑28'53	1°14'01		815 Jan 05 j 03:05	30°♏♒	
minimum elong	812 Jul 26 j 20:21	7°♑05'31	1°13'51	direct	815 Jan 13 j 02:19	28°♏41'25	
	812 Aug 14 j 07:40	0°♑			815 Jan 21 j 09:11	0°♈	
evening rise	812 Sep 01 j 17:39	22°♑54'19		greatest brilliancy	815 Jan 24 j 03:24	0°♈57'46	-4.6m
	812 Sep 07 j 10:23	0°♒			815 Mar 03 j 09:26	0°♓	
	812 Oct 01 j 12:26	0°♑		morning max el	815 Mar 03 j 22:48	0°♓32'52	46°29'00
desc. node	812 Oct 08 j 20:23	9°♑07'48		desc. node	815 Mar 26 j 15:25	24°♓13'17	
	812 Oct 25 j 14:58	0°♒			815 Mar 31 j 22:02	0°♈	
	812 Nov 18 j 19:06	0°♓			815 Apr 27 j 11:07	0°♈	
	812 Dec 13 j 03:07	0°♓			815 May 23 j 04:42	0°♉	
	813 Jan 06 j 20:07	0°♈			815 Jun 17 j 10:56	0°♐	
asc. node	813 Jan 29 j 23:33	27°♈16'00			815 Jul 12 j 08:04	0°♐	
	813 Feb 01 j 08:39	0°♈		asc. node	815 Jul 17 j 18:48	6°♐37'33	
	813 Feb 28 j 17:42	0°♉			815 Aug 05 j 20:50	0°♑	
evening max el	813 Mar 08 j 02:42	7°♉26'10	45°55'19	morning set	815 Aug 29 j 07:05	28°♑59'55	
	813 Apr 03 j 20:13	0°♐			815 Aug 30 j 02:24	0°♑	
greatest brilliancy	813 Apr 11 j 13:54	4°♐26'03	-4.5m		815 Sep 23 j 02:52	0°♒	
retrograde	813 Apr 26 j 05:46	8°♐12'56		max. Earth dist.	815 Oct 03 j 21:59	13°♒32'06	1.71512 AU
evening set	813 May 11 j 11:10	3°♐44'30					
inferior conj	813 May 17 j 17:06	29°♒58'25	0°53'50	superior conj	815 Oct 06 j 04:06	16°♒21'54	1°05'13
minimum elong	813 May 17 j 19:03	29°♒55'20	0°53'15	minimum elong	815 Oct 06 j 14:22	16°♒54'08	1°04'54
	813 May 17 j 16:05	30°♒♏			815 Oct 17 j 00:42	0°♑	
min. Earth dist.	813 May 17 j 19:46	29°♒54'12	0.28949 AU	desc. node	815 Nov 06 j 08:13	25°♑31'06	
desc. node	813 May 21 j 12:49	27°♒36'15			815 Nov 09 j 21:49	0°♒	
morning rise	813 May 24 j 03:00	26°♒06'34		evening rise	815 Nov 15 j 15:55	7°♒13'39	
direct	813 Jun 08 j 08:09	21°♒40'41			815 Dec 03 j 19:24	0°♓	
greatest brilliancy	813 Jun 21 j 19:00	24°♒49'47	-4.5m		815 Dec 27 j 18:33	0°♓	
	813 Jul 01 j 04:02	0°♐			816 Jan 20 j 21:19	0°♈	
morning max el	813 Jul 27 j 03:33	21°♐28'32	45°51'05		816 Feb 14 j 07:05	0°♈	
	813 Aug 04 j 18:37	0°♐		asc. node	816 Feb 27 j 11:33	15°♈58'25	
	813 Sep 01 j 13:46	0°♑			816 Mar 10 j 04:55	0°♉	
asc. node	813 Sep 11 j 16:29	11°♑35'01			816 Apr 04 j 22:50	0°♐	
	813 Sep 27 j 08:05	0°♑			816 May 02 j 06:41	0°♐	
	813 Oct 22 j 02:16	0°♒		evening max el	816 May 17 j 15:14	15°♐26'20	45°20'14
	813 Nov 15 j 07:58	0°♑			816 Jun 03 j 03:09	0°♑	
	813 Dec 09 j 08:12	0°♒		desc. node	816 Jun 18 j 00:54	10°♑03'12	
desc. node	814 Jan 01 j 05:47	28°♒41'10		greatest brilliancy	816 Jun 22 j 03:17	12°♑01'31	-4.5m
	814 Jan 02 j 06:57	0°♓		retrograde	816 Jul 05 j 04:45	15°♑00'23	
	814 Jan 26 j 06:19	0°♓		evening set	816 Jul 21 j 21:01	9°♑45'17	
morning set	814 Jan 28 j 19:52	3°♓12'19		inferior conj	816 Jul 26 j 13:19	6°♑55'53	-7°-30'-58
	814 Feb 19 j 07:24	0°♈		minimum elong	816 Jul 26 j 04:29	7°♑09'32	7°29'42
				min. Earth dist.	816 Jul 26 j 18:43	6°♑47'32	0.28709 AU
superior conj	814 Mar 09 j 21:29	23°♈06'17	-1°-21'-37	morning rise	816 Jul 30 j 11:44	4°♑32'00	
minimum elong	814 Mar 10 j 03:36	23°♈25'16	1°21'33		816 Aug 09 j 01:03	30°♏♒	
max. Earth dist.	814 Mar 13 j 15:55	27°♈46'35	1.72563 AU	direct	816 Aug 17 j 02:21	28°♐42'08	
	814 Mar 15 j 10:58	0°♈			816 Aug 25 j 10:38	0°♑	
	814 Apr 08 j 17:40	0°♉		greatest brilliancy	816 Aug 31 j 15:01	2°♑25'42	-4.6m

	816 Oct 05 j 13:12	0° \mathbb{M}		asc. node	819 Mar 26 j 23:25	2° \mathbb{B} 48'37	
morning max el	816 Oct 06 j 03:23	0° \mathbb{M} 35'22	46°30'26		819 Apr 18 j 08:59	0° \mathbb{I}	
asc. node	816 Oct 09 j 04:12	3° \mathbb{M} 39'17			819 May 13 j 11:50	0° \mathbb{S}	
	816 Nov 02 j 09:50	0° \mathbb{L}			819 Jun 08 j 05:47	0° \mathbb{Q}	
	816 Nov 28 j 00:09	0° \mathbb{M}			819 Jul 05 j 02:52	0° \mathbb{M}	
	816 Dec 22 j 18:01	0° \mathbb{A}		desc. node	819 Jul 16 j 12:45	12° \mathbb{M} 04'40	
	817 Jan 16 j 03:56	0° \mathbb{Z}		evening max el	819 Jul 29 j 17:31	25° \mathbb{M} 16'49	46°00'07
desc. node	817 Jan 28 j 17:46	15° \mathbb{Z} 31'03			819 Aug 03 j 17:42	0° \mathbb{L}	
	817 Feb 09 j 11:18	0° \mathbb{A}		greatest brilliancy	819 Sep 06 j 11:32	23° \mathbb{L} 39'32	-4.6m
	817 Mar 05 j 18:30	0° \mathbb{H}		retrograde	819 Sep 16 j 22:02	25° \mathbb{L} 37'42	
	817 Mar 30 j 02:39	0° \mathbb{Y}		evening set	819 Oct 03 j 10:06	20° \mathbb{L} 28'41	
morning set	817 Apr 11 j 17:22	15° \mathbb{Y} 31'09		inferior conj	819 Oct 07 j 16:44	17° \mathbb{L} 55'36	-6°-44'-54
	817 Apr 23 j 12:03	0° \mathbb{B}		minimum elong	819 Oct 08 j 03:15	17° \mathbb{L} 39'31	6°42'46
	817 May 17 j 22:17	0° \mathbb{I}		min. Earth dist.	819 Oct 08 j 13:00	17° \mathbb{L} 24'39	0.27093 AU
				morning rise	819 Oct 12 j 19:58	14° \mathbb{L} 52'35	
superior conj	817 May 18 j 16:57	0° \mathbb{I} 57'20	0°-7'-32	direct	819 Oct 28 j 11:17	10° \mathbb{L} 06'31	
minimum elong	817 May 18 j 18:31	1° \mathbb{I} 02'07	0°07'29	asc. node	819 Nov 06 j 15:56	11° \mathbb{L} 43'11	
behind sun begin	817 May 17 j 22:22	0° \mathbb{I} 00'14		greatest brilliancy	819 Nov 11 j 00:00	13° \mathbb{L} 28'51	-4.7m
behind sun end	817 May 19 j 14:40	2° \mathbb{I} 04'00			819 Dec 04 j 02:29	0° \mathbb{M}	
max. Earth dist.	817 May 18 j 14:35	0° \mathbb{I} 50'01	1.73617 AU	morning max el	819 Dec 18 j 05:26	13° \mathbb{M} 36'32	46°56'50
asc. node	817 May 21 j 21:04	4° \mathbb{I} 51'03			820 Jan 02 j 15:37	0° \mathbb{A}	
	817 Jun 11 j 08:29	0° \mathbb{S}			820 Jan 29 j 01:05	0° \mathbb{Z}	
evening rise	817 Jun 23 j 18:23	15° \mathbb{S} 15'31			820 Feb 23 j 11:01	0° \mathbb{A}	
	817 Jul 05 j 18:07	0° \mathbb{Q}		desc. node	820 Feb 26 j 05:35	3° \mathbb{A} 18'30	
	817 Jul 30 j 03:38	0° \mathbb{M}			820 Mar 19 j 11:28	0° \mathbb{H}	
	817 Aug 23 j 14:17	0° \mathbb{L}			820 Apr 13 j 07:37	0° \mathbb{Y}	
desc. node	817 Sep 10 j 10:33	21° \mathbb{L} 49'04			820 May 08 j 01:19	0° \mathbb{B}	
	817 Sep 17 j 03:36	0° \mathbb{M}			820 Jun 01 j 16:41	0° \mathbb{I}	
	817 Oct 11 j 21:22	0° \mathbb{A}		asc. node	820 Jun 18 j 09:01	20° \mathbb{I} 23'54	
	817 Nov 05 j 23:24	0° \mathbb{Z}		morning set	820 Jun 18 j 14:08	20° \mathbb{I} 39'34	
	817 Dec 01 j 20:35	0° \mathbb{A}			820 Jun 26 j 04:53	0° \mathbb{S}	
evening max el	817 Dec 24 j 12:17	24° \mathbb{A} 29'06	47°07'24		820 Jul 20 j 13:20	0° \mathbb{Q}	
	817 Dec 30 j 00:42	0° \mathbb{H}		max. Earth dist.	820 Jul 21 j 09:01	1° \mathbb{Q} 00'51	1.73045 AU
asc. node	818 Jan 01 j 13:48	2° \mathbb{H} 27'43					
greatest brilliancy	818 Jan 30 j 08:38	24° \mathbb{H} 22'15	-4.6m	superior conj	820 Jul 24 j 21:54	5° \mathbb{Q} 23'17	1°12'25
retrograde	818 Feb 13 j 07:23	27° \mathbb{H} 56'17		minimum elong	820 Jul 24 j 14:03	4° \mathbb{Q} 58'58	1°12'14
evening set	818 Mar 03 j 03:18	21° \mathbb{H} 44'14			820 Aug 13 j 18:21	0° \mathbb{M}	
inferior conj	818 Mar 06 j 09:38	19° \mathbb{H} 41'36	8°23'52	evening rise	820 Aug 30 j 09:31	20° \mathbb{M} 40'42	
minimum elong	818 Mar 06 j 14:29	19° \mathbb{H} 33'55	8°23'31		820 Sep 06 j 21:15	0° \mathbb{L}	
min. Earth dist.	818 Mar 05 j 23:51	19° \mathbb{H} 57'03	0.28279 AU		820 Sep 30 j 23:31	0° \mathbb{M}	
morning rise	818 Mar 10 j 01:57	17° \mathbb{H} 24'30		desc. node	820 Oct 07 j 22:23	8° \mathbb{M} 39'11	
direct	818 Mar 27 j 11:37	11° \mathbb{H} 35'55			820 Oct 25 j 02:19	0° \mathbb{A}	
greatest brilliancy	818 Apr 07 j 19:19	13° \mathbb{H} 56'14	-4.5m		820 Nov 18 j 06:48	0° \mathbb{Z}	
desc. node	818 Apr 23 j 03:02	22° \mathbb{H} 42'18			820 Dec 12 j 15:19	0° \mathbb{A}	
	818 May 02 j 09:39	0° \mathbb{Y}			821 Jan 06 j 09:10	0° \mathbb{H}	
morning max el	818 May 15 j 11:38	11° \mathbb{Y} 50'58	45°50'07	asc. node	821 Jan 29 j 01:37	26° \mathbb{H} 40'09	
	818 Jun 02 j 11:25	0° \mathbb{B}			821 Jan 31 j 23:26	0° \mathbb{Y}	
	818 Jun 29 j 21:12	0° \mathbb{I}			821 Feb 28 j 13:09	0° \mathbb{B}	
	818 Jul 25 j 21:07	0° \mathbb{S}		evening max el	821 Mar 05 j 16:55	5° \mathbb{B} 10'08	45°57'31
asc. node	818 Aug 14 j 06:37	23° \mathbb{S} 04'24			821 Apr 04 j 23:46	0° \mathbb{I}	
	818 Aug 20 j 00:30	0° \mathbb{Q}		greatest brilliancy	821 Apr 09 j 05:46	2° \mathbb{I} 16'37	-4.5m
	818 Sep 13 j 13:29	0° \mathbb{M}		retrograde	821 Apr 23 j 22:14	6° \mathbb{I} 05'06	
	818 Oct 07 j 16:51	0° \mathbb{L}		evening set	821 May 09 j 04:57	1° \mathbb{I} 34'32	
	818 Oct 31 j 14:57	0° \mathbb{M}			821 May 11 j 22:08	30° \mathbb{R} \mathbb{B}	
morning set	818 Nov 10 j 00:36	11° \mathbb{M} 49'48		inferior conj	821 May 15 j 09:42	27° \mathbb{B} 50'21	1°13'21
	818 Nov 24 j 11:00	0° \mathbb{A}		minimum elong	821 May 15 j 12:21	27° \mathbb{B} 46'10	1°12'35
desc. node	818 Dec 03 j 20:02	11° \mathbb{A} 48'29		min. Earth dist.	821 May 15 j 12:48	27° \mathbb{B} 45'27	0.28944 AU
	818 Dec 18 j 07:00	0° \mathbb{Z}		desc. node	821 May 20 j 14:57	24° \mathbb{B} 38'46	
				morning rise	821 May 21 j 19:45	23° \mathbb{B} 58'12	
superior conj	818 Dec 21 j 13:22	4° \mathbb{Z} 06'23	0°-40'-36	direct	821 Jun 05 j 23:53	19° \mathbb{B} 32'30	
minimum elong	818 Dec 21 j 03:29	3° \mathbb{Z} 35'18	0°40'10	greatest brilliancy	821 Jun 19 j 11:12	22° \mathbb{B} 41'35	-4.5m
max. Earth dist.	818 Dec 24 j 03:13	7° \mathbb{Z} 20'46	1.71144 AU		821 Jul 02 j 00:09	0° \mathbb{I}	
	819 Jan 11 j 04:09	0° \mathbb{A}		morning max el	821 Jul 24 j 19:06	19° \mathbb{I} 17'52	45°50'17
evening rise	819 Jan 31 j 20:59	25° \mathbb{A} 54'28			821 Aug 04 j 13:35	0° \mathbb{S}	
	819 Feb 04 j 03:41	0° \mathbb{H}			821 Sep 01 j 04:19	0° \mathbb{Q}	
	819 Feb 28 j 07:07	0° \mathbb{Y}		asc. node	821 Sep 10 j 18:29	11° \mathbb{Q} 01'03	
	819 Mar 24 j 16:15	0° \mathbb{B}			821 Sep 26 j 20:56	0° \mathbb{M}	

	821 Oct 21 j 14:18	0°♄		evening max el	824 May 15 j 07:46	13°♄17'41	45°20'11
	821 Nov 14 j 19:34	0°♍			824 Jun 03 j 14:19	0°♎	
	821 Dec 08 j 19:31	0°♊		desc. node	824 Jun 17 j 02:59	8°♎36'58	
desc. node	821 Dec 31 j 07:56	28°♊13'01		greatest brilliancy	824 Jun 19 j 16:31	9°♎48'24	-4.5m
	822 Jan 01 j 18:05	0°♈		retrograde	824 Jul 02 j 20:25	12°♎49'13	
	822 Jan 25 j 17:18	0°♏		evening set	824 Jul 19 j 09:22	7°♎38'44	
morning set	822 Jan 26 j 06:42	0°♏41'54		inferior conj	824 Jul 24 j 04:59	4°♎44'09	-7°-20'-18
	822 Feb 18 j 18:13	0°♋		minimum elong	824 Jul 23 j 19:49	4°♎58'21	7°18'52
				min. Earth dist.	824 Jul 24 j 09:26	4°♎37'15	0.28738 AU
superior conj	822 Mar 07 j 11:39	20°♋48'03	-1°-22'-38	morning rise	824 Jul 28 j 06:06	2°♎16'07	
minimum elong	822 Mar 07 j 17:04	21°♋04'51	1°22'35		824 Aug 01 j 09:28	30°♏	
max. Earth dist.	822 Mar 11 j 05:44	25°♋27'26	1.72508 AU	direct	824 Aug 14 j 18:56	26°♏30'12	
	822 Mar 14 j 21:42	0°♐			824 Aug 28 j 19:49	0°♏	
	822 Apr 08 j 04:23	0°♑		greatest brilliancy	824 Aug 29 j 05:48	0°♏11'46	-4.6m
evening rise	822 Apr 15 j 00:27	8°♑24'50		morning max el	824 Oct 03 j 18:44	28°♏18'58	46°28'48
asc. node	822 Apr 23 j 11:19	18°♑48'02			824 Oct 05 j 10:59	0°♐	
	822 May 02 j 14:30	0°♒		asc. node	824 Oct 08 j 06:15	2°♐51'32	
	822 May 27 j 04:06	0°♑			824 Nov 02 j 01:43	0°♑	
	822 Jun 20 j 21:42	0°♎			824 Nov 27 j 13:56	0°♍	
	822 Jul 15 j 21:00	0°♐			824 Dec 22 j 06:46	0°♊	
	822 Aug 10 j 05:29	0°♑			825 Jan 15 j 16:04	0°♈	
desc. node	822 Aug 13 j 00:33	3°♑16'01		desc. node	825 Jan 27 j 19:42	15°♈00'21	
	822 Sep 05 j 05:50	0°♍			825 Feb 08 j 22:59	0°♏	
	822 Oct 02 j 15:30	0°♊			825 Mar 05 j 05:51	0°♋	
evening max el	822 Oct 11 j 00:18	8°♊34'07	47°09'57		825 Mar 29 j 13:45	0°♐	
	822 Nov 03 j 22:09	0°♈		morning set	825 Apr 09 j 09:58	13°♐20'46	
greatest brilliancy	822 Nov 18 j 19:20	8°♈59'38	-4.7m		825 Apr 22 j 22:58	0°♑	
retrograde	822 Nov 30 j 16:47	11°♈39'48					
asc. node	822 Dec 04 j 04:00	11°♈24'47		superior conj	825 May 16 j 10:59	28°♑52'06	0°-10'-41
evening set	822 Dec 15 j 07:52	7°♈22'56		minimum elong	825 May 16 j 13:11	28°♑58'53	0°10'35
min. Earth dist.	822 Dec 20 j 13:53	4°♈18'06	0.26571 AU	behind sun begin	825 May 15 j 20:08	28°♑06'31	
inferior conj	822 Dec 21 j 07:01	3°♈51'49	4°15'45	behind sun end	825 May 17 j 06:15	29°♑51'16	
minimum elong	822 Dec 20 j 22:23	4°♈05'03	4°13'17	max. Earth dist.	825 May 16 j 14:02	29°♑01'28	1.73603 AU
morning rise	822 Dec 26 j 13:17	0°♈44'36			825 May 17 j 09:05	0°♒	
	822 Dec 27 j 22:27	30°♏♊		asc. node	825 May 20 j 23:15	4°♒24'35	
direct	823 Jan 10 j 14:35	26°♊13'32			825 Jun 10 j 19:17	0°♑	
greatest brilliancy	823 Jan 21 j 17:13	28°♊32'03	-4.6m	evening rise	825 Jun 21 j 13:38	13°♑13'44	
	823 Jan 25 j 00:52	0°♈			825 Jul 05 j 05:04	0°♎	
morning max el	823 Mar 01 j 13:00	28°♈12'28	46°30'43		825 Jul 29 j 14:52	0°♐	
	823 Mar 03 j 08:21	0°♏			825 Aug 23 j 01:58	0°♑	
desc. node	823 Mar 25 j 17:24	23°♏32'27		desc. node	825 Sep 09 j 12:30	21°♑18'12	
	823 Mar 31 j 14:10	0°♋			825 Sep 16 j 15:52	0°♍	
	823 Apr 27 j 00:41	0°♐			825 Oct 11 j 10:28	0°♊	
	823 May 22 j 16:59	0°♑			825 Nov 05 j 13:50	0°♈	
	823 Jun 16 j 22:30	0°♒			825 Dec 01 j 13:40	0°♏	
	823 Jul 11 j 19:14	0°♑		evening max el	825 Dec 22 j 03:36	22°♏09'12	47°09'00
asc. node	823 Jul 16 j 20:49	6°♑09'55			825 Dec 30 j 01:42	0°♋	
	823 Aug 05 j 07:47	0°♎		asc. node	825 Dec 31 j 15:49	1°♋30'31	
morning set	823 Aug 26 j 23:09	26°♎46'57		greatest brilliancy	826 Jan 28 j 02:46	22°♋07'23	-4.6m
	823 Aug 29 j 13:15	0°♐		retrograde	826 Feb 10 j 22:52	25°♋38'08	
	823 Sep 22 j 13:44	0°♑		evening set	826 Feb 28 j 20:01	19°♋24'31	
max. Earth dist.	823 Oct 01 j 10:15	11°♑05'48	1.71556 AU	min. Earth dist.	826 Mar 03 j 14:01	17°♋41'06	0.28230 AU
				inferior conj	826 Mar 04 j 00:47	17°♋24'04	8°29'19
superior conj	823 Oct 03 j 17:31	13°♑59'10	1°07'29	minimum elong	826 Mar 04 j 04:56	17°♋17'29	8°29'03
minimum elong	823 Oct 04 j 03:33	14°♑30'36	1°07'12	morning rise	826 Mar 07 j 14:08	15°♋11'18	
	823 Oct 16 j 11:41	0°♍		direct	826 Mar 25 j 02:24	9°♋19'31	
desc. node	823 Nov 05 j 10:20	25°♍02'54		greatest brilliancy	826 Apr 05 j 07:13	11°♋36'58	-4.5m
	823 Nov 09 j 08:56	0°♊		desc. node	826 Apr 22 j 05:09	21°♋31'42	
evening rise	823 Nov 13 j 02:20	4°♊40'42			826 May 02 j 15:23	0°♐	
	823 Dec 03 j 06:39	0°♈		morning max el	826 May 13 j 02:04	9°♐35'33	45°51'02
	823 Dec 27 j 05:57	0°♏			826 Jun 02 j 05:00	0°♑	
	824 Jan 20 j 08:54	0°♋			826 Jun 29 j 11:21	0°♒	
	824 Feb 13 j 19:02	0°♐			826 Jul 25 j 09:44	0°♑	
asc. node	824 Feb 26 j 13:32	15°♐27'30		asc. node	826 Aug 13 j 08:38	22°♑34'25	
	824 Mar 09 j 17:35	0°♑			826 Aug 19 j 12:21	0°♎	
	824 Apr 04 j 13:02	0°♒			826 Sep 13 j 00:58	0°♐	
	824 May 02 j 00:42	0°♑			826 Oct 07 j 04:12	0°♑	

	826 Oct 31 j 02:14	0°♌	evening set	829 May 06 j 22:43	29°♄22'33	
morning set	826 Nov 07 j 12:04	9°♌19'24	inferior conj	829 May 13 j 02:06	25°♄40'27	1°32'58
	826 Nov 23 j 22:15	0°♊	minimum elong	829 May 13 j 05:27	25°♄35'11	1°31'59
desc. node	826 Dec 02 j 22:10	11°♊19'46	min. Earth dist.	829 May 13 j 05:24	25°♄35'16	0.28939 AU
	826 Dec 17 j 18:14	0°♈	morning rise	829 May 19 j 12:11	21°♄48'25	
			desc. node	829 May 19 j 17:06	21°♄41'41	
superior conj	826 Dec 18 j 22:47	1°♈29'48 0°-37'00	direct	829 Jun 03 j 15:44	17°♄22'25	
minimum elong	826 Dec 18 j 13:35	1°♈00'51 0°36'35	greatest brilliancy	829 Jun 17 j 03:24	20°♄32'01	-4.5m
max. Earth dist.	826 Dec 21 j 07:21	4°♈27'36 1.71120 AU		829 Jul 02 j 15:48	0°♈	
	827 Jan 10 j 15:23	0°♋	morning max el	829 Jul 22 j 11:32	17°♈08'18	45°49'39
evening rise	827 Jan 29 j 07:46	23°♋23'06		829 Aug 04 j 08:27	0°♋	
	827 Feb 03 j 14:56	0°♈		829 Aug 31 j 19:01	0°♏	
	827 Feb 27 j 18:27	0°♎	asc. node	829 Sep 09 j 20:34	10°♏26'38	
	827 Mar 24 j 03:47	0°♌		829 Sep 26 j 09:58	0°♎	
asc. node	827 Mar 26 j 01:31	2°♌19'45		829 Oct 21 j 02:32	0°♎	
	827 Apr 17 j 20:52	0°♈		829 Nov 14 j 07:23	0°♌	
	827 May 13 j 00:27	0°♋		829 Dec 08 j 07:06	0°♊	
	827 Jun 07 j 19:49	0°♏	desc. node	829 Dec 30 j 09:54	27°♊43'16	
	827 Jul 04 j 20:01	0°♎		830 Jan 01 j 05:32	0°♈	
desc. node	827 Jul 15 j 14:44	11°♎19'39	morning set	830 Jan 23 j 16:59	28°♈08'34	
evening max el	827 Jul 27 j 05:49	22°♎54'16 45°57'42		830 Jan 25 j 04:37	0°♋	
	827 Aug 03 j 20:38	0°♎		830 Feb 18 j 05:24	0°♈	
greatest brilliancy	827 Sep 04 j 00:17	21°♎16'19 -4.6m				
retrograde	827 Sep 14 j 09:57	23°♎14'08	superior conj	830 Mar 05 j 01:07	18°♈26'19	-1°-23'-31
evening set	827 Oct 01 j 02:11	18°♎00'01	minimum elong	830 Mar 05 j 05:45	18°♈40'43	1°23'30
inferior conj	827 Oct 05 j 05:47	15°♎31'24 -6°-59'-19	max. Earth dist.	830 Mar 08 j 18:38	23°♈04'10	1.72453 AU
minimum elong	827 Oct 05 j 16:08	15°♎15'35 6°57'19		830 Mar 14 j 08:47	0°♎	
min. Earth dist.	827 Oct 06 j 02:52	14°♎59'13 0.27161 AU		830 Apr 07 j 15:26	0°♌	
morning rise	827 Oct 10 j 05:36	12°♎32'57	evening rise	830 Apr 12 j 16:21	6°♌12'08	
direct	827 Oct 26 j 00:26	7°♎40'54	asc. node	830 Apr 22 j 13:27	18°♌20'30	
asc. node	827 Nov 05 j 18:08	9°♎50'46		830 May 02 j 01:39	0°♈	
greatest brilliancy	827 Nov 08 j 16:28	11°♎06'20 -4.7m		830 May 26 j 15:29	0°♋	
	827 Dec 04 j 08:23	0°♌		830 Jun 20 j 09:31	0°♏	
morning max el	827 Dec 15 j 18:36	11°♌08'57 46°56'49		830 Jul 15 j 09:31	0°♎	
	828 Jan 02 j 10:05	0°♊		830 Aug 09 j 19:11	0°♎	
	828 Jan 28 j 16:08	0°♈	desc. node	830 Aug 12 j 02:36	2°♎41'35	
	828 Feb 23 j 00:27	0°♋		830 Sep 04 j 21:43	0°♌	
desc. node	828 Feb 25 j 07:39	2°♋44'57		830 Oct 02 j 12:28	0°♊	
	828 Mar 18 j 23:57	0°♈	evening max el	830 Oct 08 j 14:37	6°♊11'27	47°08'24
	828 Apr 12 j 19:28	0°♎		830 Nov 04 j 20:59	0°♈	
	828 May 07 j 12:45	0°♌	greatest brilliancy	830 Nov 16 j 08:41	6°♈30'58	-4.7m
	828 Jun 01 j 03:50	0°♈	retrograde	830 Nov 28 j 06:10	9°♈10'30	
morning set	828 Jun 16 j 08:18	18°♈34'21	asc. node	830 Dec 03 j 05:57	8°♈39'17	
asc. node	828 Jun 17 j 11:02	19°♈56'15	evening set	830 Dec 12 j 18:39	4°♈56'22	
	828 Jun 25 j 15:53	0°♋	min. Earth dist.	830 Dec 18 j 03:01	1°♈48'18	0.26536 AU
max. Earth dist.	828 Jul 19 j 05:37	29°♋02'21 1.73087 AU	inferior conj	830 Dec 18 j 19:28	1°♈23'08	3°54'13
	828 Jul 20 j 00:17	0°♏	minimum elong	830 Dec 18 j 11:23	1°♈35'31	3°51'52
				830 Dec 21 j 02:10	30°♈♊	
superior conj	828 Jul 22 j 16:05	3°♏17'13 1°10'44	morning rise	830 Dec 24 j 04:33	28°♊12'33	
minimum elong	828 Jul 22 j 07:57	2°♏52'04 1°10'31	direct	831 Jan 08 j 03:24	23°♊45'25	
	828 Aug 13 j 05:22	0°♎	greatest brilliancy	831 Jan 19 j 06:25	26°♊05'00	-4.6m
evening rise	828 Aug 28 j 01:48	18°♎27'35		831 Jan 27 j 01:45	0°♈	
	828 Sep 06 j 08:26	0°♎	morning max el	831 Feb 27 j 03:26	25°♈51'46	46°32'07
	828 Sep 30 j 10:56	0°♌		831 Mar 03 j 06:39	0°♋	
desc. node	828 Oct 07 j 00:32	8°♌10'06	desc. node	831 Mar 24 j 19:32	22°♋51'36	
	828 Oct 24 j 14:03	0°♊		831 Mar 31 j 06:20	0°♈	
	828 Nov 17 j 18:57	0°♈		831 Apr 26 j 14:26	0°♎	
	828 Dec 12 j 04:01	0°♋		831 May 22 j 05:28	0°♌	
	829 Jan 05 j 22:46	0°♈		831 Jun 16 j 10:16	0°♈	
asc. node	829 Jan 28 j 03:36	26°♈02'25	asc. node	831 Jul 11 j 06:34	0°♋	
	829 Jan 31 j 14:54	0°♎		831 Jul 15 j 22:47	5°♋41'36	
	829 Feb 28 j 09:46	0°♌		831 Aug 04 j 18:53	0°♏	
evening max el	829 Mar 03 j 07:27	2°♌53'30 45°59'58	morning set	831 Aug 24 j 15:14	24°♏33'35	
	829 Apr 06 j 17:00	0°♈		831 Aug 29 j 00:15	0°♎	
greatest brilliancy	829 Apr 06 j 20:43	0°♈04'33 -4.5m		831 Sep 22 j 00:45	0°♎	
retrograde	829 Apr 21 j 14:57	3°♈55'37	max. Earth dist.	831 Sep 28 j 19:52	8°♎30'53	1.71595 AU
	829 May 05 j 18:57	30°♈♌				

superior conj	831 Oct 01 j 07:19	11° Ω 37'16	1°09'37	minimum elong	834 Mar 01 j 19:33	15° Υ 02'43	8°33'39
minimum elong	831 Oct 01 j 17:01	12° Ω 07'39	1°09'20	morning rise	834 Mar 05 j 02:46	12° Υ 59'17	
	831 Oct 15 j 22:45	0° \mathbb{M}		direct	834 Mar 22 j 16:46	7° Υ 04'34	
desc. node	831 Nov 04 j 12:26	24° \mathbb{M} 34'30		greatest brilliancy	834 Apr 02 j 20:02	9° Υ 20'00	-4.5m
	831 Nov 08 j 20:06	0° \mathcal{A}		desc. node	834 Apr 21 j 07:16	20° Υ 24'14	
evening rise	831 Nov 10 j 13:06	2° \mathcal{A} 08'45			834 May 02 j 18:45	0° Υ	
	831 Dec 02 j 17:55	0° \mathcal{Z}		morning max el	834 May 10 j 16:10	7° Υ 20'09	45°51'47
	831 Dec 26 j 17:21	0° \approx			834 Jun 01 j 21:56	0° \mathcal{B}	
	832 Jan 19 j 20:32	0° Υ			834 Jun 29 j 01:09	0° \mathbb{I}	
	832 Feb 13 j 07:06	0° Υ			834 Jul 24 j 22:06	0° \mathcal{G}	
asc. node	832 Feb 25 j 15:37	14° Υ 56'33		asc. node	834 Aug 12 j 10:47	22° \mathcal{G} 05'24	
	832 Mar 09 j 06:27	0° \mathcal{B}			834 Aug 18 j 23:59	0° Ω	
	832 Apr 04 j 03:34	0° \mathbb{I}			834 Sep 12 j 12:14	0° \mathbb{M}	
	832 May 01 j 19:24	0° \mathcal{G}			834 Oct 06 j 15:17	0° Ω	
evening max el	832 May 12 j 23:53	11° \mathcal{G} 07'25	45°20'13		834 Oct 30 j 13:15	0° \mathbb{M}	
	832 Jun 04 j 05:40	0° Ω		morning set	834 Nov 04 j 23:31	6° \mathbb{M} 49'43	
desc. node	832 Jun 16 j 04:57	7° Ω 07'00			834 Nov 23 j 09:15	0° \mathcal{A}	
greatest brilliancy	832 Jun 17 j 06:29	7° Ω 35'33	-4.5m	desc. node	834 Dec 02 j 00:07	10° \mathcal{A} 51'15	
retrograde	832 Jun 30 j 11:29	10° Ω 37'26					
evening set	832 Jul 16 j 21:41	5° Ω 31'40		superior conj	834 Dec 16 j 08:15	28° \mathcal{A} 54'09	0°-33'-18
inferior conj	832 Jul 21 j 20:34	2° Ω 32'03	-7°-8'-55	minimum elong	834 Dec 15 j 23:48	28° \mathcal{A} 27'33	0°32'56
minimum elong	832 Jul 21 j 11:08	2° Ω 46'42	7°07'22		834 Dec 17 j 05:12	0° \mathcal{Z}	
min. Earth dist.	832 Jul 22 j 00:28	2° Ω 25'59	0.28764 AU	max. Earth dist.	834 Dec 18 j 09:00	1° \mathcal{Z} 27'24	1.71097 AU
morning rise	832 Jul 26 j 00:23	29° \mathcal{G} 59'41			835 Jan 10 j 02:20	0° \approx	
	832 Jul 26 j 00:10	30° \mathcal{R} \mathcal{G}		evening rise	835 Jan 26 j 18:40	20° \approx 53'02	
direct	832 Aug 12 j 11:03	24° \mathcal{G} 17'54			835 Feb 03 j 01:52	0° Υ	
greatest brilliancy	832 Aug 26 j 19:54	27° \mathcal{G} 56'37	-4.5m		835 Feb 27 j 05:25	0° Υ	
	832 Aug 30 j 18:06	0° Ω			835 Mar 23 j 14:54	0° \mathcal{B}	
morning max el	832 Oct 01 j 09:07	26° Ω 00'06	46°27'15	asc. node	835 Mar 25 j 03:39	1° \mathcal{B} 52'13	
	832 Oct 05 j 08:03	0° \mathbb{M}			835 Apr 17 j 08:23	0° \mathbb{I}	
asc. node	832 Oct 07 j 08:24	2° \mathbb{M} 04'37			835 May 12 j 12:45	0° \mathcal{G}	
	832 Nov 01 j 17:21	0° Ω			835 Jun 07 j 09:40	0° Ω	
	832 Nov 27 j 03:33	0° \mathbb{M}			835 Jul 04 j 13:14	0° \mathbb{M}	
	832 Dec 21 j 19:21	0° \mathcal{A}		desc. node	835 Jul 14 j 16:49	10° \mathbb{M} 35'02	
	833 Jan 15 j 04:00	0° \mathcal{Z}		evening max el	835 Jul 24 j 18:21	20° \mathbb{M} 33'11	45°55'21
desc. node	833 Jan 26 j 21:48	14° \mathcal{Z} 30'37			835 Aug 04 j 00:55	0° Ω	
	833 Feb 08 j 10:30	0° \approx		greatest brilliancy	835 Sep 01 j 12:02	18° Ω 53'02	-4.6m
	833 Mar 04 j 17:03	0° Υ		retrograde	835 Sep 11 j 22:22	20° Ω 51'46	
	833 Mar 29 j 00:44	0° Υ		evening set	835 Sep 28 j 18:12	15° Ω 32'17	
morning set	833 Apr 07 j 02:22	11° Υ 10'01		inferior conj	835 Oct 02 j 18:50	13° Ω 08'11	-7°-12'-48
	833 Apr 22 j 09:48	0° \mathcal{B}		minimum elong	835 Oct 03 j 04:57	12° Ω 52'44	7°10'57
				min. Earth dist.	835 Oct 03 j 16:28	12° Ω 35'12	0.27229 AU
superior conj	833 May 14 j 04:42	26° \mathcal{B} 46'08	0°-13'-51	morning rise	835 Oct 07 j 15:12	10° Ω 14'41	
minimum elong	833 May 14 j 07:34	26° \mathcal{B} 54'54	0°13'43	direct	835 Oct 23 j 13:55	5° Ω 16'16	
behind sun begin	833 May 13 j 20:05	26° \mathcal{B} 19'39		asc. node	835 Nov 04 j 20:06	8° Ω 03'26	
behind sun end	833 May 14 j 19:02	27° \mathcal{B} 30'09		greatest brilliancy	835 Nov 06 j 09:05	8° Ω 45'19	-4.7m
max. Earth dist.	833 May 14 j 11:32	27° \mathcal{B} 07'05	1.73590 AU		835 Dec 04 j 11:59	0° \mathbb{M}	
	833 May 16 j 19:51	0° \mathbb{I}		morning max el	835 Dec 13 j 08:44	8° \mathbb{M} 44'58	46°56'47
asc. node	833 May 20 j 01:15	3° \mathbb{I} 57'39			836 Jan 02 j 03:45	0° \mathcal{A}	
	833 Jun 10 j 06:03	0° \mathcal{G}			836 Jan 28 j 06:39	0° \mathcal{Z}	
evening rise	833 Jun 19 j 08:29	11° \mathcal{G} 10'56			836 Feb 22 j 13:25	0° \approx	
	833 Jul 04 j 15:58	0° Ω		desc. node	836 Feb 24 j 09:45	2° \approx 12'45	
	833 Jul 29 j 02:04	0° \mathbb{M}			836 Mar 18 j 11:58	0° Υ	
	833 Aug 22 j 13:35	0° Ω			836 Apr 12 j 06:51	0° Υ	
desc. node	833 Sep 08 j 14:40	20° Ω 48'13			836 May 06 j 23:42	0° \mathcal{B}	
	833 Sep 16 j 04:06	0° \mathbb{M}			836 May 31 j 14:31	0° \mathbb{I}	
	833 Oct 10 j 23:33	0° \mathcal{A}		morning set	836 Jun 14 j 02:44	16° \mathbb{I} 31'16	
	833 Nov 05 j 04:17	0° \mathcal{Z}		asc. node	836 Jun 16 j 13:03	19° \mathbb{I} 29'55	
	833 Dec 01 j 06:52	0° \approx			836 Jun 25 j 02:27	0° \mathcal{G}	
evening max el	833 Dec 19 j 18:11	19° \approx 48'04	47°10'41	max. Earth dist.	836 Jul 17 j 03:06	27° \mathcal{G} 07'45	1.73134 AU
	833 Dec 30 j 03:38	0° Υ			836 Jul 19 j 10:52	0° Ω	
asc. node	833 Dec 30 j 17:51	0° Υ 33'07					
greatest brilliancy	834 Jan 25 j 20:58	19° Υ 53'39	-4.6m	superior conj	836 Jul 20 j 10:21	1° Ω 12'33	1°08'57
retrograde	834 Feb 08 j 14:10	23° Υ 21'25		minimum elong	836 Jul 20 j 01:59	0° Ω 46'44	1°08'42
evening set	834 Feb 26 j 12:34	17° Υ 06'48			836 Aug 12 j 16:04	0° \mathbb{M}	
min. Earth dist.	834 Mar 01 j 04:40	15° Υ 26'18	0.28179 AU	evening rise	836 Aug 25 j 18:08	16° \mathbb{M} 15'39	
inferior conj	834 Mar 01 j 16:08	15° Υ 08'07	8°33'49		836 Sep 05 j 19:18	0° Ω	

	836 Sep 29 j 22:02	0°♌			839 Mar 03 j 03:49	0°♏		
desc. node	836 Oct 06 j 02:35	7°♌41'43		desc. node	839 Mar 23 j 21:37	22°♏11'53		
	836 Oct 24 j 01:28	0°♏			839 Mar 30 j 21:56	0°♏		
	836 Nov 17 j 06:46	0°♏			839 Apr 26 j 03:44	0°♏		
	836 Dec 11 j 16:24	0°♏			839 May 21 j 17:35	0°♏		
	837 Jan 05 j 12:05	0°♏			839 Jun 15 j 21:40	0°♏		
asc. node	837 Jan 27 j 05:45	25°♏26'02		asc. node	839 Jul 10 j 17:33	0°♏		
	837 Jan 31 j 06:09	0°♏			839 Jul 15 j 01:00	5°♏15'02		
	837 Feb 28 j 06:33	0°♏			839 Aug 04 j 05:39	0°♏		
evening max el	837 Feb 28 j 23:15	0°♏41'16	46°02'34	morning set	839 Aug 22 j 07:47	22°♏22'43		
greatest brilliancy	837 Apr 04 j 12:28	27°♏55'21	-4.5m		839 Aug 28 j 10:57	0°♏		
	837 Apr 09 j 11:07	0°♏			839 Sep 21 j 11:30	0°♏		
retrograde	837 Apr 19 j 08:20	1°♏48'14		max. Earth dist.	839 Sep 26 j 04:22	5°♏53'24	1.71645 AU	
	837 Apr 28 j 19:30	30°♏						
evening set	837 May 04 j 16:54	27°♏12'43		superior conj	839 Sep 28 j 21:30	9°♏17'27	1°11'36	
inferior conj	837 May 10 j 18:45	23°♏32'39	1°52'11	minimum elong	839 Sep 29 j 06:47	9°♏46'32	1°11'21	
minimum elong	837 May 10 j 22:46	23°♏26'20	1°51'02		839 Oct 15 j 09:38	0°♏		
min. Earth dist.	837 May 10 j 21:52	23°♏27'46	0.28931 AU	desc. node	839 Nov 03 j 14:25	24°♏06'13		
morning rise	837 May 17 j 04:43	19°♏41'06		evening rise	839 Nov 07 j 23:46	29°♏36'54		
desc. node	837 May 18 j 18:59	18°♏50'28			839 Nov 08 j 07:08	0°♏		
direct	837 Jun 01 j 08:18	15°♏14'43			839 Dec 02 j 05:04	0°♏		
greatest brilliancy	837 Jun 14 j 18:51	18°♏23'42	-4.5m		839 Dec 26 j 04:39	0°♏		
	837 Jul 03 j 02:35	0°♏			840 Jan 19 j 08:04	0°♏		
morning max el	837 Jul 20 j 04:45	15°♏02'20	45°48'50		840 Feb 12 j 19:04	0°♏		
	837 Aug 04 j 02:18	0°♏		asc. node	840 Feb 24 j 17:44	14°♏26'00		
	837 Aug 31 j 09:08	0°♏			840 Mar 08 j 19:15	0°♏		
asc. node	837 Sep 08 j 22:41	9°♏53'37			840 Apr 03 j 18:04	0°♏		
	837 Sep 25 j 22:36	0°♏			840 May 01 j 14:22	0°♏		
	837 Oct 20 j 14:26	0°♏		evening max el	840 May 10 j 15:33	8°♏56'41	45°20'23	
	837 Nov 13 j 18:53	0°♏			840 Jun 05 j 01:42	0°♏		
	837 Dec 07 j 18:22	0°♏		greatest brilliancy	840 Jun 14 j 20:52	5°♏24'20	-4.5m	
desc. node	837 Dec 29 j 12:00	27°♏15'03		desc. node	840 Jun 15 j 07:07	5°♏35'20		
	837 Dec 31 j 16:37	0°♏		retrograde	840 Jun 28 j 02:29	8°♏27'29		
morning set	838 Jan 21 j 03:11	25°♏36'03		evening set	840 Jul 14 j 10:23	3°♏26'10		
	838 Jan 24 j 15:34	0°♏		inferior conj	840 Jul 19 j 12:29	0°♏21'50	-6°-57'00	
	838 Feb 17 j 16:14	0°♏		minimum elong	840 Jul 19 j 02:50	0°♏36'51	6°55'20	
				min. Earth dist.	840 Jul 19 j 16:07	0°♏16'11	0.28785 AU	
superior conj	838 Mar 02 j 14:29	16°♏05'16	-1°-24'-16		840 Jul 20 j 02:31	30°♏		
minimum elong	838 Mar 02 j 18:20	16°♏17'12	1°24'16	morning rise	840 Jul 23 j 19:02	27°♏45'09		
max. Earth dist.	838 Mar 06 j 08:34	20°♏45'01	1.72399 AU	direct	840 Aug 10 j 03:00	22°♏07'24		
	838 Mar 13 j 19:31	0°♏		greatest brilliancy	840 Aug 24 j 10:41	25°♏43'49	-4.5m	
	838 Apr 07 j 02:09	0°♏			840 Sep 01 j 00:33	0°♏		
evening rise	838 Apr 10 j 08:22	4°♏00'49		morning max el	840 Sep 28 j 22:55	23°♏40'50	46°25'38	
asc. node	838 Apr 21 j 15:28	17°♏53'44			840 Oct 05 j 04:05	0°♏		
	838 May 01 j 12:25	0°♏		asc. node	840 Oct 06 j 10:24	1°♏18'56		
	838 May 26 j 02:28	0°♏			840 Nov 01 j 08:34	0°♏		
	838 Jun 19 j 20:55	0°♏			840 Nov 26 j 16:58	0°♏		
	838 Jul 14 j 21:40	0°♏			840 Dec 21 j 07:51	0°♏		
	838 Aug 09 j 08:37	0°♏			841 Jan 14 j 15:57	0°♏		
desc. node	838 Aug 11 j 04:44	2°♏08'17		desc. node	841 Jan 25 j 23:58	14°♏01'00		
	838 Sep 04 j 13:33	0°♏			841 Feb 07 j 22:01	0°♏		
	838 Oct 02 j 09:58	0°♏			841 Mar 04 j 04:15	0°♏		
evening max el	838 Oct 06 j 05:40	3°♏51'12	47°06'30		841 Mar 28 j 11:41	0°♏		
	838 Nov 06 j 04:16	0°♏		morning set	841 Apr 04 j 18:24	8°♏58'09		
greatest brilliancy	838 Nov 13 j 22:39	4°♏03'19	-4.7m		841 Apr 21 j 20:36	0°♏		
retrograde	838 Nov 25 j 19:15	6°♏41'01						
asc. node	838 Dec 02 j 08:00	5°♏47'40		superior conj	841 May 11 j 22:24	24°♏40'11	0°-16'-59	
evening set	838 Dec 10 j 05:32	2°♏29'43		minimum elong	841 May 12 j 01:54	24°♏50'55	0°16'51	
	838 Dec 14 j 12:51	30°♏		max. Earth dist.	841 May 12 j 07:45	25°♏08'53	1.73572 AU	
min. Earth dist.	838 Dec 15 j 16:11	29°♏18'21	0.26500 AU		841 May 16 j 06:34	0°♏		
inferior conj	838 Dec 16 j 07:44	28°♏54'33	3°32'05	asc. node	841 May 19 j 03:17	3°♏30'59		
minimum elong	838 Dec 16 j 00:16	29°♏05'59	3°29'52		841 Jun 09 j 16:48	0°♏		
morning rise	838 Dec 21 j 19:29	25°♏40'35		evening rise	841 Jun 17 j 03:33	9°♏08'54		
direct	839 Jan 05 j 16:07	21°♏17'35			841 Jul 04 j 02:51	0°♏		
greatest brilliancy	839 Jan 16 j 19:05	23°♏37'31	-4.6m		841 Jul 28 j 13:12	0°♏		
	839 Jan 28 j 10:18	0°♏			841 Aug 22 j 01:09	0°♏		
morning max el	839 Feb 24 j 17:08	23°♏29'50	46°33'32	desc. node	841 Sep 07 j 16:44	20°♏18'12		

	841 Sep 15 j 16:15	0°♌			844 May 31 j 01:33	0°♈	
	841 Oct 10 j 12:36	0°♌		morning set	844 Jun 11 j 20:52	14°♈26'14	
	841 Nov 04 j 18:50	0°♌		asc. node	844 Jun 15 j 15:13	19°♈03'00	
	841 Dec 01 j 00:31	0°♌			844 Jun 24 j 13:22	0°♌	
evening max el	841 Dec 17 j 07:59	17°♌24'21	47°12'01	max. Earth dist.	844 Jul 15 j 00:45	25°♌12'42	1.73174 AU
asc. node	841 Dec 29 j 20:01	29°♌33'57					
	841 Dec 30 j 07:26	0°♌		superior conj	844 Jul 18 j 04:23	29°♌06'16	1°07'03
greatest brilliancy	842 Jan 23 j 14:16	17°♌37'11	-4.6m	minimum elong	844 Jul 17 j 19:52	28°♌39'58	1°06'48
retrograde	842 Feb 06 j 05:02	21°♌03'01			844 Jul 18 j 21:47	0°♌	
evening set	842 Feb 24 j 04:27	14°♌47'44			844 Aug 12 j 03:04	0°♌	
inferior conj	842 Feb 27 j 07:12	12°♌50'27	8°37'29	evening rise	844 Aug 23 j 10:31	14°♌02'59	
minimum elong	842 Feb 27 j 09:48	12°♌46'19	8°37'24		844 Sep 05 j 06:28	0°♌	
min. Earth dist.	842 Feb 26 j 19:14	13°♌09'24	0.28130 AU		844 Sep 29 j 09:27	0°♌	
morning rise	842 Mar 02 j 15:22	10°♌45'16		desc. node	844 Oct 05 j 04:34	7°♌12'10	
direct	842 Mar 20 j 06:34	4°♌47'37			844 Oct 23 j 13:11	0°♌	
greatest brilliancy	842 Mar 31 j 09:44	7°♌02'33	-4.5m		844 Nov 16 j 18:52	0°♌	
desc. node	842 Apr 20 j 09:14	19°♌17'15			844 Dec 11 j 05:04	0°♌	
	842 May 02 j 20:57	0°♌			845 Jan 05 j 01:43	0°♌	
morning max el	842 May 08 j 06:13	5°♌03'44	45°52'48	asc. node	845 Jan 26 j 07:49	24°♌48'21	
	842 Jun 01 j 14:42	0°♌			845 Jan 30 j 21:54	0°♌	
	842 Jun 28 j 14:56	0°♌		evening max el	845 Feb 26 j 15:32	28°♌29'10	46°04'53
	842 Jul 24 j 10:30	0°♌			845 Feb 28 j 04:32	0°♌	
asc. node	842 Aug 11 j 12:48	21°♌35'48		greatest brilliancy	845 Apr 02 j 05:01	25°♌45'34	-4.5m
	842 Aug 18 j 11:41	0°♌		retrograde	845 Apr 17 j 01:25	29°♌38'32	
	842 Sep 11 j 23:33	0°♌		evening set	845 May 02 j 10:59	25°♌00'41	
	842 Oct 06 j 02:26	0°♌		inferior conj	845 May 08 j 11:08	21°♌22'39	2°11'27
	842 Oct 30 j 00:20	0°♌		minimum elong	845 May 08 j 15:48	21°♌15'19	2°10'07
morning set	842 Nov 02 j 11:40	4°♌22'07		min. Earth dist.	845 May 08 j 13:59	21°♌18'10	0.28924 AU
	842 Nov 22 j 20:18	0°♌		morning rise	845 May 14 j 20:49	17°♌31'42	
desc. node	842 Dec 01 j 02:16	10°♌23'10		desc. node	845 May 17 j 21:10	15°♌59'39	
				direct	845 May 30 j 00:58	13°♌04'56	
superior conj	842 Dec 13 j 17:59	26°♌19'00	0°-29'-35	greatest brilliancy	845 Jun 12 j 09:16	16°♌12'10	-4.5m
minimum elong	842 Dec 13 j 10:21	25°♌54'59	0°29'14		845 Jul 03 j 11:17	0°♌	
max. Earth dist.	842 Dec 15 j 12:46	28°♌33'32	1.71086 AU	morning max el	845 Jul 17 j 21:31	12°♌53'52	45°48'05
	842 Dec 16 j 16:16	0°♌			845 Aug 03 j 20:16	0°♌	
	843 Jan 09 j 13:26	0°♌			845 Aug 30 j 23:31	0°♌	
evening rise	843 Jan 24 j 05:26	18°♌21'55		asc. node	845 Sep 08 j 00:42	9°♌19'21	
	843 Feb 02 j 13:02	0°♌			845 Sep 25 j 11:30	0°♌	
	843 Feb 26 j 16:40	0°♌			845 Oct 20 j 02:36	0°♌	
	843 Mar 23 j 02:21	0°♌			845 Nov 13 j 06:40	0°♌	
asc. node	843 Mar 24 j 05:36	1°♌23'12			845 Dec 07 j 05:55	0°♌	
	843 Apr 16 j 20:15	0°♌		desc. node	845 Dec 28 j 14:08	26°♌45'58	
	843 May 12 j 01:26	0°♌			845 Dec 31 j 04:01	0°♌	
	843 Jun 06 j 23:58	0°♌		morning set	846 Jan 18 j 13:39	23°♌03'30	
	843 Jul 04 j 07:07	0°♌			846 Jan 24 j 02:47	0°♌	
desc. node	843 Jul 13 j 18:57	9°♌49'09			846 Feb 17 j 03:19	0°♌	
evening max el	843 Jul 22 j 07:44	18°♌13'46	45°53'11				
	843 Aug 04 j 07:28	0°♌		superior conj	846 Feb 28 j 03:59	13°♌43'39	-1°-24'-52
greatest brilliancy	843 Aug 29 j 22:55	16°♌28'55	-4.6m	minimum elong	846 Feb 28 j 06:59	13°♌52'59	1°24'51
retrograde	843 Sep 09 j 11:31	18°♌29'36		max. Earth dist.	846 Mar 04 j 01:18	18°♌33'39	1.72345 AU
evening set	843 Sep 26 j 10:21	13°♌04'50			846 Mar 13 j 06:32	0°♌	
inferior conj	843 Sep 30 j 08:03	10°♌45'02	-7°-25'-22		846 Apr 06 j 13:10	0°♌	
minimum elong	843 Sep 30 j 17:52	10°♌30'05	7°23'43	evening rise	846 Apr 08 j 00:22	1°♌48'23	
min. Earth dist.	843 Oct 01 j 05:47	10°♌11'57	0.27294 AU	asc. node	846 Apr 20 j 17:32	17°♌26'07	
morning rise	843 Oct 05 j 00:54	7°♌56'46			846 Apr 30 j 23:34	0°♌	
direct	843 Oct 21 j 04:07	2°♌52'00			846 May 25 j 13:53	0°♌	
asc. node	843 Nov 03 j 22:09	6°♌20'15			846 Jun 19 j 08:46	0°♌	
greatest brilliancy	843 Nov 04 j 01:17	6°♌23'58	-4.7m		846 Jul 14 j 10:18	0°♌	
	843 Dec 04 j 14:05	0°♌			846 Aug 08 j 22:36	0°♌	
morning max el	843 Dec 10 j 23:41	6°♌22'57	46°56'42	desc. node	846 Aug 10 j 06:45	1°♌33'15	
	844 Jan 01 j 21:08	0°♌			846 Sep 04 j 06:05	0°♌	
	844 Jan 27 j 21:09	0°♌			846 Oct 02 j 08:43	0°♌	
	844 Feb 22 j 02:30	0°♌		evening max el	846 Oct 03 j 20:13	1°♌28'45	47°04'34
desc. node	844 Feb 23 j 11:47	1°♌39'49			846 Nov 08 j 02:53	0°♌	
	844 Mar 18 j 00:13	0°♌		greatest brilliancy	846 Nov 11 j 13:27	1°♌35'44	-4.7m
	844 Apr 11 j 18:33	0°♌		retrograde	846 Nov 23 j 07:50	4°♌10'24	
	844 May 06 j 11:00	0°♌		asc. node	846 Dec 01 j 10:13	2°♌48'56	

evening set	846 Dec 07 j 16:42	0°☾01'50		minimum elong	849 May 09 j 20:24	22°♄46'58	0°19'55
	846 Dec 07 j 18:04	30°♈♂		max. Earth dist.	849 May 10 j 03:38	23°♄09'12	1.73553 AU
min. Earth dist.	846 Dec 13 j 05:44	26°♂46'56	0.26466 AU		849 May 15 j 17:26	0°♈	
inferior conj	846 Dec 13 j 20:01	26°♂25'04	3°09'31	asc. node	849 May 18 j 05:29	3°♈04'24	
minimum elong	846 Dec 13 j 13:13	26°♂35'28	3°07'26		849 Jun 09 j 03:41	0°♄	
morning rise	846 Dec 19 j 10:14	23°♂07'39		evening rise	849 Jun 14 j 22:48	7°♄07'05	
direct	847 Jan 03 j 04:32	18°♂48'46			849 Jul 03 j 13:54	0°♈	
greatest brilliancy	847 Jan 14 j 08:21	21°♂09'29	-4.7m		849 Jul 28 j 00:34	0°♈	
	847 Jan 29 j 10:10	0°♄			849 Aug 21 j 12:59	0°♄	
morning max el	847 Feb 22 j 05:53	21°♄04'33	46°35'02	desc. node	849 Sep 06 j 18:42	19°♄47'05	
	847 Mar 03 j 00:34	0°♄			849 Sep 15 j 04:44	0°♈	
desc. node	847 Mar 22 j 23:37	21°♄31'36			849 Oct 10 j 02:00	0°♂	
	847 Mar 30 j 13:32	0°♈			849 Nov 04 j 09:47	0°♄	
	847 Apr 25 j 17:13	0°♈			849 Nov 30 j 18:46	0°♄	
	847 May 21 j 05:57	0°♄		evening max el	849 Dec 14 j 21:39	14°♄59'50	47°13'31
	847 Jun 15 j 09:23	0°♈		asc. node	849 Dec 28 j 22:01	28°♄32'39	
	847 Jul 10 j 04:54	0°♄			849 Dec 30 j 13:16	0°♈	
asc. node	847 Jul 14 j 03:01	4°♄46'41		greatest brilliancy	850 Jan 21 j 06:26	15°♈18'49	-4.6m
	847 Aug 03 j 16:47	0°♈		retrograde	850 Feb 03 j 20:07	18°♈44'20	
morning set	847 Aug 20 j 00:05	20°♈09'56		evening set	850 Feb 21 j 19:57	12°♈28'31	
	847 Aug 27 j 22:01	0°♈		inferior conj	850 Feb 24 j 22:13	10°♈32'15	8°40'24
	847 Sep 20 j 22:36	0°♄		minimum elong	850 Feb 25 j 00:01	10°♈29'24	8°40'21
max. Earth dist.	847 Sep 23 j 13:28	3°♄16'51	1.71694 AU	min. Earth dist.	850 Feb 24 j 09:33	10°♈52'16	0.28079 AU
				morning rise	850 Feb 28 j 04:16	8°♈30'27	
superior conj	847 Sep 26 j 11:37	6°♄56'30	1°13'26	direct	850 Mar 17 j 20:22	2°♈30'02	
minimum elong	847 Sep 26 j 20:27	7°♄24'11	1°13'13	greatest brilliancy	850 Mar 28 j 23:48	4°♈45'13	-4.5m
	847 Oct 14 j 20:50	0°♈		desc. node	850 Apr 19 j 11:23	18°♈12'09	
desc. node	847 Nov 02 j 16:33	23°♈37'30			850 May 02 j 21:51	0°♈	
evening rise	847 Nov 05 j 10:25	27°♈04'13		morning max el	850 May 05 j 21:06	2°♈49'08	45°53'57
	847 Nov 07 j 18:27	0°♂			850 Jun 01 j 07:11	0°♄	
	847 Dec 01 j 16:31	0°♄			850 Jun 28 j 04:36	0°♈	
	847 Dec 25 j 16:16	0°♄			850 Jul 23 j 22:51	0°♄	
	848 Jan 18 j 19:56	0°♈		asc. node	850 Aug 10 j 14:51	21°♄06'17	
	848 Feb 12 j 07:20	0°♈			850 Aug 17 j 23:22	0°♈	
asc. node	848 Feb 23 j 19:44	13°♈54'18			850 Sep 11 j 10:56	0°♈	
	848 Mar 08 j 08:21	0°♄			850 Oct 05 j 13:41	0°♄	
	848 Apr 03 j 08:59	0°♈			850 Oct 29 j 11:31	0°♈	
	848 May 01 j 10:08	0°♄		morning set	850 Oct 30 j 23:35	1°♈53'24	
evening max el	848 May 08 j 06:13	6°♄42'50	45°20'31		850 Nov 22 j 07:28	0°♂	
	848 Jun 06 j 05:50	0°♈		desc. node	850 Nov 30 j 04:23	9°♂54'42	
greatest brilliancy	848 Jun 12 j 10:18	3°♈11'00	-4.5m				
desc. node	848 Jun 14 j 09:11	3°♈59'17		superior conj	850 Dec 11 j 03:15	23°♂41'59	0°-25'-45
retrograde	848 Jun 25 j 17:29	6°♈16'40		minimum elong	850 Dec 10 j 20:30	23°♂20'46	0°25'26
evening set	848 Jul 11 j 23:02	1°♈19'17		max. Earth dist.	850 Dec 12 j 18:19	25°♂44'56	1.71072 AU
	848 Jul 14 j 05:12	30°♈♂			850 Dec 16 j 03:25	0°♄	
inferior conj	848 Jul 17 j 04:20	28°♄10'32	-6°-44'-27		851 Jan 09 j 00:35	0°♄	
minimum elong	848 Jul 16 j 18:30	28°♄25'50	6°42'39	evening rise	851 Jan 21 j 15:56	15°♄49'52	
min. Earth dist.	848 Jul 17 j 07:52	28°♄05'02	0.28812 AU		851 Feb 02 j 00:12	0°♈	
morning rise	848 Jul 21 j 13:39	25°♄29'36			851 Feb 26 j 03:55	0°♈	
direct	848 Aug 07 j 18:37	19°♄55'34			851 Mar 22 j 13:47	0°♄	
greatest brilliancy	848 Aug 22 j 02:51	23°♄31'38	-4.5m	asc. node	851 Mar 23 j 07:45	0°♄54'49	
	848 Sep 01 j 23:11	0°♈			851 Apr 16 j 08:07	0°♈	
morning max el	848 Sep 26 j 12:50	21°♈20'47	46°24'09		851 May 11 j 14:08	0°♄	
	848 Oct 04 j 23:57	0°♈			851 Jun 06 j 14:17	0°♈	
asc. node	848 Oct 05 j 12:29	0°♈32'56			851 Jul 04 j 01:15	0°♈	
	848 Oct 31 j 23:55	0°♄		desc. node	851 Jul 12 j 20:56	9°♈02'39	
	848 Nov 26 j 06:32	0°♈		evening max el	851 Jul 19 j 21:56	15°♈57'02	45°51'01
	848 Dec 20 j 20:30	0°♂			851 Aug 04 j 16:13	0°♄	
	849 Jan 14 j 04:01	0°♄		greatest brilliancy	851 Aug 27 j 09:08	14°♄04'56	-4.6m
desc. node	849 Jan 25 j 01:54	13°♄30'12		retrograde	851 Sep 07 j 00:49	16°♄07'52	
	849 Feb 07 j 09:42	0°♄		evening set	851 Sep 24 j 02:28	10°♄38'08	
	849 Mar 03 j 15:38	0°♈		inferior conj	851 Sep 27 j 21:17	8°♄22'18	-7°-37'-4
	849 Mar 27 j 22:50	0°♈		minimum elong	851 Sep 28 j 06:42	8°♄07'56	7°35'35
morning set	849 Apr 02 j 10:28	6°♈45'41		min. Earth dist.	851 Sep 28 j 18:39	7°♄49'45	0.27366 AU
	849 Apr 21 j 07:34	0°♄		morning rise	851 Oct 02 j 10:34	5°♄39'13	
				direct	851 Oct 18 j 18:46	0°♄28'17	
superior conj	849 May 09 j 16:17	22°♄34'19	0°-20'-6	greatest brilliancy	851 Nov 01 j 16:49	4°♄01'56	-4.7m

asc. node	851 Nov 03 j 00:21	4°♌41'06			854 Jul 13 j 22:40	0°♍	
	851 Dec 04 j 14:57	0°♌			854 Aug 08 j 12:20	0°♌	
morning max el	851 Dec 08 j 14:49	4°♌01'21	46°56'22	desc. node	854 Aug 09 j 08:48	0°♌59'12	
	852 Jan 01 j 14:14	0°♌			854 Sep 03 j 22:26	0°♌	
	852 Jan 27 j 11:31	0°♌		evening max el	854 Oct 01 j 09:53	29°♌05'35	47°02'34
	852 Feb 21 j 15:28	0°♌			854 Oct 02 j 07:51	0°♌	
desc. node	852 Feb 22 j 13:51	1°♌07'16		greatest brilliancy	854 Nov 09 j 04:43	29°♌10'25	-4.7m
	852 Mar 17 j 12:19	0°♌			854 Nov 11 j 09:06	0°♌	
	852 Apr 11 j 06:03	0°♌		retrograde	854 Nov 20 j 19:54	1°♌41'36	
	852 May 05 j 22:06	0°♌			854 Nov 29 j 22:00	30°♌	
	852 May 30 j 12:24	0°♌		asc. node	854 Nov 30 j 12:08	29°♌46'35	
morning set	852 Jun 09 j 15:17	12°♌22'38		evening set	854 Dec 05 j 04:13	27°♌35'16	
asc. node	852 Jun 14 j 17:14	18°♌36'11		inferior conj	854 Dec 11 j 08:26	23°♌57'24	2°46'33
	852 Jun 24 j 00:06	0°♌		minimum elong	854 Dec 11 j 02:23	24°♌06'41	2°44'40
max. Earth dist.	852 Jul 12 j 21:39	23°♌16'03	1.73208 AU	min. Earth dist.	854 Dec 10 j 19:45	24°♌16'52	0.26440 AU
				morning rise	854 Dec 17 j 00:57	20°♌36'38	
superior conj	852 Jul 15 j 22:48	27°♌01'51	1°05'06	direct	854 Dec 31 j 16:42	16°♌21'29	
minimum elong	852 Jul 15 j 14:10	26°♌35'12	1°04'49	greatest brilliancy	855 Jan 11 j 22:50	18°♌44'07	-4.7m
	852 Jul 18 j 08:29	0°♌			855 Jan 30 j 03:18	0°♌	
	852 Aug 11 j 13:51	0°♌		morning max el	855 Feb 19 j 17:54	18°♌38'04	46°36'21
evening rise	852 Aug 21 j 03:22	11°♌52'32			855 Mar 02 j 20:21	0°♌	
	852 Sep 04 j 17:25	0°♌		desc. node	855 Mar 22 j 01:46	20°♌52'47	
	852 Sep 28 j 20:40	0°♌			855 Mar 30 j 04:41	0°♌	
desc. node	852 Oct 04 j 06:45	6°♌43'55			855 Apr 25 j 06:20	0°♌	
	852 Oct 23 j 00:46	0°♌			855 May 20 j 17:58	0°♌	
	852 Nov 16 j 06:54	0°♌			855 Jun 14 j 20:44	0°♌	
	852 Dec 10 j 17:42	0°♌			855 Jul 09 j 15:51	0°♌	
	853 Jan 04 j 15:24	0°♌		asc. node	855 Jul 13 j 05:01	4°♌19'32	
asc. node	853 Jan 25 j 09:49	24°♌10'24			855 Aug 03 j 03:31	0°♌	
	853 Jan 30 j 13:49	0°♌		morning set	855 Aug 17 j 16:29	17°♌58'42	
evening max el	853 Feb 24 j 07:53	26°♌17'26	46°07'24		855 Aug 27 j 08:42	0°♌	
	853 Feb 28 j 03:14	0°♌			855 Sep 20 j 09:20	0°♌	
greatest brilliancy	853 Mar 30 j 22:50	23°♌38'00	-4.5m	max. Earth dist.	855 Sep 21 j 01:01	0°♌49'04	1.71744 AU
retrograde	853 Apr 14 j 18:13	27°♌29'27					
evening set	853 Apr 30 j 05:18	22°♌49'23		superior conj	855 Sep 24 j 02:07	4°♌37'58	1°15'09
inferior conj	853 May 06 j 03:35	19°♌13'29	2°30'34	minimum elong	855 Sep 24 j 10:28	5°♌04'07	1°14'57
minimum elong	853 May 06 j 08:52	19°♌05'10	2°29'04		855 Oct 14 j 07:39	0°♌	
min. Earth dist.	853 May 06 j 06:12	19°♌09'22	0.28911 AU	desc. node	855 Nov 01 j 18:38	23°♌09'53	
morning rise	853 May 12 j 12:43	15°♌23'10		evening rise	855 Nov 02 j 21:37	24°♌34'33	
desc. node	853 May 16 j 23:16	13°♌13'28			855 Nov 07 j 05:22	0°♌	
direct	853 May 27 j 17:44	10°♌56'10			855 Dec 01 j 03:33	0°♌	
greatest brilliancy	853 Jun 09 j 22:54	14°♌00'28	-4.5m		855 Dec 25 j 03:28	0°♌	
	853 Jul 03 j 17:08	0°♌			856 Jan 18 j 07:25	0°♌	
morning max el	853 Jul 15 j 13:35	10°♌44'41	45°47'26		856 Feb 11 j 19:18	0°♌	
	853 Aug 03 j 13:28	0°♌		asc. node	856 Feb 22 j 21:50	13°♌23'46	
	853 Aug 30 j 13:24	0°♌			856 Mar 07 j 21:13	0°♌	
asc. node	853 Sep 07 j 02:47	8°♌46'29			856 Apr 02 j 23:47	0°♌	
	853 Sep 24 j 23:59	0°♌			856 Apr 01 j 06:12	0°♌	
	853 Oct 19 j 14:23	0°♌		evening max el	856 May 05 j 20:42	4°♌29'24	45°20'57
	853 Nov 12 j 18:06	0°♌			856 Jun 07 j 21:36	0°♌	
	853 Dec 06 j 17:10	0°♌		greatest brilliancy	856 Jun 09 j 22:58	0°♌57'49	-4.5m
desc. node	853 Dec 27 j 16:06	26°♌17'14		desc. node	856 Jun 13 j 11:08	2°♌20'42	
	853 Dec 30 j 15:08	0°♌		retrograde	856 Jun 23 j 09:05	4°♌07'17	
morning set	854 Jan 15 j 23:43	20°♌30'13			856 Jul 08 j 01:45	30°♌	
	854 Jan 23 j 13:48	0°♌		evening set	856 Jul 09 j 11:53	29°♌13'23	
	854 Feb 16 j 14:12	0°♌		inferior conj	856 Jul 14 j 20:15	26°♌00'32	-6°-31'-23
				minimum elong	856 Jul 14 j 10:18	26°♌15'58	6°29'29
superior conj	854 Feb 25 j 16:53	11°♌20'42	-1°-25'-18	min. Earth dist.	856 Jul 14 j 23:33	25°♌55'24	0.28835 AU
minimum elong	854 Feb 25 j 18:58	11°♌27'11	1°25'18	morning rise	856 Jul 19 j 08:24	23°♌15'31	
max. Earth dist.	854 Mar 01 j 17:41	16°♌21'42	1.72288 AU	direct	856 Aug 05 j 10:16	17°♌45'01	
	854 Mar 12 j 17:20	0°♌		greatest brilliancy	856 Aug 19 j 19:55	21°♌22'07	-4.5m
evening rise	854 Apr 05 j 15:47	29°♌34'47			856 Sep 02 j 15:18	0°♌	
	854 Apr 05 j 23:58	0°♌		morning max el	856 Sep 24 j 03:31	19°♌04'07	46°22'40
asc. node	854 Apr 19 j 19:41	16°♌59'31		asc. node	856 Oct 04 j 14:38	29°♌48'57	
	854 Apr 30 j 10:27	0°♌			856 Oct 04 j 18:49	0°♌	
	854 May 25 j 01:00	0°♌			856 Oct 31 j 14:40	0°♌	
	854 Jun 18 j 20:21	0°♌			856 Nov 25 j 19:37	0°♌	

	856 Dec 20 j 08:42	0°♌			859 Aug 05 j 03:56	0°♎	
	857 Jan 13 j 15:39	0°♍		greatest brilliancy	859 Aug 24 j 20:24	11°♎42'35	-4.6m
desc. node	857 Jan 24 j 04:01	13°♍01'12		retrograde	859 Sep 04 j 14:00	13°♎46'35	
	857 Feb 06 j 20:57	0°♎		evening set	859 Sep 21 j 18:37	8°♎12'22	
	857 Mar 03 j 02:37	0°♏		inferior conj	859 Sep 25 j 10:37	6°♎00'16	-7°-47'-54
	857 Mar 27 j 09:37	0°♐		minimum elong	859 Sep 25 j 19:35	5°♎46'34	7°46'35
morning set	857 Mar 31 j 02:18	4°♐33'26		min. Earth dist.	859 Sep 26 j 07:32	5°♎28'22	0.27432 AU
	857 Apr 20 j 18:13	0°♑		morning rise	859 Sep 29 j 20:16	3°♎22'14	
					859 Oct 06 j 17:03	30°♑♐	
superior conj	857 May 07 j 09:50	20°♑28'19	0°-23'-13	direct	859 Oct 16 j 09:29	28°♑05'31	
minimum elong	857 May 07 j 14:34	20°♑42'51	0°23'00		859 Oct 26 j 09:46	0°♎	
max. Earth dist.	857 May 07 j 22:52	21°♑08'21	1.73537 AU	greatest brilliancy	859 Oct 30 j 07:14	1°♎39'04	-4.6m
	857 May 15 j 04:01	0°♒		asc. node	859 Nov 02 j 02:19	3°♎05'40	
asc. node	857 May 17 j 07:27	2°♒37'56			859 Dec 04 j 14:30	0°♓	
	857 Jun 08 j 14:17	0°♓		morning max el	859 Dec 06 j 05:18	1°♓38'31	46°55'51
evening rise	857 Jun 12 j 17:44	5°♓05'15			860 Jan 01 j 06:53	0°♌	
	857 Jul 03 j 00:40	0°♈			860 Jan 27 j 01:40	0°♍	
	857 Jul 27 j 11:39	0°♎			860 Feb 21 j 04:18	0°♎	
	857 Aug 21 j 00:31	0°♏		desc. node	860 Feb 21 j 15:56	0°♎35'03	
desc. node	857 Sep 05 j 20:52	19°♏17'24			860 Mar 17 j 00:19	0°♏	
	857 Sep 14 j 16:56	0°♐			860 Apr 10 j 17:29	0°♐	
	857 Oct 09 j 15:11	0°♑			860 May 05 j 09:09	0°♑	
	857 Nov 04 j 00:37	0°♒			860 May 29 j 23:13	0°♒	
	857 Nov 30 j 13:06	0°♓		morning set	860 Jun 07 j 09:43	10°♒19'15	
evening max el	857 Dec 12 j 12:06	12°♓38'19	47°15'01	asc. node	860 Jun 13 j 19:16	18°♒09'28	
asc. node	857 Dec 28 j 00:05	27°♓30'59			860 Jun 23 j 10:49	0°♓	
	857 Dec 30 j 20:54	0°♌		max. Earth dist.	860 Jul 10 j 17:01	21°♓14'43	1.73247 AU
greatest brilliancy	858 Jan 18 j 21:58	13°♌00'36	-4.6m				
retrograde	858 Feb 01 j 11:45	16°♌26'38		superior conj	860 Jul 13 j 17:10	24°♓57'16	1°03'02
evening set	858 Feb 19 j 11:02	10°♌10'44		minimum elong	860 Jul 13 j 08:28	24°♓30'24	1°02'45
min. Earth dist.	858 Feb 21 j 23:28	8°♌36'31	0.28028 AU		860 Jul 17 j 19:13	0°♈	
inferior conj	858 Feb 22 j 13:12	8°♌14'52	8°42'22		860 Aug 11 j 00:41	0°♎	
minimum elong	858 Feb 22 j 14:12	8°♌13'17	8°42'21	evening rise	860 Aug 18 j 20:05	9°♎41'29	
morning rise	858 Feb 25 j 17:34	6°♌15'57			860 Sep 04 j 04:26	0°♏	
direct	858 Mar 15 j 10:32	0°♌13'22			860 Sep 28 j 07:58	0°♐	
greatest brilliancy	858 Mar 26 j 13:13	2°♌28'15	-4.5m	desc. node	860 Oct 03 j 08:46	6°♐14'55	
desc. node	858 Apr 18 j 13:29	17°♌09'34			860 Oct 22 j 12:25	0°♑	
	858 May 02 j 21:13	0°♐			860 Nov 15 j 18:59	0°♒	
morning max el	858 May 03 j 12:43	0°♐37'09	45°54'58		860 Dec 10 j 06:26	0°♓	
	858 May 31 j 23:06	0°♑			861 Jan 04 j 05:14	0°♌	
	858 Jun 27 j 17:56	0°♒		asc. node	861 Jan 24 j 11:58	23°♌32'16	
	858 Jul 23 j 10:57	0°♓			861 Jan 30 j 06:05	0°♐	
asc. node	858 Aug 09 j 17:00	20°♓37'41		evening max el	861 Feb 21 j 23:37	24°♐03'42	46°09'51
	858 Aug 17 j 10:49	0°♈			861 Feb 28 j 03:05	0°♑	
	858 Sep 10 j 22:03	0°♎		greatest brilliancy	861 Mar 28 j 17:21	21°♑30'55	-4.5m
	858 Oct 05 j 00:39	0°♏		retrograde	861 Apr 12 j 10:38	25°♑20'02	
morning set	858 Oct 28 j 11:43	29°♏26'18		evening set	861 Apr 27 j 23:44	20°♑37'41	
	858 Oct 28 j 22:26	0°♐		inferior conj	861 May 03 j 20:03	17°♑04'08	2°49'27
	858 Nov 21 j 18:24	0°♑		minimum elong	861 May 04 j 01:56	16°♑54'52	2°47'48
desc. node	858 Nov 29 j 06:19	9°♑26'18		min. Earth dist.	861 May 03 j 22:39	17°♑00'02	0.28896 AU
				morning rise	861 May 10 j 04:26	13°♑14'32	
superior conj	858 Dec 08 j 12:38	21°♑06'00	0°-21'-51	desc. node	861 May 16 j 01:11	10°♑31'09	
minimum elong	858 Dec 08 j 06:51	20°♑47'46	0°21'36	direct	861 May 25 j 10:09	8°♑47'15	
max. Earth dist.	858 Dec 10 j 01:53	23°♑03'12	1.71062 AU	greatest brilliancy	861 Jun 07 j 12:19	11°♑48'15	-4.5m
	858 Dec 15 j 14:23	0°♒			861 Jul 03 j 21:09	0°♒	
	859 Jan 08 j 11:34	0°♓		morning max el	861 Jul 13 j 04:43	8°♒32'55	45°46'45
evening rise	859 Jan 19 j 02:34	13°♓18'43			861 Aug 03 j 06:27	0°♓	
	859 Feb 01 j 11:11	0°♌			861 Aug 30 j 03:20	0°♈	
	859 Feb 25 j 14:57	0°♐		asc. node	861 Sep 06 j 04:53	8°♈13'15	
asc. node	859 Mar 22 j 09:51	0°♑26'57			861 Sep 24 j 12:36	0°♎	
	859 Mar 22 j 01:01	0°♒			861 Oct 19 j 02:22	0°♏	
	859 Apr 15 j 19:49	0°♓			861 Nov 12 j 05:44	0°♐	
	859 May 11 j 02:44	0°♓			861 Dec 06 j 04:36	0°♑	
	859 Jun 06 j 04:41	0°♈		desc. node	861 Dec 26 j 18:13	25°♑48'26	
	859 Jul 03 j 19:48	0°♎			861 Dec 30 j 02:25	0°♒	
desc. node	859 Jul 11 j 23:03	8°♎15'49		morning set	862 Jan 13 j 09:35	17°♒55'46	
evening max el	859 Jul 17 j 12:41	13°♎41'50	45°48'52		862 Jan 23 j 00:56	0°♓	

	862 Feb 16 j 01:16	0°♄		min. Earth dist.	864 Jul 12 j 14:56	23°♄45'03	0.28856 AU
				morning rise	864 Jul 17 j 03:09	21°♄00'26	
superior conj	862 Feb 23 j 05:39	8°♄56'46	-1°-25'-35	direct	864 Aug 03 j 02:12	15°♄33'25	
minimum elong	862 Feb 23 j 06:48	9°♄00'20	1°25'37	greatest brilliancy	864 Aug 17 j 13:00	19°♄11'49	-4.5m
max. Earth dist.	862 Feb 27 j 09:14	14°♄06'33	1.72231 AU		864 Sep 03 j 03:46	0°♄	
	862 Mar 12 j 04:21	0°♄		morning max el	864 Sep 21 j 19:05	16°♄48'55	46°21'14
evening rise	862 Apr 03 j 07:01	27°♄19'55		asc. node	864 Oct 03 j 16:37	29°♄04'09	
	862 Apr 05 j 10:59	0°♄			864 Oct 04 j 13:32	0°♄	
asc. node	862 Apr 18 j 21:39	16°♄31'44			864 Oct 31 j 05:35	0°♄	
	862 Apr 29 j 21:33	0°♄			864 Nov 25 j 09:00	0°♄	
	862 May 24 j 12:20	0°♄			864 Dec 19 j 21:17	0°♄	
	862 Jun 18 j 08:10	0°♄			865 Jan 13 j 03:44	0°♄	
	862 Jul 13 j 11:20	0°♄		desc. node	865 Jan 23 j 06:10	12°♄30'57	
desc. node	862 Aug 08 j 10:56	0°♄24'21			865 Feb 06 j 08:39	0°♄	
	862 Aug 08 j 02:30	0°♄			865 Mar 02 j 14:02	0°♄	
	862 Sep 03 j 15:29	0°♄			865 Mar 26 j 20:48	0°♄	
evening max el	862 Sep 28 j 22:25	26°♄38'26	47°00'22	morning set	865 Mar 28 j 17:44	2°♄18'36	
	862 Oct 02 j 08:35	0°♄			865 Apr 20 j 05:14	0°♄	
greatest brilliancy	862 Nov 06 j 19:54	26°♄43'06	-4.7m				
retrograde	862 Nov 18 j 07:32	29°♄10'58		superior conj	865 May 05 j 03:11	18°♄20'25	0°-26'-19
asc. node	862 Nov 29 j 14:13	26°♄36'23		minimum elong	865 May 05 j 08:30	18°♄36'47	0°26'05
evening set	862 Dec 02 j 15:38	25°♄06'12		max. Earth dist.	865 May 05 j 19:33	19°♄10'44	1.73519 AU
inferior conj	862 Dec 08 j 20:36	21°♄27'49	2°22'58		865 May 14 j 14:58	0°♄	
minimum elong	862 Dec 08 j 15:20	21°♄35'54	2°21'19	asc. node	865 May 16 j 09:30	2°♄10'36	
min. Earth dist.	862 Dec 08 j 09:44	21°♄44'29	0.26417 AU		865 Jun 08 j 01:18	0°♄	
morning rise	862 Dec 14 j 15:17	18°♄04'01		evening rise	865 Jun 10 j 12:43	3°♄02'19	
direct	862 Dec 29 j 04:11	13°♄52'01			865 Jul 02 j 11:52	0°♄	
greatest brilliancy	863 Jan 09 j 13:48	16°♄17'41	-4.7m		865 Jul 26 j 23:08	0°♄	
	863 Jan 30 j 16:41	0°♄			865 Aug 20 j 12:27	0°♄	
morning max el	863 Feb 17 j 05:48	16°♄10'00	46°37'50	desc. node	865 Sep 04 j 22:55	18°♄46'14	
	863 Mar 02 j 15:55	0°♄			865 Sep 14 j 05:31	0°♄	
desc. node	863 Mar 21 j 03:50	20°♄13'15			865 Oct 09 j 04:48	0°♄	
	863 Mar 29 j 19:56	0°♄			865 Nov 03 j 15:59	0°♄	
	863 Apr 24 j 19:40	0°♄			865 Nov 30 j 08:22	0°♄	
	863 May 20 j 06:15	0°♄		evening max el	865 Dec 10 j 03:24	10°♄17'42	47°16'13
	863 Jun 14 j 08:23	0°♄		asc. node	865 Dec 27 j 02:13	26°♄26'24	
	863 Jul 09 j 03:06	0°♄			865 Dec 31 j 08:07	0°♄	
asc. node	863 Jul 12 j 07:13	3°♄52'01		greatest brilliancy	866 Jan 16 j 13:30	10°♄40'26	-4.6m
	863 Aug 02 j 14:34	0°♄		retrograde	866 Jan 30 j 03:31	14°♄06'29	
morning set	863 Aug 15 j 09:08	15°♄47'22		evening set	866 Feb 17 j 01:27	7°♄51'15	
	863 Aug 26 j 19:42	0°♄		min. Earth dist.	866 Feb 19 j 12:52	6°♄18'47	0.27974 AU
max. Earth dist.	863 Sep 18 j 15:25	28°♄29'19	1.71798 AU	inferior conj	866 Feb 20 j 03:55	5°♄55'05	8°43'27
	863 Sep 19 j 20:24	0°♄		minimum elong	866 Feb 20 j 04:06	5°♄54'48	8°43'28
				morning rise	866 Feb 23 j 06:58	3°♄58'29	
superior conj	863 Sep 21 j 16:46	2°♄18'54	1°16'43		866 Mar 02 j 21:52	30°♄	
minimum elong	863 Sep 22 j 00:34	2°♄43'19	1°16'32	direct	866 Mar 13 j 00:58	27°♄54'31	
	863 Oct 13 j 18:50	0°♄			866 Mar 23 j 16:56	0°♄	
evening rise	863 Oct 31 j 08:47	22°♄03'37		greatest brilliancy	866 Mar 24 j 01:36	0°♄08'11	-4.5m
desc. node	863 Oct 31 j 20:37	22°♄40'44		desc. node	866 Apr 17 j 15:27	16°♄06'44	
	863 Nov 06 j 16:41	0°♄		morning max el	866 May 01 j 04:23	28°♄23'55	45°56'02
	863 Nov 30 j 15:02	0°♄			866 May 02 j 20:08	0°♄	
	863 Dec 24 j 15:07	0°♄			866 May 31 j 15:09	0°♄	
	864 Jan 17 j 19:20	0°♄			866 Jun 27 j 07:30	0°♄	
	864 Feb 11 j 07:43	0°♄			866 Jul 22 j 23:20	0°♄	
asc. node	864 Feb 21 j 23:55	12°♄51'53		asc. node	866 Aug 08 j 19:00	20°♄07'44	
	864 Mar 07 j 10:34	0°♄			866 Aug 16 j 22:35	0°♄	
	864 Apr 02 j 15:12	0°♄			866 Sep 10 j 09:30	0°♄	
	864 May 01 j 03:26	0°♄			866 Oct 04 j 11:56	0°♄	
evening max el	864 May 03 j 11:45	2°♄16'17	45°21'29	morning set	866 Oct 26 j 00:25	27°♄00'07	
greatest brilliancy	864 Jun 07 j 11:09	28°♄43'00	-4.5m		866 Oct 28 j 09:39	0°♄	
	864 Jun 10 j 15:39	0°♄			866 Nov 21 j 05:35	0°♄	
desc. node	864 Jun 12 j 13:19	0°♄37'35		desc. node	866 Nov 28 j 08:30	8°♄57'58	
retrograde	864 Jun 21 j 01:11	1°♄56'51					
	864 Jul 01 j 00:03	30°♄		superior conj	866 Dec 05 j 22:25	18°♄30'30	0°-17'-57
evening set	864 Jul 07 j 00:51	27°♄06'14		minimum elong	866 Dec 05 j 17:38	18°♄15'25	0°17'45
inferior conj	864 Jul 12 j 12:08	23°♄49'24	-6°-17'-38	max. Earth dist.	866 Dec 07 j 11:03	20°♄25'45	1.71052 AU
minimum elong	864 Jul 12 j 02:09	24°♄04'53	6°15'39		866 Dec 15 j 01:35	0°♄	

	867 Jan 07 j 22:48	0°♊		morning max el	869 Jul 10 j 19:36	6°♊20'27	45°46'11
evening rise	867 Jan 16 j 13:13	10°♊46'40			869 Aug 02 j 23:06	0°♊	
	867 Jan 31 j 22:27	0°♋			869 Aug 29 j 17:05	0°♋	
	867 Feb 25 j 02:19	0°♌		asc. node	869 Sep 05 j 06:54	7°♋40'03	
asc. node	867 Mar 21 j 11:48	29°♌57'31			869 Sep 24 j 01:06	0°♍	
	867 Mar 21 j 12:37	0°♍			869 Oct 18 j 14:15	0°♎	
	867 Apr 15 j 07:53	0°♎			869 Nov 11 j 17:18	0°♏	
	867 May 10 j 15:44	0°♏			869 Dec 05 j 15:59	0°♐	
	867 Jun 05 j 19:33	0°♐		desc. node	869 Dec 25 j 20:20	25°♐19'52	
	867 Jul 03 j 15:09	0°♑			869 Dec 29 j 13:38	0°♑	
desc. node	867 Jul 11 j 01:09	7°♑27'23		morning set	870 Jan 10 j 19:36	15°♑21'56	
evening max el	867 Jul 15 j 03:11	11°♑25'18	45°46'40		870 Jan 22 j 12:00	0°♒	
	867 Aug 05 j 20:02	0°♒			870 Feb 15 j 12:11	0°♓	
greatest brilliancy	867 Aug 22 j 08:44	9°♒20'53	-4.5m				
retrograde	867 Sep 02 j 02:46	11°♒24'48		superior conj	870 Feb 20 j 18:41	6°♓34'02	-1°-25'-43
evening set	867 Sep 19 j 10:42	5°♒46'34		minimum elong	870 Feb 20 j 18:54	6°♓34'42	1°25'45
inferior conj	867 Sep 23 j 00:02	3°♒37'59	-7°-57'-48	max. Earth dist.	870 Feb 24 j 23:34	11°♓47'56	1.72170 AU
minimum elong	867 Sep 23 j 08:29	3°♒25'04	7°56'41		870 Mar 11 j 15:12	0°♑	
min. Earth dist.	867 Sep 23 j 20:46	3°♒06'16	0.27495 AU	evening rise	870 Mar 31 j 22:26	25°♑06'04	
morning rise	867 Sep 27 j 05:59	1°♒04'54			870 Apr 04 j 21:50	0°♒	
	867 Sep 29 j 04:25	30°♒		asc. node	870 Apr 17 j 23:46	16°♒04'48	
direct	867 Oct 13 j 23:53	25°♒42'29			870 Apr 29 j 08:32	0°♓	
greatest brilliancy	867 Oct 27 j 21:26	29°♒15'24	-4.6m		870 May 23 j 23:35	0°♓	
	867 Oct 29 j 09:09	0°♓			870 Jun 17 j 19:54	0°♔	
asc. node	867 Nov 01 j 04:22	1°♓33'07			870 Jul 12 j 23:57	0°♕	
morning max el	867 Dec 03 j 18:52	29°♓12'55	46°55'31	desc. node	870 Aug 07 j 12:56	29°♕49'16	
	867 Dec 04 j 13:16	0°♖			870 Aug 07 j 16:40	0°♖	
	867 Dec 31 j 23:22	0°♗			870 Sep 03 j 08:43	0°♗	
	868 Jan 26 j 15:46	0°♘		evening max el	870 Sep 26 j 10:30	24°♖10'55	46°58'12
desc. node	868 Feb 20 j 17:58	0°♙02'27			870 Oct 02 j 10:21	0°♗	
	868 Feb 20 j 17:10	0°♚		greatest brilliancy	870 Nov 04 j 10:28	24°♗15'40	-4.7m
	868 Mar 16 j 12:24	0°♓		retrograde	870 Nov 15 j 19:30	26°♗41'15	
	868 Apr 10 j 05:03	0°♑		asc. node	870 Nov 28 j 16:24	23°♗21'56	
	868 May 04 j 20:21	0°♒		evening set	870 Nov 30 j 03:18	22°♗37'13	
	868 May 29 j 10:12	0°♓		inferior conj	870 Dec 06 j 08:48	18°♗58'49	1°59'07
morning set	868 Jun 05 j 04:01	8°♓14'55		minimum elong	870 Dec 06 j 04:21	19°♗05'37	1°57'42
asc. node	868 Jun 12 j 21:27	17°♓42'48		min. Earth dist.	870 Dec 05 j 23:42	19°♗12'43	0.26400 AU
	868 Jun 22 j 21:41	0°♔		morning rise	870 Dec 12 j 05:31	15°♗32'23	
max. Earth dist.	868 Jul 08 j 11:49	19°♔11'18	1.73283 AU	direct	870 Dec 26 j 15:42	11°♗22'49	
				greatest brilliancy	871 Jan 07 j 05:13	13°♗52'18	-4.7m
superior conj	868 Jul 11 j 11:29	22°♔52'18	1°00'53		871 Jan 31 j 02:26	0°♘	
minimum elong	868 Jul 11 j 02:46	22°♔25'24	1°00'36	morning max el	871 Feb 14 j 18:50	13°♘45'14	46°39'28
	868 Jul 17 j 06:04	0°♕			871 Mar 02 j 10:42	0°♙	
	868 Aug 10 j 11:38	0°♖		desc. node	871 Mar 20 j 05:50	19°♙34'41	
evening rise	868 Aug 16 j 12:57	7°♖30'40			871 Mar 29 j 10:41	0°♓	
	868 Sep 03 j 15:36	0°♗			871 Apr 24 j 08:36	0°♑	
	868 Sep 27 j 19:25	0°♘			871 May 19 j 18:10	0°♒	
desc. node	868 Oct 02 j 10:46	5°♘45'25			871 Jun 13 j 19:42	0°♓	
	868 Oct 22 j 00:12	0°♙			871 Jul 08 j 14:04	0°♔	
	868 Nov 15 j 07:12	0°♚		asc. node	871 Jul 11 j 09:13	3°♔24'41	
	868 Dec 09 j 19:15	0°♛			871 Aug 02 j 01:22	0°♕	
	869 Jan 03 j 19:10	0°♜		morning set	871 Aug 13 j 01:55	13°♕37'17	
asc. node	869 Jan 23 j 14:00	22°♜53'37			871 Aug 26 j 06:28	0°♖	
	869 Jan 29 j 22:33	0°♝		max. Earth dist.	871 Sep 16 j 06:51	26°♖13'38	1.71849 AU
evening max el	869 Feb 19 j 14:28	21°♝47'45	46°12'14				
	869 Feb 28 j 04:01	0°♞		superior conj	871 Sep 19 j 07:33	0°♞01'04	1°18'08
greatest brilliancy	869 Mar 26 j 11:19	19°♞23'06	-4.5m	minimum elong	871 Sep 19 j 14:45	0°♞23'36	1°17'59
retrograde	869 Apr 10 j 02:52	23°♞10'53			871 Sep 19 j 07:13	0°♟	
evening set	869 Apr 25 j 18:21	18°♞25'55			871 Oct 13 j 05:46	0°♠	
inferior conj	869 May 01 j 12:40	14°♞55'04	3°07'58	evening rise	871 Oct 28 j 20:07	19°♠34'07	
minimum elong	869 May 01 j 19:06	14°♞44'54	3°06'13	desc. node	871 Oct 30 j 22:46	22°♠12'56	
min. Earth dist.	869 May 01 j 15:33	14°♞50'31	0.28884 AU		871 Nov 06 j 03:45	0°♑	
morning rise	869 May 07 j 20:06	11°♞06'19			871 Nov 30 j 02:15	0°♒	
desc. node	869 May 15 j 03:22	7°♞53'06			871 Dec 24 j 02:33	0°♓	
direct	869 May 23 j 02:11	6°♞38'26			872 Jan 17 j 07:03	0°♓	
greatest brilliancy	869 Jun 05 j 02:47	9°♞37'11	-4.5m		872 Feb 10 j 19:53	0°♑	
	869 Jul 03 j 23:34	0°♟		asc. node	872 Feb 21 j 01:55	12°♑20'30	

	872 Mar 06 j 23:41	0°♄			874 Oct 03 j 22:52	0°♎		
	872 Apr 02 j 06:25	0°♈		morning set	874 Oct 23 j 13:02	24°♎34'38		
evening max el	872 May 01 j 03:45	0°♊06'50	45°22'08		874 Oct 27 j 20:33	0°♎		
	872 May 01 j 00:54	0°♊			874 Nov 20 j 16:30	0°♏		
greatest brilliancy	872 Jun 04 j 23:39	26°♊30'13	-4.5m	desc. node	874 Nov 27 j 10:35	8°♏30'10		
desc. node	872 Jun 11 j 15:22	28°♊52'14						
retrograde	872 Jun 18 j 17:39	29°♊48'05		superior conj	874 Dec 03 j 07:56	15°♏54'58	0°-14'00	
evening set	872 Jul 04 j 14:11	25°♊00'41		minimum elong	874 Dec 03 j 04:11	15°♏43'10	0°13'50	
inferior conj	872 Jul 10 j 04:12	21°♊39'54	-6°-3'-29	behind sun begin	874 Dec 02 j 13:47	14°♏57'51		
minimum elong	872 Jul 09 j 18:14	21°♊55'22	6°01'25	behind sun end	874 Dec 03 j 18:35	16°♏28'28		
min. Earth dist.	872 Jul 10 j 06:16	21°♊36'42	0.28877 AU	max. Earth dist.	874 Dec 04 j 17:27	17°♏40'27	1.71043 AU	
morning rise	872 Jul 14 j 22:03	18°♊47'01			874 Dec 14 j 12:32	0°♐		
direct	872 Jul 31 j 18:49	13°♊23'34			875 Jan 07 j 09:45	0°♑		
greatest brilliancy	872 Aug 15 j 05:30	17°♊02'16	-4.5m	evening rise	875 Jan 13 j 23:21	8°♑13'50		
	872 Sep 03 j 12:31	0°♑			875 Jan 31 j 09:26	0°♒		
morning max el	872 Sep 19 j 11:30	14°♑37'02	46°19'39		875 Feb 24 j 13:24	0°♒		
asc. node	872 Oct 02 j 18:43	28°♑21'08		asc. node	875 Mar 20 j 13:58	29°♒29'33		
	872 Oct 04 j 07:29	0°♓			875 Mar 20 j 23:57	0°♄		
	872 Oct 30 j 20:02	0°♎			875 Apr 14 j 19:44	0°♈		
	872 Nov 24 j 21:58	0°♎			875 May 10 j 04:31	0°♊		
	872 Dec 19 j 09:27	0°♏			875 Jun 05 j 10:15	0°♑		
	873 Jan 12 j 15:24	0°♐			875 Jul 03 j 10:36	0°♓		
desc. node	873 Jan 22 j 08:07	12°♐01'15		desc. node	875 Jul 10 j 03:10	6°♓39'09		
	873 Feb 05 j 20:00	0°♑		evening max el	875 Jul 12 j 17:06	9°♓08'40	45°44'37	
	873 Mar 02 j 01:06	0°♒			875 Aug 06 j 16:40	0°♎		
morning set	873 Mar 26 j 09:09	0°♒04'39		greatest brilliancy	875 Aug 19 j 21:32	7°♎01'31	-4.5m	
	873 Mar 26 j 07:39	0°♒		retrograde	875 Aug 30 j 15:17	9°♎05'11		
	873 Apr 19 j 15:54	0°♄		evening set	875 Sep 17 j 02:47	3°♎23'08		
				inferior conj	875 Sep 20 j 13:45	1°♎17'52	-8°-6'-41	
superior conj	873 May 02 j 20:37	16°♄13'53	0°-29'-22	minimum elong	875 Sep 20 j 21:34	1°♎05'52	8°05'45	
minimum elong	873 May 03 j 02:32	16°♄32'02	0°29'07	min. Earth dist.	875 Sep 21 j 10:29	0°♎46'04	0.27562 AU	
max. Earth dist.	873 May 03 j 17:46	17°♄18'52	1.73494 AU		875 Sep 22 j 16:43	30°♓		
	873 May 14 j 01:33	0°♈		morning rise	875 Sep 24 j 16:04	28°♓49'37		
asc. node	873 May 15 j 11:41	1°♈44'49		direct	875 Oct 11 j 14:00	23°♓21'22		
	873 Jun 07 j 11:55	0°♊		greatest brilliancy	875 Oct 25 j 12:29	26°♓54'20	-4.6m	
evening rise	873 Jun 08 j 07:56	1°♊01'23		asc. node	875 Oct 31 j 06:34	0°♎05'14		
	873 Jul 01 j 22:39	0°♑			875 Oct 31 j 03:11	0°♎		
	873 Jul 26 j 10:16	0°♓		morning max el	875 Dec 01 j 08:00	26°♎46'52	46°54'55	
	873 Aug 20 j 00:04	0°♎			875 Dec 04 j 10:52	0°♎		
desc. node	873 Sep 04 j 00:54	18°♎15'50			875 Dec 31 j 15:24	0°♏		
	873 Sep 13 j 17:50	0°♎			876 Jan 26 j 05:35	0°♐		
	873 Oct 08 j 18:11	0°♏		desc. node	876 Feb 19 j 20:03	29°♐30'42		
	873 Nov 03 j 07:14	0°♐			876 Feb 20 j 05:46	0°♑		
	873 Nov 30 j 03:48	0°♑			876 Mar 16 j 00:14	0°♒		
evening max el	873 Dec 07 j 19:17	7°♑59'29	47°17'21		876 Apr 09 j 16:21	0°♒		
asc. node	873 Dec 26 j 04:13	25°♑20'51			876 May 04 j 07:20	0°♄		
	873 Dec 31 j 22:34	0°♒			876 May 28 j 20:58	0°♈		
greatest brilliancy	874 Jan 14 j 05:43	8°♒22'02	-4.6m	morning set	876 Jun 02 j 22:15	6°♈11'03		
retrograde	874 Jan 27 j 19:10	11°♒46'48		asc. node	876 Jun 11 j 23:26	17°♈16'10		
evening set	874 Feb 14 j 15:27	5°♒33'05			876 Jun 22 j 08:20	0°♊		
min. Earth dist.	874 Feb 17 j 02:07	4°♒01'45	0.27918 AU	max. Earth dist.	876 Jul 06 j 06:22	17°♊07'52	1.73315 AU	
inferior conj	874 Feb 17 j 18:33	3°♒35'54	8°43'46					
minimum elong	874 Feb 17 j 17:53	3°♒36'56	8°43'46	superior conj	876 Jul 09 j 06:01	20°♊48'42	0°58'41	
morning rise	874 Feb 20 j 20:35	1°♒40'58		minimum elong	876 Jul 08 j 21:19	20°♊21'53	0°58'22	
	874 Feb 23 j 18:03	30°♓			876 Jul 16 j 16:42	0°♑		
direct	874 Mar 10 j 15:34	25°♓36'30			876 Aug 09 j 22:21	0°♓		
greatest brilliancy	874 Mar 21 j 13:04	27°♓47'47	-4.5m	evening rise	876 Aug 14 j 06:15	5°♓22'05		
	874 Mar 26 j 11:02	0°♒			876 Sep 03 j 02:30	0°♎		
desc. node	874 Apr 16 j 17:37	15°♒06'45			876 Sep 27 j 06:36	0°♎		
morning max el	874 Apr 28 j 19:47	26°♒10'56	45°57'10	desc. node	876 Oct 01 j 12:58	5°♎17'23		
	874 May 02 j 17:45	0°♒			876 Oct 21 j 11:47	0°♏		
	874 May 31 j 06:34	0°♄			876 Nov 14 j 19:15	0°♐		
	874 Jun 26 j 20:33	0°♈			876 Dec 09 j 08:00	0°♑		
	874 Jul 22 j 11:15	0°♊			877 Jan 03 j 09:11	0°♒		
asc. node	874 Aug 07 j 21:03	19°♊39'16		asc. node	877 Jan 22 j 16:03	22°♒14'43		
	874 Aug 16 j 09:55	0°♑			877 Jan 29 j 15:20	0°♒		
	874 Sep 09 j 20:32	0°♓		evening max el	877 Feb 17 j 04:32	19°♒29'45	46°14'45	

	877 Feb 28 j 06:22	0°♄		superior conj	879 Sep 16 j 22:25	27°♎43'09	1°19'25
greatest brilliancy	877 Mar 24 j 04:06	17°♄13'25	-4.5m	minimum elong	879 Sep 17 j 04:59	28°♎03'42	1°19'19
retrograde	877 Apr 07 j 18:58	21°♄01'25			879 Sep 18 j 18:09	0°♎	
evening set	877 Apr 23 j 12:49	16°♄13'20			879 Oct 12 j 16:48	0°♎	
inferior conj	877 Apr 29 j 05:04	12°♄45'33	3°26'22	evening rise	879 Oct 26 j 07:41	17°♎05'04	
minimum elong	877 Apr 29 j 12:01	12°♄34'34	3°24'30	desc. node	879 Oct 30 j 00:50	21°♎44'34	
min. Earth dist.	877 Apr 29 j 08:20	12°♄40'24	0.28872 AU		879 Nov 05 j 14:53	0°♄	
morning rise	877 May 05 j 11:23	8°♄58'02			879 Nov 29 j 13:31	0°♄	
desc. node	877 May 14 j 05:28	5°♄19'00			879 Dec 23 j 14:01	0°♄	
direct	877 May 20 j 17:36	4°♄28'57			880 Jan 16 j 18:49	0°♄	
greatest brilliancy	877 Jun 02 j 17:56	7°♄26'46	-4.5m		880 Feb 10 j 08:12	0°♄	
	877 Jul 04 j 00:33	0°♄		asc. node	880 Feb 20 j 04:03	11°♄49'00	
morning max el	877 Jul 08 j 10:50	4°♄08'56	45°45'50		880 Mar 06 j 13:03	0°♄	
	877 Aug 02 j 15:20	0°♄			880 Apr 01 j 22:09	0°♄	
	877 Aug 29 j 06:35	0°♄		evening max el	880 Apr 28 j 20:26	27°♄58'06	45°22'47
asc. node	877 Sep 04 j 09:00	7°♄07'37			880 Apr 30 j 23:39	0°♄	
	877 Sep 23 j 13:23	0°♄		greatest brilliancy	880 Jun 02 j 13:12	24°♄17'38	-4.5m
	877 Oct 18 j 01:56	0°♄		desc. node	880 Jun 10 j 17:21	27°♄01'42	
	877 Nov 11 j 04:42	0°♄		retrograde	880 Jun 16 j 09:52	27°♄37'51	
	877 Dec 05 j 03:12	0°♄		evening set	880 Jul 02 j 03:33	22°♄53'51	
desc. node	877 Dec 24 j 22:18	24°♄51'10		inferior conj	880 Jul 07 j 20:06	19°♄29'08	-5°-48'-50
	877 Dec 29 j 00:44	0°♄		minimum elong	880 Jul 07 j 10:13	19°♄44'29	5°46'41
morning set	878 Jan 08 j 05:21	12°♄47'17		min. Earth dist.	880 Jul 07 j 21:27	19°♄27'03	0.28894 AU
	878 Jan 21 j 23:00	0°♄		morning rise	880 Jul 12 j 16:43	16°♄32'16	
	878 Feb 14 j 23:07	0°♄		direct	880 Jul 29 j 11:33	11°♄12'41	
				greatest brilliancy	880 Aug 12 j 20:33	14°♄49'57	-4.5m
superior conj	878 Feb 18 j 07:08	4°♄09'22	-1°-25'-42		880 Sep 03 j 19:12	0°♄	
minimum elong	878 Feb 18 j 06:22	4°♄06'57	1°25'42	morning max el	880 Sep 17 j 03:26	12°♄23'21	46°18'03
max. Earth dist.	878 Feb 22 j 09:52	9°♄16'44	1.72113 AU	asc. node	880 Oct 01 j 20:53	27°♄38'05	
	878 Mar 11 j 02:05	0°♄			880 Oct 04 j 01:17	0°♄	
evening rise	878 Mar 29 j 13:12	22°♄50'04			880 Oct 30 j 10:33	0°♄	
	878 Apr 04 j 08:44	0°♄			880 Nov 24 j 11:03	0°♄	
asc. node	878 Apr 17 j 01:53	15°♄37'50			880 Dec 18 j 21:45	0°♄	
	878 Apr 28 j 19:32	0°♄			881 Jan 12 j 03:12	0°♄	
	878 May 23 j 10:52	0°♄		desc. node	881 Jan 21 j 10:14	11°♄31'42	
	878 Jun 17 j 07:44	0°♄			881 Feb 05 j 07:27	0°♄	
	878 Jul 12 j 12:41	0°♄			881 Mar 01 j 12:18	0°♄	
desc. node	878 Aug 06 j 15:01	29°♄14'10		morning set	881 Mar 24 j 00:38	27°♄50'20	
	878 Aug 07 j 07:00	0°♄			881 Mar 25 j 18:39	0°♄	
	878 Sep 03 j 02:16	0°♄			881 Apr 19 j 02:47	0°♄	
evening max el	878 Sep 23 j 23:22	21°♄45'58	46°56'14				
	878 Oct 02 j 13:25	0°♄		superior conj	881 Apr 30 j 13:54	14°♄06'04	0°-32'-24
greatest brilliancy	878 Nov 02 j 00:02	21°♄47'55	-4.7m	minimum elong	881 Apr 30 j 20:21	14°♄25'53	0°32'07
retrograde	878 Nov 13 j 08:02	24°♄12'34		max. Earth dist.	881 May 01 j 16:23	15°♄27'27	1.73473 AU
evening set	878 Nov 27 j 15:22	20°♄08'42			881 May 13 j 12:24	0°♄	
asc. node	878 Nov 27 j 18:20	20°♄04'45		asc. node	881 May 14 j 13:40	1°♄17'35	
inferior conj	878 Dec 03 j 21:07	16°♄30'34	1°35'07	evening rise	881 Jun 06 j 02:49	28°♄58'34	
minimum elong	878 Dec 03 j 17:32	16°♄36'02	1°33'57		881 Jun 06 j 22:51	0°♄	
min. Earth dist.	878 Dec 03 j 13:28	16°♄42'13	0.26389 AU		881 Jul 01 j 09:46	0°♄	
morning rise	878 Dec 09 j 19:46	13°♄01'58			881 Jul 25 j 21:42	0°♄	
direct	878 Dec 24 j 03:57	8°♄54'22			881 Aug 19 j 12:00	0°♄	
greatest brilliancy	879 Jan 04 j 20:12	11°♄27'08	-4.7m	desc. node	881 Sep 03 j 03:05	17°♄44'56	
	879 Jan 31 j 09:25	0°♄			881 Sep 13 j 06:32	0°♄	
morning max el	879 Feb 12 j 08:56	11°♄23'11	46°40'44		881 Oct 08 j 08:01	0°♄	
	879 Mar 02 j 05:03	0°♄			881 Nov 02 j 23:03	0°♄	
desc. node	879 Mar 19 j 07:59	18°♄56'38			881 Nov 30 j 00:09	0°♄	
	879 Mar 29 j 01:24	0°♄		evening max el	881 Dec 05 j 11:14	5°♄40'29	47°18'27
	879 Apr 23 j 21:37	0°♄		asc. node	881 Dec 25 j 06:20	24°♄13'08	
	879 May 19 j 06:12	0°♄			882 Jan 01 j 18:18	0°♄	
	879 Jun 13 j 07:08	0°♄		greatest brilliancy	882 Jan 11 j 23:02	6°♄04'28	-4.7m
	879 Jul 08 j 01:09	0°♄		retrograde	882 Jan 25 j 10:40	9°♄26'33	
asc. node	879 Jul 10 j 11:15	2°♄57'09		evening set	882 Feb 12 j 05:14	3°♄15'18	
	879 Aug 01 j 12:17	0°♄		min. Earth dist.	882 Feb 14 j 15:48	1°♄44'03	0.27855 AU
morning set	879 Aug 10 j 18:35	11°♄26'32		inferior conj	882 Feb 15 j 09:18	1°♄16'29	8°43'16
	879 Aug 25 j 17:21	0°♄		minimum elong	882 Feb 15 j 07:50	1°♄18'49	8°43'13
max. Earth dist.	879 Sep 13 j 21:03	23°♄53'44	1.71897 AU		882 Feb 17 j 10:12	30°♄	
				morning rise	882 Feb 18 j 10:41	29°♄22'29	

direct	882 Mar 08 j 06:04	23° \approx 18'26			884 Jul 16 j 03:36	0° Ω	
greatest brilliancy	882 Mar 19 j 00:30	25° \approx 26'55	-4.6m		884 Aug 09 j 09:23	0° \cap	
	882 Mar 28 j 03:46	0° H		evening rise	884 Aug 11 j 23:42	3° \cap 13'05	
desc. node	882 Apr 15 j 19:42	14° H 07'36			884 Sep 02 j 13:46	0° Ω	
morning max el	882 Apr 26 j 10:23	23° H 55'26	45°58'10		884 Sep 26 j 18:10	0° \cap	
	882 May 02 j 14:47	0° Υ		desc. node	884 Sep 30 j 14:58	4° \cap 47'34	
	882 May 30 j 22:00	0° B			884 Oct 20 j 23:43	0° A	
	882 Jun 26 j 09:51	0° Π			884 Nov 14 j 07:40	0° C	
	882 Jul 21 j 23:29	0° D			884 Dec 08 j 21:09	0° \approx	
asc. node	882 Aug 06 j 23:14	19° D 10'08			885 Jan 02 j 23:38	0° H	
	882 Aug 15 j 21:35	0° Ω		asc. node	885 Jan 21 j 18:11	21° H 34'47	
	882 Sep 09 j 07:55	0° \cap			885 Jan 29 j 08:47	0° Υ	
greatest brilliancy	882 Sep 21 j 04:02	14° \cap 42'12	-3.9m	evening max el	885 Feb 14 j 18:48	17° Υ 11'17	46°17'24
	882 Oct 03 j 10:06	0° Ω			885 Feb 28 j 10:43	0° B	
morning set	882 Oct 21 j 01:34	22° Ω 07'58		greatest brilliancy	885 Mar 21 j 20:15	15° B 02'12	-4.5m
	882 Oct 27 j 07:45	0° \cap		retrograde	885 Apr 05 j 11:32	18° B 51'37	
	882 Nov 20 j 03:44	0° A		evening set	885 Apr 21 j 07:29	14° B 00'01	
desc. node	882 Nov 26 j 12:33	8° A 00'58		inferior conj	885 Apr 26 j 21:35	10° B 35'36	3°44'28
				minimum elong	885 Apr 27 j 05:01	10° B 23'52	3°42'29
superior conj	882 Nov 30 j 17:30	13° A 18'39	0°-10'-1	min. Earth dist.	885 Apr 27 j 01:01	10° B 30'10	0.28857 AU
minimum elong	882 Nov 30 j 14:48	13° A 10'11	0°09'54	morning rise	885 May 03 j 02:40	6° B 49'47	
behind sun begin	882 Nov 29 j 17:24	12° A 02'48		desc. node	885 May 13 j 07:23	2° B 49'33	
behind sun end	882 Dec 01 j 12:13	14° A 17'34		direct	885 May 18 j 09:08	2° B 19'01	
max. Earth dist.	882 Dec 01 j 20:48	14° A 44'35	1.71037 AU	greatest brilliancy	885 May 31 j 09:29	5° B 16'38	-4.5m
	882 Dec 13 j 23:48	0° C			885 Jul 04 j 00:28	0° Π	
	883 Jan 06 j 21:02	0° \approx		morning max el	885 Jul 06 j 02:55	1° Π 59'14	45°45'31
evening rise	883 Jan 11 j 09:29	5° \approx 39'54			885 Aug 02 j 07:27	0° D	
	883 Jan 30 j 20:43	0° H			885 Aug 28 j 20:11	0° Ω	
	883 Feb 24 j 00:46	0° Υ		asc. node	885 Sep 03 j 11:07	6° Ω 34'47	
asc. node	883 Mar 19 j 16:04	29° Υ 00'37			885 Sep 23 j 01:53	0° \cap	
	883 Mar 20 j 11:33	0° B			885 Oct 17 j 13:54	0° Ω	
	883 Apr 14 j 07:51	0° Π			885 Nov 10 j 16:23	0° \cap	
	883 May 09 j 17:39	0° D			885 Dec 04 j 14:42	0° A	
	883 Jun 05 j 01:27	0° Ω		desc. node	885 Dec 24 j 00:27	24° A 22'15	
desc. node	883 Jul 03 j 07:07	0° \cap			885 Dec 28 j 12:05	0° C	
evening max el	883 Jul 09 j 05:16	5° \cap 49'10		morning set	886 Jan 05 j 14:53	10° C 11'12	
	883 Jul 10 j 06:17	6° \cap 49'11	45°42'29		886 Jan 21 j 10:14	0° \approx	
	883 Aug 07 j 21:49	0° Ω			886 Feb 14 j 10:16	0° H	
greatest brilliancy	883 Aug 17 j 10:14	4° Ω 40'51	-4.5m				
retrograde	883 Aug 28 j 03:46	6° Ω 44'45		superior conj	886 Feb 15 j 19:23	1° H 43'15	-1°-25'-29
evening set	883 Sep 14 j 18:40	0° Ω 58'53		minimum elong	886 Feb 15 j 17:37	1° H 37'43	1°25'30
	883 Sep 16 j 10:07	30° \cap		max. Earth dist.	886 Feb 19 j 19:07	6° H 41'31	1.72058 AU
inferior conj	883 Sep 18 j 03:29	28° \cap 56'49	-8°-14'-39		886 Mar 10 j 13:11	0° Υ	
minimum elong	883 Sep 18 j 10:39	28° \cap 45'49	8°13'53	evening rise	886 Mar 27 j 03:59	20° Υ 33'23	
min. Earth dist.	883 Sep 19 j 00:27	28° \cap 24'40	0.27630 AU		886 Apr 03 j 19:50	0° B	
morning rise	883 Sep 22 j 02:19	26° \cap 33'24		asc. node	886 Apr 16 j 03:52	15° B 09'46	
direct	883 Oct 09 j 03:52	20° \cap 59'05			886 Apr 28 j 06:44	0° Π	
greatest brilliancy	883 Oct 23 j 04:31	24° \cap 33'36	-4.6m		886 May 22 j 22:19	0° D	
asc. node	883 Oct 30 j 08:31	28° \cap 38'49			886 Jun 16 j 19:41	0° Ω	
	883 Nov 01 j 08:47	0° Ω			886 Jul 12 j 01:36	0° \cap	
morning max el	883 Nov 28 j 21:02	24° Ω 19'36	46°54'22	desc. node	886 Aug 05 j 17:08	28° \cap 38'35	
	883 Dec 04 j 08:07	0° \cap			886 Aug 06 j 21:36	0° Ω	
	883 Dec 31 j 07:30	0° A			886 Sep 02 j 20:24	0° \cap	
	884 Jan 25 j 19:35	0° C		evening max el	886 Sep 21 j 13:06	19° \cap 22'39	46°53'54
desc. node	884 Feb 18 j 22:09	28° C 58'12			886 Oct 02 j 18:36	0° A	
	884 Feb 19 j 18:36	0° \approx		greatest brilliancy	886 Oct 30 j 12:46	19° A 17'57	-4.7m
	884 Mar 15 j 12:19	0° H		retrograde	886 Nov 10 j 20:39	21° A 42'07	
	884 Apr 09 j 03:55	0° Υ		evening set	886 Nov 25 j 03:25	17° A 38'17	
	884 May 03 j 18:32	0° B		asc. node	886 Nov 26 j 20:27	16° A 41'54	
	884 May 28 j 07:57	0° Π		inferior conj	886 Dec 01 j 09:07	14° A 00'27	1°10'33
morning set	884 May 31 j 16:46	4° Π 07'18		minimum elong	886 Dec 01 j 06:26	14° A 04'32	1°09'41
asc. node	884 Jun 11 j 01:31	16° Π 49'09		min. Earth dist.	886 Dec 01 j 02:45	14° A 10'08	0.26382 AU
	884 Jun 21 j 19:13	0° D		morning rise	886 Dec 07 j 09:33	10° A 30'01	
max. Earth dist.	884 Jul 04 j 02:40	15° D 09'02	1.73354 AU	direct	886 Dec 21 j 16:31	6° A 24'15	
				greatest brilliancy	887 Jan 02 j 10:18	8° A 59'25	-4.7m
superior conj	884 Jul 07 j 00:44	18° D 44'53	0°56'24		887 Jan 31 j 14:43	0° C	
minimum elong	884 Jul 06 j 16:05	18° D 18'15	0°56'04	morning max el	887 Feb 09 j 23:20	9° C 01'02	46°42'05

	887 Mar 01 j 23:11	0°♊			889 Nov 02 j 14:49	0°♋	
desc. node	887 Mar 18 j 10:03	18°♊18'08			889 Nov 29 j 20:57	0°♊	
	887 Mar 28 j 16:06	0°♋		evening max el	889 Dec 03 j 02:10	3°♊19'15	47°19'03
	887 Apr 23 j 10:39	0°♌		asc. node	889 Dec 24 j 08:26	23°♊03'39	
	887 May 18 j 18:17	0°♍			890 Jan 02 j 21:22	0°♋	
	887 Jun 12 j 18:37	0°♎		greatest brilliancy	890 Jan 09 j 16:28	3°♋46'24	-4.7m
	887 Jul 07 j 12:16	0°♏		retrograde	890 Jan 23 j 01:15	7°♋05'09	
asc. node	887 Jul 09 j 13:27	2°♏30'01		evening set	890 Feb 09 j 18:11	0°♋57'18	
	887 Jul 31 j 23:13	0°♐			890 Feb 11 j 07:10	30°♋	
morning set	887 Aug 08 j 11:48	9°♐17'37		min. Earth dist.	890 Feb 12 j 05:38	29°♋24'41	0.27797 AU
	887 Aug 25 j 04:14	0°♑		inferior conj	890 Feb 12 j 23:44	28°♋56'08	8°41'40
max. Earth dist.	887 Sep 11 j 10:49	21°♑32'39	1.71949 AU	minimum elong	890 Feb 12 j 21:25	28°♋59'47	8°41'36
				morning rise	890 Feb 16 j 00:54	27°♋02'19	
superior conj	887 Sep 14 j 13:48	25°♑26'58	1°20'33	direct	890 Mar 05 j 19:51	20°♋59'16	
minimum elong	887 Sep 14 j 19:42	25°♑45'24	1°20'28	greatest brilliancy	890 Mar 16 j 12:55	23°♋06'12	-4.6m
	887 Sep 18 j 05:06	0°♒			890 Mar 29 j 08:19	0°♋	
	887 Oct 12 j 03:53	0°♓		desc. node	890 Apr 14 j 21:40	13°♋09'23	
evening rise	887 Oct 23 j 19:27	14°♓36'24		morning max el	890 Apr 23 j 23:52	21°♋36'59	45°59'20
desc. node	887 Oct 29 j 02:50	21°♓15'45			890 May 02 j 11:07	0°♌	
	887 Nov 05 j 02:08	0°♈			890 May 30 j 13:06	0°♍	
	887 Nov 29 j 00:57	0°♉			890 Jun 25 j 22:52	0°♎	
	887 Dec 23 j 01:40	0°♊			890 Jul 21 j 11:27	0°♏	
	888 Jan 16 j 06:47	0°♋		asc. node	890 Aug 06 j 01:12	18°♏41'11	
	888 Feb 09 j 20:42	0°♌			890 Aug 15 j 08:59	0°♐	
asc. node	888 Feb 19 j 06:07	11°♌16'52			890 Sep 08 j 19:01	0°♑	
	888 Mar 06 j 02:37	0°♍		greatest brilliancy	890 Sep 26 j 07:35	21°♑47'57	-3.9m
	888 Apr 01 j 14:10	0°♎			890 Oct 02 j 21:02	0°♒	
evening max el	888 Apr 26 j 13:17	25°♎49'41	45°23'33	morning set	890 Oct 18 j 14:40	19°♒44'05	
	888 Apr 30 j 23:25	0°♏			890 Oct 26 j 18:38	0°♓	
greatest brilliancy	888 May 31 j 04:17	22°♏07'17	-4.5m		890 Nov 19 j 14:38	0°♈	
desc. node	888 Jun 09 j 19:32	25°♏07'48		desc. node	890 Nov 25 j 14:43	7°♈33'33	
retrograde	888 Jun 14 j 01:56	25°♏28'16					
evening set	888 Jun 29 j 17:20	20°♏47'45		superior conj	890 Nov 28 j 03:41	10°♈45'26	0°-6'-4
inferior conj	888 Jul 05 j 12:13	17°♏19'19	-5°-33'-42	minimum elong	890 Nov 28 j 02:03	10°♈40'16	0°06'01
minimum elong	888 Jul 05 j 02:29	17°♏34'28	5°31'32	behind sun begin	890 Nov 27 j 01:09	9°♈21'54	
min. Earth dist.	888 Jul 05 j 13:05	17°♏17'59	0.28904 AU	behind sun end	890 Nov 29 j 02:57	11°♈58'38	
morning rise	888 Jul 10 j 11:31	14°♏18'23		max. Earth dist.	890 Nov 28 j 23:58	11°♈49'13	1.71035 AU
direct	888 Jul 27 j 04:18	9°♏02'57			890 Dec 13 j 10:43	0°♉	
greatest brilliancy	888 Aug 10 j 10:43	12°♏37'16	-4.5m		891 Jan 06 j 07:59	0°♊	
	888 Sep 03 j 23:31	0°♐		evening rise	891 Jan 08 j 19:53	3°♊07'42	
morning max el	888 Sep 14 j 18:38	10°♐08'42	46°16'29		891 Jan 30 j 07:44	0°♋	
asc. node	888 Sep 30 j 22:50	26°♐55'42			891 Feb 23 j 11:55	0°♌	
	888 Oct 03 j 18:29	0°♑		asc. node	891 Mar 18 j 18:01	28°♌31'44	
	888 Oct 30 j 00:43	0°♒			891 Mar 19 j 23:00	0°♍	
	888 Nov 23 j 23:56	0°♓			891 Apr 13 j 19:50	0°♎	
	888 Dec 18 j 09:57	0°♈			891 May 09 j 06:40	0°♏	
	889 Jan 11 j 15:00	0°♉			891 Jun 04 j 16:39	0°♐	
desc. node	889 Jan 20 j 12:21	11°♉02'08			891 Jul 03 j 04:01	0°♑	
	889 Feb 04 j 18:55	0°♊		evening max el	891 Jul 07 j 19:02	4°♑29'38	45°40'37
	889 Feb 28 j 23:31	0°♋		desc. node	891 Jul 08 j 07:22	4°♑59'01	
morning set	889 Mar 21 j 15:34	25°♋34'17			891 Aug 09 j 15:01	0°♒	
	889 Mar 25 j 05:38	0°♌		greatest brilliancy	891 Aug 14 j 21:55	2°♒20'13	-4.5m
	889 Apr 18 j 13:37	0°♍		retrograde	891 Aug 25 j 16:37	4°♒25'44	
					891 Sep 09 j 23:01	30°♒	
superior conj	889 Apr 28 j 06:51	11°♍57'20	0°-35'-25	evening set	891 Sep 12 j 10:21	28°♒36'00	
minimum elong	889 Apr 28 j 13:48	12°♍18'45	0°35'06	inferior conj	891 Sep 15 j 17:14	26°♒36'55	-8°-21'-45
max. Earth dist.	889 Apr 29 j 14:47	13°♍35'34	1.73445 AU	minimum elong	891 Sep 15 j 23:44	26°♒26'59	8°21'08
	889 May 12 j 23:11	0°♎		min. Earth dist.	891 Sep 16 j 14:15	26°♒04'43	0.27696 AU
asc. node	889 May 13 j 15:45	0°♎50'52		morning rise	891 Sep 19 j 12:46	24°♒18'24	
evening rise	889 Jun 03 j 21:34	26°♎55'31		direct	891 Oct 06 j 17:53	18°♒37'54	
	889 Jun 06 j 09:41	0°♏		greatest brilliancy	891 Oct 20 j 21:26	22°♒15'24	-4.6m
	889 Jun 30 j 20:47	0°♐		asc. node	891 Oct 29 j 10:36	27°♒16'35	
	889 Jul 25 j 09:01	0°♑			891 Nov 02 j 05:42	0°♒	
	889 Aug 18 j 23:48	0°♒		morning max el	891 Nov 26 j 10:49	21°♒55'36	46°53'59
desc. node	889 Sep 02 j 05:06	17°♒14'10			891 Dec 04 j 04:11	0°♓	
	889 Sep 12 j 19:02	0°♓			891 Dec 30 j 22:54	0°♈	
	889 Oct 07 j 21:41	0°♈			892 Jan 25 j 09:01	0°♉	

desc. node	892 Feb 18 j 00:09	28°☾26'50			894 Oct 03 j 01:28	0°☿	
	892 Feb 19 j 06:57	0°♊		greatest brilliancy	894 Oct 28 j 01:34	16°☿49'17	-4.7m
	892 Mar 15 j 00:00	0°♋		retrograde	894 Nov 08 j 09:17	19°☿12'26	
	892 Apr 08 j 15:09	0°♌		evening set	894 Nov 22 j 15:44	15°☿08'39	
	892 May 03 j 05:27	0°♍		asc. node	894 Nov 25 j 22:37	13°☿17'18	
	892 May 27 j 18:40	0°♎		inferior conj	894 Nov 28 j 21:05	11°☿31'10	0°45'52
morning set	892 May 29 j 10:47	2°♏02'47		minimum elong	894 Nov 28 j 19:19	11°☿33'50	0°45'18
asc. node	892 Jun 10 j 03:40	16°♏23'10		min. Earth dist.	894 Nov 28 j 15:54	11°☿39'02	0.26376 AU
	892 Jun 21 j 05:50	0°♐		morning rise	894 Dec 04 j 23:03	7°☿59'01	
max. Earth dist.	892 Jul 02 j 00:03	13°♐14'24	1.73387 AU	direct	894 Dec 19 j 05:19	3°☿55'09	
				greatest brilliancy	894 Dec 30 j 23:45	6°☿31'40	-4.7m
superior conj	892 Jul 04 j 19:00	16°♑40'37	0°54'00		895 Jan 31 j 17:50	0°♑	
minimum elong	892 Jul 04 j 10:28	16°♑14'19	0°53'41	morning max el	895 Feb 07 j 13:20	6°♑38'42	46°43'24
	892 Jul 15 j 14:13	0°♒			895 Mar 01 j 16:34	0°♊	
	892 Aug 08 j 20:07	0°♓		desc. node	895 Mar 17 j 12:03	17°♊40'53	
evening rise	892 Aug 09 j 17:00	1°♓04'43			895 Mar 28 j 06:16	0°♋	
	892 Sep 02 j 00:44	0°♈			895 Apr 22 j 23:15	0°♌	
	892 Sep 26 j 05:26	0°♉			895 May 18 j 05:59	0°♍	
desc. node	892 Sep 29 j 16:58	4°♊18'45			895 Jun 12 j 05:47	0°♎	
	892 Oct 20 j 11:20	0°♋			895 Jul 06 j 23:08	0°♏	
	892 Nov 13 j 19:45	0°♌		asc. node	895 Jul 08 j 15:25	2°♏02'54	
	892 Dec 08 j 09:56	0°♍			895 Jul 31 j 09:57	0°♒	
	893 Jan 02 j 13:46	0°♋		morning set	895 Aug 06 j 04:46	7°♒08'31	
asc. node	893 Jan 20 j 20:14	20°♋55'39			895 Aug 24 j 14:58	0°♓	
	893 Jan 29 j 02:04	0°♌		max. Earth dist.	895 Sep 08 j 22:08	19°♓04'29	1.72000 AU
evening max el	893 Feb 12 j 09:36	14°♌55'32	46°19'58				
	893 Feb 28 j 16:26	0°♍		superior conj	895 Sep 12 j 05:02	23°♓10'56	1°21'34
greatest brilliancy	893 Mar 19 j 11:43	12°♍51'12	-4.5m	minimum elong	895 Sep 12 j 10:13	23°♓27'07	1°21'29
retrograde	893 Apr 03 j 04:23	16°♎42'35			895 Sep 17 j 15:54	0°♈	
evening set	893 Apr 19 j 02:08	11°♎47'13			895 Oct 11 j 14:46	0°♉	
inferior conj	893 Apr 24 j 13:58	8°♏26'10	4°02'14	evening rise	895 Oct 21 j 07:01	12°♊07'49	
minimum elong	893 Apr 24 j 21:52	8°♏13'44	4°00'11	desc. node	895 Oct 28 j 04:59	20°♊48'01	
min. Earth dist.	893 Apr 24 j 17:17	8°♏20'57	0.28848 AU		895 Nov 04 j 13:10	0°♋	
morning rise	893 Apr 30 j 17:43	4°♏42'29			895 Nov 28 j 12:11	0°♌	
desc. node	893 May 12 j 09:35	0°♏25'23			895 Dec 22 j 13:08	0°♍	
direct	893 May 16 j 01:06	0°♏09'35			896 Jan 15 j 18:34	0°♋	
greatest brilliancy	893 May 29 j 01:03	3°♏07'12	-4.5m		896 Feb 09 j 09:01	0°♌	
	893 Jul 03 j 23:06	0°♎		asc. node	896 Feb 18 j 08:07	10°♌45'03	
morning max el	893 Jul 03 j 19:42	29°♏51'55	45°45'10		896 Mar 05 j 16:02	0°♍	
	893 Aug 01 j 23:02	0°♏			896 Apr 01 j 06:10	0°♎	
	893 Aug 28 j 09:23	0°♒		evening max el	896 Apr 24 j 05:20	23°♎40'05	45°24'19
asc. node	893 Sep 02 j 13:07	6°♒02'42			896 Apr 30 j 23:58	0°♏	
	893 Sep 22 j 14:00	0°♓		greatest brilliancy	896 May 28 j 19:38	19°♏58'00	-4.5m
	893 Oct 17 j 01:29	0°♈		desc. node	896 Jun 08 j 21:33	23°♏10'23	
	893 Nov 10 j 03:41	0°♉		retrograde	896 Jun 11 j 17:30	23°♏19'28	
	893 Dec 04 j 01:49	0°♊		evening set	896 Jun 27 j 07:17	18°♏42'07	
desc. node	893 Dec 23 j 02:32	23°♊54'14		inferior conj	896 Jul 03 j 04:24	15°♏10'16	-5°-18'-8
	893 Dec 27 j 23:03	0°♌		minimum elong	896 Jul 02 j 18:51	15°♏25'09	5°15'57
morning set	894 Jan 03 j 00:40	7°♌36'54		min. Earth dist.	896 Jul 03 j 05:05	15°♏09'11	0.28917 AU
	894 Jan 20 j 21:05	0°♍		morning rise	896 Jul 08 j 06:17	12°♏05'13	
				direct	896 Jul 24 j 20:45	6°♏53'47	
superior conj	894 Feb 13 j 07:45	29°♍18'35	-1°-25'-8	greatest brilliancy	896 Aug 08 j 01:13	10°♏25'17	-4.5m
minimum elong	894 Feb 13 j 04:59	29°♍10'00	1°25'08		896 Sep 04 j 02:09	0°♒	
	894 Feb 13 j 21:01	0°♋		morning max el	896 Sep 12 j 08:58	7°♒51'58	46°14'51
max. Earth dist.	894 Feb 17 j 06:34	4°♋14'12	1.72002 AU	asc. node	896 Sep 30 j 00:57	26°♒14'12	
	894 Mar 09 j 23:53	0°♌			896 Oct 03 j 11:21	0°♓	
evening rise	894 Mar 24 j 18:53	18°♌18'20			896 Oct 29 j 14:46	0°♈	
	894 Apr 03 j 06:32	0°♍			896 Nov 23 j 12:42	0°♉	
asc. node	894 Apr 15 j 06:00	14°♍43'17			896 Dec 17 j 22:02	0°♊	
	894 Apr 27 j 17:35	0°♎			897 Jan 11 j 02:38	0°♋	
	894 May 22 j 09:29	0°♏		desc. node	897 Jan 19 j 14:19	10°♋32'29	
	894 Jun 16 j 07:27	0°♒			897 Feb 04 j 06:16	0°♌	
	894 Jul 11 j 14:21	0°♓			897 Feb 28 j 10:36	0°♍	
desc. node	894 Aug 04 j 19:08	28°♓03'07		morning set	897 Mar 19 j 06:28	23°♍18'18	
	894 Aug 06 j 12:09	0°♈			897 Mar 24 j 16:31	0°♌	
	894 Sep 02 j 14:42	0°♉			897 Apr 18 j 00:21	0°♍	
evening max el	894 Sep 19 j 03:22	17°♊01'40	46°51'39				

superior conj	897 Apr 25 j 23:56	9°♄49'20	0°-38'-21	evening set	899 Sep 10 j 01:54	26°♍13'58	
minimum elong	897 Apr 26 j 07:22	10°♄12'13	0°38'03	inferior conj	899 Sep 13 j 07:12	24°♍17'18	-8°-27'-43
max. Earth dist.	897 Apr 27 j 12:08	11°♄40'41	1.73411 AU	minimum elong	899 Sep 13 j 12:58	24°♍08'29	8°27'15
	897 May 12 j 09:52	0°♂		min. Earth dist.	899 Sep 14 j 03:46	23°♍45'50	0.27766 AU
asc. node	897 May 12 j 17:54	0°♂24'41		morning rise	899 Sep 16 j 23:43	22°♍03'23	
evening rise	897 Jun 01 j 16:26	24°♂53'14		direct	899 Oct 04 j 08:32	16°♍17'02	
	897 Jun 05 j 20:26	0°♄		greatest brilliancy	899 Oct 18 j 14:32	19°♍57'33	-4.6m
	897 Jun 30 j 07:45	0°♂		asc. node	899 Oct 28 j 12:46	25°♍56'45	
	897 Jul 24 j 20:20	0°♍			899 Nov 02 j 21:29	0°♄	
	897 Aug 18 j 11:39	0°♄		morning max el	899 Nov 24 j 01:42	19°♄33'36	46°53'17
desc. node	897 Sep 01 j 07:07	16°♄43'04			899 Dec 04 j 00:02	0°♍	
	897 Sep 12 j 07:43	0°♍			899 Dec 30 j 14:29	0°♂	
	897 Oct 07 j 11:38	0°♂			900 Jan 24 j 22:45	0°♄	
	897 Nov 02 j 07:00	0°♄		desc. node	900 Feb 17 j 02:16	27°♄54'45	
	897 Nov 29 j 18:38	0°♍			900 Feb 18 j 19:37	0°♍	
evening max el	897 Nov 30 j 16:05	0°♍54'59	47°19'49		900 Mar 14 j 11:58	0°♂	
asc. node	897 Dec 23 j 10:25	21°♍51'46			900 Apr 08 j 02:39	0°♍	
	898 Jan 04 j 12:11	0°♂			900 May 02 j 16:38	0°♄	
greatest brilliancy	898 Jan 07 j 09:46	1°♂27'47	-4.7m	morning set	900 May 27 j 04:59	29°♄58'00	
retrograde	898 Jan 20 j 15:29	4°♂43'41			900 May 27 j 05:38	0°♂	
	898 Feb 05 j 00:27	30°♂♍		asc. node	900 Jun 09 j 05:38	15°♂55'48	
evening set	898 Feb 07 j 06:48	28°♍39'38			900 Jun 20 j 16:42	0°♄	
min. Earth dist.	898 Feb 09 j 19:39	27°♍04'57	0.27735 AU	max. Earth dist.	900 Jun 29 j 22:39	11°♄22'41	1.73416 AU
inferior conj	898 Feb 10 j 14:12	26°♍35'43	8°39'17				
minimum elong	898 Feb 10 j 11:02	26°♍40'42	8°39'09	superior conj	900 Jul 02 j 13:35	14°♄36'31	0°51'34
morning rise	898 Feb 13 j 15:31	24°♍41'36		minimum elong	900 Jul 02 j 05:12	14°♄10'42	0°51'14
direct	898 Mar 03 j 09:12	18°♍39'50			900 Jul 15 j 01:05	0°♂	
greatest brilliancy	898 Mar 14 j 02:21	20°♍46'26	-4.6m	evening rise	900 Aug 07 j 10:50	28°♂57'14	
	898 Mar 30 j 05:07	0°♂			900 Aug 08 j 07:06	0°♍	
desc. node	898 Apr 13 j 23:52	12°♂12'58			900 Sep 01 j 11:56	0°♄	
morning max el	898 Apr 21 j 13:16	19°♂18'01	46°00'38		900 Sep 25 j 16:58	0°♍	
	898 May 02 j 06:50	0°♍		desc. node	900 Sep 28 j 19:10	3°♍49'44	
	898 May 30 j 04:02	0°♄			900 Oct 19 j 23:16	0°♂	
	898 Jun 25 j 11:49	0°♂			900 Nov 13 j 08:13	0°♄	
	898 Jul 20 j 23:24	0°♄			900 Dec 07 j 23:13	0°♍	
asc. node	898 Aug 05 j 03:17	18°♄12'31			901 Jan 02 j 04:32	0°♂	
	898 Aug 14 j 20:25	0°♂		asc. node	901 Jan 19 j 22:15	20°♂14'37	
	898 Sep 08 j 06:11	0°♍			901 Jan 28 j 20:18	0°♍	
greatest brilliancy	898 Sep 29 j 05:17	26°♍05'59	-3.9m	evening max el	901 Feb 10 j 01:20	12°♍40'33	46°22'42
	898 Oct 02 j 08:08	0°♄			901 Mar 01 j 01:16	0°♄	
morning set	898 Oct 16 j 03:39	17°♄19'14		greatest brilliancy	901 Mar 17 j 04:12	10°♄40'06	-4.5m
	898 Oct 26 j 05:45	0°♍		retrograde	901 Mar 31 j 21:33	14°♄32'03	
	898 Nov 19 j 01:47	0°♂		evening set	901 Apr 16 j 20:54	9°♄33'00	
desc. node	898 Nov 24 j 16:48	7°♂05'00		inferior conj	901 Apr 22 j 06:19	6°♄15'17	4°19'42
				minimum elong	901 Apr 22 j 14:37	6°♄02'13	4°17'35
superior conj	898 Nov 25 j 13:29	8°♂10'08	0°-2'-4	min. Earth dist.	901 Apr 22 j 09:07	6°♄10'53	0.28832 AU
minimum elong	898 Nov 25 j 12:55	8°♂08'20	0°02'03	morning rise	901 Apr 28 j 08:33	2°♄34'03	
behind sun begin	898 Nov 24 j 10:37	6°♂45'33			901 May 03 j 16:14	30°♂♍	
behind sun end	898 Nov 26 j 15:13	9°♂31'08		desc. node	901 May 11 j 11:38	28°♍04'58	
max. Earth dist.	898 Nov 26 j 02:24	8°♂50'47	1.71038 AU	direct	901 May 13 j 17:27	27°♍59'00	
	898 Dec 12 j 21:53	0°♄			901 May 24 j 07:27	0°♄	
	899 Jan 05 j 19:09	0°♍		greatest brilliancy	901 May 26 j 15:38	0°♄55'32	-4.5m
evening rise	899 Jan 06 j 05:49	0°♍33'26		morning max el	901 Jul 01 j 12:44	27°♄44'20	45°44'51
	899 Jan 29 j 18:56	0°♂			901 Jul 03 j 21:11	0°♂	
	899 Feb 22 j 23:16	0°♍			901 Aug 01 j 14:41	0°♄	
asc. node	899 Mar 17 j 20:10	28°♍02'56			901 Aug 27 j 22:46	0°♂	
	899 Mar 19 j 10:38	0°♄		asc. node	901 Sep 01 j 15:13	5°♂30'12	
	899 Apr 13 j 08:01	0°♂			901 Sep 22 j 02:21	0°♍	
	899 May 08 j 19:57	0°♄			901 Oct 16 j 13:19	0°♄	
	899 Jun 04 j 08:12	0°♂			901 Nov 09 j 15:15	0°♍	
	899 Jul 03 j 01:48	0°♍			901 Dec 03 j 13:14	0°♂	
evening max el	899 Jul 05 j 08:28	2°♍11'40	45°38'54	desc. node	901 Dec 22 j 04:30	23°♂24'52	
desc. node	899 Jul 07 j 09:23	4°♍07'38			901 Dec 27 j 10:22	0°♄	
	899 Aug 12 j 09:45	0°♄		morning set	901 Dec 31 j 10:26	5°♄01'29	
greatest brilliancy	899 Aug 12 j 08:29	29°♍58'49	-4.5m		902 Jan 20 j 08:20	0°♍	
retrograde	899 Aug 23 j 06:19	2°♄07'18					
	899 Sep 02 j 15:42	30°♂♍		superior conj	902 Feb 10 j 19:34	26°♍50'47	-1°-24'-36

minimum elong	902 Feb 10 j 15:50	26° \approx 39'08	1°24'35		904 Sep 04 j 03:36	0° Ω	
	902 Feb 13 j 08:12	0° \mathbb{H}		morning max el	904 Sep 09 j 22:50	5° Ω 33'37	46°13'18
max. Earth dist.	902 Feb 14 j 18:47	1° \mathbb{H} 47'52	1.71950 AU	asc. node	904 Sep 29 j 03:06	25° Ω 32'47	
	902 Mar 09 j 11:01	0° \mathbb{Y}			904 Oct 03 j 04:05	0° \mathbb{M}	
evening rise	902 Mar 22 j 09:12	15° \mathbb{Y} 59'58			904 Oct 29 j 04:51	0° $\underline{\Omega}$	
	902 Apr 02 j 17:41	0° \mathbb{X}			904 Nov 23 j 01:35	0° \mathbb{M}	
asc. node	902 Apr 14 j 08:04	14° \mathbb{X} 15'19			904 Dec 17 j 10:15	0° \mathbb{X}	
	902 Apr 27 j 04:50	0° \mathbb{H}			905 Jan 10 j 14:26	0° \mathbb{Z}	
	902 May 21 j 21:04	0° \mathbb{S}		desc. node	905 Jan 18 j 16:27	10° \mathbb{Z} 02'53	
	902 Jun 15 j 19:38	0° Ω			905 Feb 03 j 17:44	0° \approx	
	902 Jul 11 j 03:34	0° \mathbb{M}			905 Feb 27 j 21:49	0° \mathbb{H}	
desc. node	902 Aug 03 j 21:13	27° \mathbb{M} 26'39		morning set	905 Mar 16 j 21:20	21° \mathbb{H} 01'44	
	902 Aug 06 j 03:13	0° $\underline{\Omega}$			905 Mar 24 j 03:32	0° \mathbb{Y}	
	902 Sep 02 j 09:48	0° \mathbb{M}			905 Apr 17 j 11:16	0° \mathbb{X}	
evening max el	902 Sep 16 j 17:56	14° \mathbb{M} 40'47	46°49'19				
	902 Oct 03 j 11:10	0° \mathbb{X}		superior conj	905 Apr 23 j 16:59	7° \mathbb{X} 40'40	0°-41'-15
greatest brilliancy	902 Oct 25 j 15:17	14° \mathbb{X} 21'33	-4.7m	minimum elong	905 Apr 24 j 00:52	8° \mathbb{X} 04'56	0°40'56
retrograde	902 Nov 05 j 21:45	16° \mathbb{X} 42'39		max. Earth dist.	905 Apr 25 j 07:37	9° \mathbb{X} 39'30	1.73381 AU
evening set	902 Nov 20 j 04:33	12° \mathbb{X} 38'54		asc. node	905 May 11 j 19:52	29° \mathbb{X} 57'15	
asc. node	902 Nov 25 j 00:31	9° \mathbb{X} 51'46			905 May 11 j 20:46	0° \mathbb{H}	
inferior conj	902 Nov 26 j 09:16	9° \mathbb{X} 02'01	0°21'21	evening rise	905 May 30 j 11:10	22° \mathbb{H} 49'53	
minimum elong	902 Nov 26 j 08:27	9° \mathbb{X} 03'16	0°21'04		905 Jun 05 j 07:24	0° \mathbb{S}	
min. Earth dist.	902 Nov 26 j 05:26	9° \mathbb{X} 07'51	0.26373 AU		905 Jun 29 j 18:54	0° Ω	
morning rise	902 Dec 02 j 12:31	5° \mathbb{X} 28'09			905 Jul 24 j 07:49	0° \mathbb{M}	
direct	902 Dec 16 j 18:11	1° \mathbb{X} 26'14			905 Aug 17 j 23:41	0° $\underline{\Omega}$	
greatest brilliancy	902 Dec 28 j 13:17	4° \mathbb{X} 03'34	-4.7m	desc. node	905 Aug 31 j 09:16	16° $\underline{\Omega}$ 12'01	
	903 Jan 31 j 19:47	0° \mathbb{Z}			905 Sep 11 j 20:35	0° \mathbb{M}	
morning max el	903 Feb 05 j 02:27	4° \mathbb{Z} 13'09	46°44'27		905 Oct 07 j 01:48	0° \mathbb{X}	
	903 Mar 01 j 09:58	0° \approx			905 Nov 01 j 23:33	0° \mathbb{Z}	
desc. node	903 Mar 16 j 14:13	17° \approx 03'18		evening max el	905 Nov 28 j 05:32	28° \mathbb{Z} 29'11	47°20'29
	903 Mar 27 j 20:42	0° \mathbb{H}			905 Nov 29 j 17:15	0° \approx	
	903 Apr 22 j 12:12	0° \mathbb{Y}		asc. node	905 Dec 22 j 12:33	20° \approx 37'55	
	903 May 17 j 18:03	0° \mathbb{X}		greatest brilliancy	906 Jan 05 j 02:27	29° \approx 08'00	-4.7m
	903 Jun 11 j 17:17	0° \mathbb{H}			906 Jan 07 j 02:17	0° \mathbb{H}	
	903 Jul 06 j 10:18	0° \mathbb{S}		retrograde	906 Jan 18 j 05:54	2° \mathbb{H} 22'12	
asc. node	903 Jul 07 j 17:28	1° \mathbb{S} 35'07			906 Jan 28 j 23:15	30° \mathbb{R} \approx	
	903 Jul 30 j 20:59	0° Ω		evening set	906 Feb 04 j 19:02	26° \approx 22'14	
morning set	903 Aug 03 j 21:50	4° Ω 58'58		min. Earth dist.	906 Feb 07 j 09:43	24° \approx 45'00	0.27674 AU
	903 Aug 24 j 01:59	0° \mathbb{M}		inferior conj	906 Feb 08 j 04:41	24° \approx 15'10	8°35'58
max. Earth dist.	903 Sep 06 j 09:35	16° \mathbb{M} 35'59	1.72054 AU	minimum elong	906 Feb 08 j 00:42	24° \approx 21'26	8°35'44
				morning rise	906 Feb 11 j 06:36	22° \approx 20'16	
superior conj	903 Sep 09 j 20:40	20° \mathbb{M} 55'21	1°22'25	direct	906 Feb 28 j 22:23	16° \approx 20'08	
minimum elong	903 Sep 10 j 01:08	21° \mathbb{M} 09'18	1°22'23	greatest brilliancy	906 Mar 11 j 16:21	18° \approx 27'18	-4.6m
	903 Sep 17 j 02:59	0° $\underline{\Omega}$			906 Mar 30 j 20:34	0° \mathbb{H}	
	903 Oct 11 j 01:57	0° \mathbb{M}		desc. node	906 Apr 13 j 01:54	11° \mathbb{H} 17'29	
evening rise	903 Oct 18 j 19:04	9° \mathbb{M} 39'56		morning max el	906 Apr 19 j 03:04	16° \mathbb{H} 59'59	46°01'58
desc. node	903 Oct 27 j 07:01	20° \mathbb{M} 18'59			906 May 02 j 01:58	0° \mathbb{Y}	
	903 Nov 04 j 00:30	0° \mathbb{X}			906 May 29 j 18:49	0° \mathbb{X}	
	903 Nov 27 j 23:41	0° \mathbb{Z}			906 Jun 25 j 00:46	0° \mathbb{H}	
	903 Dec 22 j 00:50	0° \approx			906 Jul 20 j 11:24	0° \mathbb{S}	
	904 Jan 15 j 06:35	0° \mathbb{H}		asc. node	906 Aug 04 j 05:25	17° \mathbb{S} 43'50	
	904 Feb 08 j 21:39	0° \mathbb{Y}			906 Aug 14 j 07:54	0° Ω	
asc. node	904 Feb 17 j 10:15	10° \mathbb{Y} 12'44			906 Sep 07 j 17:23	0° \mathbb{M}	
	904 Mar 05 j 05:54	0° \mathbb{X}		greatest brilliancy	906 Oct 01 j 07:33	29° \mathbb{M} 23'33	-3.9m
	904 Mar 31 j 22:52	0° \mathbb{H}			906 Oct 01 j 19:12	0° $\underline{\Omega}$	
evening max el	904 Apr 21 j 20:39	21° \mathbb{H} 27'30	45°25'09	morning set	906 Oct 13 j 16:51	14° $\underline{\Omega}$ 55'11	
	904 May 01 j 02:24	0° \mathbb{S}			906 Oct 25 j 16:49	0° \mathbb{M}	
greatest brilliancy	904 May 26 j 10:50	17° \mathbb{S} 47'23	-4.5m		906 Nov 18 j 12:53	0° \mathbb{X}	
desc. node	904 Jun 07 j 23:33	21° \mathbb{S} 07'45					
retrograde	904 Jun 09 j 09:01	21° \mathbb{S} 09'59		superior conj	906 Nov 22 j 23:21	5° \mathbb{X} 35'10	0°01'57
evening set	904 Jun 24 j 21:26	16° \mathbb{S} 35'22		minimum elong	906 Nov 22 j 23:53	5° \mathbb{X} 36'50	0°01'56
inferior conj	904 Jun 30 j 20:39	13° \mathbb{S} 00'35	-5°-2'-13	behind sun begin	906 Nov 21 j 21:36	4° \mathbb{X} 14'06	
minimum elong	904 Jun 30 j 11:21	13° \mathbb{S} 15'07	5°00'00	behind sun end	906 Nov 24 j 02:09	6° \mathbb{X} 59'32	
min. Earth dist.	904 Jun 30 j 21:28	12° \mathbb{S} 59'19	0.28928 AU	max. Earth dist.	906 Nov 23 j 08:21	6° \mathbb{X} 03'31	1.71046 AU
morning rise	904 Jul 06 j 01:03	9° \mathbb{S} 51'36		desc. node	906 Nov 23 j 18:44	6° \mathbb{X} 36'13	
direct	904 Jul 22 j 12:46	4° \mathbb{S} 43'56			906 Dec 12 j 09:01	0° \mathbb{Z}	
greatest brilliancy	904 Aug 05 j 16:34	8° \mathbb{S} 13'46	-4.5m	evening rise	907 Jan 03 j 15:51	27° \mathbb{Z} 59'28	

	907 Jan 05 j 06:19	0°♊			909 Aug 01 j 05:48	0°♎	
	907 Jan 29 j 06:09	0°♋			909 Aug 27 j 11:48	0°♏	
	907 Feb 22 j 10:36	0°♌		asc. node	909 Aug 31 j 17:19	4°♏58'38	
asc. node	907 Mar 16 j 22:16	27°♌34'03			909 Sep 21 j 14:26	0°♐	
	907 Mar 18 j 22:14	0°♍			909 Oct 16 j 00:56	0°♑	
	907 Apr 12 j 20:11	0°♎			909 Nov 09 j 02:36	0°♒	
	907 May 08 j 09:14	0°♏			909 Dec 03 j 00:25	0°♓	
	907 Jun 03 j 23:57	0°♐		desc. node	909 Dec 21 j 06:41	22°♓56'55	
evening max el	907 Jul 02 j 22:45	29°♐55'56	45°37'10		909 Dec 26 j 21:25	0°♑	
	907 Jul 03 j 00:27	0°♐		morning set	909 Dec 28 j 20:02	2°♑26'20	
desc. node	907 Jul 06 j 11:30	3°♐15'29			910 Jan 19 j 19:17	0°♒	
greatest brilliancy	907 Aug 09 j 18:46	27°♐37'12	-4.5m				
retrograde	907 Aug 20 j 20:23	29°♐48'45		superior conj	910 Feb 08 j 07:10	24°♒23'10	-1°-23'-55
evening set	907 Sep 07 j 17:09	23°♐52'26		minimum elong	910 Feb 08 j 02:27	24°♒08'27	1°23'53
inferior conj	907 Sep 10 j 21:07	21°♐57'42	-8°-32'-55	max. Earth dist.	910 Feb 12 j 09:08	29°♒28'57	1.71898 AU
minimum elong	907 Sep 11 j 02:06	21°♐50'05	8°32'35		910 Feb 12 j 19:05	0°♋	
min. Earth dist.	907 Sep 11 j 16:51	21°♐27'30	0.27832 AU		910 Mar 08 j 21:52	0°♌	
morning rise	907 Sep 14 j 10:47	19°♐48'05		evening rise	910 Mar 19 j 23:22	13°♌41'58	
direct	907 Oct 01 j 23:33	13°♐56'30			910 Apr 02 j 04:33	0°♍	
greatest brilliancy	907 Oct 16 j 06:38	17°♐38'49	-4.6m	asc. node	910 Apr 13 j 10:05	13°♍47'58	
asc. node	907 Oct 27 j 14:43	24°♐39'18			910 Apr 26 j 15:50	0°♎	
	907 Nov 03 j 09:10	0°♏			910 May 21 j 08:22	0°♏	
morning max el	907 Nov 21 j 16:57	17°♏13'12	46°52'31		910 Jun 15 j 07:32	0°♐	
	907 Dec 03 j 19:09	0°♑			910 Jul 10 j 16:31	0°♐	
	907 Dec 30 j 05:40	0°♑		desc. node	910 Aug 02 j 23:21	26°♐51'06	
	908 Jan 24 j 12:10	0°♒			910 Aug 05 j 18:08	0°♑	
desc. node	908 Feb 16 j 04:21	27°♒23'13			910 Sep 02 j 05:05	0°♒	
	908 Feb 18 j 08:02	0°♒		evening max el	910 Sep 14 j 07:35	12°♒18'24	46°46'42
	908 Mar 13 j 23:44	0°♋			910 Oct 03 j 23:50	0°♓	
	908 Apr 07 j 13:57	0°♌		greatest brilliancy	910 Oct 23 j 05:46	11°♓54'59	-4.7m
	908 May 02 j 03:37	0°♍		retrograde	910 Nov 03 j 09:27	14°♓12'52	
morning set	908 May 24 j 23:20	27°♍54'18		evening set	910 Nov 17 j 17:24	10°♓08'55	
	908 May 26 j 16:24	0°♎		inferior conj	910 Nov 23 j 21:18	6°♓33'01	0°-3'-30
asc. node	908 Jun 08 j 07:44	15°♎29'26		minimum elong	910 Nov 23 j 21:26	6°♓32'49	0°03'28
	908 Jun 20 j 03:22	0°♏		transit middle	910 Nov 23 j 21:26	6°♓32'49	0°03'28
max. Earth dist.	908 Jun 27 j 21:43	9°♏33'04	1.73445 AU	transit begin	910 Nov 23 j 17:27	6°♓38'53	
				transit end	910 Nov 24 j 01:25	6°♓26'45	
superior conj	908 Jun 30 j 08:12	12°♏33'05	0°49'03	min. Earth dist.	910 Nov 23 j 19:11	6°♓36'14	0.26373 AU
minimum elong	908 Jun 30 j 00:00	12°♏07'52	0°48'43	asc. node	910 Nov 24 j 02:41	6°♓24'49	
	908 Jul 14 j 11:47	0°♐		morning rise	910 Nov 30 j 01:33	2°♓57'32	
evening rise	908 Aug 05 j 04:39	26°♐50'12			910 Dec 07 j 03:07	30°♒♌	
	908 Aug 07 j 17:58	0°♐		direct	910 Dec 14 j 06:21	28°♒57'18	
	908 Aug 31 j 23:02	0°♑			910 Dec 21 j 14:11	0°♓	
	908 Sep 25 j 04:22	0°♒		greatest brilliancy	910 Dec 26 j 03:24	1°♓36'14	-4.7m
desc. node	908 Sep 27 j 21:09	3°♒20'27			911 Jan 31 j 20:13	0°♑	
	908 Oct 19 j 11:03	0°♓		morning max el	911 Feb 02 j 14:33	1°♑45'29	46°45'37
	908 Nov 12 j 20:32	0°♑			911 Mar 01 j 02:43	0°♒	
	908 Dec 07 j 12:22	0°♒		desc. node	911 Mar 15 j 16:15	16°♒26'38	
	909 Jan 01 j 19:14	0°♋			911 Mar 27 j 10:39	0°♋	
asc. node	909 Jan 19 j 00:24	19°♋34'14			911 Apr 22 j 00:43	0°♌	
	909 Jan 28 j 14:45	0°♌			911 May 17 j 05:44	0°♍	
evening max el	909 Feb 07 j 17:31	10°♌27'13	46°25'18		911 Jun 11 j 04:27	0°♎	
	909 Mar 01 j 12:53	0°♍			911 Jul 05 j 21:09	0°♏	
greatest brilliancy	909 Mar 14 j 21:51	8°♍31'01	-4.5m	asc. node	911 Jul 06 j 19:40	1°♏08'44	
retrograde	909 Mar 29 j 14:36	12°♍21'41			911 Jul 30 j 07:41	0°♐	
evening set	909 Apr 14 j 15:42	7°♍19'13		morning set	911 Aug 01 j 15:09	2°♐51'12	
inferior conj	909 Apr 19 j 22:35	4°♍04'48	4°36'55		911 Aug 23 j 12:39	0°♑	
minimum elong	909 Apr 20 j 07:14	3°♍51'10	4°34'46	max. Earth dist.	911 Sep 03 j 23:19	14°♑15'44	1.72110 AU
min. Earth dist.	909 Apr 20 j 00:45	4°♍01'22	0.28813 AU				
morning rise	909 Apr 25 j 23:04	0°♍26'08		superior conj	911 Sep 07 j 12:38	18°♑41'56	1°23'08
	909 Apr 26 j 18:08	30°♒♌		minimum elong	911 Sep 07 j 16:22	18°♑53'36	1°23'06
desc. node	909 May 10 j 13:36	25°♌49'53			911 Sep 16 j 13:43	0°♑	
direct	909 May 11 j 09:53	25°♌49'03			911 Oct 10 j 12:49	0°♒	
greatest brilliancy	909 May 24 j 04:59	28°♌43'00	-4.5m	evening rise	911 Oct 16 j 07:21	7°♒13'48	
	909 May 26 j 23:45	0°♍		desc. node	911 Oct 26 j 09:04	19°♒50'55	
morning max el	909 Jun 29 j 05:12	25°♍36'17	45°44'34		911 Nov 03 j 11:33	0°♓	
	909 Jul 03 j 18:08	0°♎			911 Nov 27 j 10:56	0°♑	

	911 Dec 21 j 12:20	0°♊			914 Jul 19 j 23:10	0°♉		
	912 Jan 14 j 18:25	0°♋		asc. node	914 Aug 03 j 07:25	17°♉15'18		
	912 Feb 08 j 10:05	0°♌			914 Aug 13 j 19:10	0°♊		
asc. node	912 Feb 16 j 12:19	9°♌40'51			914 Sep 07 j 04:24	0°♋		
	912 Mar 04 j 19:36	0°♍			914 Oct 01 j 06:07	0°♌		
	912 Mar 31 j 15:34	0°♎		greatest brilliancy	914 Oct 03 j 08:25	2°♌37'27	-3.9m	
evening max el	912 Apr 19 j 11:17	19°♎14'07	45°26'07	morning set	914 Oct 11 j 06:27	12°♌33'00		
	912 May 01 j 06:02	0°♏			914 Oct 25 j 03:43	0°♍		
greatest brilliancy	912 May 24 j 01:01	15°♏36'21	-4.5m		914 Nov 17 j 23:48	0°♎		
retrograde	912 Jun 07 j 00:47	19°♏01'33						
desc. node	912 Jun 07 j 01:45	19°♏01'33		superior conj	914 Nov 20 j 09:40	3°♎02'09	0°05'55	
evening set	912 Jun 22 j 11:40	14°♏29'08		minimum elong	914 Nov 20 j 11:14	3°♎07'06	0°05'50	
inferior conj	912 Jun 28 j 12:53	10°♏51'48	-4°-45'-46	behind sun begin	914 Nov 19 j 10:22	1°♎48'48		
minimum elong	912 Jun 28 j 03:52	11°♏05'52	4°43'34	behind sun end	914 Nov 21 j 12:06	4°♎25'24		
min. Earth dist.	912 Jun 28 j 13:54	10°♏50'12	0.28938 AU	max. Earth dist.	914 Nov 20 j 17:57	3°♎28'14	1.71052 AU	
morning rise	912 Jul 03 j 19:48	7°♏39'05		desc. node	914 Nov 22 j 20:58	6°♎08'49		
direct	912 Jul 20 j 04:27	2°♏34'48			914 Dec 11 j 19:57	0°♏		
greatest brilliancy	912 Aug 03 j 08:52	6°♏04'29	-4.5m	evening rise	915 Jan 01 j 02:12	25°♏27'03		
	912 Sep 04 j 03:24	0°♐			915 Jan 04 j 17:17	0°♊		
morning max el	912 Sep 07 j 13:22	3°♐18'01	46°11'59		915 Jan 28 j 17:13	0°♋		
asc. node	912 Sep 28 j 05:04	24°♐52'27			915 Feb 21 j 21:49	0°♌		
	912 Oct 02 j 20:08	0°♍		asc. node	915 Mar 16 j 00:13	27°♌05'01		
	912 Oct 28 j 18:27	0°♎			915 Mar 18 j 09:47	0°♍		
	912 Nov 22 j 14:05	0°♏			915 Apr 12 j 08:20	0°♎		
	912 Dec 16 j 22:09	0°♐			915 May 07 j 22:34	0°♏		
	913 Jan 10 j 01:58	0°♑			915 Jun 03 j 15:52	0°♐		
desc. node	913 Jan 17 j 18:34	9°♑33'58		evening max el	915 Jun 30 j 13:51	27°♐42'34	45°35'33	
	913 Feb 03 j 04:59	0°♊			915 Jul 03 j 00:00	0°♑		
	913 Feb 27 j 08:48	0°♋		desc. node	915 Jul 05 j 13:35	2°♑22'34		
morning set	913 Mar 14 j 11:38	18°♋43'51		greatest brilliancy	915 Aug 07 j 05:28	25°♑16'44	-4.5m	
	913 Mar 23 j 14:19	0°♌		retrograde	915 Aug 18 j 10:22	27°♑30'43		
	913 Apr 16 j 21:56	0°♍		evening set	915 Sep 05 j 08:14	21°♑32'04		
				inferior conj	915 Sep 08 j 11:07	19°♑38'43	-8°-37'-19	
superior conj	913 Apr 21 j 09:42	5°♍31'40	0°-44'-7	minimum elong	915 Sep 08 j 15:19	19°♑32'18	8°37'04	
minimum elong	913 Apr 21 j 17:59	5°♍57'10	0°43'47	min. Earth dist.	915 Sep 09 j 05:54	19°♑09'57	0.27896 AU	
max. Earth dist.	913 Apr 23 j 01:52	7°♍35'15	1.73347 AU	morning rise	915 Sep 11 j 22:11	17°♑32'53		
asc. node	913 May 10 j 21:59	29°♍31'03		direct	915 Sep 29 j 14:54	11°♑36'43		
	913 May 11 j 07:24	0°♎		greatest brilliancy	915 Oct 13 j 21:44	15°♑19'10	-4.6m	
evening rise	913 May 28 j 05:45	20°♎46'55		asc. node	915 Oct 26 j 16:52	23°♑24'51		
	913 Jun 04 j 18:08	0°♏			915 Nov 03 j 17:43	0°♐		
	913 Jun 29 j 05:50	0°♐		morning max el	915 Nov 19 j 08:12	14°♐53'10	46°51'48	
	913 Jul 23 j 19:06	0°♑			915 Dec 03 j 13:41	0°♑		
	913 Aug 17 j 11:31	0°♒			915 Dec 29 j 20:33	0°♒		
desc. node	913 Aug 30 j 11:17	15°♒41'12		desc. node	916 Jan 24 j 01:23	0°♓		
	913 Sep 11 j 09:15	0°♓			916 Feb 15 j 06:22	26°♓51'56		
	913 Oct 06 j 15:48	0°♎			916 Feb 17 j 20:18	0°♊		
	913 Nov 01 j 16:04	0°♏			916 Mar 13 j 11:24	0°♋		
evening max el	913 Nov 25 j 19:12	26°♏04'54	47°20'59		916 Apr 07 j 01:13	0°♌		
	913 Nov 29 j 16:29	0°♊			916 May 01 j 14:36	0°♍		
asc. node	913 Dec 21 j 14:39	19°♊22'22		morning set	916 May 22 j 17:35	25°♊50'11		
greatest brilliancy	914 Jan 02 j 17:53	26°♊46'47	-4.7m		916 May 26 j 03:11	0°♎		
	914 Jan 15 j 03:11	0°♋		asc. node	916 Jun 07 j 09:53	15°♎03'08		
retrograde	914 Jan 15 j 20:32	0°♋00'39			916 Jun 19 j 14:03	0°♏		
	914 Jan 16 j 13:50	30°♌♊		max. Earth dist.	916 Jun 25 j 19:46	7°♏40'18	1.73469 AU	
evening set	914 Feb 02 j 06:40	24°♌♊04'56						
min. Earth dist.	914 Feb 04 j 23:21	22°♌24'59	0.27617 AU	superior conj	916 Jun 28 j 02:40	10°♏29'13	0°46'28	
inferior conj	914 Feb 05 j 18:56	21°♌54'15	8°31'35	minimum elong	916 Jun 27 j 18:43	10°♏04'46	0°46'08	
minimum elong	914 Feb 05 j 14:11	22°♌01'44	8°31'14		916 Jul 13 j 22:30	0°♐		
morning rise	914 Feb 08 j 21:55	19°♌58'01		evening rise	916 Aug 02 j 22:26	24°♐43'07		
direct	914 Feb 26 j 11:37	13°♌59'56			916 Aug 07 j 04:50	0°♑		
greatest brilliancy	914 Mar 09 j 06:08	16°♌07'49	-4.6m		916 Aug 31 j 10:09	0°♒		
	914 Mar 31 j 08:03	0°♋			916 Sep 24 j 15:49	0°♓		
desc. node	914 Apr 12 j 03:55	10°♋23'20		desc. node	916 Sep 26 j 23:11	2°♓51'09		
morning max el	914 Apr 16 j 17:39	14°♋43'58	46°03'22		916 Oct 18 j 22:55	0°♎		
	914 May 01 j 20:31	0°♌			916 Nov 12 j 08:57	0°♏		
	914 May 29 j 09:16	0°♍			916 Dec 07 j 01:39	0°♊		
	914 Jun 24 j 13:27	0°♎			917 Jan 01 j 10:07	0°♋		

asc. node	917 Jan 18 j 02:27	18° X 53'15			919 Jul 05 j 08:14	0° E	
	917 Jan 28 j 09:37	0° Y		asc. node	919 Jul 05 j 21:37	0° E 40'52	
evening max el	917 Feb 05 j 09:33	8° Y 13'27	46°27'50		919 Jul 29 j 18:39	0° O	
	917 Mar 02 j 04:24	0° X		morning set	919 Jul 30 j 08:27	0° O 42'35	
greatest brilliancy	917 Mar 12 j 16:09	6° X 22'52	-4.6m		919 Aug 22 j 23:37	0° M	
retrograde	917 Mar 27 j 07:18	10° X 11'21		max. Earth dist.	919 Sep 01 j 14:34	11° M 59'21	1.72166 AU
evening set	917 Apr 12 j 10:43	5° X 05'35					
inferior conj	917 Apr 17 j 14:58	1° X 54'31	4°53'42	superior conj	919 Sep 05 j 04:33	16° M 27'33	1°23'44
minimum elong	917 Apr 17 j 23:56	1° X 40'22	4°51'31	minimum elong	919 Sep 05 j 07:32	16° M 36'51	1°23'42
min. Earth dist.	917 Apr 17 j 16:42	1° X 51'46	0.28795 AU		919 Sep 16 j 00:44	0° E	
	917 Apr 20 j 16:19	30° R Y			919 Oct 09 j 23:59	0° M	
morning rise	917 Apr 23 j 13:30	28° Y 18'24		evening rise	919 Oct 13 j 19:40	4° M 47'04	
direct	917 May 09 j 02:24	23° Y 39'19		desc. node	919 Oct 25 j 11:12	19° M 22'17	
desc. node	917 May 09 j 15:49	23° Y 39'41			919 Nov 02 j 22:53	0° X	
greatest brilliancy	917 May 21 j 18:05	26° Y 29'54	-4.5m		919 Nov 26 j 22:30	0° E	
	917 May 28 j 15:31	0° X			919 Dec 21 j 00:09	0° \approx	
morning max el	917 Jun 26 j 21:02	23° X 26'18	45°44'15		920 Jan 14 j 06:36	0° X	
	917 Jul 03 j 14:31	0° II			920 Feb 07 j 22:55	0° Y	
	917 Jul 31 j 20:51	0° E		asc. node	920 Feb 15 j 14:20	9° Y 07'40	
	917 Aug 27 j 00:52	0° O			920 Mar 04 j 09:46	0° X	
asc. node	917 Aug 30 j 19:20	4° O 26'36			920 Mar 31 j 08:56	0° II	
	917 Sep 21 j 02:35	0° M		evening max el	920 Apr 17 j 02:09	17° II 00'39	45°27'22
	917 Oct 15 j 12:38	0° E			920 May 01 j 11:51	0° E	
	917 Nov 08 j 14:03	0° M		greatest brilliancy	920 May 21 j 14:11	13° E 23'42	-4.5m
	917 Dec 02 j 11:43	0° X		retrograde	920 Jun 04 j 17:08	16° E 53'03	
desc. node	917 Dec 20 j 08:43	22° X 28'00		desc. node	920 Jun 06 j 03:44	16° E 50'37	
morning set	917 Dec 26 j 05:41	29° X 50'47		evening set	920 Jun 20 j 02:14	12° E 22'19	
	917 Dec 26 j 08:37	0° E		inferior conj	920 Jun 26 j 05:16	8° E 42'45	-4°-28'-59
	918 Jan 19 j 06:23	0° \approx		minimum elong	920 Jun 25 j 20:35	8° E 56'16	4°26'49
				min. Earth dist.	920 Jun 26 j 06:17	8° E 41'10	0.28949 AU
superior conj	918 Feb 05 j 18:54	21° \approx 55'29	-1°-23'-3	morning rise	920 Jul 01 j 14:39	5° E 26'36	
minimum elong	918 Feb 05 j 13:15	21° \approx 37'50	1°23'00	direct	920 Jul 17 j 20:24	0° E 25'19	
max. Earth dist.	918 Feb 09 j 23:11	27° \approx 08'35	1.71839 AU	greatest brilliancy	920 Aug 01 j 01:52	3° E 55'45	-4.5m
	918 Feb 12 j 06:06	0° X			920 Sep 04 j 02:31	0° O	
	918 Mar 08 j 08:49	0° Y		morning max el	920 Sep 05 j 05:01	1° O 04'30	46°10'31
evening rise	918 Mar 17 j 13:39	11° Y 23'49		asc. node	920 Sep 27 j 07:12	24° O 12'00	
	918 Apr 01 j 15:31	0° X			920 Oct 02 j 12:18	0° M	
asc. node	918 Apr 12 j 12:14	13° X 20'41			920 Oct 28 j 08:17	0° E	
	918 Apr 26 j 02:58	0° II			920 Nov 22 j 02:51	0° M	
	918 May 20 j 19:52	0° E			920 Dec 16 j 10:21	0° X	
	918 Jun 14 j 19:40	0° O			921 Jan 09 j 13:48	0° E	
	918 Jul 10 j 05:47	0° M		desc. node	921 Jan 16 j 20:32	9° E 03'38	
desc. node	918 Aug 02 j 01:20	26° M 14'13			921 Feb 02 j 16:31	0° \approx	
	918 Aug 05 j 09:28	0° E			921 Feb 26 j 20:07	0° X	
	918 Sep 02 j 01:11	0° M		morning set	921 Mar 12 j 01:41	16° X 24'03	
evening max el	918 Sep 11 j 20:14	9° M 53'07	46°44'08		921 Mar 23 j 01:28	0° Y	
	918 Oct 04 j 16:58	0° X			921 Apr 16 j 08:57	0° X	
greatest brilliancy	918 Oct 20 j 20:38	9° X 28'23	-4.6m				
retrograde	918 Oct 31 j 20:49	11° X 42'53		superior conj	921 Apr 19 j 02:22	3° X 21'23	0°-46'-55
evening set	918 Nov 15 j 06:28	7° X 38'03		minimum elong	921 Apr 19 j 11:01	3° X 48'03	0°46'35
inferior conj	918 Nov 21 j 09:24	4° X 03'42	0°-28'-15	max. Earth dist.	921 Apr 20 j 19:50	5° X 29'00	1.73311 AU
minimum elong	918 Nov 21 j 10:29	4° X 02'02	0°27'54	asc. node	921 May 10 j 00:07	29° X 03'55	
min. Earth dist.	918 Nov 21 j 09:19	4° X 03'49	0.26382 AU		921 May 10 j 18:23	0° II	
asc. node	918 Nov 23 j 04:49	2° X 57'45		evening rise	921 May 26 j 00:27	18° II 43'21	
morning rise	918 Nov 27 j 14:25	0° X 26'48			921 Jun 04 j 05:10	0° E	
	918 Nov 28 j 11:07	30° R M			921 Jun 28 j 17:03	0° O	
direct	918 Dec 11 j 18:08	26° M 27'33			921 Jul 23 j 06:42	0° M	
greatest brilliancy	918 Dec 23 j 18:36	29° M 09'27	-4.7m		921 Aug 16 j 23:43	0° E	
	918 Dec 25 j 15:14	0° X		desc. node	921 Aug 29 j 13:19	15° E 09'21	
morning max el	919 Jan 31 j 02:38	29° X 16'40	46°46'52		921 Sep 10 j 22:22	0° M	
	919 Jan 31 j 19:52	0° E			921 Oct 06 j 06:22	0° X	
	919 Feb 28 j 19:26	0° \approx			921 Nov 01 j 09:21	0° E	
desc. node	919 Mar 14 j 18:16	15° \approx 49'23		evening max el	921 Nov 23 j 09:46	23° E 41'40	47°21'29
	919 Mar 27 j 00:43	0° X			921 Nov 29 j 17:21	0° \approx	
	919 Apr 21 j 13:23	0° Y		asc. node	921 Dec 20 j 16:38	18° \approx 02'47	
	919 May 16 j 17:34	0° X		greatest brilliancy	921 Dec 31 j 08:40	24° \approx 23'10	-4.7m
	919 Jun 10 j 15:47	0° II		retrograde	922 Jan 13 j 11:31	27° \approx 37'10	

evening set	922 Jan 30 j 17:46	21° \approx 46'07		superior conj	924 Jun 25 j 21:05	8° \approx 24'40	0°43'49
min. Earth dist.	922 Feb 02 j 12:28	20° \approx 03'25	0.27558 AU	minimum elong	924 Jun 25 j 13:25	8° \approx 01'08	0°43'30
inferior conj	922 Feb 03 j 08:57	19° \approx 31'21	8°26'14		924 Jul 13 j 09:25	0° Ω	
minimum elong	922 Feb 03 j 03:26	19° \approx 40'00	8°25'46	evening rise	924 Jul 31 j 16:21	22° Ω 36'01	
morning rise	922 Feb 06 j 13:21	17° \approx 33'20			924 Aug 06 j 15:51	0° \cap	
direct	922 Feb 24 j 01:04	11° \approx 37'53			924 Aug 30 j 21:24	0° $\underline{\Omega}$	
greatest brilliancy	922 Mar 06 j 18:47	13° \approx 45'33	-4.6m		924 Sep 24 j 03:22	0° \cap	
	922 Mar 31 j 17:06	0° \times		desc. node	924 Sep 26 j 01:23	2° \cap 22'09	
desc. node	922 Apr 11 j 06:07	9° \times 29'33			924 Oct 18 j 10:53	0° \times	
morning max el	922 Apr 14 j 08:55	12° \times 28'25	46°04'46		924 Nov 11 j 21:31	0° $\overline{\Omega}$	
	922 May 01 j 15:00	0° Υ			924 Dec 06 j 15:09	0° \approx	
	922 May 28 j 23:55	0° $\overline{\Omega}$			925 Jan 01 j 01:23	0° \times	
	922 Jun 24 j 02:23	0° Π		asc. node	925 Jan 17 j 04:28	18° \times 11'01	
	922 Jul 19 j 11:11	0° $\overline{\Omega}$			925 Jan 28 j 05:19	0° Υ	
asc. node	922 Aug 02 j 09:30	16° $\overline{\Omega}$ 46'19		evening max el	925 Feb 03 j 00:47	5° Υ 56'37	46°30'17
	922 Aug 13 j 06:39	0° Ω			925 Mar 03 j 02:04	0° \times	
	922 Sep 06 j 15:38	0° \cap		greatest brilliancy	925 Mar 10 j 10:36	4° \times 13'34	-4.6m
	922 Sep 30 j 17:18	0° $\underline{\Omega}$		retrograde	925 Mar 24 j 23:19	7° \times 59'33	
greatest brilliancy	922 Oct 05 j 00:01	5° $\underline{\Omega}$ 21'39	-3.9m	evening set	925 Apr 10 j 05:32	2° \times 50'25	
morning set	922 Oct 08 j 20:09	10° $\underline{\Omega}$ 10'23			925 Apr 14 j 20:21	30° \times Υ	
	922 Oct 24 j 14:55	0° \cap		inferior conj	925 Apr 15 j 07:08	29° Υ 42'57	5°10'04
	922 Nov 17 j 11:03	0° \times		minimum elong	925 Apr 15 j 16:20	29° Υ 28'23	5°07'54
				min. Earth dist.	925 Apr 15 j 08:42	29° Υ 40'27	0.28773 AU
superior conj	922 Nov 17 j 19:48	0° \times 27'34	0°09'52	morning rise	925 Apr 21 j 03:29	26° Υ 09'31	
minimum elong	922 Nov 17 j 22:24	0° \times 35'45	0°09'44	direct	925 May 06 j 18:08	21° Υ 28'18	
behind sun begin	922 Nov 17 j 01:01	29° \cap 28'26		desc. node	925 May 08 j 17:49	21° Υ 32'51	
behind sun end	922 Nov 18 j 19:47	1° \times 43'03		greatest brilliancy	925 May 19 j 07:09	24° Υ 15'48	-4.5m
max. Earth dist.	922 Nov 18 j 02:52	0° \times 49'48	1.71062 AU		925 May 29 j 19:37	0° \times	
desc. node	922 Nov 21 j 23:00	5° \times 39'49		morning max el	925 Jun 24 j 11:58	21° \times 13'38	45°44'04
	922 Dec 11 j 07:14	0° $\overline{\Omega}$			925 Jul 03 j 10:25	0° Π	
evening rise	922 Dec 29 j 12:05	22° $\overline{\Omega}$ 52'00			925 Jul 31 j 11:47	0° $\overline{\Omega}$	
	923 Jan 04 j 04:36	0° \approx			925 Aug 26 j 13:54	0° Ω	
	923 Jan 28 j 04:36	0° \times		asc. node	925 Aug 29 j 21:26	3° Ω 54'47	
	923 Feb 21 j 09:22	0° Υ			925 Sep 20 j 14:41	0° \cap	
asc. node	923 Mar 15 j 02:24	26° Υ 35'39			925 Oct 15 j 00:15	0° $\underline{\Omega}$	
	923 Mar 17 j 21:39	0° \times			925 Nov 08 j 01:24	0° \cap	
	923 Apr 11 j 20:50	0° Π			925 Dec 01 j 22:55	0° \times	
	923 May 07 j 12:20	0° $\overline{\Omega}$		desc. node	925 Dec 19 j 10:43	21° \times 59'16	
	923 Jun 03 j 08:23	0° Ω		morning set	925 Dec 23 j 15:29	27° \times 15'51	
evening max el	923 Jun 28 j 05:18	25° Ω 29'25	45°34'03		925 Dec 25 j 19:44	0° $\overline{\Omega}$	
	923 Jul 03 j 00:56	0° \cap			926 Jan 18 j 17:27	0° \approx	
desc. node	923 Jul 04 j 15:36	1° \cap 27'53					
greatest brilliancy	923 Aug 04 j 17:12	22° \cap 57'27	-4.5m	superior conj	926 Feb 03 j 06:22	19° \approx 26'56	-1°-22'-1
retrograde	923 Aug 16 j 00:09	25° \cap 12'51		minimum elong	926 Feb 02 j 23:50	19° \approx 06'29	1°21'56
evening set	923 Sep 02 j 23:10	19° \cap 12'48		max. Earth dist.	926 Feb 07 j 10:02	24° \approx 38'13	1.71787 AU
inferior conj	923 Sep 06 j 01:21	17° \cap 20'11	-8°-40'-41		926 Feb 11 j 17:07	0° \times	
minimum elong	923 Sep 06 j 04:43	17° \cap 14'59	8°40'33		926 Mar 07 j 19:47	0° Υ	
min. Earth dist.	923 Sep 06 j 19:14	16° \cap 52'42	0.27956 AU	evening rise	926 Mar 15 j 03:16	9° Υ 03'29	
morning rise	923 Sep 09 j 10:06	15° \cap 17'31			926 Apr 01 j 02:31	0° \times	
direct	923 Sep 27 j 06:18	9° \cap 17'34		asc. node	926 Apr 11 j 14:17	12° \times 53'05	
greatest brilliancy	923 Oct 11 j 11:53	12° \cap 58'24	-4.6m		926 Apr 25 j 14:08	0° Π	
asc. node	923 Oct 25 j 18:59	22° \cap 12'23			926 May 20 j 07:24	0° $\overline{\Omega}$	
	923 Nov 03 j 23:58	0° $\underline{\Omega}$			926 Jun 14 j 07:52	0° Ω	
morning max el	923 Nov 16 j 22:43	12° $\underline{\Omega}$ 30'54	46°50'43		926 Jul 09 j 19:08	0° \cap	
	923 Dec 03 j 07:58	0° \cap		desc. node	926 Aug 01 j 03:26	25° \cap 37'28	
	923 Dec 29 j 11:30	0° \times			926 Aug 05 j 01:01	0° $\underline{\Omega}$	
	924 Jan 23 j 14:47	0° $\overline{\Omega}$			926 Sep 01 j 21:51	0° \cap	
desc. node	924 Feb 14 j 08:28	26° $\overline{\Omega}$ 20'04		evening max el	926 Sep 09 j 08:28	7° \cap 27'17	46°41'43
	924 Feb 17 j 08:48	0° \approx			926 Oct 05 j 15:35	0° \times	
	924 Mar 12 j 23:18	0° \times		greatest brilliancy	926 Oct 18 j 11:05	7° \times 02'08	-4.6m
	924 Apr 06 j 12:41	0° Υ		retrograde	926 Oct 29 j 08:24	9° \times 14'14	
	924 May 01 j 01:45	0° \times		evening set	926 Nov 12 j 19:48	5° \times 07'49	
morning set	924 May 20 j 11:33	23° \times 44'42		inferior conj	926 Nov 18 j 21:37	1° \times 35'32	0°-52'-44
	924 May 25 j 14:09	0° Π		minimum elong	926 Nov 18 j 23:38	1° \times 32'28	0°52'06
asc. node	924 Jun 06 j 11:50	14° Π 35'36		min. Earth dist.	926 Nov 18 j 23:32	1° \times 32'37	0.26391 AU
	924 Jun 19 j 00:56	0° $\overline{\Omega}$			926 Nov 21 j 12:50	30° \times \cap	
max. Earth dist.	924 Jun 23 j 16:02	5° $\overline{\Omega}$ 41'32	1.73490 AU	asc. node	926 Nov 22 j 06:43	29° \cap 33'36	

morning rise	926 Nov 25 j 03:12	27° \mathbb{M} 57'45		evening rise	929 May 23 j 19:04	16° \mathbb{I} 40'41	
direct	926 Dec 09 j 05:54	23° \mathbb{M} 58'49			929 Jun 03 j 15:51	0° \mathfrak{S}	
greatest brilliancy	926 Dec 21 j 10:18	26° \mathbb{M} 44'31	-4.7m		929 Jun 28 j 03:57	0° \mathcal{O}	
	926 Dec 27 j 17:57	0° \mathfrak{X}			929 Jul 22 j 18:00	0° \mathfrak{M}	
morning max el	927 Jan 28 j 15:22	26° \mathfrak{X} 50'19	46°47'59		929 Aug 16 j 11:38	0° \mathfrak{L}	
	927 Jan 31 j 18:11	0° \mathfrak{Z}		desc. node	929 Aug 28 j 15:28	14° \mathfrak{L} 38'45	
	927 Feb 28 j 11:36	0° \approx			929 Sep 10 j 11:14	0° \mathbb{M}	
desc. node	927 Mar 13 j 20:26	15° \approx 13'31			929 Oct 05 j 20:45	0° \mathfrak{X}	
	927 Mar 26 j 14:27	0° \mathfrak{H}			929 Nov 01 j 02:38	0° \mathfrak{Z}	
	927 Apr 21 j 01:51	0° \mathfrak{Y}		evening max el	929 Nov 21 j 01:23	21° \mathfrak{Z} 22'06	47°21'52
	927 May 16 j 05:15	0° \mathfrak{B}			929 Nov 29 j 19:03	0° \approx	
	927 Jun 10 j 03:00	0° \mathbb{I}		asc. node	929 Dec 19 j 18:46	16° \approx 42'01	
asc. node	927 Jul 04 j 23:43	0° \mathfrak{S} 13'55		greatest brilliancy	929 Dec 28 j 23:56	22° \approx 01'15	-4.7m
	927 Jul 04 j 19:09	0° \mathfrak{S}		retrograde	930 Jan 11 j 02:41	25° \approx 14'37	
morning set	927 Jul 28 j 01:31	28° \mathfrak{S} 33'52		evening set	930 Jan 28 j 04:43	19° \approx 28'48	
	927 Jul 29 j 05:27	0° \mathcal{O}		min. Earth dist.	930 Jan 31 j 01:29	17° \approx 43'08	0.27491 AU
	927 Aug 22 j 10:24	0° \mathfrak{M}		inferior conj	930 Jan 31 j 22:57	17° \approx 09'35	8°20'07
max. Earth dist.	927 Aug 30 j 07:14	9° \mathfrak{M} 47'58	1.72223 AU	minimum elong	930 Jan 31 j 16:42	17° \approx 19'21	8°19'30
				morning rise	930 Feb 04 j 05:00	15° \approx 09'20	
superior conj	927 Sep 02 j 20:24	14° \mathfrak{M} 13'30	1°24'10	direct	930 Feb 21 j 14:53	9° \approx 17'19	
minimum elong	927 Sep 02 j 22:37	14° \mathfrak{M} 20'25	1°24'10	greatest brilliancy	930 Mar 04 j 06:28	11° \approx 23'38	-4.6m
	927 Sep 15 j 11:35	0° \mathfrak{L}			930 Mar 31 j 22:56	0° \mathfrak{H}	
	927 Oct 09 j 10:58	0° \mathbb{M}		desc. node	930 Apr 10 j 08:06	8° \mathfrak{H} 38'01	
evening rise	927 Oct 11 j 08:11	2° \mathbb{M} 21'32		morning max el	930 Apr 12 j 00:06	10° \mathfrak{H} 14'16	46°06'09
desc. node	927 Oct 24 j 13:13	18° \mathbb{M} 53'52			930 May 01 j 08:27	0° \mathfrak{Y}	
	927 Nov 02 j 10:02	0° \mathfrak{X}			930 May 28 j 13:53	0° \mathfrak{B}	
	927 Nov 26 j 09:48	0° \mathfrak{Z}			930 Jun 23 j 14:47	0° \mathbb{I}	
	927 Dec 20 j 11:40	0° \approx			930 Jul 18 j 22:45	0° \mathfrak{S}	
	928 Jan 13 j 18:28	0° \mathfrak{H}		asc. node	930 Aug 01 j 11:38	16° \mathfrak{S} 18'34	
	928 Feb 07 j 11:27	0° \mathfrak{Y}			930 Aug 12 j 17:47	0° \mathcal{O}	
asc. node	928 Feb 14 j 16:28	8° \mathfrak{Y} 35'53			930 Sep 06 j 02:33	0° \mathfrak{M}	
	928 Mar 03 j 23:43	0° \mathfrak{B}			930 Sep 30 j 04:08	0° \mathfrak{L}	
	928 Mar 31 j 02:23	0° \mathbb{I}		morning set	930 Oct 06 j 09:48	7° \mathfrak{L} 48'49	
evening max el	928 Apr 14 j 17:48	14° \mathbb{I} 49'48	45°28'32		930 Oct 24 j 01:46	0° \mathbb{M}	
	928 May 01 j 19:46	0° \mathfrak{S}					
greatest brilliancy	928 May 19 j 03:19	11° \mathfrak{S} 11'25	-4.5m	superior conj	930 Nov 15 j 05:59	27° \mathbb{M} 54'19	0°13'47
retrograde	928 Jun 02 j 09:43	14° \mathfrak{S} 44'43		minimum elong	930 Nov 15 j 09:35	28° \mathbb{M} 05'37	0°13'37
desc. node	928 Jun 05 j 05:45	14° \mathfrak{S} 35'13		behind sun begin	930 Nov 14 j 18:55	27° \mathbb{M} 19'28	
evening set	928 Jun 17 j 16:51	10° \mathfrak{S} 15'32		behind sun end	930 Nov 16 j 00:15	28° \mathbb{M} 51'47	
inferior conj	928 Jun 23 j 21:29	6° \mathfrak{S} 33'50	-4°-11'-45	max. Earth dist.	930 Nov 15 j 09:46	28° \mathbb{M} 06'13	1.71072 AU
minimum elong	928 Jun 23 j 13:12	6° \mathfrak{S} 46'44	4°09'38		930 Nov 16 j 21:55	0° \mathfrak{X}	
min. Earth dist.	928 Jun 23 j 22:15	6° \mathfrak{S} 32'39	0.28961 AU	desc. node	930 Nov 21 j 00:58	5° \mathfrak{X} 11'42	
morning rise	928 Jun 29 j 09:18	3° \mathfrak{S} 14'29			930 Dec 10 j 18:10	0° \mathfrak{Z}	
	928 Jul 06 j 04:23	30° \mathfrak{R} \mathbb{I}		evening rise	930 Dec 26 j 21:52	20° \mathfrak{Z} 17'42	
direct	928 Jul 15 j 12:44	28° \mathbb{I} 16'05			931 Jan 03 j 15:34	0° \approx	
	928 Jul 25 j 07:53	0° \mathfrak{S}			931 Jan 27 j 15:38	0° \mathfrak{H}	
greatest brilliancy	928 Jul 29 j 18:34	1° \mathfrak{S} 47'15	-4.5m		931 Feb 20 j 20:33	0° \mathfrak{Y}	
morning max el	928 Sep 02 j 21:15	28° \mathfrak{S} 53'24	46°09'03	asc. node	931 Mar 14 j 04:26	26° \mathfrak{Y} 07'12	
	928 Sep 04 j 00:25	0° \mathcal{O}			931 Mar 17 j 09:07	0° \mathfrak{B}	
asc. node	928 Sep 26 j 09:20	23° \mathcal{O} 32'46			931 Apr 11 j 08:54	0° \mathbb{I}	
	928 Oct 02 j 03:54	0° \mathfrak{M}			931 May 07 j 01:42	0° \mathfrak{S}	
	928 Oct 27 j 21:43	0° \mathfrak{L}			931 Jun 03 j 00:41	0° \mathcal{O}	
	928 Nov 21 j 15:16	0° \mathbb{M}		evening max el	931 Jun 25 j 20:11	23° \mathcal{O} 16'08	45°32'21
	928 Dec 15 j 22:12	0° \mathfrak{X}			931 Jul 03 j 02:43	0° \mathfrak{M}	
	929 Jan 09 j 01:14	0° \mathfrak{Z}		desc. node	931 Jul 03 j 17:43	0° \mathfrak{M} 33'26	
desc. node	929 Jan 15 j 22:40	8° \mathfrak{Z} 35'01		greatest brilliancy	931 Aug 02 j 05:46	20° \mathfrak{M} 40'09	-4.5m
	929 Feb 02 j 03:38	0° \approx		retrograde	931 Aug 13 j 13:26	22° \mathfrak{M} 56'07	
	929 Feb 26 j 06:59	0° \mathfrak{H}		evening set	931 Aug 31 j 13:43	16° \mathfrak{M} 55'24	
morning set	929 Mar 09 j 15:58	14° \mathfrak{H} 06'15		inferior conj	931 Sep 03 j 15:39	15° \mathfrak{M} 02'54	-8°-43'-8
	929 Mar 22 j 12:09	0° \mathfrak{Y}		minimum elong	931 Sep 03 j 18:10	14° \mathfrak{M} 59'02	8°43'04
	929 Apr 15 j 19:33	0° \mathfrak{B}		min. Earth dist.	931 Sep 04 j 09:00	14° \mathfrak{M} 36'11	0.28017 AU
				morning rise	931 Sep 06 j 22:25	13° \mathfrak{M} 02'51	
superior conj	929 Apr 16 j 19:05	1° \mathfrak{B} 12'26	0°-49'-39	direct	931 Sep 24 j 21:18	6° \mathfrak{M} 59'32	
minimum elong	929 Apr 17 j 04:04	1° \mathfrak{B} 40'08	0°49'19	greatest brilliancy	931 Oct 09 j 02:29	10° \mathfrak{M} 39'07	-4.6m
max. Earth dist.	929 Apr 18 j 15:30	3° \mathfrak{B} 29'13	1.73281 AU	asc. node	931 Oct 24 j 20:55	21° \mathfrak{M} 02'25	
asc. node	929 May 09 j 02:04	28° \mathfrak{B} 37'21			931 Nov 04 j 03:55	0° \mathfrak{L}	
	929 May 10 j 04:59	0° \mathbb{I}		morning max el	931 Nov 14 j 12:13	10° \mathfrak{L} 06'50	46°49'42

	931 Dec 03 j 01:32	0°♌			934 Jul 09 j 08:25	0°♍		
	931 Dec 29 j 01:58	0°♊		desc. node	934 Jul 31 j 05:33	25°♍01'01		
	932 Jan 23 j 03:47	0°♊			934 Aug 04 j 16:36	0°♌		
desc. node	932 Feb 13 j 10:33	25°♊49'11			934 Sep 01 j 19:05	0°♌		
	932 Feb 16 j 20:56	0°♌		evening max el	934 Sep 06 j 20:40	5°♌01'56	46°39'06	
	932 Mar 12 j 10:50	0°♋			934 Oct 06 j 22:47	0°♊		
	932 Apr 05 j 23:48	0°♍		greatest brilliancy	934 Oct 16 j 00:14	4°♊34'16	-4.6m	
	932 Apr 30 j 12:33	0°♌		retrograde	934 Oct 26 j 20:09	6°♊45'18		
morning set	932 May 18 j 05:55	21°♌41'27		evening set	934 Nov 10 j 09:12	2°♊36'36		
	932 May 25 j 00:45	0°♌			934 Nov 14 j 22:26	30°♌		
asc. node	932 Jun 05 j 13:57	14°♌09'43		inferior conj	934 Nov 16 j 09:40	29°♌06'38	-1°-17'-16	
	932 Jun 18 j 11:27	0°♌		minimum elong	934 Nov 16 j 12:37	29°♌02'09	1°16'20	
max. Earth dist.	932 Jun 21 j 12:07	3°♌43'22	1.73512 AU	min. Earth dist.	934 Nov 16 j 13:23	29°♌00'59	0.26413 AU	
				asc. node	934 Nov 21 j 08:54	26°♌10'22		
superior conj	932 Jun 23 j 15:54	6°♌22'36	0°41'09	morning rise	934 Nov 22 j 15:41	25°♌28'29		
minimum elong	932 Jun 23 j 08:35	6°♌00'04	0°40'49	direct	934 Dec 06 j 18:04	21°♌29'05		
	932 Jul 12 j 19:59	0°♌		greatest brilliancy	934 Dec 19 j 02:12	24°♌19'05	-4.7m	
evening rise	932 Jul 29 j 10:39	20°♌31'06			934 Dec 29 j 04:06	0°♊		
	932 Aug 06 j 02:37	0°♍		morning max el	935 Jan 26 j 05:03	24°♊25'39	46°49'09	
	932 Aug 30 j 08:25	0°♌			935 Jan 31 j 15:55	0°♊		
	932 Sep 23 j 14:44	0°♌			935 Feb 28 j 03:39	0°♌		
desc. node	932 Sep 25 j 03:21	1°♌53'00		desc. node	935 Mar 12 j 22:27	14°♌37'03		
	932 Oct 17 j 22:42	0°♊			935 Mar 26 j 04:10	0°♋		
	932 Nov 11 j 09:57	0°♊			935 Apr 20 j 14:18	0°♍		
	932 Dec 06 j 04:33	0°♌			935 May 15 j 16:57	0°♌		
	932 Dec 31 j 16:39	0°♋			935 Jun 09 j 14:13	0°♌		
asc. node	933 Jan 16 j 06:37	17°♋29'19		asc. node	935 Jul 04 j 01:51	29°♌46'59		
	933 Jan 28 j 01:21	0°♍			935 Jul 04 j 06:06	0°♌		
evening max el	933 Jan 31 j 15:10	3°♍38'10	46°32'48	morning set	935 Jul 25 j 19:11	26°♌26'59		
	933 Mar 04 j 07:32	0°♌			935 Jul 28 j 16:15	0°♌		
greatest brilliancy	933 Mar 08 j 04:41	2°♌04'25	-4.6m		935 Aug 21 j 21:11	0°♍		
retrograde	933 Mar 22 j 15:20	5°♌48'50		max. Earth dist.	935 Aug 28 j 01:24	7°♍41'22	1.72275 AU	
evening set	933 Apr 08 j 00:31	0°♌36'04						
	933 Apr 09 j 00:49	30°♌		superior conj	935 Aug 31 j 12:53	12°♍01'31	1°24'29	
inferior conj	933 Apr 12 j 23:27	27°♍32'29	5°26'02	minimum elong	935 Aug 31 j 14:22	12°♍06'06	1°24'29	
minimum elong	933 Apr 13 j 08:50	27°♍17'37	5°23'54		935 Sep 14 j 22:27	0°♌		
min. Earth dist.	933 Apr 13 j 01:06	27°♍29'51	0.28749 AU	evening rise	935 Oct 08 j 21:17	29°♌57'46		
morning rise	933 Apr 18 j 17:26	24°♍02'00			935 Oct 08 j 21:59	0°♌		
direct	933 May 04 j 09:30	19°♍18'14		desc. node	935 Oct 23 j 15:16	18°♌25'20		
desc. node	933 May 07 j 19:49	19°♍31'37			935 Nov 01 j 21:17	0°♊		
greatest brilliancy	933 May 16 j 21:10	22°♍03'44	-4.5m		935 Nov 25 j 21:18	0°♊		
	933 May 30 j 15:34	0°♌			935 Dec 19 j 23:25	0°♌		
morning max el	933 Jun 22 j 02:54	19°♌01'52	45°44'06		936 Jan 13 j 06:37	0°♋		
	933 Jul 03 j 05:21	0°♌			936 Feb 07 j 00:21	0°♍		
	933 Jul 31 j 02:13	0°♌		asc. node	936 Feb 13 j 18:30	8°♍02'48		
	933 Aug 26 j 02:35	0°♌			936 Mar 03 j 14:07	0°♌		
asc. node	933 Aug 28 j 23:30	3°♌23'46			936 Mar 30 j 20:31	0°♌		
	933 Sep 20 j 02:35	0°♍		evening max el	936 Apr 12 j 10:08	12°♌39'56	45°29'55	
	933 Oct 14 j 11:45	0°♌			936 May 02 j 06:56	0°♌		
	933 Nov 07 j 12:41	0°♌		greatest brilliancy	936 May 16 j 17:38	9°♌00'13	-4.5m	
	933 Dec 01 j 10:05	0°♊		retrograde	936 May 31 j 02:32	12°♌35'54		
desc. node	933 Dec 18 j 12:53	21°♊31'09		desc. node	936 Jun 04 j 07:56	12°♌14'41		
morning set	933 Dec 21 j 00:58	24°♊39'59		evening set	936 Jun 15 j 07:46	8°♌08'19		
	933 Dec 25 j 06:49	0°♊		inferior conj	936 Jun 21 j 13:46	4°♌24'28	-3°-54'-14	
	934 Jan 18 j 04:27	0°♌		minimum elong	936 Jun 21 j 05:55	4°♌36'41	3°52'11	
				min. Earth dist.	936 Jun 21 j 14:05	4°♌23'59	0.28966 AU	
superior conj	934 Jan 31 j 17:32	16°♌57'38	-1°-20'-49	morning rise	936 Jun 27 j 03:55	1°♌02'03		
minimum elong	934 Jan 31 j 10:07	16°♌34'26	1°20'42		936 Jun 29 j 01:34	30°♌		
max. Earth dist.	934 Feb 04 j 18:29	22°♌00'36	1.71732 AU	direct	936 Jul 13 j 05:33	26°♌06'40		
	934 Feb 11 j 04:03	0°♋		greatest brilliancy	936 Jul 27 j 10:17	29°♌37'16	-4.5m	
	934 Mar 07 j 06:41	0°♍			936 Jul 28 j 05:33	0°♌		
evening rise	934 Mar 12 j 16:46	6°♍42'59		morning max el	936 Aug 31 j 13:49	26°♌42'58	46°07'43	
	934 Mar 31 j 13:27	0°♌			936 Sep 03 j 21:38	0°♌		
asc. node	934 Apr 10 j 16:17	12°♌25'28		asc. node	936 Sep 25 j 11:15	22°♌53'05		
	934 Apr 25 j 01:14	0°♌			936 Oct 01 j 19:21	0°♍		
	934 May 19 j 18:51	0°♌			936 Oct 27 j 11:09	0°♌		
	934 Jun 13 j 19:58	0°♌			936 Nov 21 j 03:47	0°♌		

	936 Dec 15 j 10:13	0°♊		greatest brilliancy	939 Jul 30 j 18:27	18°♎21'46	-4.5m
	937 Jan 08 j 12:56	0°♋		retrograde	939 Aug 11 j 02:32	20°♎38'35	
desc. node	937 Jan 15 j 00:45	8°♋05'17		evening set	939 Aug 29 j 03:57	14°♎37'31	
	937 Feb 01 j 15:05	0°♌		inferior conj	939 Sep 01 j 06:01	12°♎44'46	-8°-44'-51
	937 Feb 25 j 18:13	0°♍		minimum elong	939 Sep 01 j 07:39	12°♎42'14	8°44'49
morning set	937 Mar 07 j 05:34	11°♍45'03		min. Earth dist.	939 Sep 01 j 23:02	12°♎18'30	0.28074 AU
	937 Mar 21 j 23:13	0°♎		morning rise	939 Sep 04 j 11:08	10°♎46'56	
				direct	939 Sep 22 j 11:51	4°♎40'26	
superior conj	937 Apr 14 j 11:12	29°♎00'29	0°-52'-21	greatest brilliancy	939 Oct 06 j 18:08	8°♎20'13	-4.6m
minimum elong	937 Apr 14 j 20:29	29°♎29'04	0°52'00	asc. node	939 Oct 23 j 23:06	19°♎53'45	
	937 Apr 15 j 06:31	0°♏			939 Nov 04 j 06:41	0°♏	
max. Earth dist.	937 Apr 16 j 12:17	1°♏31'43	1.73244 AU	morning max el	939 Nov 12 j 01:19	7°♏40'47	46°48'51
asc. node	937 May 08 j 04:11	28°♏10'17			939 Dec 02 j 19:03	0°♐	
	937 May 09 j 15:55	0°♑			939 Dec 28 j 16:33	0°♊	
evening rise	937 May 21 j 13:23	14°♑36'04			940 Jan 22 j 16:56	0°♋	
	937 Jun 03 j 02:52	0°♌		desc. node	940 Feb 12 j 12:34	25°♋17'27	
	937 Jun 27 j 15:12	0°♍			940 Feb 16 j 09:16	0°♌	
	937 Jul 22 j 05:38	0°♎			940 Mar 11 j 22:39	0°♍	
	937 Aug 15 j 23:53	0°♏			940 Apr 05 j 11:14	0°♎	
desc. node	937 Aug 27 j 17:27	14°♏06'50			940 Apr 29 j 23:44	0°♏	
	937 Sep 10 j 00:25	0°♐		morning set	940 May 15 j 23:52	19°♏35'41	
	937 Oct 05 j 11:28	0°♊			940 May 24 j 11:45	0°♑	
	937 Oct 31 j 20:26	0°♋		asc. node	940 Jun 04 j 16:06	13°♑42'37	
evening max el	937 Nov 18 j 17:14	19°♋02'38	47°21'55		940 Jun 17 j 22:23	0°♌	
	937 Nov 29 j 22:27	0°♌		max. Earth dist.	940 Jun 19 j 07:16	1°♌41'02	1.73533 AU
asc. node	937 Dec 18 j 20:51	15°♌17'38					
greatest brilliancy	937 Dec 26 j 15:36	19°♌38'53	-4.7m	superior conj	940 Jun 21 j 10:22	4°♌18'09	0°38'23
retrograde	938 Jan 08 j 17:27	22°♌50'32		minimum elong	940 Jun 21 j 03:24	3°♌56'43	0°38'04
evening set	938 Jan 25 j 15:24	17°♌10'28			940 Jul 12 j 06:58	0°♍	
min. Earth dist.	938 Jan 28 j 14:37	15°♌21'07	0.27430 AU	evening rise	940 Jul 27 j 04:43	18°♍24'25	
inferior conj	938 Jan 29 j 12:52	14°♌46'20	8°12'57		940 Aug 05 j 13:45	0°♎	
minimum elong	938 Jan 29 j 05:58	14°♌57'08	8°12'11		940 Aug 29 j 19:49	0°♏	
morning rise	938 Feb 01 j 20:53	12°♌43'15			940 Sep 23 j 02:28	0°♐	
direct	938 Feb 19 j 04:53	6°♌55'19		desc. node	940 Sep 24 j 05:24	1°♐23'04	
greatest brilliancy	938 Mar 01 j 18:18	9°♌00'01	-4.6m		940 Oct 17 j 10:53	0°♊	
	938 Apr 01 j 03:31	0°♍			940 Nov 10 j 22:46	0°♋	
desc. node	938 Apr 09 j 10:08	7°♍45'54			940 Dec 05 j 18:21	0°♌	
morning max el	938 Apr 09 j 14:34	7°♍56'37	46°07'26		940 Dec 31 j 08:21	0°♍	
	938 May 01 j 02:06	0°♎		asc. node	941 Jan 15 j 08:39	16°♍46'11	
	938 May 28 j 04:12	0°♏			941 Jan 27 j 22:16	0°♎	
	938 Jun 23 j 03:33	0°♑		evening max el	941 Jan 29 j 05:00	1°♎17'39	46°35'22
	938 Jul 18 j 10:40	0°♌		greatest brilliancy	941 Mar 05 j 21:25	29°♎52'49	-4.6m
asc. node	938 Jul 31 j 13:36	15°♌49'15			941 Mar 06 j 03:23	0°♏	
	938 Aug 12 j 05:15	0°♍		retrograde	941 Mar 20 j 07:24	3°♏37'32	
	938 Sep 05 j 13:48	0°♎			941 Apr 02 j 19:30	30°♎♎	
	938 Sep 29 j 15:18	0°♏		evening set	941 Apr 05 j 19:31	28°♎20'38	
morning set	938 Oct 03 j 23:52	5°♏27'31		inferior conj	941 Apr 10 j 15:46	25°♎21'11	5°41'30
	938 Oct 23 j 12:55	0°♐		minimum elong	941 Apr 11 j 01:18	25°♎06'05	5°39'23
				min. Earth dist.	941 Apr 10 j 17:27	25°♎18'32	0.28731 AU
superior conj	938 Nov 12 j 16:52	25°♐22'25	0°17'37	morning rise	941 Apr 16 j 07:19	21°♎54'00	
minimum elong	938 Nov 12 j 21:24	25°♐36'41	0°17'24	direct	941 May 02 j 00:47	17°♎07'03	
max. Earth dist.	938 Nov 12 j 14:45	25°♐15'45	1.71081 AU	desc. node	941 May 06 j 22:02	17°♎33'57	
	938 Nov 16 j 09:05	0°♊		greatest brilliancy	941 May 14 j 12:23	19°♎52'05	-4.5m
desc. node	938 Nov 20 j 03:11	4°♊43'29			941 May 31 j 06:55	0°♏	
	938 Dec 10 j 05:21	0°♋		morning max el	941 Jun 19 j 18:22	16°♏50'10	45°44'05
evening rise	938 Dec 24 j 08:04	17°♋43'47			941 Jul 03 j 00:15	0°♑	
	939 Jan 03 j 02:50	0°♌			941 Jul 30 j 16:55	0°♌	
	939 Jan 27 j 03:01	0°♍			941 Aug 25 j 15:34	0°♍	
	939 Feb 20 j 08:07	0°♎		asc. node	941 Aug 28 j 01:33	2°♏51'41	
asc. node	939 Mar 13 j 06:25	25°♎37'09			941 Sep 19 j 14:44	0°♎	
	939 Mar 16 j 21:03	0°♏			941 Oct 13 j 23:28	0°♏	
	939 Apr 10 j 21:33	0°♑			941 Nov 07 j 00:11	0°♐	
	939 May 06 j 15:45	0°♌			941 Nov 30 j 21:27	0°♊	
	939 Jun 02 j 17:55	0°♍		desc. node	941 Dec 17 j 14:55	21°♊01'59	
evening max el	939 Jun 23 j 10:05	20°♍59'04	45°30'53	morning set	941 Dec 18 j 10:31	22°♊03'36	
desc. node	939 Jul 02 j 19:47	29°♍36'14			941 Dec 24 j 18:06	0°♋	
	939 Jul 03 j 06:42	0°♎			942 Jan 17 j 15:39	0°♌	

superior conj	942 Jan 29 j 04:44	14° \approx 27'44	-1°-19'-26			944 Jun 22 j 22:29	30° \mathbb{R} II	
minimum elong	942 Jan 28 j 20:29	14° \approx 01'56	1°19'18	morning rise		944 Jun 24 j 22:30	28°II50'16	
max. Earth dist.	942 Feb 02 j 01:27	19° \approx 17'39	1.71678 AU	direct		944 Jul 10 j 22:37	23°II58'07	
	942 Feb 10 j 15:09	0° \mathbb{X}		greatest brilliancy		944 Jul 25 j 01:02	27°II26'31	-4.5m
	942 Mar 06 j 17:44	0° \mathbb{Y}				944 Jul 29 j 23:07	0° \mathbb{S}	
evening rise	942 Mar 10 j 06:24	4° \mathbb{Y} 22'22		morning max el		944 Aug 29 j 05:45	24° \mathbb{S} 31'12	46°06'07
	942 Mar 31 j 00:33	0° \mathbb{B}				944 Sep 03 j 18:07	0° \mathbb{Q}	
asc. node	942 Apr 09 j 18:27	11° \mathbb{B} 57'58		asc. node		944 Sep 24 j 13:27	22° \mathbb{Q} 14'25	
	942 Apr 24 j 12:31	0° \mathbb{H}				944 Oct 01 j 10:38	0° \mathbb{M}	
	942 May 19 j 06:33	0° \mathbb{S}				944 Oct 27 j 00:32	0° \mathbb{L}	
	942 Jun 13 j 08:23	0° \mathbb{Q}				944 Nov 20 j 16:16	0° \mathbb{M}	
	942 Jul 08 j 22:05	0° \mathbb{M}				944 Dec 14 j 22:10	0° \mathbb{X}	
desc. node	942 Jul 30 j 07:32	24° \mathbb{M} 22'58				945 Jan 08 j 00:30	0° \mathbb{Z}	
	942 Aug 04 j 08:44	0° \mathbb{L}		desc. node		945 Jan 14 j 02:45	7° \mathbb{Z} 35'43	
	942 Sep 01 j 17:27	0° \mathbb{M}				945 Feb 01 j 02:22	0° \approx	
evening max el	942 Sep 04 j 09:36	2° \mathbb{M} 37'55	46°36'39			945 Feb 25 j 05:17	0° \mathbb{X}	
	942 Oct 08 j 20:44	0° \mathbb{X}		morning set		945 Mar 04 j 19:08	9° \mathbb{X} 24'09	
greatest brilliancy	942 Oct 13 j 12:30	2° \mathbb{X} 05'09	-4.6m			945 Mar 21 j 10:08	0° \mathbb{Y}	
retrograde	942 Oct 24 j 08:25	4° \mathbb{X} 16'03						
evening set	942 Nov 07 j 22:49	0° \mathbb{X} 04'50		superior conj		945 Apr 12 j 03:25	26° \mathbb{Y} 49'13	0°-54'-58
	942 Nov 08 j 02:26	30° \mathbb{R} \mathbb{M}		minimum elong		945 Apr 12 j 12:55	27° \mathbb{Y} 18'28	0°54'37
inferior conj	942 Nov 13 j 21:42	26° \mathbb{M} 37'14	-1°-41'-40	max. Earth dist.		945 Apr 14 j 09:57	29° \mathbb{Y} 37'15	1.73203 AU
minimum elong	942 Nov 14 j 01:33	26° \mathbb{M} 31'23	1°40'26			945 Apr 14 j 17:20	0° \mathbb{B}	
min. Earth dist.	942 Nov 14 j 02:48	26° \mathbb{M} 29'29	0.26435 AU	asc. node		945 May 07 j 06:20	27° \mathbb{B} 43'47	
morning rise	942 Nov 20 j 03:56	22° \mathbb{M} 59'13				945 May 09 j 02:41	0° \mathbb{H}	
asc. node	942 Nov 20 j 11:00	22° \mathbb{M} 49'56		evening rise		945 May 19 j 07:49	12° \mathbb{H} 32'19	
direct	942 Dec 04 j 06:49	18° \mathbb{M} 59'06				945 Jun 02 j 13:43	0° \mathbb{S}	
greatest brilliancy	942 Dec 16 j 17:22	21° \mathbb{M} 52'32	-4.7m			945 Jun 27 j 02:15	0° \mathbb{Q}	
	942 Dec 30 j 04:42	0° \mathbb{X}				945 Jul 21 j 17:07	0° \mathbb{M}	
morning max el	943 Jan 23 j 19:25	22° \mathbb{X} 02'25	46°50'12			945 Aug 15 j 12:03	0° \mathbb{L}	
	943 Jan 31 j 12:58	0° \mathbb{Z}		desc. node		945 Aug 26 j 19:32	13° \mathbb{L} 35'28	
	943 Feb 27 j 19:30	0° \approx				945 Sep 09 j 13:35	0° \mathbb{M}	
desc. node	943 Mar 12 j 00:29	14° \approx 00'45				945 Oct 05 j 02:18	0° \mathbb{X}	
	943 Mar 25 j 17:48	0° \mathbb{X}				945 Oct 31 j 14:38	0° \mathbb{Z}	
	943 Apr 20 j 02:43	0° \mathbb{Y}		evening max el		945 Nov 16 j 08:27	16° \mathbb{Z} 41'27	47°21'55
	943 May 15 j 04:39	0° \mathbb{B}				945 Nov 30 j 03:37	0° \approx	
	943 Jun 09 j 01:29	0° \mathbb{H}		asc. node		945 Dec 17 j 22:51	13° \approx 50'16	
asc. node	943 Jul 03 j 03:50	29° \mathbb{H} 19'22		greatest brilliancy		945 Dec 24 j 08:17	17° \approx 17'45	-4.7m
	943 Jul 03 j 17:08	0° \mathbb{S}		retrograde		946 Jan 06 j 07:44	20° \approx 26'14	
morning set	943 Jul 23 j 12:46	24° \mathbb{S} 19'37		evening set		946 Jan 23 j 01:51	14° \approx 52'31	
	943 Jul 28 j 03:10	0° \mathbb{Q}		min. Earth dist.		946 Jan 26 j 04:01	12° \approx 58'42	0.27363 AU
	943 Aug 21 j 08:06	0° \mathbb{M}		inferior conj		946 Jan 27 j 02:41	12° \approx 23'15	8°04'52
max. Earth dist.	943 Aug 25 j 17:35	5° \mathbb{M} 28'12	1.72328 AU	minimum elong		946 Jan 26 j 19:09	12° \approx 35'02	8°03'57
				morning rise		946 Jan 30 j 12:50	10° \approx 16'55	
superior conj	943 Aug 29 j 05:12	9° \mathbb{M} 48'36	1°24'40	direct		946 Feb 16 j 18:20	4° \approx 33'35	
minimum elong	943 Aug 29 j 05:54	9° \mathbb{M} 50'48	1°24'39	greatest brilliancy		946 Feb 27 j 06:30	6° \approx 37'02	-4.6m
	943 Sep 14 j 09:27	0° \mathbb{L}				946 Apr 01 j 06:07	0° \mathbb{X}	
evening rise	943 Oct 06 j 10:06	27° \mathbb{L} 32'52		morning max el		946 Apr 07 j 03:57	5° \mathbb{X} 36'58	46°08'48
	943 Oct 08 j 09:08	0° \mathbb{M}		desc. node		946 Apr 08 j 12:21	6° \mathbb{X} 55'58	
desc. node	943 Oct 22 j 17:25	17° \mathbb{M} 56'56				946 Apr 30 j 19:04	0° \mathbb{Y}	
	943 Nov 01 j 08:36	0° \mathbb{X}				946 May 27 j 18:04	0° \mathbb{B}	
	943 Nov 25 j 08:49	0° \mathbb{Z}				946 Jun 22 j 15:55	0° \mathbb{H}	
	943 Dec 19 j 11:13	0° \approx				946 Jul 17 j 22:14	0° \mathbb{S}	
	944 Jan 12 j 18:50	0° \mathbb{X}		asc. node		946 Jul 30 j 15:43	15° \mathbb{S} 21'21	
	944 Feb 06 j 13:20	0° \mathbb{Y}				946 Aug 11 j 16:22	0° \mathbb{Q}	
asc. node	944 Feb 12 j 20:31	7° \mathbb{Y} 29'33				946 Sep 05 j 00:44	0° \mathbb{M}	
	944 Mar 03 j 04:39	0° \mathbb{B}				946 Sep 29 j 02:12	0° \mathbb{L}	
	944 Mar 30 j 15:02	0° \mathbb{H}		morning set		946 Oct 01 j 14:00	3° \mathbb{L} 07'15	
evening max el	944 Apr 10 j 02:56	10° \mathbb{H} 31'24	45°31'21			946 Oct 22 j 23:51	0° \mathbb{M}	
	944 May 02 j 21:41	0° \mathbb{S}		max. Earth dist.		946 Nov 09 j 16:56	22° \mathbb{M} 17'07	1.71101 AU
greatest brilliancy	944 May 14 j 09:06	6° \mathbb{S} 51'00	-4.5m					
retrograde	944 May 28 j 19:16	10° \mathbb{S} 27'35		superior conj		946 Nov 10 j 03:35	22° \mathbb{M} 50'37	0°21'26
desc. node	944 Jun 03 j 09:56	9° \mathbb{S} 50'07		minimum elong		946 Nov 10 j 09:01	23° \mathbb{M} 07'42	0°21'10
evening set	944 Jun 12 j 23:02	6° \mathbb{S} 01'42				946 Nov 15 j 20:04	0° \mathbb{X}	
inferior conj	944 Jun 19 j 06:09	2° \mathbb{S} 15'48	-3°-36'-24	desc. node		946 Nov 19 j 05:12	4° \mathbb{X} 15'15	
minimum elong	944 Jun 18 j 22:47	2° \mathbb{S} 27'16	3°34'27			946 Dec 09 j 16:23	0° \mathbb{Z}	
min. Earth dist.	944 Jun 19 j 06:02	2° \mathbb{S} 15'57	0.28971 AU	evening rise		946 Dec 21 j 17:42	15° \mathbb{Z} 08'36	

	947 Jan 02 j 13:55	0°≈			949 Jul 30 j 07:02	0°☾		
	947 Jan 26 j 14:11	0°✕			949 Aug 25 j 04:05	0°♈		
	947 Feb 19 j 19:27	0°♊		asc. node	949 Aug 27 j 03:38	2°♈21'02		
asc. node	947 Mar 12 j 08:37	25°♊08'34			949 Sep 19 j 02:27	0°♊		
	947 Mar 16 j 08:44	0°♋			949 Oct 13 j 10:46	0°♌		
	947 Apr 10 j 09:56	0°♍			949 Nov 06 j 11:15	0°♍		
	947 May 06 j 05:34	0°☾			949 Nov 30 j 08:25	0°♎		
	947 Jun 02 j 11:04	0°♏		morning set	949 Dec 15 j 20:29	19°♎29'39		
evening max el	947 Jun 20 j 23:34	18°♏42'21	45°29'37	desc. node	949 Dec 16 j 16:55	20°♎33'55		
desc. node	947 Jul 01 j 21:49	28°♏39'03			949 Dec 24 j 05:00	0°♏		
	947 Jul 03 j 11:53	0°♐			950 Jan 17 j 02:31	0°≈		
greatest brilliancy	947 Jul 28 j 06:39	16°♐04'46	-4.5m					
retrograde	947 Aug 08 j 16:14	18°♐23'35		superior conj	950 Jan 26 j 15:43	11°≈58'00	-1°-17'-53	
evening set	947 Aug 26 j 18:00	12°♐22'32		minimum elong	950 Jan 26 j 06:43	11°≈29'50	1°17'44	
inferior conj	947 Aug 29 j 20:40	10°♐28'57	-8°-45'-30	max. Earth dist.	950 Jan 30 j 08:43	16°≈36'26	1.71634 AU	
minimum elong	947 Aug 29 j 21:27	10°♐27'45	8°45'30		950 Feb 10 j 01:58	0°✕		
min. Earth dist.	947 Aug 30 j 13:19	10°♐03'17	0.28133 AU		950 Mar 06 j 04:32	0°♊		
morning rise	947 Sep 02 j 00:40	8°♐32'45		evening rise	950 Mar 07 j 19:39	2°♊01'12		
direct	947 Sep 20 j 02:32	2°♐23'35			950 Mar 30 j 11:25	0°♋		
greatest brilliancy	947 Oct 04 j 10:49	6°♐04'49	-4.6m	asc. node	950 Apr 08 j 20:29	11°♋30'46		
asc. node	947 Oct 23 j 01:11	18°♐48'17			950 Apr 23 j 23:35	0°♌		
	947 Nov 04 j 07:29	0°♌			950 May 18 j 18:00	0°☾		
morning max el	947 Nov 09 j 14:55	5°♌17'25	46°47'45		950 Jun 12 j 20:32	0°♏		
	947 Dec 02 j 11:51	0°♍			950 Jul 08 j 11:33	0°♐		
	947 Dec 28 j 06:43	0°♎		desc. node	950 Jul 29 j 09:39	23°♐45'58		
	948 Jan 22 j 05:49	0°♏			950 Aug 04 j 00:48	0°♑		
desc. node	948 Feb 11 j 14:40	24°♑46'40			950 Sep 01 j 16:17	0°♒		
	948 Feb 15 j 21:21	0°≈		evening max el	950 Sep 01 j 23:38	0°♒17'56	46°34'13	
	948 Mar 11 j 10:10	0°✕		greatest brilliancy	950 Oct 11 j 00:43	29°♒37'49	-4.6m	
	948 Apr 04 j 22:21	0°♊			950 Oct 12 j 00:56	0°♎		
	948 Apr 29 j 10:32	0°♋		retrograde	950 Oct 21 j 21:08	1°♎48'32		
morning set	948 May 13 j 17:45	17°♋30'41			950 Oct 31 j 07:31	30°♒♌		
	948 May 23 j 22:23	0°♌		evening set	950 Nov 05 j 12:53	27°♌34'53		
asc. node	948 Jun 03 j 18:03	13°♌16'04		inferior conj	950 Nov 11 j 09:54	24°♌09'36	-2°-5'-37	
max. Earth dist.	948 Jun 17 j 03:40	29°♌43'43	1.73553 AU	minimum elong	950 Nov 11 j 14:38	24°♌02'26	2°04'08	
	948 Jun 17 j 08:58	0°☾		min. Earth dist.	950 Nov 11 j 16:04	24°♌00'15	0.26458 AU	
				morning rise	950 Nov 17 j 16:06	20°♌32'01		
superior conj	948 Jun 19 j 04:58	2°☾15'15	0°35'34	asc. node	950 Nov 19 j 12:55	19°♌35'35		
minimum elong	948 Jun 18 j 22:23	1°☾55'01	0°35'17	direct	950 Dec 01 j 20:03	16°♌31'11		
	948 Jul 11 j 17:36	0°♏		greatest brilliancy	950 Dec 14 j 07:34	19°♌26'25	-4.7m	
evening rise	948 Jul 24 j 23:11	16°♏20'14			950 Dec 30 j 22:12	0°♎		
	948 Aug 05 j 00:30	0°♐		morning max el	951 Jan 21 j 09:50	19°♎40'31	46°51'02	
	948 Aug 29 j 06:48	0°♑			951 Jan 31 j 08:53	0°♏		
	948 Sep 22 j 13:48	0°♒			951 Feb 27 j 10:48	0°≈		
desc. node	948 Sep 23 j 07:35	0°♒54'50		desc. node	951 Mar 11 j 02:38	13°≈25'48		
	948 Oct 16 j 22:42	0°♎			951 Mar 25 j 07:05	0°✕		
	948 Nov 10 j 11:16	0°♏			951 Apr 19 j 14:54	0°♊		
	948 Dec 05 j 07:56	0°≈			951 May 14 j 16:09	0°♋		
	948 Dec 31 j 00:02	0°✕		asc. node	951 Jun 08 j 12:33	0°♌		
asc. node	949 Jan 14 j 10:42	16°✕03'05			951 Jul 02 j 05:56	28°♌52'47		
evening max el	949 Jan 26 j 19:11	28°✕58'22	46°37'54		951 Jul 03 j 03:55	0°☾		
	949 Jan 27 j 19:45	0°♊		morning set	951 Jul 21 j 06:19	22°☾12'56		
greatest brilliancy	949 Mar 03 j 13:38	27°♊40'37	-4.6m		951 Jul 27 j 13:51	0°♏		
	949 Mar 09 j 07:03	0°♋			951 Aug 20 j 18:46	0°♐		
retrograde	949 Mar 17 j 23:44	1°♋26'17		max. Earth dist.	951 Aug 23 j 08:42	3°♐12'36	1.72380 AU	
	949 Mar 26 j 09:24	30°♋♊						
evening set	949 Apr 03 j 14:21	26°♊05'00		superior conj	951 Aug 26 j 21:38	7°♐36'57	1°24'42	
inferior conj	949 Apr 08 j 07:53	23°♊09'48	5°56'29	minimum elong	951 Aug 26 j 21:35	7°♐36'47	1°24'43	
minimum elong	949 Apr 08 j 17:31	22°♊54'34	5°54'26		951 Sep 13 j 20:13	0°♑		
min. Earth dist.	949 Apr 08 j 09:16	23°♊07'37	0.28709 AU	evening rise	951 Oct 03 j 23:11	25°♑09'28		
morning rise	949 Apr 13 j 20:52	19°♊46'28			951 Oct 07 j 20:04	0°♒		
direct	949 Apr 29 j 16:02	14°♊55'52		desc. node	951 Oct 21 j 19:24	17°♒28'38		
desc. node	949 May 06 j 00:00	15°♊40'43			951 Oct 31 j 19:44	0°♎		
greatest brilliancy	949 May 12 j 03:30	17°♊40'54	-4.5m		951 Nov 24 j 20:08	0°♏		
	949 May 31 j 18:00	0°♋			951 Dec 18 j 22:47	0°≈		
morning max el	949 Jun 17 j 10:27	14°♋40'58	45°44'13		952 Jan 12 j 06:50	0°✕		
	949 Jul 02 j 18:15	0°♌			952 Feb 06 j 02:08	0°♊		

asc. node	952 Feb 11 j 22:41	6°♊57'15			954 Sep 04 j 11:49	0°♎	
	952 Mar 02 j 19:09	0°♋			954 Sep 28 j 13:13	0°♌	
	952 Mar 30 j 09:54	0°♈		morning set	954 Sep 29 j 04:05	0°♌46'31	
evening max el	952 Apr 07 j 19:30	8°♈22'31 45°32'37			954 Oct 22 j 10:53	0°♍	
	952 May 03 j 17:32	0°♉		max. Earth dist.	954 Nov 06 j 22:02	19°♍27'22 1.71122 AU	
greatest brilliancy	952 May 12 j 01:36	4°♉43'01 -4.5m					
retrograde	952 May 26 j 11:30	8°♉19'09		superior conj	954 Nov 07 j 14:22	20°♍18'47 0°25'11	
desc. node	952 Jun 02 j 11:57	7°♉20'41		minimum elong	954 Nov 07 j 20:39	20°♍38'31 0°24'53	
evening set	952 Jun 10 j 14:25	3°♉54'57			954 Nov 15 j 07:09	0°♎	
inferior conj	952 Jun 16 j 22:30	0°♉07'16 -3°-18'-15		desc. node	954 Nov 18 j 07:12	3°♎46'39	
minimum elong	952 Jun 16 j 15:39	0°♉17'57 3°16'25			954 Dec 09 j 03:32	0°♏	
min. Earth dist.	952 Jun 16 j 22:17	0°♉07'35 0.28972 AU		evening rise	954 Dec 19 j 03:27	12°♏33'26	
	952 Jun 17 j 03:09	30°♈			955 Jan 02 j 01:09	0°♏	
morning rise	952 Jun 22 j 16:54	26°♈38'34			955 Jan 26 j 01:32	0°♏	
direct	952 Jul 08 j 15:22	21°♈49'46			955 Feb 19 j 06:58	0°♏	
greatest brilliancy	952 Jul 22 j 15:14	25°♈15'12 -4.5m		asc. node	955 Mar 11 j 10:38	24°♏38'59	
	952 Jul 31 j 03:38	0°♉			955 Mar 15 j 20:35	0°♋	
morning max el	952 Aug 26 j 20:41	22°♉17'28 46°04'39			955 Apr 09 j 22:31	0°♈	
	952 Sep 03 j 13:48	0°♏			955 May 05 j 19:41	0°♉	
asc. node	952 Sep 23 j 15:32	21°♏36'15			955 Jun 02 j 04:50	0°♏	
	952 Oct 01 j 01:32	0°♎		evening max el	955 Jun 18 j 13:05	16°♏25'10 45°28'19	
	952 Oct 26 j 13:40	0°♌		desc. node	955 Jun 30 j 23:55	27°♏39'50	
	952 Nov 20 j 04:32	0°♍			955 Jul 03 j 19:46	0°♎	
	952 Dec 14 j 09:56	0°♎		greatest brilliancy	955 Jul 25 j 17:40	13°♎45'27 -4.5m	
	953 Jan 07 j 11:56	0°♏		retrograde	955 Aug 06 j 06:19	16°♎07'31	
desc. node	953 Jan 13 j 04:52	7°♏06'52		evening set	955 Aug 24 j 07:27	10°♎06'54	
	953 Jan 31 j 13:32	0°♏		inferior conj	955 Aug 27 j 11:11	8°♎11'53 -8°-45'-14	
	953 Feb 24 j 16:14	0°♏		minimum elong	955 Aug 27 j 11:06	8°♎12'01 8°45'16	
morning set	953 Mar 02 j 08:47	7°♏03'50		min. Earth dist.	955 Aug 28 j 03:16	7°♎47'06 0.28193 AU	
	953 Mar 20 j 20:57	0°♏		morning rise	955 Aug 30 j 14:31	6°♎16'48	
				direct	955 Sep 17 j 17:19	0°♎05'25	
superior conj	953 Apr 09 j 19:39	24°♏38'13 0°-57'-29		greatest brilliancy	955 Oct 02 j 04:02	3°♎49'12 -4.6m	
minimum elong	953 Apr 10 j 05:19	25°♏08'00 0°57'10		asc. node	955 Oct 22 j 03:08	17°♎43'04	
max. Earth dist.	953 Apr 12 j 07:31	27°♏42'45 1.73164 AU			955 Nov 04 j 07:31	0°♌	
	953 Apr 14 j 04:04	0°♋		morning max el	955 Nov 07 j 05:20	2°♌55'18 46°46'46	
asc. node	953 May 06 j 08:17	27°♋16'53			955 Dec 02 j 04:36	0°♍	
	953 May 08 j 13:25	0°♈			955 Dec 27 j 20:58	0°♎	
evening rise	953 May 17 j 02:03	10°♈27'58			956 Jan 21 j 18:49	0°♏	
	953 Jun 02 j 00:33	0°♉		desc. node	956 Feb 10 j 16:45	24°♏15'13	
	953 Jun 26 j 13:21	0°♏			956 Feb 15 j 09:37	0°♏	
	953 Jul 21 j 04:39	0°♎			956 Mar 10 j 21:56	0°♏	
	953 Aug 15 j 00:14	0°♌			956 Apr 04 j 09:43	0°♏	
desc. node	953 Aug 25 j 21:39	13°♌04'10			956 Apr 28 j 21:37	0°♋	
	953 Sep 09 j 02:50	0°♍		morning set	956 May 11 j 11:41	15°♋24'55	
	953 Oct 04 j 17:18	0°♎			956 May 23 j 09:17	0°♈	
	953 Oct 31 j 09:16	0°♏		asc. node	956 Jun 02 j 20:11	12°♈49'18	
evening max el	953 Nov 13 j 22:32	14°♏17'16 47°21'42		max. Earth dist.	956 Jun 15 j 02:10	27°♈52'03 1.73571 AU	
	953 Nov 30 j 10:58	0°♏					
asc. node	953 Dec 17 j 00:59	12°♏19'41		superior conj	956 Jun 16 j 23:35	0°♉11'36 0°32'43	
greatest brilliancy	953 Dec 22 j 01:20	14°♏56'32 -4.7m		minimum elong	956 Jun 16 j 17:25	29°♈52'41 0°32'27	
retrograde	954 Jan 03 j 21:24	18°♏01'22			956 Jun 16 j 19:48	0°♉	
evening set	954 Jan 20 j 12:01	12°♏34'11			956 Jul 11 j 04:30	0°♏	
min. Earth dist.	954 Jan 23 j 17:42	10°♏35'13 0.27297 AU		evening rise	956 Jul 22 j 17:44	14°♏15'25	
inferior conj	954 Jan 24 j 16:23	9°♏59'43 7°55'50			956 Aug 04 j 11:36	0°♎	
minimum elong	954 Jan 24 j 08:16	10°♏12'26 7°54'44			956 Aug 28 j 18:10	0°♌	
morning rise	954 Jan 28 j 04:53	7°♏49'47		desc. node	956 Sep 22 j 09:32	0°♍24'35	
direct	954 Feb 14 j 07:10	2°♏11'11			956 Sep 22 j 01:33	0°♍	
greatest brilliancy	954 Feb 24 j 19:37	4°♏14'32 -4.6m			956 Oct 16 j 10:57	0°♎	
	954 Apr 01 j 07:20	0°♏			956 Nov 10 j 00:13	0°♏	
morning max el	954 Apr 04 j 16:28	3°♏14'49 46°10'19			956 Dec 04 j 22:00	0°♏	
desc. node	954 Apr 07 j 14:18	6°♏06'06			956 Dec 30 j 16:19	0°♏	
	954 Apr 30 j 11:43	0°♏		asc. node	957 Jan 13 j 12:50	15°♏18'38	
	954 May 27 j 07:51	0°♋		evening max el	957 Jan 24 j 10:01	26°♏39'45 46°40'28	
	954 Jun 22 j 04:20	0°♈			957 Jan 27 j 18:27	0°♏	
	954 Jul 17 j 09:55	0°♉		greatest brilliancy	957 Mar 01 j 05:42	25°♏27'02 -4.6m	
asc. node	954 Jul 29 j 17:50	14°♉53'02		retrograde	957 Mar 15 j 16:32	29°♏13'37	
	954 Aug 11 j 03:39	0°♏		evening set	957 Apr 01 j 09:08	23°♏47'52	

inferior conj	957 Apr 05 j 23:52	20° Υ 56'52	6°11'03	evening rise	959 Oct 01 j 12:36	22° Ω 46'16	
minimum elong	957 Apr 06 j 09:32	20° Υ 41'36	6°09'04		959 Oct 07 j 07:19	0° \mathbb{M}	
min. Earth dist.	957 Apr 06 j 00:36	20° Υ 55'42	0.28686 AU	desc. node	959 Oct 20 j 21:28	16° \mathbb{M} 59'36	
morning rise	957 Apr 11 j 10:10	17° Υ 37'43			959 Oct 31 j 07:11	0° \mathcal{A}	
direct	957 Apr 27 j 07:36	12° Υ 43'16			959 Nov 24 j 07:49	0° \mathcal{Z}	
desc. node	957 May 05 j 02:02	13° Υ 50'17			959 Dec 18 j 10:46	0° \approx	
greatest brilliancy	957 May 09 j 17:49	15° Υ 27'38	-4.5m		960 Jan 11 j 19:17	0° \mathcal{H}	
	957 Jun 01 j 02:40	0° \mathcal{B}			960 Feb 05 j 15:25	0° Υ	
morning max el	957 Jun 15 j 03:07	12° \mathcal{B} 32'11	45°44'26	asc. node	960 Feb 11 j 00:41	6° Υ 23'07	
	957 Jul 02 j 12:13	0° \mathbb{I}			960 Mar 02 j 10:12	0° \mathcal{B}	
	957 Jul 29 j 21:21	0° \mathcal{S}			960 Mar 30 j 05:43	0° \mathbb{I}	
	957 Aug 24 j 16:53	0° Ω		evening max el	960 Apr 05 j 11:09	6° \mathbb{I} 10'17	45°34'05
asc. node	957 Aug 26 j 05:43	1° Ω 49'25			960 May 04 j 21:29	0° \mathcal{S}	
	957 Sep 18 j 14:31	0° \mathbb{M}		greatest brilliancy	960 May 09 j 17:58	2° \mathcal{S} 33'54	-4.5m
	957 Oct 12 j 22:27	0° Ω		retrograde	960 May 24 j 03:22	6° \mathcal{S} 09'58	
	957 Nov 05 j 22:46	0° \mathbb{M}		desc. node	960 Jun 01 j 14:08	4° \mathcal{S} 45'34	
	957 Nov 29 j 19:49	0° \mathcal{A}		evening set	960 Jun 08 j 05:58	1° \mathcal{S} 47'03	
morning set	957 Dec 13 j 06:12	16° \mathcal{A} 53'36			960 Jun 11 j 08:03	30° \mathcal{R} \mathbb{I}	
desc. node	957 Dec 15 j 19:07	20° \mathcal{A} 05'08		inferior conj	960 Jun 14 j 14:53	27° \mathbb{I} 58'00	-2°-59'-54
	957 Dec 23 j 16:20	0° \mathcal{Z}		minimum elong	960 Jun 14 j 08:36	28° \mathbb{I} 07'51	2°58'10
	958 Jan 16 j 13:45	0° \approx		min. Earth dist.	960 Jun 14 j 14:56	27° \mathbb{I} 57'56	0.28973 AU
				morning rise	960 Jun 20 j 11:11	24° \mathbb{I} 26'12	
superior conj	958 Jan 24 j 02:17	9° \approx 25'42	-1°-16'-11	direct	960 Jul 06 j 07:37	19° \mathbb{I} 40'32	
minimum elong	958 Jan 23 j 16:36	8° \approx 55'22	1°15'58	greatest brilliancy	960 Jul 20 j 05:45	23° \mathbb{I} 03'21	-4.5m
max. Earth dist.	958 Jan 27 j 18:35	14° \approx 02'04	1.71588 AU		960 Aug 01 j 00:48	0° \mathcal{S}	
	958 Feb 09 j 13:08	0° \mathcal{H}		morning max el	960 Aug 24 j 11:08	20° \mathcal{S} 01'49	46°03'22
evening rise	958 Mar 05 j 08:41	29° \mathcal{H} 38'15			960 Sep 03 j 09:12	0° Ω	
	958 Mar 05 j 15:42	0° Υ		asc. node	960 Sep 22 j 17:29	20° Ω 57'23	
	958 Mar 29 j 22:40	0° \mathcal{B}			960 Sep 30 j 16:29	0° \mathbb{M}	
asc. node	958 Apr 07 j 22:29	11° \mathcal{B} 02'17			960 Oct 26 j 02:54	0° Ω	
	958 Apr 23 j 11:02	0° \mathbb{I}			960 Nov 19 j 16:57	0° \mathbb{M}	
	958 May 18 j 05:51	0° \mathcal{S}			960 Dec 13 j 21:53	0° \mathcal{A}	
	958 Jun 12 j 09:07	0° Ω			961 Jan 06 j 23:34	0° \mathcal{Z}	
	958 Jul 08 j 01:29	0° \mathbb{M}		desc. node	961 Jan 12 j 06:57	6° \mathcal{Z} 37'11	
desc. node	958 Jul 28 j 11:45	23° \mathbb{M} 07'32			961 Jan 31 j 00:56	0° \approx	
	958 Aug 03 j 17:31	0° Ω			961 Feb 24 j 03:27	0° \mathcal{H}	
evening max el	958 Aug 30 j 13:46	27° Ω 57'11	46°31'32	morning set	961 Feb 27 j 21:52	4° \mathcal{H} 40'48	
	958 Sep 01 j 16:37	0° \mathbb{M}			961 Mar 20 j 08:01	0° Υ	
greatest brilliancy	958 Oct 08 j 13:17	27° \mathbb{M} 09'27	-4.6m				
retrograde	958 Oct 19 j 09:23	29° \mathbb{M} 18'56		superior conj	961 Apr 07 j 11:29	22° Υ 25'13	0°-59'-58
evening set	958 Nov 03 j 02:57	25° \mathbb{M} 02'53		minimum elong	961 Apr 07 j 21:15	22° Υ 55'20	0°59'38
inferior conj	958 Nov 08 j 21:53	21° \mathbb{M} 40'02	-2°-29'-25	max. Earth dist.	961 Apr 10 j 03:07	25° Υ 41'26	1.73117 AU
minimum elong	958 Nov 09 j 03:27	21° \mathbb{M} 31'35	2°27'42		961 Apr 13 j 15:01	0° \mathcal{B}	
min. Earth dist.	958 Nov 09 j 05:13	21° \mathbb{M} 28'55	0.26487 AU	asc. node	961 May 05 j 10:24	26° \mathcal{B} 49'51	
morning rise	958 Nov 15 j 03:44	18° \mathbb{M} 02'53			961 May 08 j 00:21	0° \mathbb{I}	
asc. node	958 Nov 18 j 15:07	16° \mathbb{M} 22'54		evening rise	961 May 14 j 19:59	8° \mathbb{I} 22'07	
direct	958 Nov 29 j 09:04	14° \mathbb{M} 01'19			961 Jun 01 j 11:35	0° \mathcal{S}	
greatest brilliancy	958 Dec 11 j 21:10	16° \mathbb{M} 57'27	-4.7m		961 Jun 26 j 00:39	0° Ω	
	958 Dec 31 j 12:06	0° \mathcal{A}			961 Jul 20 j 16:24	0° \mathbb{M}	
morning max el	959 Jan 18 j 23:28	17° \mathcal{A} 14'51	46°51'51		961 Aug 14 j 12:41	0° Ω	
	959 Jan 31 j 04:48	0° \mathcal{Z}		desc. node	961 Aug 24 j 23:38	12° Ω 31'46	
	959 Feb 27 j 02:20	0° \approx			961 Sep 08 j 16:19	0° \mathbb{M}	
desc. node	959 Mar 10 j 04:39	12° \approx 49'26			961 Oct 04 j 08:35	0° \mathcal{A}	
	959 Mar 24 j 20:39	0° \mathcal{H}			961 Oct 31 j 04:26	0° \mathcal{Z}	
	959 Apr 19 j 03:22	0° Υ		evening max el	961 Nov 11 j 11:46	11° \mathcal{Z} 50'52	47°21'26
	959 May 14 j 03:57	0° \mathcal{B}			961 Nov 30 j 21:01	0° \approx	
	959 Jun 07 j 23:56	0° \mathbb{I}		asc. node	961 Dec 16 j 03:02	10° \approx 45'29	
asc. node	959 Jul 01 j 08:04	28° \mathbb{I} 25'14		greatest brilliancy	961 Dec 19 j 17:45	12° \approx 34'09	-4.7m
	959 Jul 02 j 15:03	0° \mathcal{S}		retrograde	962 Jan 01 j 10:53	15° \approx 36'20	
morning set	959 Jul 19 j 00:01	20° \mathcal{S} 05'50		evening set	962 Jan 17 j 22:05	10° \approx 15'22	
	959 Jul 27 j 00:50	0° Ω		min. Earth dist.	962 Jan 21 j 07:33	8° \approx 11'03	0.27236 AU
	959 Aug 20 j 05:44	0° \mathbb{M}		inferior conj	962 Jan 22 j 06:04	7° \approx 35'51	7°45'54
max. Earth dist.	959 Aug 20 j 22:58	0° \mathbb{M} 53'34	1.72431 AU	minimum elong	962 Jan 21 j 21:26	7° \approx 49'22	7°44'36
				morning rise	962 Jan 25 j 21:08	5° \approx 22'09	
superior conj	959 Aug 24 j 14:26	5° \mathbb{M} 25'37	1°24'37		962 Feb 08 j 16:35	30° \mathcal{R} \mathcal{Z}	
minimum elong	959 Aug 24 j 13:39	5° \mathbb{M} 23'10	1°24'38	direct	962 Feb 11 j 19:41	29° \mathcal{Z} 48'08	
	959 Sep 13 j 07:17	0° Ω			962 Feb 14 j 23:57	0° \approx	

greatest brilliancy	962 Feb 22 j 09:42	1°≈52'35	-4.6m	desc. node	964 Sep 21 j 11:36	29°♄55'27	
	962 Apr 01 j 07:33	0°♂			964 Sep 21 j 13:05	0°♄	
morning max el	962 Apr 02 j 05:25	0°♂53'02	46°11'51		964 Oct 15 j 23:01	0°♂	
desc. node	962 Apr 06 j 16:22	5°♂16'54			964 Nov 09 j 13:00	0°♄	
	962 Apr 30 j 04:14	0°♀			964 Dec 04 j 11:55	0°≈	
	962 May 26 j 21:37	0°♂			964 Dec 30 j 08:33	0°♂	
	962 Jun 21 j 16:44	0°♂		asc. node	965 Jan 12 j 14:51	14°♂34'17	
	962 Jul 16 j 21:34	0°♄		evening max el	965 Jan 22 j 01:58	24°♂24'58	46°43'06
asc. node	962 Jul 28 j 19:48	14°♄24'16			965 Jan 27 j 17:40	0°♀	
	962 Aug 10 j 14:55	0°♂		greatest brilliancy	965 Feb 26 j 22:26	23°♀15'46	-4.6m
	962 Sep 03 j 22:54	0°♄		retrograde	965 Mar 13 j 09:37	27°♀02'18	
morning set	962 Sep 26 j 18:24	28°♄26'33		evening set	965 Mar 30 j 04:07	21°♀32'20	
	962 Sep 28 j 00:16	0°♄		inferior conj	965 Apr 03 j 16:00	18°♀45'25	6°25'05
	962 Oct 21 j 21:55	0°♄		minimum elong	965 Apr 04 j 01:39	18°♀30'11	6°23'10
max. Earth dist.	962 Nov 04 j 06:02	16°♄46'46	1.71143 AU	min. Earth dist.	965 Apr 03 j 15:47	18°♀45'45	0.28661 AU
				morning rise	965 Apr 08 j 23:29	15°♀30'34	
superior conj	962 Nov 05 j 01:32	17°♄48'09	0°28'51	direct	965 Apr 24 j 23:42	10°♀32'22	
minimum elong	962 Nov 05 j 08:36	18°♄10'21	0°28'31	desc. node	965 May 04 j 04:13	12°♀05'23	
	962 Nov 14 j 18:12	0°♂		greatest brilliancy	965 May 07 j 07:13	13°♀14'40	-4.5m
desc. node	962 Nov 17 j 09:23	3°♂18'45			965 Jun 01 j 08:21	0°♂	
	962 Dec 08 j 14:37	0°♄		morning max el	965 Jun 12 j 19:58	10°♂25'00	45°44'29
evening rise	962 Dec 16 j 13:36	9°♄59'47			965 Jul 02 j 05:24	0°♂	
	963 Jan 01 j 12:19	0°≈			965 Jul 29 j 11:11	0°♄	
	963 Jan 25 j 12:47	0°♂			965 Aug 24 j 05:16	0°♂	
	963 Feb 18 j 18:24	0°♀		asc. node	965 Aug 25 j 07:43	1°♂18'40	
asc. node	963 Mar 10 j 12:37	24°♀09'21			965 Sep 18 j 02:11	0°♄	
	963 Mar 15 j 08:25	0°♂			965 Oct 12 j 09:45	0°♄	
	963 Apr 09 j 11:08	0°♂			965 Nov 05 j 09:53	0°♄	
	963 May 05 j 09:56	0°♄			965 Nov 29 j 06:52	0°♂	
	963 Jun 01 j 22:58	0°♂		morning set	965 Dec 10 j 16:00	14°♂18'55	
evening max el	963 Jun 16 j 03:34	14°♂10'46	45°27'16	desc. node	965 Dec 14 j 21:06	19°♂36'46	
desc. node	963 Jun 30 j 01:59	26°♂39'26			965 Dec 23 j 03:20	0°♄	
	963 Jul 04 j 06:15	0°♄			966 Jan 16 j 00:40	0°≈	
greatest brilliancy	963 Jul 23 j 03:53	11°♄26'07	-4.5m				
retrograde	963 Aug 03 j 20:59	13°♄52'21		superior conj	966 Jan 21 j 12:48	6°≈54'06	-1°-14'-18
evening set	963 Aug 21 j 20:40	7°♄52'40		minimum elong	966 Jan 21 j 02:30	6°≈21'49	1°14'03
inferior conj	963 Aug 25 j 01:49	5°♄55'36	-8°-44'-13	max. Earth dist.	966 Jan 25 j 05:20	11°≈31'23	1.71539 AU
minimum elong	963 Aug 25 j 00:52	5°♄57'04	8°44'14		966 Feb 08 j 23:58	0°♂	
min. Earth dist.	963 Aug 25 j 16:56	5°♄32'21	0.28251 AU	evening rise	966 Mar 02 j 21:42	27°♂16'17	
morning rise	963 Aug 28 j 04:52	4°♄01'05			966 Mar 05 j 02:29	0°♀	
	963 Sep 04 j 22:04	30°♂♂			966 Mar 29 j 09:31	0°♂	
direct	963 Sep 15 j 08:40	27°♂48'12		asc. node	966 Apr 07 j 00:39	10°♂35'38	
	963 Sep 26 j 06:36	0°♄			966 Apr 22 j 22:05	0°♂	
greatest brilliancy	963 Sep 29 j 20:54	1°♄34'01	-4.6m		966 May 17 j 17:18	0°♄	
asc. node	963 Oct 21 j 05:19	16°♄40'24			966 Jun 11 j 21:22	0°♂	
	963 Nov 04 j 06:21	0°♄			966 Jul 07 j 15:10	0°♄	
morning max el	963 Nov 04 j 20:53	0°♄36'48	46°45'44	desc. node	966 Jul 27 j 13:43	22°♄29'27	
	963 Dec 01 j 20:54	0°♄			966 Aug 03 j 10:10	0°♄	
	963 Dec 27 j 10:54	0°♂		evening max el	966 Aug 28 j 03:46	25°♄37'23	46°28'52
	964 Jan 21 j 07:32	0°♄			966 Sep 01 j 17:41	0°♄	
desc. node	964 Feb 09 j 18:45	23°♄44'17		greatest brilliancy	966 Oct 06 j 02:51	24°♄43'52	-4.6m
	964 Feb 14 j 21:36	0°≈		retrograde	966 Oct 16 j 21:12	26°♄51'05	
	964 Mar 10 j 09:24	0°♂		evening set	966 Oct 31 j 17:20	22°♄32'37	
	964 Apr 03 j 20:49	0°♀		inferior conj	966 Nov 06 j 10:05	19°♄12'27	-2°-52'-44
	964 Apr 28 j 08:28	0°♂		minimum elong	966 Nov 06 j 16:26	19°♄02'49	2°50'48
morning set	964 May 09 j 05:32	13°♂19'35		min. Earth dist.	966 Nov 06 j 18:50	18°♄59'09	0.26518 AU
	964 May 22 j 19:59	0°♂		morning rise	966 Nov 12 j 15:16	15°♄35'48	
asc. node	964 Jun 01 j 22:17	12°♂23'01		asc. node	966 Nov 17 j 17:10	13°♄17'13	
max. Earth dist.	964 Jun 13 j 01:28	26°♂03'24	1.73587 AU	direct	966 Nov 26 j 21:55	11°♄33'20	
				greatest brilliancy	966 Dec 09 j 11:16	14°♄30'31	-4.7m
superior conj	964 Jun 14 j 18:02	28°♂08'03	0°29'49		966 Dec 31 j 21:56	0°♂	
minimum elong	964 Jun 14 j 12:20	27°♂50'32	0°29'33	morning max el	967 Jan 16 j 12:19	14°♂48'15	46°52'32
	964 Jun 16 j 06:27	0°♄			967 Jan 30 j 23:43	0°♄	
	964 Jul 10 j 15:13	0°♂			967 Feb 26 j 17:15	0°≈	
evening rise	964 Jul 20 j 12:14	12°♂11'11		desc. node	967 Mar 09 j 06:40	12°≈14'28	
	964 Aug 03 j 22:28	0°♄			967 Mar 24 j 09:42	0°♂	
	964 Aug 28 j 05:18	0°♄			967 Apr 18 j 15:22	0°♀	

	967 May 13 j 15:17	0°♄			969 Dec 01 j 10:20	0°♁	
	967 Jun 07 j 10:51	0°♁		asc. node	969 Dec 15 j 05:02	9°♁07'49	
asc. node	967 Jun 30 j 10:01	27°♁58'33		greatest brilliancy	969 Dec 17 j 09:19	10°♁10'37	-4.7m
	967 Jul 02 j 01:44	0°♁		retrograde	969 Dec 30 j 00:34	13°♁11'17	
morning set	967 Jul 16 j 17:55	18°♁00'34		evening set	970 Jan 15 j 07:53	7°♁56'16	
	967 Jul 26 j 11:25	0°♁		min. Earth dist.	970 Jan 18 j 21:10	5°♁46'46	0.27176 AU
max. Earth dist.	967 Aug 18 j 13:18	28°♁35'54	1.72488 AU	inferior conj	970 Jan 19 j 19:36	5°♁11'48	7°34'52
	967 Aug 19 j 16:21	0°♁		minimum elong	970 Jan 19 j 10:29	5°♁26'00	7°33'24
				morning rise	970 Jan 23 j 13:25	2°♁54'14	
superior conj	967 Aug 22 j 07:25	3°♁16'05	1°24'25		970 Jan 29 j 01:24	30°♁	
minimum elong	967 Aug 22 j 05:55	3°♁11'25	1°24'24	direct	970 Feb 09 j 07:59	29°♁24'46	
	967 Sep 12 j 18:02	0°♁		greatest brilliancy	970 Feb 19 j 23:44	27°♁30'45	-4.6m
evening rise	967 Sep 29 j 02:10	20°♁24'43			970 Feb 21 j 05:26	0°♁	
	967 Oct 06 j 18:13	0°♁		morning max el	970 Mar 30 j 19:10	28°♁33'33	46°13'23
desc. node	967 Oct 19 j 23:37	16°♁31'59			970 Apr 01 j 06:30	0°♁	
	967 Oct 30 j 18:16	0°♁		desc. node	970 Apr 05 j 18:34	4°♁29'19	
	967 Nov 23 j 19:09	0°♁			970 Apr 29 j 20:16	0°♁	
	967 Dec 17 j 22:26	0°♁			970 May 26 j 11:05	0°♁	
	968 Jan 11 j 07:27	0°♁			970 Jun 21 j 04:55	0°♁	
	968 Feb 05 j 04:28	0°♁			970 Jul 16 j 09:02	0°♁	
asc. node	968 Feb 10 j 02:43	5°♁49'52		asc. node	970 Jul 27 j 21:55	13°♁56'32	
	968 Mar 02 j 01:06	0°♁			970 Aug 10 j 01:59	0°♁	
	968 Mar 30 j 01:42	0°♁			970 Sep 03 j 09:48	0°♁	
evening max el	968 Apr 03 j 02:13	3°♁57'39	45°35'43	morning set	970 Sep 24 j 09:06	26°♁08'25	
	968 May 06 j 12:39	0°♁			970 Sep 27 j 11:07	0°♁	
greatest brilliancy	968 May 07 j 09:34	0°♁25'14	-4.5m		970 Oct 21 j 08:48	0°♁	
retrograde	968 May 21 j 19:22	4°♁02'42		max. Earth dist.	970 Nov 01 j 16:06	14°♁13'02	1.71170 AU
desc. node	968 May 31 j 16:05	2°♁08'00					
	968 Jun 05 j 07:19	30°♁		superior conj	970 Nov 02 j 12:47	15°♁18'06	0°32'27
evening set	968 Jun 05 j 21:49	29°♁40'31		minimum elong	970 Nov 02 j 20:33	15°♁42'32	0°32'06
inferior conj	968 Jun 12 j 07:27	25°♁50'38	-2°-41'-22		970 Nov 14 j 05:10	0°♁	
minimum elong	968 Jun 12 j 01:46	25°♁59'34	2°39'47	desc. node	970 Nov 16 j 11:24	2°♁50'33	
min. Earth dist.	968 Jun 12 j 07:58	25°♁49'50	0.28973 AU		970 Dec 08 j 01:41	0°♁	
morning rise	968 Jun 18 j 05:33	22°♁15'57		evening rise	970 Dec 13 j 23:27	7°♁25'16	
direct	968 Jul 03 j 23:36	17°♁33'02			970 Dec 31 j 23:27	0°♁	
greatest brilliancy	968 Jul 17 j 21:08	20°♁54'17	-4.5m		971 Jan 25 j 00:02	0°♁	
	968 Aug 01 j 15:45	0°♁			971 Feb 18 j 05:51	0°♁	
morning max el	968 Aug 22 j 01:42	17°♁47'48	46°02'01	asc. node	971 Mar 09 j 14:48	23°♁40'18	
	968 Sep 03 j 03:37	0°♁			971 Mar 14 j 20:17	0°♁	
asc. node	968 Sep 21 j 19:39	20°♁20'28			971 Apr 08 j 23:51	0°♁	
	968 Sep 30 j 06:55	0°♁			971 May 05 j 00:22	0°♁	
	968 Oct 25 j 15:47	0°♁			971 Jun 01 j 17:35	0°♁	
	968 Nov 19 j 05:04	0°♁		evening max el	971 Jun 13 j 19:02	11°♁58'52	45°26'21
	968 Dec 13 j 09:32	0°♁		desc. node	971 Jun 29 j 04:01	25°♁37'39	
	969 Jan 06 j 10:54	0°♁			971 Jul 04 j 20:16	0°♁	
desc. node	969 Jan 11 j 08:57	6°♁08'14		greatest brilliancy	971 Jul 20 j 14:29	9°♁07'44	-4.5m
	969 Jan 30 j 12:02	0°♁		retrograde	971 Aug 01 j 11:51	11°♁37'39	
	969 Feb 23 j 14:23	0°♁		evening set	971 Aug 19 j 09:41	5°♁39'42	
morning set	969 Feb 25 j 10:35	2°♁17'21		inferior conj	971 Aug 22 j 16:32	3°♁40'00	-8°-42'-25
	969 Mar 19 j 18:48	0°♁		minimum elong	971 Aug 22 j 14:46	3°♁42'43	8°42'23
				min. Earth dist.	971 Aug 23 j 06:27	3°♁18'36	0.28303 AU
superior conj	969 Apr 05 j 03:12	20°♁12'36	-1°-2'-22	morning rise	971 Aug 25 j 19:41	1°♁45'23	
minimum elong	969 Apr 05 j 13:00	20°♁42'50	1°02'02		971 Aug 28 j 20:58	30°♁	
max. Earth dist.	969 Apr 07 j 20:14	23°♁33'12	1.73070 AU	direct	971 Sep 13 j 00:30	25°♁31'57	
	969 Apr 13 j 01:43	0°♁		greatest brilliancy	971 Sep 27 j 12:26	29°♁17'52	-4.6m
asc. node	969 May 04 j 12:31	26°♁23'33			971 Sep 28 j 21:54	0°♁	
	969 May 07 j 11:01	0°♁		asc. node	971 Oct 20 j 07:23	15°♁39'26	
evening rise	969 May 12 j 13:54	6°♁17'01		morning max el	971 Nov 02 j 12:37	28°♁19'19	46°44'29
	969 May 31 j 22:21	0°♁			971 Nov 04 j 04:08	0°♁	
	969 Jun 25 j 11:40	0°♁			971 Dec 01 j 12:53	0°♁	
	969 Jul 20 j 03:52	0°♁			971 Dec 27 j 00:44	0°♁	
	969 Aug 14 j 00:52	0°♁			972 Jan 20 j 20:18	0°♁	
desc. node	969 Aug 24 j 01:44	12°♁00'29		desc. node	972 Feb 08 j 20:53	23°♁13'30	
	969 Sep 08 j 05:38	0°♁			972 Feb 14 j 09:40	0°♁	
	969 Oct 03 j 23:52	0°♁			972 Mar 09 j 20:59	0°♁	
	969 Oct 30 j 23:59	0°♁			972 Apr 03 j 08:01	0°♁	
evening max el	969 Nov 09 j 00:58	9°♁24'48	47°21'05		972 Apr 27 j 19:25	0°♁	

morning set	972 May 06 j 23:07	11°♄13'02		min. Earth dist.	974 Nov 04 j 08:50	16°♌28'34	0.26549 AU
	972 May 22 j 06:47	0°♈		morning rise	974 Nov 10 j 02:35	13°♌08'38	
asc. node	972 Jun 01 j 00:15	11°♈55'58		asc. node	974 Nov 16 j 19:08	10°♌16'24	
max. Earth dist.	972 Jun 11 j 00:48	24°♈14'26	1.73600 AU	direct	974 Nov 24 j 10:17	9°♌04'48	
				greatest brilliancy	974 Dec 07 j 02:06	12°♌04'00	-4.7m
superior conj	972 Jun 12 j 12:20	26°♈03'37	0°26'51		975 Jan 01 j 05:18	0°♌	
minimum elong	972 Jun 12 j 07:07	25°♈47'38	0°26'37	morning max el	975 Jan 14 j 00:33	12°♌19'28	46°53'20
	972 Jun 15 j 17:14	0°♄			975 Jan 30 j 18:19	0°♄	
	972 Jul 10 j 02:03	0°♌			975 Feb 26 j 08:12	0°♌	
evening rise	972 Jul 18 j 06:48	10°♌06'46		desc. node	975 Mar 08 j 08:51	11°♌39'29	
	972 Aug 03 j 09:28	0°♌			975 Mar 23 j 22:57	0°♌	
	972 Aug 27 j 16:33	0°♌			975 Apr 18 j 03:39	0°♌	
desc. node	972 Sep 20 j 13:47	29°♌26'24			975 May 13 j 02:59	0°♌	
	972 Sep 21 j 00:42	0°♌			975 Jun 06 j 22:09	0°♌	
	972 Oct 15 j 11:10	0°♌		asc. node	975 Jun 29 j 12:09	27°♌31'14	
	972 Nov 09 j 01:54	0°♄			975 Jul 01 j 12:47	0°♄	
	972 Dec 04 j 02:03	0°♌		morning set	975 Jul 14 j 11:30	15°♄53'14	
	972 Dec 30 j 01:15	0°♌			975 Jul 25 j 22:22	0°♌	
asc. node	973 Jan 11 j 16:55	13°♌48'41		max. Earth dist.	975 Aug 16 j 05:23	26°♌22'38	1.72544 AU
evening max el	973 Jan 19 j 18:15	22°♌09'58	46°45'27		975 Aug 19 j 03:20	0°♌	
	973 Jan 27 j 18:21	0°♌					
greatest brilliancy	973 Feb 24 j 16:11	21°♌04'17	-4.6m	superior conj	975 Aug 20 j 00:15	1°♌05'01	1°24'04
retrograde	973 Mar 11 j 02:10	24°♌48'53		minimum elong	975 Aug 19 j 22:02	0°♌58'06	1°24'03
evening set	973 Mar 27 j 22:53	19°♌14'59			975 Sep 12 j 05:08	0°♌	
inferior conj	973 Apr 01 j 07:52	16°♌32'06	6°38'38	evening rise	975 Sep 26 j 15:49	18°♌02'25	
minimum elong	973 Apr 01 j 17:27	16°♌16'58	6°36'49		975 Oct 06 j 05:30	0°♌	
min. Earth dist.	973 Apr 01 j 06:46	16°♌33'51	0.28633 AU	desc. node	975 Oct 19 j 01:35	16°♌02'36	
morning rise	973 Apr 06 j 12:21	13°♌21'35			975 Oct 30 j 05:45	0°♌	
direct	973 Apr 22 j 15:39	8°♌19'47			975 Nov 23 j 06:50	0°♄	
desc. node	973 May 03 j 06:12	10°♌22'31			975 Dec 17 j 10:24	0°♌	
greatest brilliancy	973 May 04 j 19:26	10°♌58'46	-4.5m		976 Jan 10 j 19:54	0°♌	
	973 Jun 01 j 12:37	0°♌			976 Feb 04 j 17:50	0°♌	
morning max el	973 Jun 10 j 12:00	8°♌14'49	45°44'36	asc. node	976 Feb 09 j 04:53	5°♌16'09	
	973 Jul 01 j 22:33	0°♈			976 Mar 01 j 16:28	0°♌	
	973 Jul 29 j 01:10	0°♄			976 Mar 29 j 22:44	0°♈	
	973 Aug 23 j 17:51	0°♌		evening max el	976 Mar 31 j 16:56	1°♈43'11	45°37'14
asc. node	973 Aug 24 j 09:51	0°♌47'38		greatest brilliancy	976 May 05 j 00:09	28°♈13'51	-4.5m
	973 Sep 17 j 14:03	0°♌			976 May 09 j 06:04	0°♄	
	973 Oct 11 j 21:15	0°♌		retrograde	976 May 19 j 11:32	1°♄54'03	
	973 Nov 04 j 21:11	0°♌			976 May 29 j 07:17	30°♌	
	973 Nov 28 j 18:05	0°♌		desc. node	976 May 30 j 18:10	29°♈24'26	
morning set	973 Dec 08 j 02:19	11°♌45'20		evening set	976 Jun 03 j 13:43	27°♈32'03	
desc. node	973 Dec 13 j 23:09	19°♌08'10		inferior conj	976 Jun 09 j 23:55	23°♈41'40	-2°-22'-25
	973 Dec 22 j 14:28	0°♄		minimum elong	976 Jun 09 j 18:51	23°♈49'37	2°21'00
	974 Jan 15 j 11:45	0°♌		min. Earth dist.	976 Jun 10 j 00:52	23°♈40'11	0.28978 AU
				morning rise	976 Jun 15 j 23:46	20°♈04'26	
superior conj	974 Jan 18 j 23:24	4°♌22'10	-1°-12'-16	direct	976 Jul 01 j 15:24	15°♈23'45	
minimum elong	974 Jan 18 j 12:36	3°♌48'18	1°12'00	greatest brilliancy	976 Jul 15 j 13:37	18°♈45'07	-4.5m
max. Earth dist.	974 Jan 22 j 16:47	9°♌02'12	1.71497 AU		976 Aug 02 j 03:34	0°♄	
	974 Feb 08 j 11:02	0°♌		morning max el	976 Aug 19 j 16:54	15°♄34'04	46°00'47
evening rise	974 Feb 28 j 10:25	24°♌52'19			976 Sep 02 j 22:05	0°♌	
	974 Mar 04 j 13:35	0°♌		asc. node	976 Sep 20 j 21:45	19°♌42'28	
	974 Mar 28 j 20:42	0°♌			976 Sep 29 j 21:36	0°♌	
asc. node	974 Apr 06 j 02:40	10°♌07'23			976 Oct 25 j 04:57	0°♌	
	974 Apr 22 j 09:29	0°♈			976 Nov 18 j 17:28	0°♌	
	974 May 17 j 05:10	0°♄			976 Dec 12 j 21:29	0°♌	
	974 Jun 11 j 10:02	0°♌			977 Jan 05 j 22:32	0°♄	
	974 Jul 07 j 05:23	0°♌		desc. node	977 Jan 10 j 11:05	5°♄38'45	
desc. node	974 Jul 26 j 15:52	21°♌50'20			977 Jan 29 j 23:25	0°♌	
	974 Aug 03 j 03:34	0°♌		morning set	977 Feb 22 j 23:31	29°♌53'39	
evening max el	974 Aug 25 j 16:58	23°♌14'37	46°26'11		977 Feb 23 j 01:34	0°♌	
	974 Sep 01 j 20:36	0°♌			977 Mar 19 j 05:50	0°♌	
greatest brilliancy	974 Oct 03 j 17:07	22°♌18'17	-4.6m				
retrograde	974 Oct 14 j 08:36	24°♌22'46		superior conj	977 Apr 02 j 19:10	18°♌00'00	-1°-4'-37
evening set	974 Oct 29 j 07:57	20°♌01'30		minimum elong	977 Apr 03 j 04:58	18°♌30'14	1°04'20
inferior conj	974 Nov 03 j 22:23	16°♌44'30	-3°-15'-40	max. Earth dist.	977 Apr 05 j 13:06	21°♌23'26	1.73026 AU
minimum elong	974 Nov 04 j 05:27	16°♌33'43	3°13'32		977 Apr 12 j 12:39	0°♌	

asc. node	977 May 03 j 14:29	25°♄56'02			979 Sep 30 j 13:34	0°♍	
	977 May 06 j 21:58	0°♈		asc. node	979 Oct 19 j 09:21	14°♍38'56	
evening rise	977 May 10 j 07:58	4°♈11'34		morning max el	979 Oct 31 j 03:44	25°♍59'45	46°43'09
	977 May 31 j 09:26	0°♄			979 Nov 04 j 01:24	0°♈	
	977 Jun 24 j 23:03	0°♈			979 Dec 01 j 04:49	0°♍	
	977 Jul 19 j 15:44	0°♍			979 Dec 26 j 14:38	0°♄	
	977 Aug 13 j 13:28	0°♈			980 Jan 20 j 09:07	0°♄	
desc. node	977 Aug 23 j 03:50	11°♈28'01		desc. node	980 Feb 07 j 22:57	22°♄42'18	
	977 Sep 07 j 19:25	0°♍			980 Feb 13 j 21:49	0°♈	
	977 Oct 03 j 15:44	0°♄			980 Mar 09 j 08:38	0°♄	
	977 Oct 30 j 20:32	0°♄			980 Apr 02 j 19:18	0°♍	
evening max el	977 Nov 06 j 14:53	6°♄59'43	47°20'42		980 Apr 27 j 06:25	0°♄	
	977 Dec 02 j 04:42	0°♈		morning set	980 May 04 j 17:01	9°♄07'17	
asc. node	977 Dec 14 j 07:12	7°♈25'33			980 May 21 j 17:38	0°♈	
greatest brilliancy	977 Dec 14 j 23:59	7°♈44'48	-4.7m	asc. node	980 May 31 j 02:25	11°♈29'31	
retrograde	977 Dec 27 j 14:41	10°♈45'04		max. Earth dist.	980 Jun 08 j 23:57	22°♈24'58	1.73606 AU
evening set	978 Jan 12 j 17:36	5°♈35'47					
min. Earth dist.	978 Jan 16 j 10:28	3°♈21'28	0.27114 AU	superior conj	980 Jun 10 j 06:59	24°♈00'20	0°23'53
inferior conj	978 Jan 17 j 09:01	2°♈46'26	7°22'54	minimum elong	980 Jun 10 j 02:18	23°♈45'57	0°23'40
minimum elong	978 Jan 16 j 23:30	3°♈01'14	7°21'16		980 Jun 15 j 04:01	0°♄	
morning rise	978 Jan 21 j 05:46	0°♈24'59			980 Jul 09 j 12:54	0°♈	
	978 Jan 21 j 22:56	30°♄♄		evening rise	980 Jul 16 j 01:42	8°♈03'24	
direct	978 Feb 06 j 20:39	25°♄00'08			980 Aug 02 j 20:29	0°♍	
greatest brilliancy	978 Feb 17 j 13:13	27°♄07'20	-4.6m		980 Aug 27 j 03:53	0°♈	
	978 Feb 23 j 18:16	0°♈		desc. node	980 Sep 19 j 15:43	28°♈56'13	
morning max el	978 Mar 28 j 09:45	26°♈15'31	46°15'05		980 Sep 20 j 12:28	0°♍	
	978 Apr 01 j 04:45	0°♄			980 Oct 14 j 23:30	0°♄	
desc. node	978 Apr 04 j 20:30	3°♄41'18			980 Nov 08 j 15:01	0°♄	
	978 Apr 29 j 12:12	0°♍			980 Dec 03 j 16:26	0°♈	
	978 May 26 j 00:37	0°♄			980 Dec 29 j 18:21	0°♄	
	978 Jun 20 j 17:14	0°♈		asc. node	981 Jan 10 j 19:02	13°♄02'24	
	978 Jul 15 j 20:43	0°♄		evening max el	981 Jan 17 j 09:53	19°♄52'56	46°47'46
asc. node	978 Jul 27 j 00:02	13°♄28'03			981 Jan 27 j 20:25	0°♍	
	978 Aug 09 j 13:20	0°♈		greatest brilliancy	981 Feb 22 j 10:41	18°♍53'32	-4.6m
	978 Sep 02 j 20:59	0°♍		retrograde	981 Mar 08 j 18:16	22°♍35'14	
morning set	978 Sep 21 j 23:49	23°♍49'33		evening set	981 Mar 25 j 17:41	16°♍57'38	
	978 Sep 26 j 22:14	0°♈		inferior conj	981 Mar 29 j 23:46	14°♍18'47	6°51'36
	978 Oct 20 j 19:56	0°♍		minimum elong	981 Mar 30 j 09:11	14°♍03'52	6°49'55
max. Earth dist.	978 Oct 30 j 02:33	11°♍39'45	1.71196 AU	min. Earth dist.	981 Mar 29 j 22:02	14°♍21'31	0.28601 AU
				morning rise	981 Apr 04 j 01:02	11°♍12'38	
superior conj	978 Oct 31 j 00:02	12°♍47'20	0°36'00	direct	981 Apr 20 j 07:20	6°♍07'16	
minimum elong	978 Oct 31 j 08:26	13°♍13'45	0°35'36	desc. node	981 May 02 j 08:15	8°♍43'23	
	978 Nov 13 j 16:22	0°♄		greatest brilliancy	981 May 02 j 07:43	8°♍42'51	-4.5m
desc. node	978 Nov 15 j 13:25	2°♄21'40			981 Jun 01 j 15:08	0°♄	
	978 Dec 07 j 12:58	0°♄		morning max el	981 Jun 08 j 03:16	6°♄02'56	45°44'56
evening rise	978 Dec 11 j 09:17	4°♄49'56			981 Jul 01 j 15:14	0°♈	
	978 Dec 31 j 10:50	0°♈			981 Jul 28 j 14:52	0°♄	
	979 Jan 24 j 11:31	0°♄		asc. node	981 Aug 23 j 11:54	0°♈16'55	
	979 Feb 17 j 17:32	0°♍			981 Aug 23 j 06:14	0°♈	
asc. node	979 Mar 08 j 16:49	23°♍10'05			981 Sep 17 j 01:46	0°♍	
	979 Mar 14 j 08:22	0°♄			981 Oct 11 j 08:40	0°♈	
	979 Apr 08 j 12:45	0°♈			981 Nov 04 j 08:28	0°♍	
	979 May 04 j 15:03	0°♄			981 Nov 28 j 05:18	0°♄	
	979 Jun 01 j 12:47	0°♈		morning set	981 Dec 05 j 12:15	9°♄10'26	
evening max el	979 Jun 11 j 11:01	9°♈47'58	45°25'18	desc. node	981 Dec 13 j 01:19	18°♄39'56	
desc. node	979 Jun 28 j 06:08	24°♈34'10			981 Dec 22 j 01:37	0°♄	
	979 Jul 05 j 15:13	0°♍			982 Jan 14 j 22:49	0°♈	
greatest brilliancy	979 Jul 18 j 01:58	6°♍50'12	-4.5m				
retrograde	979 Jul 30 j 02:29	9°♍22'41		superior conj	982 Jan 16 j 09:34	1°♈48'54	-1°-10'-3
evening set	979 Aug 16 j 22:28	3°♍27'17		minimum elong	982 Jan 15 j 22:21	1°♈13'44	1°09'45
inferior conj	979 Aug 20 j 07:23	1°♍24'15	-8°-39'-41	max. Earth dist.	982 Jan 20 j 02:03	6°♈26'12	1.71450 AU
minimum elong	979 Aug 20 j 04:48	1°♍28'13	8°39'37		982 Feb 07 j 22:03	0°♄	
min. Earth dist.	979 Aug 20 j 20:07	1°♍04'37	0.28355 AU	evening rise	982 Feb 25 j 22:45	22°♄27'21	
	979 Aug 22 j 14:18	30°♄♄			982 Mar 04 j 00:36	0°♍	
morning rise	979 Aug 23 j 10:59	29°♄28'49			982 Mar 28 j 07:48	0°♄	
direct	979 Sep 10 j 16:39	23°♈15'41		asc. node	982 Apr 05 j 04:42	9°♄39'27	
greatest brilliancy	979 Sep 25 j 03:21	27°♈00'27	-4.6m		982 Apr 21 j 20:49	0°♈	

	982 May 16 j 16:54	0°☿		desc. node	985 Jan 09 j 13:08	5°☿10'06	
	982 Jun 10 j 22:35	0°♌			985 Jan 29 j 10:30	0°♌	
	982 Jul 06 j 19:29	0°♍		morning set	985 Feb 20 j 11:49	27°♌28'34	
desc. node	982 Jul 25 j 17:57	21°♍11'33			985 Feb 22 j 12:30	0°♌	
	982 Aug 02 j 21:02	0°♎			985 Mar 18 j 16:38	0°♍	
evening max el	982 Aug 23 j 05:11	20°♎50'33	46°23'28				
	982 Sep 02 j 00:45	0°♏		superior conj	985 Mar 31 j 10:27	15°♍45'50	-1°-6'-50
greatest brilliancy	982 Oct 01 j 06:55	19°♏53'13	-4.6m	minimum elong	985 Mar 31 j 20:12	16°♍15'56	1°06'34
retrograde	982 Oct 11 j 19:56	21°♏55'43		max. Earth dist.	985 Apr 03 j 05:14	19°♍12'03	1.72980 AU
evening set	982 Oct 26 j 22:42	17°♏30'54			985 Apr 11 j 23:21	0°♎	
inferior conj	982 Nov 01 j 10:45	14°♏17'26	-3°-37'-56	asc. node	985 May 02 j 16:38	25°♎29'48	
minimum elong	982 Nov 01 j 18:30	14°♏05'37	3°35'39		985 May 06 j 08:40	0°♏	
min. Earth dist.	982 Nov 01 j 23:00	13°♏58'47	0.26592 AU	evening rise	985 May 08 j 01:31	2°♏05'20	
morning rise	982 Nov 07 j 13:48	10°♏42'45			985 May 30 j 20:16	0°☿	
asc. node	982 Nov 15 j 21:19	7°♏21'51			985 Jun 24 j 10:10	0°♌	
direct	982 Nov 21 j 22:35	6°♏36'40			985 Jul 19 j 03:19	0°♍	
greatest brilliancy	982 Dec 04 j 18:17	9°♏39'35	-4.7m		985 Aug 13 j 01:48	0°♎	
	983 Jan 01 j 10:28	0°♏		desc. node	985 Aug 22 j 05:48	10°♎56'00	
morning max el	983 Jan 11 j 13:09	9°♏51'27	46°54'01		985 Sep 07 j 08:55	0°♏	
	983 Jan 30 j 12:27	0°☿			985 Oct 03 j 07:22	0°♏	
	983 Feb 25 j 22:54	0°♌			985 Oct 30 j 17:11	0°☿	
desc. node	983 Mar 07 j 10:49	11°♌04'22		evening max el	985 Nov 04 j 05:42	4°☿38'33	47°20'15
	983 Mar 23 j 12:00	0°♌			985 Dec 03 j 04:33	0°♌	
	983 Apr 17 j 15:44	0°♍		greatest brilliancy	985 Dec 12 j 13:51	5°♌19'33	-4.7m
	983 May 12 j 14:26	0°♎		asc. node	985 Dec 13 j 09:13	5°♌40'41	
asc. node	983 Jun 06 j 09:12	0°♏		retrograde	985 Dec 25 j 04:58	8°♌19'58	
	983 Jun 28 j 14:16	27°♏04'36		evening set	986 Jan 10 j 03:19	3°♌16'17	
	983 Jun 30 j 23:36	0°☿		min. Earth dist.	986 Jan 13 j 23:27	0°♌57'32	0.27059 AU
morning set	983 Jul 12 j 05:23	13°☿47'35		inferior conj	986 Jan 14 j 22:21	0°♌22'01	7°10'04
	983 Jul 25 j 09:04	0°♌		minimum elong	986 Jan 14 j 12:31	0°♌37'16	7°08'15
max. Earth dist.	983 Aug 13 j 23:59	24°♌18'08	1.72596 AU		986 Jan 15 j 12:34	30°♌30	
				morning rise	986 Jan 18 j 22:09	27°☿56'32	
superior conj	983 Aug 17 j 17:34	28°♌56'22	1°23'36	direct	986 Feb 04 j 09:58	22°☿36'34	
minimum elong	983 Aug 17 j 14:39	28°♌47'21	1°23'35	greatest brilliancy	986 Feb 15 j 02:01	24°☿44'01	-4.6m
	983 Aug 18 j 14:02	0°♍			986 Feb 25 j 08:13	0°♌	
	983 Sep 11 j 15:56	0°♎		morning max el	986 Mar 26 j 00:42	23°♌58'58	46°16'30
evening rise	983 Sep 24 j 06:07	15°♎43'15			986 Apr 01 j 01:55	0°♌	
	983 Oct 05 j 16:28	0°♏		desc. node	986 Apr 03 j 22:36	2°♌55'05	
desc. node	983 Oct 18 j 03:41	15°♏34'35			986 Apr 29 j 03:41	0°♍	
	983 Oct 29 j 16:55	0°♏			986 May 25 j 13:48	0°♎	
	983 Nov 22 j 18:18	0°☿			986 Jun 20 j 05:15	0°♏	
	983 Dec 16 j 22:13	0°♌			986 Jul 15 j 08:04	0°☿	
	984 Jan 10 j 08:16	0°♌		asc. node	986 Jul 26 j 02:01	13°☿00'10	
	984 Feb 04 j 07:11	0°♍			986 Aug 09 j 00:20	0°♌	
asc. node	984 Feb 08 j 06:52	4°♍42'03			986 Sep 02 j 07:50	0°♍	
	984 Mar 01 j 07:54	0°♎		morning set	986 Sep 19 j 14:35	21°♍32'00	
evening max el	984 Mar 29 j 07:47	29°♎29'34	45°39'05		986 Sep 26 j 09:02	0°♎	
	984 Mar 29 j 20:20	0°♏			986 Oct 20 j 06:44	0°♏	
greatest brilliancy	984 May 02 j 14:20	26°♏02'40	-4.5m	max. Earth dist.	986 Oct 27 j 10:42	9°♏00'26	1.71217 AU
retrograde	984 May 17 j 04:09	29°♏46'09					
desc. node	984 May 29 j 20:18	26°♏37'32		superior conj	986 Oct 28 j 11:41	10°♏18'59	0°39'25
evening set	984 Jun 01 j 05:44	25°♏23'59		minimum elong	986 Oct 28 j 20:38	10°♏47'07	0°39'01
inferior conj	984 Jun 07 j 16:20	21°♏33'17	-2°-3'-22		986 Nov 13 j 03:13	0°♏	
minimum elong	984 Jun 07 j 11:53	21°♏40'14	2°02'06	desc. node	986 Nov 14 j 15:36	1°♏54'24	
min. Earth dist.	984 Jun 07 j 17:25	21°♏31'35	0.28978 AU		986 Dec 06 j 23:53	0°☿	
morning rise	984 Jun 13 j 17:51	17°♏53'55		evening rise	986 Dec 08 j 19:27	2°☿16'52	
direct	984 Jun 29 j 07:26	13°♏15'05			986 Dec 30 j 21:49	0°♌	
greatest brilliancy	984 Jul 13 j 06:20	16°♏37'15	-4.5m		987 Jan 23 j 22:37	0°♌	
	984 Aug 02 j 11:53	0°☿			987 Feb 17 j 04:52	0°♍	
morning max el	984 Aug 17 j 09:04	13°☿23'56	45°59'44	asc. node	987 Mar 07 j 18:49	22°♍40'46	
	984 Sep 02 j 15:41	0°♌			987 Mar 13 j 20:10	0°♎	
asc. node	984 Sep 19 j 23:41	19°♌05'36			987 Apr 08 j 01:30	0°♏	
	984 Sep 29 j 11:41	0°♍			987 May 04 j 05:42	0°☿	
	984 Oct 24 j 17:36	0°♎			987 Jun 01 j 08:21	0°♌	
	984 Nov 18 j 05:24	0°♏		evening max el	987 Jun 09 j 02:33	7°♌36'33	45°24'23
	984 Dec 12 j 09:00	0°♏		desc. node	987 Jun 27 j 08:10	23°♌29'28	
	985 Jan 05 j 09:48	0°☿			987 Jul 06 j 16:39	0°♍	

greatest brilliancy	987 Jul 15 j 14:36	4° \mathbb{M} 34'36	-4.5m	superior conj	990 Jan 13 j 19:45	29° \mathfrak{Z} 15'59	-1°-7'-42
retrograde	987 Jul 27 j 16:41	7° \mathbb{M} 08'20		minimum elong	990 Jan 13 j 08:12	28° \mathfrak{Z} 39'46	1°07'21
evening set	987 Aug 14 j 10:56	1° \mathbb{M} 16'09			990 Jan 14 j 09:47	0° \approx	
	987 Aug 16 j 13:19	30° \mathbb{R} Ω		max. Earth dist.	990 Jan 17 j 07:58	3° \approx 40'01	1.71403 AU
inferior conj	987 Aug 17 j 22:11	29° Ω 09'19	-8°-36'-15		990 Feb 07 j 08:58	0° \mathbb{H}	
minimum elong	987 Aug 17 j 18:48	29° Ω 14'33	8°36'07	evening rise	990 Feb 23 j 11:07	20° \mathbb{H} 02'46	
min. Earth dist.	987 Aug 18 j 09:57	28° Ω 51'09	0.28401 AU		990 Mar 03 j 11:30	0° \mathbb{Y}	
morning rise	987 Aug 21 j 02:31	27° Ω 12'32			990 Mar 27 j 18:47	0° \mathfrak{B}	
direct	987 Sep 08 j 08:20	21° Ω 00'19		asc. node	990 Apr 04 j 06:52	9° \mathfrak{B} 12'21	
greatest brilliancy	987 Sep 22 j 17:42	24° Ω 43'06	-4.6m		990 Apr 21 j 08:01	0° \mathbb{H}	
	987 Oct 01 j 16:46	0° \mathbb{M}			990 May 16 j 04:35	0° \mathfrak{S}	
asc. node	987 Oct 18 j 11:34	13° \mathbb{M} 41'11			990 Jun 10 j 11:11	0° Ω	
morning max el	987 Oct 28 j 17:50	23° \mathbb{M} 38'32	46°41'51		990 Jul 06 j 09:47	0° \mathbb{M}	
	987 Nov 03 j 21:38	0° \mathfrak{A}		desc. node	990 Jul 24 j 19:55	20° \mathbb{M} 31'50	
	987 Nov 30 j 20:11	0° \mathbb{M}			990 Aug 02 j 15:00	0° \mathfrak{A}	
	987 Dec 26 j 04:04	0° \mathfrak{A}		evening max el	990 Aug 20 j 17:05	18° \mathfrak{A} 25'36	46°20'50
	988 Jan 19 j 21:31	0° \mathfrak{Z}			990 Sep 02 j 07:02	0° \mathbb{M}	
desc. node	988 Feb 07 j 00:57	22° \mathfrak{Z} 12'06		greatest brilliancy	990 Sep 28 j 19:53	17° \mathbb{M} 26'59	-4.6m
	988 Feb 13 j 09:32	0° \approx		retrograde	990 Oct 09 j 07:30	19° \mathbb{M} 28'35	
	988 Mar 08 j 19:53	0° \mathbb{H}		evening set	990 Oct 24 j 13:29	14° \mathbb{M} 59'41	
	988 Apr 02 j 06:15	0° \mathbb{Y}		inferior conj	990 Oct 29 j 23:01	11° \mathbb{M} 50'01	-3°-59'-45
	988 Apr 26 j 17:10	0° \mathfrak{B}		minimum elong	990 Oct 30 j 07:24	11° \mathbb{M} 37'17	3°57'21
morning set	988 May 02 j 10:39	7° \mathfrak{B} 01'27		min. Earth dist.	990 Oct 30 j 12:49	11° \mathbb{M} 29'03	0.26637 AU
	988 May 21 j 04:16	0° \mathbb{H}		morning rise	990 Nov 05 j 00:43	8° \mathbb{M} 17'10	
asc. node	988 May 30 j 04:29	11° \mathbb{H} 03'22		asc. node	990 Nov 14 j 23:21	4° \mathbb{M} 33'00	
max. Earth dist.	988 Jun 06 j 20:40	20° \mathbb{H} 28'41	1.73614 AU	direct	990 Nov 19 j 11:01	4° \mathbb{M} 08'06	
				greatest brilliancy	990 Dec 02 j 10:41	7° \mathbb{M} 15'26	-4.7m
superior conj	988 Jun 08 j 01:17	21° \mathbb{H} 56'34	0°20'52		991 Jan 01 j 13:52	0° \mathfrak{A}	
minimum elong	988 Jun 07 j 21:10	21° \mathbb{H} 43'54	0°20'39	morning max el	991 Jan 09 j 02:25	7° \mathfrak{A} 25'04	46°54'43
	988 Jun 14 j 14:38	0° \mathfrak{S}			991 Jan 30 j 06:10	0° \mathfrak{Z}	
	988 Jul 08 j 23:34	0° Ω			991 Feb 25 j 13:26	0° \approx	
evening rise	988 Jul 13 j 20:12	5° Ω 59'25		desc. node	991 Mar 06 j 12:53	10° \approx 29'44	
	988 Aug 02 j 07:20	0° \mathbb{M}			991 Mar 23 j 00:57	0° \mathbb{H}	
	988 Aug 26 j 15:02	0° \mathfrak{A}			991 Apr 17 j 03:46	0° \mathbb{Y}	
desc. node	988 Sep 18 j 17:48	28° \mathfrak{A} 27'02			991 May 12 j 01:52	0° \mathfrak{B}	
	988 Sep 20 j 00:03	0° \mathbb{M}			991 Jun 05 j 20:15	0° \mathbb{H}	
	988 Oct 14 j 11:40	0° \mathfrak{A}		asc. node	991 Jun 27 j 16:14	26° \mathbb{H} 37'25	
	988 Nov 08 j 03:59	0° \mathfrak{Z}			991 Jun 30 j 10:26	0° \mathfrak{S}	
	988 Dec 03 j 06:44	0° \approx		morning set	991 Jul 09 j 23:19	11° \mathfrak{S} 41'59	
	988 Dec 29 j 11:31	0° \mathbb{H}			991 Jul 24 j 19:50	0° Ω	
asc. node	989 Jan 09 j 21:04	12° \mathbb{H} 16'02		max. Earth dist.	991 Aug 11 j 19:34	22° Ω 16'18	1.72652 AU
evening max el	989 Jan 15 j 00:39	17° \mathbb{H} 34'24	46°50'09				
	989 Jan 27 j 23:35	0° \mathbb{Y}		superior conj	991 Aug 15 j 10:43	26° Ω 46'54	1°23'01
greatest brilliancy	989 Feb 20 j 05:03	16° \mathbb{Y} 43'28	-4.6m	minimum elong	991 Aug 15 j 07:10	26° Ω 35'53	1°22'59
retrograde	989 Mar 06 j 10:02	20° \mathbb{Y} 22'41			991 Aug 18 j 00:52	0° \mathbb{M}	
evening set	989 Mar 23 j 12:31	14° \mathbb{Y} 41'22			991 Sep 11 j 02:55	0° \mathfrak{A}	
inferior conj	989 Mar 27 j 15:46	12° \mathbb{Y} 06'36	7°03'56	evening rise	991 Sep 21 j 20:13	13° \mathfrak{A} 22'57	
minimum elong	989 Mar 28 j 00:58	11° \mathbb{Y} 52'01	7°02'22		991 Oct 05 j 03:37	0° \mathbb{M}	
min. Earth dist.	989 Mar 27 j 13:35	12° \mathbb{Y} 10'04	0.28569 AU	desc. node	991 Oct 17 j 05:47	15° \mathbb{M} 06'01	
morning rise	989 Apr 01 j 13:44	9° \mathbb{Y} 04'56			991 Oct 29 j 04:17	0° \mathfrak{A}	
direct	989 Apr 17 j 22:40	3° \mathbb{Y} 55'46			991 Nov 22 j 05:55	0° \mathfrak{Z}	
greatest brilliancy	989 Apr 29 j 21:00	6° \mathbb{Y} 28'52	-4.5m		991 Dec 16 j 10:13	0° \approx	
desc. node	989 May 01 j 10:26	7° \mathbb{Y} 08'47			992 Jan 09 j 20:49	0° \mathbb{H}	
	989 Jun 01 j 15:59	0° \mathfrak{B}			992 Feb 03 j 20:45	0° \mathbb{Y}	
morning max el	989 Jun 05 j 17:53	3° \mathfrak{B} 49'54	45°45'08	asc. node	992 Feb 07 j 08:54	4° \mathbb{Y} 07'33	
	989 Jul 01 j 07:29	0° \mathbb{H}			992 Feb 29 j 23:42	0° \mathfrak{B}	
	989 Jul 28 j 04:22	0° \mathfrak{S}		evening max el	992 Mar 26 j 23:34	27° \mathfrak{B} 17'55	45°41'04
asc. node	989 Aug 22 j 13:57	29° \mathfrak{S} 46'28			992 Mar 29 j 18:54	0° \mathbb{H}	
	989 Aug 22 j 18:29	0° Ω		greatest brilliancy	992 Apr 30 j 05:04	23° \mathbb{H} 52'11	-4.5m
	989 Sep 16 j 13:23	0° \mathbb{M}		retrograde	992 May 14 j 21:16	27° \mathbb{H} 38'18	
	989 Oct 10 j 19:57	0° \mathfrak{A}		desc. node	992 May 28 j 22:16	23° \mathbb{H} 47'39	
	989 Nov 03 j 19:37	0° \mathbb{M}		evening set	992 May 29 j 22:07	23° \mathbb{H} 15'55	
	989 Nov 27 j 16:22	0° \mathfrak{A}		inferior conj	992 Jun 05 j 08:51	19° \mathbb{H} 24'53	-1°-44'-12
morning set	989 Dec 02 j 22:10	6° \mathfrak{A} 35'47		minimum elong	992 Jun 05 j 05:04	19° \mathbb{H} 30'48	1°43'07
desc. node	989 Dec 12 j 03:17	18° \mathfrak{A} 11'24		min. Earth dist.	992 Jun 05 j 09:44	19° \mathbb{H} 23'31	0.28978 AU
	989 Dec 21 j 12:38	0° \mathfrak{Z}		morning rise	992 Jun 11 j 11:56	15° \mathbb{H} 43'41	
				direct	992 Jun 27 j 00:08	11° \mathbb{H} 06'37	

greatest brilliancy	992 Jul 10 j 22:31	14° Π 28'48	-4.5m			995 Jan 23 j 10:10	0° X		
	992 Aug 02 j 17:54	0° S				995 Feb 16 j 16:38	0° Y		
morning max el	992 Aug 15 j 01:41	11° S 14'44	45°58'26	asc. node		995 Mar 06 j 20:59	22° Y 10'38		
	992 Sep 02 j 09:06	0° Ω				995 Mar 13 j 08:25	0° B		
asc. node	992 Sep 19 j 01:53	18° Ω 29'02				995 Apr 07 j 14:42	0° Π		
	992 Sep 29 j 01:55	0° M				995 May 03 j 20:55	0° S		
	992 Oct 24 j 06:31	0° A				995 Jun 01 j 04:54	0° Ω		
	992 Nov 17 j 17:38	0° M		evening max el		995 Jun 06 j 17:33	5° Ω 23'01	45°23'34	
	992 Dec 11 j 20:49	0° X		desc. node		995 Jun 26 j 10:13	22° Ω 22'30		
	993 Jan 04 j 21:20	0° S				995 Jul 08 j 04:56	0° M		
desc. node	993 Jan 08 j 15:08	4° S 40'29		greatest brilliancy		995 Jul 13 j 04:11	2° M 19'47	-4.5m	
	993 Jan 28 j 21:49	0° \approx		retrograde		995 Jul 25 j 06:54	4° M 54'22		
morning set	993 Feb 17 j 23:55	25° \approx 02'09				995 Aug 10 j 10:00	30° R Ω		
	993 Feb 21 j 23:39	0° X		evening set		995 Aug 11 j 23:29	29° Ω 05'49		
	993 Mar 18 j 03:38	0° Y		inferior conj		995 Aug 15 j 13:22	26° Ω 54'55	-8°-32'-4	
				minimum elong		995 Aug 15 j 09:13	27° Ω 01'21	8°31'50	
superior conj	993 Mar 29 j 01:41	13° Y 30'41	-1°-8'-57	min. Earth dist.		995 Aug 16 j 00:30	26° Ω 37'40	0.28445 AU	
minimum elong	993 Mar 29 j 11:17	14° Y 00'23	1°08'41	morning rise		995 Aug 18 j 18:45	24° Ω 56'15		
max. Earth dist.	993 Mar 31 j 23:03	17° Y 05'00	1.72934 AU	direct		995 Sep 05 j 23:44	18° Ω 45'22		
	993 Apr 11 j 10:17	0° B		greatest brilliancy		995 Sep 20 j 08:35	22° Ω 26'28	-4.6m	
asc. node	993 May 01 j 18:41	25° B 02'31				995 Oct 02 j 12:45	0° M		
evening rise	993 May 05 j 19:11	29° B 58'42		asc. node		995 Oct 17 j 13:34	12° M 43'48		
	993 May 05 j 19:36	0° Π		morning max el		995 Oct 26 j 07:13	21° M 14'59	46°40'27	
	993 May 30 j 07:19	0° S				995 Nov 03 j 17:29	0° A		
	993 Jun 23 j 21:30	0° Ω				995 Nov 30 j 11:39	0° M		
	993 Jul 18 j 15:10	0° M				995 Dec 25 j 17:47	0° X		
	993 Aug 12 j 14:26	0° A				996 Jan 19 j 10:18	0° S		
desc. node	993 Aug 21 j 07:55	10° A 23'32		desc. node		996 Feb 06 j 03:03	21° S 40'53		
	993 Sep 06 j 22:52	0° M				996 Feb 12 j 21:42	0° \approx		
	993 Oct 02 j 23:43	0° X				996 Mar 08 j 07:35	0° X		
	993 Oct 30 j 15:12	0° S				996 Apr 01 j 17:35	0° Y		
evening max el	993 Nov 01 j 20:58	2° S 16'57	47°19'28			996 Apr 26 j 04:16	0° B		
	993 Dec 04 j 15:17	0° \approx		morning set		996 Apr 30 j 04:03	4° B 53'44		
greatest brilliancy	993 Dec 10 j 04:28	2° \approx 53'06	-4.7m			996 May 20 j 15:14	0° Π		
asc. node	993 Dec 12 j 11:14	3° \approx 49'30		asc. node		996 May 29 j 06:26	10° Π 35'48		
retrograde	993 Dec 22 j 19:02	5° \approx 52'08		max. Earth dist.		996 Jun 04 j 16:27	18° Π 28'32	1.73619 AU	
evening set	994 Jan 07 j 12:51	0° \approx 54'25							
	994 Jan 09 j 01:56	30° R S		superior conj		996 Jun 05 j 19:38	19° Π 52'00	0°17'48	
min. Earth dist.	994 Jan 11 j 12:13	28° S 31'00	0.26997 AU	minimum elong		996 Jun 05 j 16:04	19° Π 41'04	0°17'38	
inferior conj	994 Jan 12 j 11:22	27° S 55'09	6°56'16			996 Jun 14 j 01:33	0° S		
minimum elong	994 Jan 12 j 01:19	28° S 10'44	6°54'17			996 Jul 08 j 10:34	0° Ω		
morning rise	994 Jan 16 j 14:16	25° S 25'29		evening rise		996 Jul 11 j 14:59	3° Ω 55'26		
direct	994 Feb 01 j 23:11	20° S 10'55				996 Aug 01 j 18:30	0° M		
greatest brilliancy	994 Feb 12 j 13:55	22° S 17'43	-4.6m			996 Aug 26 j 02:30	0° A		
	994 Feb 26 j 11:41	0° \approx		desc. node		996 Sep 17 j 19:57	27° A 57'15		
morning max el	994 Mar 23 j 14:48	21° \approx 39'09	46°18'00			996 Sep 19 j 11:56	0° M		
	994 Mar 31 j 22:45	0° X				996 Oct 14 j 00:07	0° X		
desc. node	994 Apr 03 j 00:46	2° X 08'48				996 Nov 07 j 17:17	0° S		
	994 Apr 28 j 19:14	0° Y				996 Dec 02 j 21:29	0° \approx		
	994 May 25 j 03:11	0° B				996 Dec 29 j 05:28	0° X		
	994 Jun 19 j 17:30	0° Π		asc. node		997 Jan 08 j 23:07	11° X 27'43		
	994 Jul 14 j 19:41	0° S		evening max el		997 Jan 12 j 14:29	15° X 11'57	46°52'15	
asc. node	994 Jul 25 j 04:07	12° S 31'51				997 Jan 28 j 05:16	0° Y		
	994 Aug 08 j 11:36	0° Ω		greatest brilliancy		997 Feb 17 j 22:52	14° Y 30'32	-4.6m	
	994 Sep 01 j 18:56	0° M		retrograde		997 Mar 04 j 01:33	18° Y 08'01		
morning set	994 Sep 17 j 05:46	19° M 14'57		evening set		997 Mar 21 j 07:05	12° Y 22'48		
	994 Sep 25 j 20:06	0° A		inferior conj		997 Mar 25 j 07:34	9° Y 52'19	7°15'43	
	994 Oct 19 j 17:53	0° M		minimum elong		997 Mar 25 j 16:30	9° Y 38'09	7°14'17	
max. Earth dist.	994 Oct 24 j 16:59	6° M 14'12	1.71249 AU	min. Earth dist.		997 Mar 25 j 05:06	9° Y 56'13	0.28537 AU	
				morning rise		997 Mar 30 j 02:10	6° Y 55'23		
superior conj	994 Oct 25 j 23:36	7° M 50'26	0°42'44	direct		997 Apr 15 j 13:20	1° Y 42'01		
minimum elong	994 Oct 26 j 09:00	8° M 20'01	0°42'20	greatest brilliancy		997 Apr 27 j 11:04	4° Y 14'02	-4.5m	
	994 Nov 12 j 14:27	0° X		desc. node		997 Apr 30 j 12:21	5° Y 35'33		
desc. node	994 Nov 13 j 17:34	1° X 25'16				997 Jun 01 j 16:09	0° B		
evening rise	994 Dec 06 j 05:15	29° X 41'12		morning max el		997 Jun 03 j 08:24	1° B 35'25	45°45'35	
	994 Dec 06 j 11:14	0° S				997 Jun 30 j 23:46	0° Π		
	994 Dec 30 j 09:15	0° \approx				997 Jul 27 j 18:00	0° S		

asc. node	997 Aug 21 j 16:02	29°☿15'38		1000 Mar 29 j 18:26	0°♄	
	997 Aug 22 j 06:53	0°♄	greatest brilliancy	1000 Apr 27 j 20:50	21°♄42'53	-4.5m
	997 Sep 16 j 01:10	0°♅	retrograde	1000 May 12 j 14:21	25°♄29'55	
	997 Oct 10 j 07:26	0°♅	evening set	1000 May 27 j 14:37	21°♄07'27	
	997 Nov 03 j 06:57	0°♆	desc. node	1000 May 28 j 00:20	20°♄54'06	
	997 Nov 27 j 03:36	0°♆	inferior conj	1000 Jun 03 j 01:17	17°♄16'06	-1°-24'-43
morning set	997 Nov 30 j 08:43	4°♆02'37	minimum elong	1000 Jun 02 j 22:11	17°♄20'56	1°23'51
desc. node	997 Dec 11 j 05:20	17°♆42'42	min. Earth dist.	1000 Jun 03 j 01:53	17°♄15'10	0.28977 AU
	997 Dec 20 j 23:48	0°♆	morning rise	1000 Jun 09 j 05:48	13°♄33'09	
			direct	1000 Jun 24 j 17:02	8°♄57'59	
superior conj	998 Jan 11 j 06:06	26°♆42'58	greatest brilliancy	1000 Jul 08 j 13:47	12°♄19'02	-4.5m
minimum elong	998 Jan 10 j 18:18	26°♆05'58		1000 Aug 02 j 22:00	0°♆	
	998 Jan 13 j 20:55	0°♆	morning max el	1000 Aug 12 j 18:12	9°♆05'26	45°57'13
max. Earth dist.	998 Jan 14 j 12:39	0°♆49'20		1000 Sep 02 j 02:07	0°♄	
	998 Feb 06 j 20:06	0°♆	asc. node	1000 Sep 18 j 03:55	17°♄52'37	
evening rise	998 Feb 20 j 23:19	17°♆36'48		1000 Sep 28 j 15:54	0°♅	
	998 Mar 02 j 22:40	0°♅		1000 Oct 23 j 19:12	0°♅	
	998 Mar 27 j 06:03	0°♅		1000 Nov 17 j 05:39	0°♆	
asc. node	998 Apr 03 j 08:51	8°♅43'45		1000 Dec 11 j 08:28	0°♆	
	998 Apr 20 j 19:30	0°♅		1001 Jan 04 j 08:43	0°♆	
	998 May 15 j 16:33	0°♆	desc. node	1001 Jan 07 j 17:16	4°♆11'44	
	998 Jun 10 j 00:04	0°♄		1001 Jan 28 j 09:00	0°♆	
	998 Jul 06 j 00:26	0°♅	morning set	1001 Feb 15 j 12:08	22°♆36'28	
desc. node	998 Jul 23 j 22:03	19°♅51'41		1001 Feb 21 j 10:38	0°♆	
	998 Aug 02 j 09:35	0°♅		1001 Mar 17 j 14:28	0°♅	
evening max el	998 Aug 18 j 05:38	16°♅02'10				
	998 Sep 02 j 15:52	0°♆	superior conj	1001 Mar 26 j 16:56	11°♅16'05	-1°-10'-57
greatest brilliancy	998 Sep 26 j 08:01	15°♆00'04	minimum elong	1001 Mar 27 j 02:20	11°♅45'10	1°10'42
retrograde	998 Oct 06 j 19:50	17°♆01'52	max. Earth dist.	1001 Mar 29 j 18:54	15°♅04'41	1.72887 AU
evening set	998 Oct 22 j 04:32	12°♆28'34		1001 Apr 10 j 21:02	0°♅	
inferior conj	998 Oct 27 j 11:24	9°♆22'45	asc. node	1001 Apr 30 j 20:41	24°♅35'35	
minimum elong	998 Oct 27 j 20:20	9°♆09'12	evening rise	1001 May 03 j 12:48	27°♅52'25	
min. Earth dist.	998 Oct 28 j 02:21	9°♆00'06		1001 May 05 j 06:23	0°♅	
morning rise	998 Nov 02 j 11:33	5°♆52'18		1001 May 29 j 18:15	0°♆	
asc. node	998 Nov 14 j 01:18	1°♆50'36		1001 Jun 23 j 08:45	0°♄	
direct	998 Nov 17 j 00:01	1°♆39'51		1001 Jul 18 j 02:55	0°♅	
greatest brilliancy	998 Nov 30 j 02:31	4°♆50'54		1001 Aug 12 j 02:59	0°♅	
	999 Jan 01 j 15:44	0°♆	desc. node	1001 Aug 20 j 10:00	9°♅51'19	
morning max el	999 Jan 06 j 16:44	5°♆01'25		1001 Sep 06 j 12:45	0°♆	
	999 Jan 29 j 23:29	0°♆		1001 Oct 02 j 16:05	0°♆	
	999 Feb 25 j 03:50	0°♆	evening max el	1001 Oct 30 j 12:03	29°♆55'45	47°18'35
desc. node	999 Mar 05 j 15:01	9°♆55'28		1001 Oct 30 j 13:44	0°♆	
	999 Mar 22 j 13:54	0°♆		1001 Dec 06 j 18:58	0°♆	
	999 Apr 16 j 15:51	0°♅	greatest brilliancy	1001 Dec 07 j 20:01	0°♆28'39	-4.7m
	999 May 11 j 13:24	0°♅	asc. node	1001 Dec 11 j 13:23	1°♆54'57	
	999 Jun 05 j 07:24	0°♅	retrograde	1001 Dec 20 j 08:47	3°♆24'56	
asc. node	999 Jun 26 j 18:22	26°♅10'31		1002 Jan 02 j 06:24	30°♅	
	999 Jun 29 j 21:20	0°♆	evening set	1002 Jan 04 j 22:33	28°♅33'20	
morning set	999 Jul 07 j 17:11	9°♆36'01	min. Earth dist.	1002 Jan 09 j 01:23	26°♅04'50	0.26937 AU
	999 Jul 24 j 06:40	0°♄	inferior conj	1002 Jan 10 j 00:26	25°♅29'09	6°41'31
max. Earth dist.	999 Aug 09 j 15:17	20°♄14'54	minimum elong	1002 Jan 09 j 14:13	25°♅44'58	6°39'25
			morning rise	1002 Jan 14 j 06:25	22°♅55'02	
superior conj	999 Aug 13 j 03:55	24°♄37'33	direct	1002 Jan 30 j 12:13	17°♅46'09	
minimum elong	999 Aug 12 j 23:44	24°♄24'34	greatest brilliancy	1002 Feb 10 j 02:12	19°♅52'21	-4.6m
	999 Aug 17 j 11:44	0°♅		1002 Feb 27 j 07:24	0°♆	
	999 Sep 10 j 13:54	0°♅	morning max el	1002 Mar 21 j 04:01	19°♆17'49	46°19'33
evening rise	999 Sep 19 j 10:36	11°♅03'35		1002 Mar 31 j 18:34	0°♆	
	999 Oct 04 j 14:47	0°♆	desc. node	1002 Apr 02 j 02:41	1°♆23'28	
desc. node	999 Oct 16 j 07:45	14°♆36'55		1002 Apr 28 j 10:14	0°♅	
	999 Oct 28 j 15:40	0°♆		1002 May 24 j 16:09	0°♅	
	999 Nov 21 j 17:34	0°♆		1002 Jun 19 j 05:25	0°♅	
	999 Dec 15 j 22:12	0°♆		1002 Jul 14 j 07:02	0°♆	
	1000 Jan 09 j 09:21	0°♆	asc. node	1002 Jul 24 j 06:14	12°♆04'20	
	1000 Feb 03 j 10:19	0°♅		1002 Aug 07 j 22:38	0°♄	
asc. node	1000 Feb 06 j 11:03	3°♅33'29		1002 Sep 01 j 05:49	0°♅	
	1000 Feb 29 j 15:39	0°♅	morning set	1002 Sep 14 j 20:50	16°♅58'17	
evening max el	1000 Mar 24 j 16:02	25°♅08'02		1002 Sep 25 j 06:56	0°♅	

	1002 Oct 19 j 04:44	0°♌		evening set	1005 Mar 19 j 01:32	10°♍05'00	
max. Earth dist.	1002 Oct 21 j 22:36	3°♌26'54	1.71280 AU	inferior conj	1005 Mar 22 j 23:19	7°♍38'48	7°26'48
				minimum elong	1005 Mar 23 j 07:55	7°♍25'09	7°25'30
superior conj	1002 Oct 23 j 11:36	5°♌23'08	0°45'58	min. Earth dist.	1005 Mar 22 j 20:25	7°♍43'24	0.28505 AU
minimum elong	1002 Oct 23 j 21:23	5°♌53'55	0°45'33	morning rise	1005 Mar 27 j 14:32	4°♍46'54	
	1002 Nov 12 j 01:24	0°♊			1005 Apr 08 j 01:35	30°♋	
desc. node	1002 Nov 12 j 19:38	0°♊57'20		direct	1005 Apr 13 j 03:56	29°♋28'50	
evening rise	1002 Dec 03 j 15:05	27°♊06'42			1005 Apr 18 j 09:49	0°♍	
	1002 Dec 05 j 22:16	0°♊		greatest brilliancy	1005 Apr 25 j 01:39	2°♍00'41	-4.5m
	1002 Dec 29 j 20:23	0°♋		desc. node	1005 Apr 29 j 14:29	4°♍06'37	
	1003 Jan 22 j 21:26	0°♋		morning max el	1005 May 31 j 23:43	29°♍23'46	45°46'11
	1003 Feb 16 j 04:09	0°♍			1005 Jun 01 j 14:52	0°♎	
asc. node	1003 Mar 05 j 22:58	21°♍40'47			1005 Jun 30 j 15:24	0°♎	
	1003 Mar 12 j 20:25	0°♎			1005 Jul 27 j 07:10	0°♏	
	1003 Apr 07 j 03:40	0°♎		asc. node	1005 Aug 20 j 18:05	28°♏45'49	
	1003 May 03 j 11:58	0°♏			1005 Aug 21 j 18:54	0°♏	
	1003 Jun 01 j 01:44	0°♏			1005 Sep 15 j 12:37	0°♐	
evening max el	1003 Jun 04 j 07:41	3°♏08'23	45°22'47		1005 Oct 09 j 18:38	0°♐	
desc. node	1003 Jun 25 j 12:20	21°♏14'45			1005 Nov 02 j 18:02	0°♑	
greatest brilliancy	1003 Jul 10 j 16:51	0°♐04'41	-4.5m		1005 Nov 26 j 14:38	0°♑	
	1003 Jul 10 j 12:16	0°♐		morning set	1005 Nov 27 j 18:59	1°♑29'15	
retrograde	1003 Jul 22 j 20:57	2°♐41'17		desc. node	1005 Dec 10 j 07:31	17°♑15'00	
	1003 Aug 03 j 15:50	30°♑			1005 Dec 20 j 10:46	0°♒	
evening set	1003 Aug 09 j 11:39	26°♑56'24					
inferior conj	1003 Aug 13 j 04:28	24°♑41'12	-8°-26'-59	superior conj	1006 Jan 08 j 15:54	24°♒08'52	-1°-2'-32
minimum elong	1003 Aug 12 j 23:34	24°♑48'47	8°26'39	minimum elong	1006 Jan 08 j 03:58	23°♒31'26	1°02'09
min. Earth dist.	1003 Aug 13 j 15:13	24°♑24'32	0.28491 AU	max. Earth dist.	1006 Jan 11 j 17:11	27°♒58'49	1.71328 AU
morning rise	1003 Aug 16 j 11:15	22°♑40'17			1006 Jan 13 j 07:49	0°♓	
direct	1003 Sep 03 j 14:46	16°♑30'50			1006 Feb 06 j 06:58	0°♓	
greatest brilliancy	1003 Sep 18 j 00:40	20°♑12'01	-4.6m	evening rise	1006 Feb 18 j 11:13	15°♓10'45	
	1003 Oct 03 j 03:21	0°♓			1006 Mar 02 j 09:34	0°♓	
asc. node	1003 Oct 16 j 15:34	11°♓48'12			1006 Mar 26 j 17:03	0°♓	
morning max el	1003 Oct 23 j 20:38	18°♓52'15	46°39'10	asc. node	1006 Apr 02 j 10:53	8°♓16'08	
	1003 Nov 03 j 12:32	0°♓			1006 Apr 20 j 06:46	0°♓	
	1003 Nov 30 j 02:39	0°♓			1006 May 15 j 04:19	0°♓	
	1003 Dec 25 j 07:04	0°♓			1006 Jun 09 j 12:47	0°♓	
	1004 Jan 18 j 22:39	0°♓			1006 Jul 05 j 14:59	0°♓	
desc. node	1004 Feb 05 j 05:09	21°♓10'51		desc. node	1006 Jul 23 j 00:09	19°♓11'57	
	1004 Feb 12 j 09:26	0°♓			1006 Aug 02 j 04:19	0°♓	
	1004 Mar 07 j 18:53	0°♓		evening max el	1006 Aug 15 j 19:03	13°♓42'04	46°15'47
	1004 Apr 01 j 04:35	0°♓			1006 Sep 03 j 03:13	0°♓	
	1004 Apr 25 j 15:02	0°♓		greatest brilliancy	1006 Sep 23 j 19:23	12°♓33'34	-4.6m
morning set	1004 Apr 27 j 21:24	2°♓46'49		retrograde	1006 Oct 04 j 08:31	14°♓36'01	
	1004 May 20 j 01:51	0°♓		evening set	1006 Oct 19 j 19:43	9°♓58'17	
asc. node	1004 May 28 j 08:37	10°♓10'01		inferior conj	1006 Oct 24 j 23:46	6°♓56'15	-4°-41'-41
max. Earth dist.	1004 Jun 02 j 12:15	16°♓29'32	1.73623 AU	minimum elong	1006 Oct 25 j 09:12	6°♓41'58	4°39'07
				min. Earth dist.	1006 Oct 25 j 15:30	6°♓32'25	0.26737 AU
superior conj	1004 Jun 03 j 14:04	17°♓48'49	0°14'44	morning rise	1006 Oct 30 j 22:09	3°♓28'26	
minimum elong	1004 Jun 03 j 11:06	17°♓39'42	0°14'36		1006 Nov 08 j 09:18	30°♓	
behind sun begin	1004 Jun 03 j 02:23	17°♓12'55		asc. node	1006 Nov 13 j 03:32	29°♓14'56	
behind sun end	1004 Jun 03 j 19:50	18°♓06'30		direct	1006 Nov 14 j 13:33	29°♓12'27	
	1004 Jun 13 j 12:08	0°♓			1006 Nov 20 j 21:46	0°♓	
	1004 Jul 07 j 21:12	0°♓		greatest brilliancy	1006 Nov 27 j 17:33	2°♓25'56	-4.7m
evening rise	1004 Jul 09 j 09:58	1°♓53'12			1007 Jan 01 j 16:13	0°♓	
	1004 Aug 01 j 05:20	0°♓		morning max el	1007 Jan 04 j 07:33	2°♓39'19	46°55'51
	1004 Aug 25 j 13:41	0°♓			1007 Jan 29 j 16:23	0°♓	
desc. node	1004 Sep 16 j 21:54	27°♓27'34			1007 Feb 24 j 17:58	0°♓	
	1004 Sep 18 j 23:35	0°♓		desc. node	1007 Mar 04 j 17:00	9°♓21'18	
	1004 Oct 13 j 12:22	0°♓			1007 Mar 22 j 02:37	0°♓	
	1004 Nov 07 j 06:24	0°♓			1007 Apr 16 j 03:43	0°♓	
	1004 Dec 02 j 12:06	0°♓			1007 May 11 j 00:42	0°♓	
	1004 Dec 28 j 23:29	0°♓			1007 Jun 04 j 18:21	0°♓	
asc. node	1005 Jan 08 j 01:14	10°♓39'57		asc. node	1007 Jun 25 j 20:27	25°♓43'55	
evening max el	1005 Jan 10 j 03:57	12°♓49'35	46°54'34		1007 Jun 29 j 08:05	0°♓	
	1005 Jan 28 j 12:43	0°♓		morning set	1007 Jul 05 j 11:13	7°♓31'05	
greatest brilliancy	1005 Feb 15 j 15:31	12°♓16'59	-4.6m		1007 Jul 23 j 17:21	0°♓	
retrograde	1005 Mar 01 j 17:19	15°♓54'24		max. Earth dist.	1007 Aug 07 j 09:28	18°♓09'19	1.72748 AU

superior conj	1007 Aug 10 j 21:25	22°♌29'39	1°21'28	direct	1010 Jan 28 j 00:51	15°♊21'35	
minimum elong	1007 Aug 10 j 16:38	22°♌14'49	1°21'25	greatest brilliancy	1010 Feb 07 j 15:25	17°♊27'57	-4.6m
	1007 Aug 16 j 22:27	0°♎			1010 Feb 27 j 22:07	0°♊	
	1007 Sep 10 j 00:43	0°♊		morning max el	1010 Mar 18 j 16:38	16°♊54'28	46°21'00
evening rise	1007 Sep 17 j 01:21	8°♊45'56			1010 Mar 31 j 13:56	0°♋	
	1007 Oct 04 j 01:47	0°♌		desc. node	1010 Apr 01 j 04:49	0°♋38'59	
desc. node	1007 Oct 15 j 09:52	14°♌08'51			1010 Apr 28 j 01:12	0°♌	
	1007 Oct 28 j 02:54	0°♍			1010 May 24 j 05:12	0°♍	
	1007 Nov 21 j 05:06	0°♎			1010 Jun 18 j 17:27	0°♎	
	1007 Dec 15 j 10:08	0°♏			1010 Jul 13 j 18:29	0°♏	
	1008 Jan 08 j 21:54	0°♐		asc. node	1010 Jul 23 j 08:12	11°♏36'02	
	1008 Feb 02 j 23:59	0°♑			1010 Aug 07 j 09:47	0°♐	
asc. node	1008 Feb 05 j 13:02	2°♑58'46			1010 Aug 31 j 16:49	0°♑	
	1008 Feb 29 j 07:51	0°♒		morning set	1010 Sep 12 j 11:57	14°♑41'22	
evening max el	1008 Mar 22 j 08:36	22°♒58'22	45°44'53		1010 Sep 24 j 17:55	0°♒	
	1008 Mar 29 j 19:03	0°♓			1010 Oct 18 j 15:46	0°♓	
greatest brilliancy	1008 Apr 25 j 13:37	19°♓35'00	-4.5m	max. Earth dist.	1010 Oct 19 j 04:52	0°♓41'07	1.71314 AU
retrograde	1008 May 10 j 07:08	23°♓21'33					
evening set	1008 May 25 j 07:19	18°♓59'03		superior conj	1010 Oct 20 j 23:53	2°♓56'16	0°49'05
desc. node	1008 May 27 j 02:29	17°♓57'54		minimum elong	1010 Oct 21 j 09:59	3°♓28'00	0°48'40
inferior conj	1008 May 31 j 17:43	15°♓07'33	-1°-5'-11	desc. node	1010 Nov 11 j 21:48	0°♔29'12	
minimum elong	1008 May 31 j 15:19	15°♓11'17	1°04'30		1010 Nov 11 j 12:30	0°♔	
min. Earth dist.	1008 May 31 j 18:10	15°♓06'49	0.28972 AU	evening rise	1010 Dec 01 j 01:14	24°♔32'48	
morning rise	1008 Jun 06 j 23:27	11°♓22'46			1010 Dec 05 j 09:26	0°♕	
direct	1008 Jun 22 j 09:53	6°♓49'39			1010 Dec 29 j 07:38	0°♏	
greatest brilliancy	1008 Jul 06 j 03:54	10°♓07'57	-4.5m		1011 Jan 22 j 08:48	0°♐	
	1008 Aug 03 j 00:25	0°♑			1011 Feb 15 j 15:49	0°♑	
morning max el	1008 Aug 10 j 10:09	6°♑55'01	45°56'03	asc. node	1011 Mar 05 j 01:01	21°♑10'37	
	1008 Sep 01 j 18:44	0°♒			1011 Mar 12 j 08:38	0°♒	
asc. node	1008 Sep 17 j 05:53	17°♒16'30			1011 Apr 06 j 16:55	0°♓	
	1008 Sep 28 j 05:41	0°♎			1011 May 03 j 03:30	0°♑	
	1008 Oct 23 j 07:45	0°♊			1011 May 31 j 23:39	0°♒	
	1008 Nov 16 j 17:33	0°♌		evening max el	1011 Jun 01 j 21:48	0°♒53'04	45°22'12
	1008 Dec 10 j 20:00	0°♍		desc. node	1011 Jun 24 j 14:22	20°♒04'24	
	1009 Jan 03 j 20:02	0°♎		greatest brilliancy	1011 Jul 08 j 04:36	27°♒48'09	-4.5m
desc. node	1009 Jan 06 j 19:18	3°♎42'48			1011 Jul 15 j 11:12	0°♎	
	1009 Jan 27 j 20:09	0°♏		retrograde	1011 Jul 20 j 11:33	0°♎28'13	
morning set	1009 Feb 12 j 23:59	20°♏09'32			1011 Jul 25 j 09:15	30°♒♌	
	1009 Feb 20 j 21:38	0°♐		evening set	1011 Aug 06 j 23:44	24°♒47'00	
	1009 Mar 17 j 01:21	0°♑		inferior conj	1011 Aug 10 j 19:42	22°♒27'19	-8°-21'-5
				minimum elong	1011 Aug 10 j 14:05	22°♒36'00	8°20'39
superior conj	1009 Mar 24 j 07:45	8°♑59'52	-1°-12'-51	min. Earth dist.	1011 Aug 11 j 05:57	22°♒11'27	0.28536 AU
minimum elong	1009 Mar 24 j 16:53	9°♑28'09	1°12'38	morning rise	1011 Aug 14 j 04:12	20°♒23'52	
max. Earth dist.	1009 Mar 27 j 14:31	13°♑03'29	1.72836 AU	direct	1011 Sep 01 j 05:55	14°♒16'03	
	1009 Apr 10 j 07:50	0°♒		greatest brilliancy	1011 Sep 15 j 17:36	17°♒58'35	-4.6m
asc. node	1009 Apr 29 j 22:50	24°♒08'57			1011 Oct 03 j 14:28	0°♎	
evening rise	1009 May 01 j 05:58	25°♒44'33		asc. node	1011 Oct 15 j 17:47	10°♎53'45	
	1009 May 04 j 17:12	0°♓		morning max el	1011 Oct 21 j 11:02	16°♎31'37	46°37'51
	1009 May 29 j 05:14	0°♑			1011 Nov 03 j 07:20	0°♊	
	1009 Jun 22 j 20:04	0°♒			1011 Nov 29 j 17:41	0°♌	
	1009 Jul 17 j 14:45	0°♎			1011 Dec 24 j 20:29	0°♍	
	1009 Aug 11 j 15:40	0°♊			1012 Jan 18 j 11:09	0°♎	
desc. node	1009 Aug 19 j 11:58	9°♊18'26		desc. node	1012 Feb 04 j 07:07	20°♎39'56	
	1009 Sep 06 j 02:50	0°♌			1012 Feb 11 j 21:20	0°♏	
	1009 Oct 02 j 08:47	0°♍			1012 Mar 07 j 06:21	0°♐	
evening max el	1009 Oct 28 j 02:28	27°♍32'54	47°17'38		1012 Mar 31 j 15:45	0°♑	
	1009 Oct 30 j 13:13	0°♎			1012 Apr 25 j 02:01	0°♒	
greatest brilliancy	1009 Dec 05 j 12:16	28°♎05'14	-4.7m	morning set	1012 Apr 25 j 14:49	0°♒39'19	
asc. node	1009 Dec 10 j 15:23	29°♎55'59			1012 May 19 j 12:43	0°♓	
	1009 Dec 10 j 21:19	0°♏		asc. node	1012 May 27 j 10:41	9°♓43'03	
retrograde	1009 Dec 17 j 22:06	0°♏57'59		max. Earth dist.	1012 May 31 j 08:58	14°♓32'29	1.73628 AU
	1009 Dec 24 j 17:34	30°♒♓					
evening set	1010 Jan 02 j 08:30	26°♓12'20		superior conj	1012 Jun 01 j 08:30	15°♓44'45	0°11'39
min. Earth dist.	1010 Jan 06 j 15:04	23°♓38'28	0.26879 AU	minimum elong	1012 Jun 01 j 06:08	15°♓37'29	0°11'31
inferior conj	1010 Jan 07 j 13:36	23°♓03'32	6°26'06	behind sun begin	1012 May 31 j 14:35	14°♓49'43	
minimum elong	1010 Jan 07 j 03:18	23°♓19'30	6°23'52	behind sun end	1012 Jun 01 j 21:42	16°♓25'16	
morning rise	1010 Jan 11 j 22:39	20°♓24'54			1012 Jun 12 j 22:58	0°♑	

evening rise	1012 Jul 07 j 04:56	29° \mathfrak{C} 50'09		greatest brilliancy	1014 Nov 25 j 07:43	29° \mathfrak{C} 59'11	-4.7m
	1012 Jul 07 j 08:08	0° \mathfrak{Q}			1015 Jan 01 j 15:54	0° \mathfrak{X}	
	1012 Jul 31 j 16:28	0° \mathfrak{M}		morning max el	1015 Jan 01 j 21:58	0° \mathfrak{X} 15'26	46°56'05
	1012 Aug 25 j 01:10	0° \mathfrak{A}			1015 Jan 29 j 09:15	0° \mathfrak{C}	
desc. node	1012 Sep 16 j 00:00	26° \mathfrak{A} 57'33			1015 Feb 24 j 08:16	0° \approx	
	1012 Sep 18 j 11:32	0° \mathfrak{M}		desc. node	1015 Mar 03 j 19:05	8° \approx 46'44	
	1012 Oct 13 j 00:58	0° \mathfrak{X}			1015 Mar 21 j 15:34	0° \mathfrak{H}	
	1012 Nov 06 j 19:55	0° \mathfrak{C}			1015 Apr 15 j 15:49	0° \mathfrak{Y}	
	1012 Dec 02 j 03:14	0° \approx			1015 May 10 j 12:14	0° \mathfrak{C}	
	1012 Dec 28 j 18:17	0° \mathfrak{H}			1015 Jun 04 j 05:30	0° \mathfrak{H}	
asc. node	1013 Jan 07 j 03:16	9° \mathfrak{H} 50'15		asc. node	1015 Jun 24 j 22:26	25° \mathfrak{H} 16'23	
evening max el	1013 Jan 07 j 18:31	10° \mathfrak{H} 29'07	46°56'55		1015 Jun 28 j 19:03	0° \mathfrak{C}	
	1013 Jan 28 j 23:20	0° \mathfrak{Y}		morning set	1015 Jul 03 j 05:29	5° \mathfrak{C} 26'17	
greatest brilliancy	1013 Feb 13 j 07:29	10° \mathfrak{Y} 01'52	-4.6m		1015 Jul 23 j 04:15	0° \mathfrak{Q}	
retrograde	1013 Feb 27 j 09:42	13° \mathfrak{Y} 40'15		max. Earth dist.	1015 Aug 05 j 02:23	15° \mathfrak{Q} 59'08	1.72799 AU
evening set	1013 Mar 16 j 19:57	7° \mathfrak{Y} 46'40					
inferior conj	1013 Mar 20 j 15:07	5° \mathfrak{Y} 24'39	7°37'10	superior conj	1015 Aug 08 j 15:04	20° \mathfrak{Q} 21'36	1°20'32
minimum elong	1013 Mar 20 j 23:21	5° \mathfrak{Y} 11'38	7°36'01	minimum elong	1015 Aug 08 j 09:45	20° \mathfrak{Q} 05'06	1°20'28
min. Earth dist.	1013 Mar 20 j 11:25	5° \mathfrak{Y} 30'31	0.28471 AU		1015 Aug 16 j 09:25	0° \mathfrak{M}	
morning rise	1013 Mar 25 j 02:57	2° \mathfrak{Y} 38'01			1015 Sep 09 j 11:49	0° \mathfrak{A}	
	1013 Mar 30 j 02:03	30° \mathfrak{R} \mathfrak{H}		evening rise	1015 Sep 14 j 16:08	6° \mathfrak{A} 27'30	
direct	1013 Apr 10 j 18:55	27° \mathfrak{H} 15'08			1015 Oct 03 j 13:05	0° \mathfrak{M}	
greatest brilliancy	1013 Apr 22 j 15:47	29° \mathfrak{H} 46'28	-4.5m	desc. node	1015 Oct 14 j 11:59	13° \mathfrak{M} 39'49	
	1013 Apr 23 j 05:01	0° \mathfrak{Y}			1015 Oct 27 j 14:26	0° \mathfrak{X}	
desc. node	1013 Apr 28 j 16:36	2° \mathfrak{Y} 40'19			1015 Nov 20 j 16:56	0° \mathfrak{C}	
morning max el	1013 May 29 j 15:59	27° \mathfrak{Y} 13'44	45°46'42		1015 Dec 14 j 22:23	0° \approx	
	1013 Jun 01 j 12:56	0° \mathfrak{C}			1016 Jan 08 j 10:47	0° \mathfrak{H}	
	1013 Jun 30 j 07:05	0° \mathfrak{H}			1016 Feb 02 j 14:03	0° \mathfrak{Y}	
	1013 Jul 26 j 20:33	0° \mathfrak{C}		asc. node	1016 Feb 04 j 15:06	2° \mathfrak{Y} 23'12	
asc. node	1013 Aug 19 j 20:08	28° \mathfrak{C} 15'05			1016 Feb 29 j 00:40	0° \mathfrak{C}	
	1013 Aug 21 j 07:11	0° \mathfrak{Q}		evening max el	1016 Mar 20 j 00:51	20° \mathfrak{C} 46'56	45°46'52
	1013 Sep 15 j 00:22	0° \mathfrak{M}			1016 Mar 29 j 21:22	0° \mathfrak{H}	
	1013 Oct 09 j 06:06	0° \mathfrak{A}		greatest brilliancy	1016 Apr 23 j 07:02	17° \mathfrak{H} 27'12	-4.5m
	1013 Nov 02 j 05:23	0° \mathfrak{M}		retrograde	1016 May 07 j 23:28	21° \mathfrak{H} 12'39	
morning set	1013 Nov 25 j 05:24	28° \mathfrak{M} 55'29		evening set	1016 May 23 j 00:15	16° \mathfrak{H} 50'03	
	1013 Nov 26 j 01:55	0° \mathfrak{X}		desc. node	1016 May 26 j 04:26	14° \mathfrak{H} 59'32	
desc. node	1013 Dec 09 j 09:28	16° \mathfrak{X} 45'40		inferior conj	1016 May 29 j 10:14	12° \mathfrak{H} 58'45	0°-45'-41
	1013 Dec 19 j 22:01	0° \mathfrak{C}		minimum elong	1016 May 29 j 08:33	13° \mathfrak{H} 01'23	0°45'12
				min. Earth dist.	1016 May 29 j 10:54	12° \mathfrak{H} 57'43	0.28963 AU
superior conj	1014 Jan 06 j 01:36	21° \mathfrak{C} 33'22	0°-59'-44	morning rise	1016 Jun 04 j 17:00	9° \mathfrak{H} 12'10	
minimum elong	1014 Jan 05 j 13:39	20° \mathfrak{C} 55'50	0°59'19	direct	1016 Jun 20 j 02:26	4° \mathfrak{H} 41'08	
max. Earth dist.	1014 Jan 08 j 23:25	25° \mathfrak{C} 12'30	1.71295 AU	greatest brilliancy	1016 Jul 03 j 17:33	7° \mathfrak{H} 55'59	-4.5m
	1014 Jan 12 j 19:03	0° \approx			1016 Aug 03 j 01:34	0° \mathfrak{C}	
	1014 Feb 05 j 18:11	0° \mathfrak{H}		morning max el	1016 Aug 08 j 01:12	4° \mathfrak{C} 42'08	45°54'53
evening rise	1014 Feb 15 j 23:08	12° \mathfrak{H} 43'39			1016 Sep 01 j 11:12	0° \mathfrak{Q}	
	1014 Mar 01 j 20:46	0° \mathfrak{Y}		asc. node	1016 Sep 16 j 08:06	16° \mathfrak{Q} 40'54	
	1014 Mar 26 j 04:19	0° \mathfrak{C}			1016 Sep 27 j 19:32	0° \mathfrak{M}	
asc. node	1014 Apr 01 j 13:04	7° \mathfrak{C} 48'07			1016 Oct 22 j 20:27	0° \mathfrak{A}	
	1014 Apr 19 j 18:17	0° \mathfrak{H}			1016 Nov 16 j 05:40	0° \mathfrak{M}	
	1014 May 14 j 16:23	0° \mathfrak{C}			1016 Dec 10 j 07:45	0° \mathfrak{X}	
	1014 Jun 09 j 01:51	0° \mathfrak{Q}			1017 Jan 03 j 07:33	0° \mathfrak{C}	
	1014 Jul 05 j 06:02	0° \mathfrak{M}		desc. node	1017 Jan 05 j 21:21	3° \mathfrak{C} 13'17	
desc. node	1014 Jul 22 j 02:06	18° \mathfrak{M} 30'28			1017 Jan 27 j 07:28	0° \approx	
	1014 Aug 01 j 23:58	0° \mathfrak{A}		morning set	1017 Feb 10 j 11:31	17° \approx 41'00	
evening max el	1014 Aug 13 j 09:31	11° \mathfrak{A} 23'40	46°13'14		1017 Feb 20 j 08:48	0° \mathfrak{H}	
	1014 Sep 03 j 18:54	0° \mathfrak{M}			1017 Mar 16 j 12:23	0° \mathfrak{Y}	
greatest brilliancy	1014 Sep 21 j 07:08	10° \mathfrak{M} 06'59	-4.6m				
retrograde	1014 Oct 01 j 21:08	12° \mathfrak{M} 09'28		superior conj	1017 Mar 21 j 22:25	6° \mathfrak{Y} 42'36	-1°-14'-39
evening set	1014 Oct 17 j 11:09	7° \mathfrak{M} 27'34		minimum elong	1017 Mar 22 j 07:12	7° \mathfrak{Y} 09'49	1°14'27
inferior conj	1014 Oct 22 j 12:16	4° \mathfrak{M} 29'16	-5°-1'-33	max. Earth dist.	1017 Mar 25 j 09:10	10° \mathfrak{Y} 58'38	1.72784 AU
minimum elong	1014 Oct 22 j 22:05	4° \mathfrak{M} 14'22	4°58'58		1017 Apr 09 j 18:49	0° \mathfrak{C}	
min. Earth dist.	1014 Oct 23 j 04:36	4° \mathfrak{M} 04'30	0.26789 AU	evening rise	1017 Apr 28 j 23:00	23° \mathfrak{C} 35'38	
morning rise	1014 Oct 28 j 08:34	1° \mathfrak{M} 04'15		asc. node	1017 Apr 29 j 00:53	23° \mathfrak{C} 41'25	
	1014 Oct 30 j 10:31	30° \mathfrak{R} \mathfrak{A}			1017 May 04 j 04:13	0° \mathfrak{H}	
direct	1014 Nov 12 j 03:20	26° \mathfrak{A} 44'50			1017 May 28 j 16:24	0° \mathfrak{C}	
asc. node	1014 Nov 12 j 05:31	26° \mathfrak{A} 44'50			1017 Jun 22 j 07:30	0° \mathfrak{Q}	
	1014 Nov 25 j 08:25	0° \mathfrak{M}			1017 Jul 17 j 02:42	0° \mathfrak{M}	

	1017 Aug 11 j 04:30	0°♄			1020 Mar 31 j 02:51	0°♅		
desc. node	1017 Aug 18 j 14:06	8°♄45'43		morning set	1020 Apr 23 j 07:44	28°♅30'31		
	1017 Sep 05 j 17:10	0°♄			1020 Apr 24 j 12:53	0°♄		
	1017 Oct 02 j 01:59	0°♄			1020 May 18 j 23:28	0°♄		
evening max el	1017 Oct 25 j 15:50	25°♄06'41	47°16'24	asc. node	1020 May 26 j 12:38	9°♄16'08		
	1017 Oct 30 j 14:06	0°♄		max. Earth dist.	1020 May 29 j 07:10	12°♄40'22	1.73631 AU	
greatest brilliancy	1017 Dec 03 j 04:29	25°♄40'18	-4.7m					
asc. node	1017 Dec 09 j 17:25	27°♄50'42		superior conj	1020 May 30 j 02:31	13°♄39'49	0°08'30	
retrograde	1017 Dec 15 j 10:46	28°♄29'28		minimum elong	1020 May 30 j 00:47	13°♄34'29	0°08'25	
evening set	1017 Dec 30 j 18:12	23°♄49'22		behind sun begin	1020 May 29 j 05:32	12°♄35'21		
min. Earth dist.	1018 Jan 04 j 04:54	21°♄09'53	0.26825 AU	behind sun end	1020 May 30 j 20:02	14°♄33'36		
inferior conj	1018 Jan 05 j 02:29	20°♄36'26	6°09'42		1020 Jun 12 j 09:41	0°♄		
minimum elong	1018 Jan 04 j 16:12	20°♄52'24	6°07'20	evening rise	1020 Jul 04 j 23:46	27°♄47'12		
morning rise	1018 Jan 09 j 14:39	17°♄53'14			1020 Jul 06 j 18:55	0°♄		
direct	1018 Jan 25 j 12:45	12°♄55'14			1020 Jul 31 j 03:29	0°♄		
greatest brilliancy	1018 Feb 05 j 05:30	15°♄03'11	-4.6m		1020 Aug 24 j 12:29	0°♄		
	1018 Feb 28 j 09:28	0°♄		desc. node	1020 Sep 15 j 02:07	26°♄28'13		
morning max el	1018 Mar 16 j 04:49	14°♄29'18	46°22'34		1020 Sep 17 j 23:17	0°♄		
desc. node	1018 Mar 31 j 06:59	29°♄54'50			1020 Oct 12 j 13:19	0°♄		
	1018 Mar 31 j 08:56	0°♄			1020 Nov 06 j 09:13	0°♄		
	1018 Apr 27 j 16:04	0°♄			1020 Dec 01 j 18:15	0°♄		
	1018 May 23 j 18:15	0°♄			1020 Dec 28 j 13:20	0°♄		
	1018 Jun 18 j 05:30	0°♄		evening max el	1021 Jan 05 j 09:55	8°♄11'16	46°58'58	
	1018 Jul 13 j 05:57	0°♄		asc. node	1021 Jan 06 j 05:19	9°♄00'27		
asc. node	1018 Jul 22 j 10:20	11°♄08'10			1021 Jan 29 j 13:27	0°♄		
	1018 Aug 06 j 20:54	0°♄		greatest brilliancy	1021 Feb 10 j 23:19	7°♄46'25	-4.6m	
	1018 Aug 31 j 03:46	0°♄		retrograde	1021 Feb 25 j 02:07	11°♄25'18		
morning set	1018 Sep 10 j 03:25	12°♄25'47		evening set	1021 Mar 14 j 14:01	5°♄27'44		
	1018 Sep 24 j 04:51	0°♄		inferior conj	1021 Mar 18 j 06:36	3°♄09'43	7°47'00	
max. Earth dist.	1018 Oct 16 j 14:45	28°♄06'52	1.71356 AU	minimum elong	1021 Mar 18 j 14:24	2°♄57'23	7°45'59	
	1018 Oct 18 j 02:46	0°♄		min. Earth dist.	1021 Mar 18 j 01:48	3°♄17'16	0.28438 AU	
				morning rise	1021 Mar 22 j 15:01	0°♄28'26		
superior conj	1018 Oct 18 j 12:26	0°♄30'20	0°52'04		1021 Mar 23 j 10:31	30°♄		
minimum elong	1018 Oct 18 j 22:46	1°♄02'49	0°51'41	direct	1021 Apr 08 j 10:01	25°♄00'50		
desc. node	1018 Nov 10 j 23:46	0°♄00'28		greatest brilliancy	1021 Apr 20 j 04:49	27°♄30'43	-4.5m	
	1018 Nov 10 j 23:37	0°♄			1021 Apr 25 j 11:54	0°♄		
evening rise	1018 Nov 28 j 11:21	21°♄58'42		desc. node	1021 Apr 27 j 18:33	1°♄16'32		
	1018 Dec 04 j 20:39	0°♄		morning max el	1021 May 27 j 08:28	25°♄04'36	45°47'15	
	1018 Dec 28 j 18:57	0°♄			1021 Jun 01 j 10:03	0°♄		
	1019 Jan 21 j 20:16	0°♄			1021 Jun 29 j 22:20	0°♄		
	1019 Feb 15 j 03:34	0°♄			1021 Jul 26 j 09:35	0°♄		
asc. node	1019 Mar 04 j 03:11	20°♄40'39		asc. node	1021 Aug 18 j 22:14	27°♄45'21		
	1019 Mar 11 j 20:55	0°♄			1021 Aug 20 j 19:10	0°♄		
	1019 Apr 06 j 06:18	0°♄			1021 Sep 14 j 11:49	0°♄		
	1019 May 02 j 19:15	0°♄			1021 Oct 08 j 17:17	0°♄		
evening max el	1019 May 30 j 12:21	28°♄39'02	45°21'47		1021 Nov 01 j 16:25	0°♄		
	1019 May 31 j 22:26	0°♄		morning set	1021 Nov 22 j 16:22	26°♄24'34		
desc. node	1019 Jun 23 j 16:24	18°♄52'12			1021 Nov 25 j 12:51	0°♄		
greatest brilliancy	1019 Jul 05 j 15:32	25°♄30'59	-4.5m	desc. node	1021 Dec 08 j 11:32	16°♄17'50		
retrograde	1019 Jul 18 j 02:42	28°♄15'34			1021 Dec 19 j 08:53	0°♄		
evening set	1019 Aug 04 j 11:41	22°♄38'07						
inferior conj	1019 Aug 08 j 10:56	20°♄13'48	-8°-14'-33	superior conj	1022 Jan 03 j 11:34	18°♄59'46	0°-56'-48	
minimum elong	1019 Aug 08 j 04:39	20°♄23'31	8°13'58	minimum elong	1022 Jan 02 j 23:42	18°♄22'30	0°56'22	
min. Earth dist.	1019 Aug 08 j 20:24	19°♄59'10	0.28576 AU	max. Earth dist.	1022 Jan 06 j 09:37	22°♄39'45	1.71264 AU	
morning rise	1019 Aug 11 j 21:21	18°♄07'37			1022 Jan 12 j 05:54	0°♄		
direct	1019 Aug 29 j 21:22	12°♄01'48			1022 Feb 05 j 05:02	0°♄		
greatest brilliancy	1019 Sep 13 j 10:28	15°♄45'55	-4.6m	evening rise	1022 Feb 13 j 11:02	10°♄17'31		
	1019 Oct 03 j 22:22	0°♄			1022 Mar 01 j 07:39	0°♄		
asc. node	1019 Oct 14 j 19:46	10°♄00'32			1022 Mar 25 j 15:20	0°♄		
morning max el	1019 Oct 19 j 02:14	14°♄13'53	46°36'32	asc. node	1022 Mar 31 j 15:01	7°♄20'13		
	1019 Nov 03 j 01:25	0°♄			1022 Apr 19 j 05:34	0°♄		
	1019 Nov 29 j 08:21	0°♄			1022 May 14 j 04:14	0°♄		
	1019 Dec 24 j 09:40	0°♄			1022 Jun 08 j 14:46	0°♄		
	1020 Jan 17 j 23:29	0°♄			1022 Jul 04 j 21:01	0°♄		
desc. node	1020 Feb 03 j 09:15	20°♄09'44		desc. node	1022 Jul 21 j 04:15	17°♄49'53		
	1020 Feb 11 j 09:07	0°♄			1022 Aug 01 j 19:54	0°♄		
	1020 Mar 06 j 17:45	0°♄		evening max el	1022 Aug 10 j 23:48	9°♄05'42	46°10'37	

	1022 Sep 04 j 15:22	0°♌			1025 Mar 15 j 23:02	0°♍	
greatest brilliancy	1022 Sep 18 j 19:39	7°♌42'16	-4.6m				
retrograde	1022 Sep 29 j 09:12	9°♌43'43		superior conj	1025 Mar 19 j 13:20	4°♍27'18	-1°-16'-19
evening set	1022 Oct 15 j 02:40	4°♌57'48		minimum elong	1025 Mar 19 j 21:43	4°♍53'15	1°16'08
inferior conj	1022 Oct 20 j 00:43	2°♌03'21	-5°-20'-56	max. Earth dist.	1025 Mar 23 j 02:50	8°♍51'56	1.72727 AU
minimum elong	1022 Oct 20 j 10:51	1°♌47'57	5°18'21		1025 Apr 09 j 05:24	0°♎	
min. Earth dist.	1022 Oct 20 j 17:50	1°♌37'21	0.26839 AU	evening rise	1025 Apr 26 j 16:13	21°♎28'30	
	1022 Oct 23 j 10:53	30°♎♌		asc. node	1025 Apr 28 j 02:53	23°♎14'57	
morning rise	1022 Oct 25 j 18:38	28°♎41'13			1025 May 03 j 14:51	0°♏	
direct	1022 Nov 09 j 16:51	24°♎18'17			1025 May 28 j 03:13	0°♐	
asc. node	1022 Nov 11 j 07:31	24°♎21'26			1025 Jun 21 j 18:39	0°♑	
greatest brilliancy	1022 Nov 22 j 21:34	27°♎33'00	-4.7m		1025 Jul 16 j 14:26	0°♒	
	1022 Nov 27 j 13:33	0°♏			1025 Aug 10 j 17:09	0°♓	
morning max el	1022 Dec 30 j 11:28	27°♏50'21	46°56'30	desc. node	1025 Aug 17 j 16:09	8°♓13'23	
	1023 Jan 01 j 14:07	0°♑			1025 Sep 05 j 07:24	0°♌	
	1023 Jan 29 j 01:20	0°♒			1025 Oct 01 j 19:17	0°♍	
	1023 Feb 23 j 21:57	0°♓		evening max el	1025 Oct 23 j 04:33	22°♍39'43	47°15'09
desc. node	1023 Mar 02 j 21:12	8°♓13'50			1025 Oct 30 j 15:59	0°♎	
	1023 Mar 21 j 04:00	0°♏		greatest brilliancy	1025 Nov 30 j 19:47	23°♎14'42	-4.7m
	1023 Apr 15 j 03:29	0°♍		asc. node	1025 Dec 08 j 19:33	25°♎40'46	
	1023 May 09 j 23:24	0°♎		retrograde	1025 Dec 12 j 23:22	26°♎01'31	
	1023 Jun 03 j 16:20	0°♏		evening set	1025 Dec 28 j 03:55	21°♎26'15	
asc. node	1023 Jun 24 j 00:34	24°♏50'13		min. Earth dist.	1026 Jan 01 j 18:41	18°♎41'28	0.26773 AU
	1023 Jun 28 j 05:42	0°♐		inferior conj	1026 Jan 02 j 15:16	18°♎09'38	5°52'22
morning set	1023 Jun 30 j 23:28	3°♐21'37		minimum elong	1026 Jan 02 j 05:03	18°♎25'27	5°49'55
	1023 Jul 22 j 14:51	0°♑		morning rise	1026 Jan 07 j 06:34	15°♎22'05	
max. Earth dist.	1023 Aug 02 j 18:14	13°♑46'45	1.72848 AU	direct	1026 Jan 23 j 00:28	10°♎28'52	
				greatest brilliancy	1026 Feb 02 j 20:12	12°♎39'30	-4.6m
superior conj	1023 Aug 06 j 08:34	18°♑14'11	1°19'29		1026 Feb 28 j 17:34	0°♒	
minimum elong	1023 Aug 06 j 02:44	17°♑56'05	1°19'23	morning max el	1026 Mar 13 j 17:43	12°♒06'28	46°24'24
	1023 Aug 15 j 20:04	0°♓		desc. node	1026 Mar 30 j 08:51	29°♒11'19	
	1023 Sep 08 j 22:36	0°♏			1026 Mar 31 j 03:08	0°♏	
evening rise	1023 Sep 12 j 06:54	4°♏10'11			1026 Apr 27 j 06:26	0°♍	
	1023 Oct 03 j 00:04	0°♌			1026 May 23 j 06:53	0°♎	
desc. node	1023 Oct 13 j 13:55	13°♌11'14			1026 Jun 17 j 17:12	0°♏	
	1023 Oct 27 j 01:41	0°♑			1026 Jul 12 j 17:08	0°♐	
	1023 Nov 20 j 04:29	0°♒		asc. node	1026 Jul 21 j 12:24	10°♐40'49	
	1023 Dec 14 j 10:18	0°♓			1026 Aug 06 j 07:49	0°♑	
	1024 Jan 07 j 23:17	0°♏			1026 Aug 30 j 14:35	0°♒	
	1024 Feb 02 j 03:45	0°♍		morning set	1026 Sep 07 j 18:55	10°♒10'44	
asc. node	1024 Feb 03 j 17:16	1°♍49'15			1026 Sep 23 j 15:40	0°♓	
	1024 Feb 28 j 17:15	0°♎		max. Earth dist.	1026 Oct 14 j 02:24	25°♓38'35	1.71395 AU
evening max el	1024 Mar 17 j 16:14	18°♎34'42	45°48'47				
	1024 Mar 30 j 00:36	0°♏		superior conj	1026 Oct 16 j 00:57	28°♓04'44	0°54'59
greatest brilliancy	1024 Apr 20 j 23:58	15°♏19'59	-4.5m	minimum elong	1026 Oct 16 j 11:26	28°♓37'41	0°54'34
retrograde	1024 May 05 j 15:29	19°♏05'10			1026 Oct 17 j 13:39	0°♌	
evening set	1024 May 20 j 17:22	14°♏41'56		desc. node	1026 Nov 10 j 01:50	29°♏32'29	
desc. node	1024 May 25 j 06:31	12°♏00'39			1026 Nov 10 j 10:35	0°♑	
inferior conj	1024 May 27 j 02:51	10°♏51'13	0°-26'-1	evening rise	1026 Nov 25 j 21:27	19°♑25'04	
minimum elong	1024 May 27 j 01:53	10°♏52'44	0°25'46		1026 Dec 04 j 07:43	0°♒	
min. Earth dist.	1024 May 27 j 03:59	10°♏49'26	0.28960 AU		1026 Dec 28 j 06:08	0°♓	
morning rise	1024 Jun 02 j 10:29	7°♏02'58			1027 Jan 21 j 07:38	0°♏	
direct	1024 Jun 17 j 18:40	2°♏33'40			1027 Feb 14 j 15:13	0°♍	
greatest brilliancy	1024 Jul 01 j 08:19	5°♏46'15	-4.5m	asc. node	1027 Mar 03 j 05:08	20°♍10'23	
	1024 Aug 03 j 01:11	0°♐			1027 Mar 11 j 09:07	0°♎	
morning max el	1024 Aug 05 j 15:56	2°♐29'17	45°53'46		1027 Apr 05 j 19:34	0°♏	
	1024 Sep 01 j 03:05	0°♑			1027 May 02 j 11:00	0°♐	
asc. node	1024 Sep 15 j 10:06	16°♑05'48		evening max el	1027 May 28 j 03:49	26°♐28'05	45°21'30
	1024 Sep 27 j 08:57	0°♒			1027 May 31 j 21:53	0°♑	
	1024 Oct 22 j 08:45	0°♓		desc. node	1027 Jun 22 j 18:30	17°♑38'50	
	1024 Nov 15 j 17:24	0°♌		greatest brilliancy	1027 Jul 03 j 02:17	23°♑14'43	-4.5m
	1024 Dec 09 j 19:10	0°♍		retrograde	1027 Jul 15 j 18:15	26°♑03'58	
	1025 Jan 02 j 18:44	0°♎		evening set	1027 Aug 01 j 23:44	20°♑30'23	
desc. node	1025 Jan 04 j 23:26	2°♎44'54		inferior conj	1027 Aug 06 j 02:19	18°♑01'11	-8°-7'-13
	1025 Jan 26 j 18:28	0°♏		minimum elong	1027 Aug 05 j 19:26	18°♑11'48	8°06'31
morning set	1025 Feb 07 j 23:06	15°♏13'35		min. Earth dist.	1027 Aug 06 j 10:39	17°♑48'17	0.28619 AU
	1025 Feb 19 j 19:36	0°♏		morning rise	1027 Aug 09 j 14:55	15°♑51'54	

direct	1027 Aug 27 j 13:38	9°Ω48'32			1030 Feb 04 j 16:11	0°✠	
greatest brilliancy	1027 Sep 11 j 03:12	13°Ω33'40	-4.6m	evening rise	1030 Feb 10 j 22:23	7°✠48'35	
	1027 Oct 04 j 03:57	0°♐			1030 Feb 28 j 18:50	0°Υ	
asc. node	1027 Oct 13 j 21:46	9°♐08'21			1030 Mar 25 j 02:38	0°♄	
morning max el	1027 Oct 16 j 18:11	11°♐58'14	46°35'03	asc. node	1030 Mar 30 j 17:05	6°♄51'44	
	1027 Nov 02 j 19:08	0°♊			1030 Apr 18 j 17:10	0°♈	
	1027 Nov 28 j 22:53	0°♌			1030 May 13 j 16:25	0°♍	
	1027 Dec 23 j 22:46	0°♌			1030 Jun 08 j 04:02	0°♌	
	1028 Jan 17 j 11:47	0°♍			1030 Jul 04 j 12:25	0°♐	
desc. node	1028 Feb 02 j 11:19	19°♍39'24		desc. node	1030 Jul 20 j 06:19	17°♐08'05	
	1028 Feb 10 j 20:52	0°♍			1030 Aug 01 j 16:37	0°♊	
	1028 Mar 06 j 05:07	0°✠		evening max el	1030 Aug 08 j 13:25	6°♊45'52	46°08'05
	1028 Mar 30 j 13:56	0°Υ			1030 Sep 05 j 19:18	0°♌	
morning set	1028 Apr 21 j 00:46	26°Υ21'58		greatest brilliancy	1030 Sep 16 j 08:50	5°♌18'35	-4.6m
	1028 Apr 23 j 23:45	0°♄		retrograde	1030 Sep 26 j 20:58	7°♌18'34	
	1028 May 18 j 10:11	0°♈		evening set	1030 Oct 12 j 18:29	2°♌28'24	
asc. node	1028 May 25 j 14:49	8°♈49'55			1030 Oct 16 j 23:02	30°♌	
				inferior conj	1030 Oct 17 j 13:30	29°♊37'58	-5°-39'-22
superior conj	1028 May 27 j 20:46	11°♈35'36	0°05'22	minimum elong	1030 Oct 17 j 23:52	29°♊22'10	5°36'49
minimum elong	1028 May 27 j 19:40	11°♈32'13	0°05'19	min. Earth dist.	1030 Oct 18 j 07:34	29°♊10'27	0.26897 AU
behind sun begin	1028 May 26 j 22:17	10°♈26'32		morning rise	1030 Oct 23 j 04:48	26°♊18'51	
behind sun end	1028 May 28 j 17:03	12°♈37'55		direct	1030 Nov 07 j 06:14	21°♊52'00	
max. Earth dist.	1028 May 27 j 06:46	10°♈52'36	1.73626 AU	asc. node	1030 Nov 10 j 09:42	22°♊03'51	
	1028 Jun 11 j 20:22	0°♍		greatest brilliancy	1030 Nov 20 j 12:32	25°♊07'52	-4.7m
evening rise	1028 Jul 02 j 19:00	25°♍45'33			1030 Nov 29 j 00:42	0°♌	
	1028 Jul 06 j 05:42	0°♌		morning max el	1030 Dec 28 j 00:10	25°♌21'57	46°56'35
	1028 Jul 30 j 14:29	0°♐			1031 Jan 01 j 11:57	0°♌	
	1028 Aug 23 j 23:52	0°♊			1031 Jan 28 j 17:39	0°♍	
desc. node	1028 Sep 14 j 04:04	25°♊58'00			1031 Feb 23 j 12:01	0°♍	
	1028 Sep 17 j 11:11	0°♌		desc. node	1031 Mar 01 j 23:10	7°♍39'14	
	1028 Oct 12 j 01:54	0°♌			1031 Mar 20 j 16:49	0°✠	
	1028 Nov 05 j 22:50	0°♍			1031 Apr 14 j 15:31	0°Υ	
	1028 Dec 01 j 09:41	0°♍			1031 May 09 j 10:54	0°♄	
	1028 Dec 28 j 09:10	0°✠			1031 Jun 03 j 03:31	0°♈	
evening max el	1029 Jan 03 j 01:55	5°✠54'14	47°01'04	asc. node	1031 Jun 23 j 02:37	24°♈22'44	
asc. node	1029 Jan 05 j 07:25	8°✠09'16			1031 Jun 27 j 16:42	0°♍	
	1029 Jan 30 j 08:47	0°Υ		morning set	1031 Jun 28 j 17:32	1°♍16'08	
greatest brilliancy	1029 Feb 08 j 16:01	5°Υ31'29	-4.6m		1031 Jul 22 j 01:47	0°♌	
retrograde	1029 Feb 22 j 18:27	9°Υ09'28		max. Earth dist.	1031 Jul 31 j 11:01	11°♌36'20	1.72894 AU
evening set	1029 Mar 12 j 07:59	3°Υ08'18					
inferior conj	1029 Mar 15 j 22:02	0°Υ54'02	7°56'10	superior conj	1031 Aug 04 j 02:28	16°♌07'06	1°18'19
minimum elong	1029 Mar 16 j 05:22	0°Υ42'27	7°55'17	minimum elong	1031 Aug 03 j 20:08	15°♌47'28	1°18'12
min. Earth dist.	1029 Mar 15 j 16:02	1°Υ03'30	0.28399 AU		1031 Aug 15 j 07:01	0°♐	
	1029 Mar 17 j 08:21	30°♌			1031 Sep 08 j 09:40	0°♊	
morning rise	1029 Mar 20 j 03:01	28°♌18'00		evening rise	1031 Sep 09 j 22:20	1°♊54'11	
direct	1029 Apr 06 j 01:26	22°♌45'58			1031 Oct 02 j 11:19	0°♌	
greatest brilliancy	1029 Apr 17 j 16:59	25°♌13'18	-4.5m	desc. node	1031 Oct 12 j 16:03	12°♌42'26	
desc. node	1029 Apr 26 j 20:41	29°♌55'11			1031 Oct 26 j 13:12	0°♌	
	1029 Apr 26 j 23:48	0°Υ			1031 Nov 19 j 16:21	0°♍	
morning max el	1029 May 25 j 00:41	22°Υ54'21	45°47'55		1031 Dec 13 j 22:37	0°♍	
	1029 Jun 01 j 06:36	0°♄			1032 Jan 07 j 12:19	0°✠	
	1029 Jun 29 j 13:27	0°♈			1032 Feb 01 j 18:08	0°Υ	
	1029 Jul 25 j 22:37	0°♍		asc. node	1032 Feb 02 j 19:11	1°Υ12'48	
asc. node	1029 Aug 18 j 00:15	27°♍15'10			1032 Feb 28 j 10:48	0°♄	
	1029 Aug 20 j 07:12	0°♌		evening max el	1032 Mar 15 j 06:38	16°♄18'12	45°50'54
	1029 Sep 13 j 23:21	0°♐			1032 Mar 30 j 06:33	0°♈	
	1029 Oct 08 j 04:37	0°♊		greatest brilliancy	1032 Apr 18 j 16:06	13°♈09'47	-4.5m
	1029 Nov 01 j 03:39	0°♌		retrograde	1032 May 03 j 07:33	16°♈55'55	
morning set	1029 Nov 20 j 03:14	23°♌52'27		evening set	1032 May 18 j 10:27	12°♈31'32	
	1029 Nov 25 j 00:03	0°♌		desc. node	1032 May 24 j 08:38	8°♈58'39	
desc. node	1029 Dec 07 j 13:42	15°♌49'21		inferior conj	1032 May 24 j 19:19	8°♈41'51	0°-6'-16
	1029 Dec 18 j 20:05	0°♍		minimum elong	1032 May 24 j 19:05	8°♈42'13	0°06'13
				transit middle	1032 May 24 j 19:05	8°♈42'13	0°06'13
superior conj	1029 Dec 31 j 21:04	16°♍23'41	0°-53'-43	transit begin	1032 May 24 j 15:20	8°♈48'06	
minimum elong	1029 Dec 31 j 09:24	15°♍47'04	0°53'17	transit end	1032 May 24 j 22:50	8°♈36'20	
max. Earth dist.	1030 Jan 03 j 18:58	20°♍03'16	1.71231 AU	min. Earth dist.	1032 May 24 j 21:01	8°♈39'10	0.28954 AU
	1030 Jan 11 j 17:04	0°♍		morning rise	1032 May 31 j 03:42	4°♈52'16	

direct	1032 Jun 15 j 10:22	0°II24'13			1035 Feb 14 j 03:05	0°Y	
greatest brilliancy	1032 Jun 28 j 23:55	3°II35'58	-4.5m	asc. node	1035 Mar 02 j 07:11	19°Y39'46	
	1032 Aug 03 j 00:19	0°S			1035 Mar 10 j 21:35	0°B	
morning max el	1032 Aug 03 j 06:51	0°S15'41	45°52'54		1035 Apr 05 j 09:16	0°II	
	1032 Aug 31 j 19:06	0°Q			1035 May 02 j 03:26	0°S	
asc. node	1032 Sep 14 j 12:05	15°Q29'52		evening max el	1035 May 25 j 19:55	24°S17'27	45°21'12
	1032 Sep 26 j 22:35	0°M			1035 May 31 j 23:03	0°Q	
	1032 Oct 21 j 21:18	0°A		desc. node	1035 Jun 21 j 20:33	16°Q21'48	
	1032 Nov 15 j 05:23	0°M		greatest brilliancy	1035 Jun 30 j 14:15	20°Q58'39	-4.5m
	1032 Dec 09 j 06:51	0°J		retrograde	1035 Jul 13 j 09:42	23°Q50'54	
	1033 Jan 02 j 06:14	0°S		evening set	1035 Jul 30 j 11:38	18°Q21'46	
desc. node	1033 Jan 04 j 01:28	2°S15'22		inferior conj	1035 Aug 03 j 17:34	15°Q47'22	-7°-59'-8
	1033 Jan 26 j 05:48	0°≈		minimum elong	1035 Aug 03 j 10:09	15°Q58'51	7°58'18
morning set	1033 Feb 05 j 10:15	12°≈43'23		min. Earth dist.	1035 Aug 04 j 00:40	15°Q36'24	0.28655 AU
	1033 Feb 19 j 06:48	0°H		morning rise	1035 Aug 07 j 08:30	13°Q34'40	
	1033 Mar 15 j 10:08	0°Y		direct	1035 Aug 25 j 05:59	7°Q34'25	
				greatest brilliancy	1035 Sep 08 j 18:33	11°Q18'53	-4.6m
superior conj	1033 Mar 17 j 03:38	2°Y08'32	-1°-17'-51		1035 Oct 04 j 07:57	0°M	
minimum elong	1033 Mar 17 j 11:32	2°Y33'02	1°17'43	asc. node	1035 Oct 13 j 00:00	8°M17'05	
max. Earth dist.	1033 Mar 20 j 17:16	6°Y33'43	1.72674 AU	morning max el	1035 Oct 14 j 09:44	9°M41'14	46°33'31
	1033 Apr 08 j 16:28	0°B			1035 Nov 02 j 12:41	0°A	
evening rise	1033 Apr 24 j 08:45	19°B17'46			1035 Nov 28 j 13:26	0°M	
asc. node	1033 Apr 27 j 05:01	22°B47'27			1035 Dec 23 j 11:56	0°J	
	1033 May 03 j 01:58	0°II			1036 Jan 17 j 00:07	0°S	
	1033 May 27 j 14:29	0°S		desc. node	1036 Feb 01 j 13:19	19°S08'40	
	1033 Jun 21 j 06:16	0°Q			1036 Feb 10 j 08:40	0°≈	
	1033 Jul 16 j 02:37	0°M			1036 Mar 05 j 16:31	0°H	
	1033 Aug 10 j 06:19	0°A			1036 Mar 30 j 01:04	0°Y	
desc. node	1033 Aug 16 j 18:07	7°A39'27		morning set	1036 Apr 18 j 17:49	24°Y13'18	
	1033 Sep 04 j 22:11	0°M			1036 Apr 23 j 10:42	0°B	
	1033 Oct 01 j 13:16	0°J			1036 May 17 j 21:02	0°II	
evening max el	1033 Oct 20 j 17:42	20°J13'24	47°14'04	asc. node	1036 May 24 j 16:51	8°II22'52	
	1033 Oct 30 j 19:36	0°S					
greatest brilliancy	1033 Nov 28 j 10:07	20°S47'43	-4.7m	superior conj	1036 May 25 j 14:52	9°II30'29	0°02'12
asc. node	1033 Dec 07 j 21:34	23°S25'20		minimum elong	1036 May 25 j 14:24	9°II29'02	0°02'11
retrograde	1033 Dec 10 j 12:33	23°S33'43		behind sun begin	1036 May 24 j 16:02	8°II20'22	
evening set	1033 Dec 25 j 13:59	19°S02'37		behind sun end	1036 May 26 j 12:46	10°II37'44	
min. Earth dist.	1033 Dec 30 j 08:16	16°S13'24	0.26726 AU	max. Earth dist.	1036 May 25 j 06:08	9°II03'40	1.73625 AU
inferior conj	1033 Dec 31 j 04:12	15°S42'41	5°34'20		1036 Jun 11 j 07:12	0°S	
minimum elong	1033 Dec 30 j 18:08	15°S58'13	5°31'50	evening rise	1036 Jun 30 j 13:55	23°S42'29	
morning rise	1034 Jan 04 j 22:39	12°S51'05			1036 Jul 05 j 16:39	0°Q	
direct	1034 Jan 20 j 12:43	8°S02'18			1036 Jul 30 j 01:40	0°M	
greatest brilliancy	1034 Jan 31 j 10:41	10°S15'22	-4.6m		1036 Aug 23 j 11:23	0°A	
	1034 Feb 28 j 23:36	0°≈		desc. node	1036 Sep 13 j 06:12	25°A28'02	
morning max el	1034 Mar 11 j 07:39	9°≈45'18	46°25'53		1036 Sep 16 j 23:12	0°M	
desc. node	1034 Mar 29 j 11:03	28°≈28'12			1036 Oct 11 j 14:37	0°J	
	1034 Mar 30 j 21:16	0°H			1036 Nov 05 j 12:36	0°S	
	1034 Apr 26 j 21:04	0°Y			1036 Dec 01 j 01:24	0°≈	
	1034 May 22 j 19:53	0°B			1036 Dec 28 j 05:37	0°H	
	1034 Jun 17 j 05:18	0°II		evening max el	1036 Dec 31 j 17:59	3°H37'17	47°03'06
	1034 Jul 12 j 04:41	0°S		asc. node	1037 Jan 04 j 09:27	7°H17'02	
asc. node	1034 Jul 20 j 14:23	10°S12'11			1037 Jan 31 j 11:02	0°Y	
	1034 Aug 05 j 19:03	0°Q		greatest brilliancy	1037 Feb 06 j 09:51	3°Y18'16	-4.6m
	1034 Aug 30 j 01:41	0°M		retrograde	1037 Feb 20 j 10:34	6°Y53'52	
morning set	1034 Sep 05 j 10:25	7°M54'56		evening set	1037 Mar 10 j 01:55	0°Y49'42	
	1034 Sep 23 j 02:46	0°A			1037 Mar 11 j 10:04	30°R	
max. Earth dist.	1034 Oct 11 j 14:09	23°A09'45	1.71431 AU	inferior conj	1037 Mar 13 j 13:34	28°H38'52	8°04'30
				minimum elong	1037 Mar 13 j 20:22	28°H28'08	8°03'47
superior conj	1034 Oct 13 j 13:42	25°A39'01	0°57'45	min. Earth dist.	1037 Mar 13 j 06:24	28°H50'12	0.28355 AU
minimum elong	1034 Oct 14 j 00:14	26°A12'07	0°57'22	morning rise	1037 Mar 17 j 15:07	26°H07'54	
	1034 Oct 17 j 00:49	0°M		direct	1037 Apr 03 j 16:58	20°H31'51	
desc. node	1034 Nov 09 j 03:59	29°M03'57		greatest brilliancy	1037 Apr 15 j 04:45	22°H55'52	-4.5m
	1034 Nov 09 j 21:49	0°J		desc. node	1037 Apr 25 j 22:47	28°H36'54	
evening rise	1034 Nov 23 j 07:51	16°J51'41			1037 Apr 28 j 00:54	0°Y	
	1034 Dec 03 j 19:01	0°S		morning max el	1037 May 22 j 15:59	20°Y42'10	45°48'24
	1034 Dec 27 j 17:30	0°≈			1037 Jun 01 j 02:22	0°B	
	1035 Jan 20 j 19:11	0°H			1037 Jun 29 j 04:21	0°II	

	1037 Jul 25 j 11:35	0°☿		asc. node	1040 Feb 01 j 21:17	0°♄37'34	
asc. node	1037 Aug 17 j 02:19	26°☿45'06			1040 Feb 28 j 04:22	0°♄	
	1037 Aug 19 j 19:14	0°♌		evening max el	1040 Mar 12 j 21:04	14°♄02'48	45°53'08
	1037 Sep 13 j 10:54	0°♍			1040 Mar 30 j 14:15	0°♌	
	1037 Oct 07 j 15:54	0°♎		greatest brilliancy	1040 Apr 16 j 07:34	11°♌00'04	-4.5m
	1037 Oct 31 j 14:49	0°♏		retrograde	1040 May 01 j 00:10	14°♌48'23	
morning set	1037 Nov 17 j 14:04	21°♏20'34		evening set	1040 May 16 j 03:50	10°♌22'25	
	1037 Nov 24 j 11:09	0°♐		inferior conj	1040 May 22 j 11:56	6°♌34'04	0°13'20
desc. node	1037 Dec 06 j 15:39	15°♐20'32		minimum elong	1040 May 22 j 12:26	6°♌33'17	0°13'12
	1037 Dec 18 j 07:10	0°♑		transit middle	1040 May 22 j 12:26	6°♌33'17	0°13'12
				transit begin	1040 May 22 j 10:04	6°♌36'59	
superior conj	1037 Dec 29 j 06:34	13°♑47'59	0°-50'-31	transit end	1040 May 22 j 14:47	6°♌29'35	
minimum elong	1037 Dec 28 j 19:14	13°♑12'23	0°50'05	min. Earth dist.	1040 May 22 j 14:00	6°♌30'48	0.28948 AU
max. Earth dist.	1038 Jan 01 j 02:05	17°♑20'05	1.71200 AU	desc. node	1040 May 23 j 10:36	5°♌58'29	
	1038 Jan 11 j 04:08	0°♒		morning rise	1040 May 28 j 20:58	2°♌43'36	
	1038 Feb 04 j 03:14	0°♓			1040 Jun 03 j 17:31	30°♓	
evening rise	1038 Feb 08 j 09:42	5°♓19'46		direct	1040 Jun 13 j 02:15	28°♓16'17	
	1038 Feb 28 j 05:53	0°♈			1040 Jun 22 j 22:01	0°♌	
	1038 Mar 24 j 13:46	0°♉		greatest brilliancy	1040 Jun 26 j 16:21	1°♌28'23	-4.5m
asc. node	1038 Mar 29 j 19:15	6°♉24'09		morning max el	1040 Jul 31 j 22:33	28°♌05'25	45°52'00
	1038 Apr 18 j 04:36	0°♊			1040 Aug 02 j 21:58	0°☿	
	1038 May 13 j 04:27	0°☿			1040 Aug 31 j 10:28	0°♌	
	1038 Jun 07 j 17:13	0°♌		asc. node	1040 Sep 13 j 14:18	14°♌55'50	
desc. node	1038 Jul 04 j 03:56	0°♍			1040 Sep 26 j 11:48	0°♍	
	1038 Jul 19 j 08:18	16°♍25'44			1040 Oct 21 j 09:32	0°♎	
evening max el	1038 Aug 01 j 14:03	0°♎			1040 Nov 14 j 17:08	0°♏	
	1038 Aug 06 j 02:02	4°♎23'46	46°05'24		1040 Dec 08 j 18:18	0°♐	
	1038 Sep 07 j 11:13	0°♏		desc. node	1041 Jan 01 j 17:27	0°♑	
greatest brilliancy	1038 Sep 13 j 22:17	2°♏55'06	-4.6m		1041 Jan 03 j 03:32	1°♑46'43	
retrograde	1038 Sep 24 j 08:30	4°♏53'33			1041 Jan 25 j 16:50	0°♒	
evening set	1038 Oct 10 j 10:13	29°♎58'50		morning set	1041 Feb 02 j 21:06	10°♒13'11	
	1038 Oct 10 j 09:24	30°♒♎			1041 Feb 18 j 17:40	0°♓	
inferior conj	1038 Oct 15 j 02:11	27°♎12'44	-5°-57'-1				
minimum elong	1038 Oct 15 j 12:43	26°♎56'40	5°54'33	superior conj	1041 Mar 14 j 17:52	29°♓50'37	-1°-19'-17
min. Earth dist.	1038 Oct 15 j 21:23	26°♎43'27	0.26954 AU	minimum elong	1041 Mar 15 j 01:16	0°♈13'31	1°19'10
morning rise	1038 Oct 20 j 14:41	23°♎57'03			1041 Mar 14 j 20:54	0°♈	
direct	1038 Nov 04 j 19:01	19°♎25'41		max. Earth dist.	1041 Mar 18 j 07:17	4°♈15'15	1.72620 AU
asc. node	1038 Nov 09 j 11:41	19°♎51'42			1041 Apr 08 j 03:12	0°♉	
greatest brilliancy	1038 Nov 18 j 04:15	22°♎44'02	-4.7m	evening rise	1041 Apr 22 j 01:27	17°♓08'41	
	1038 Nov 30 j 01:37	0°♏		asc. node	1041 Apr 26 j 07:04	22°♓20'47	
morning max el	1038 Dec 25 j 12:28	22°♏52'59	46°56'47		1041 May 02 j 12:44	0°♌	
	1039 Jan 01 j 08:49	0°♐			1041 May 27 j 01:24	0°☿	
	1039 Jan 28 j 09:27	0°♑			1041 Jun 20 j 17:29	0°♌	
	1039 Feb 23 j 01:41	0°♒			1041 Jul 15 j 14:26	0°♍	
desc. node	1039 Mar 01 j 01:17	7°♒06'01			1041 Aug 09 j 19:08	0°♎	
	1039 Mar 20 j 05:17	0°♓		desc. node	1041 Aug 15 j 20:18	7°♎07'15	
	1039 Apr 14 j 03:13	0°♈			1041 Sep 04 j 12:44	0°♏	
	1039 May 08 j 22:05	0°♉			1041 Oct 01 j 07:21	0°♐	
	1039 Jun 02 j 14:23	0°♊		evening max el	1041 Oct 18 j 07:31	17°♓49'35	47°12'38
asc. node	1039 Jun 22 j 04:37	23°♊56'02			1041 Oct 31 j 00:48	0°♑	
morning set	1039 Jun 26 j 11:48	29°♊12'11		greatest brilliancy	1041 Nov 25 j 23:45	18°♑19'51	-4.7m
	1039 Jun 27 j 03:24	0°☿		asc. node	1041 Dec 06 j 23:36	21°♑03'54	
	1039 Jul 21 j 12:27	0°♌		retrograde	1041 Dec 08 j 01:54	21°♑05'23	
max. Earth dist.	1039 Jul 29 j 06:06	9°♌33'49	1.72947 AU	evening set	1041 Dec 22 j 23:54	16°♑38'13	
				min. Earth dist.	1041 Dec 27 j 21:20	13°♑44'56	0.26680 AU
superior conj	1039 Aug 01 j 20:27	14°♌01'04	1°17'02	inferior conj	1041 Dec 28 j 16:46	13°♑15'05	5°15'25
minimum elong	1039 Aug 01 j 13:40	13°♌40'05	1°16'55	minimum elong	1041 Dec 28 j 06:55	13°♑30'13	5°12'52
	1039 Aug 14 j 17:46	0°♍		morning rise	1042 Jan 02 j 14:22	10°♑19'35	
evening rise	1039 Sep 07 j 13:47	29°♍38'55		direct	1042 Jan 18 j 01:15	5°♑35'16	
	1039 Sep 07 j 20:33	0°♎		greatest brilliancy	1042 Jan 29 j 00:14	7°♑50'04	-4.6m
	1039 Oct 01 j 22:25	0°♏			1042 Mar 01 j 03:28	0°♒	
desc. node	1039 Oct 11 j 18:09	12°♏14'07		morning max el	1042 Mar 08 j 21:54	7°♒25'31	46°27'31
	1039 Oct 26 j 00:34	0°♐		desc. node	1042 Mar 28 j 13:09	27°♒46'19	
	1039 Nov 19 j 04:02	0°♑			1042 Mar 30 j 14:39	0°♓	
	1039 Dec 13 j 10:44	0°♒			1042 Apr 26 j 11:09	0°♈	
	1040 Jan 07 j 01:07	0°♓			1042 May 22 j 08:24	0°♉	
	1040 Feb 01 j 08:19	0°♈			1042 Jun 16 j 16:56	0°♊	

	1042 Jul 11 j 15:48	0°☿		asc. node	1045 Jan 03 j 11:31	6°☿24'21	
asc. node	1042 Jul 19 j 16:31	9°☿45'11			1045 Feb 02 j 00:36	0°☿	
	1042 Aug 05 j 05:53	0°♌		greatest brilliancy	1045 Feb 04 j 04:15	1°☿05'22	-4.6m
	1042 Aug 29 j 12:23	0°♍		retrograde	1045 Feb 18 j 02:03	4°☿37'35	
morning set	1042 Sep 03 j 02:30	5°♍42'19			1045 Mar 05 j 07:08	30°♍	
	1042 Sep 22 j 13:28	0°♎		evening set	1045 Mar 07 j 19:29	28°☿30'46	
max. Earth dist.	1042 Oct 09 j 01:55	20°♎42'18	1.71473 AU	inferior conj	1045 Mar 11 j 04:55	26°☿23'09	8°12'14
				minimum elong	1045 Mar 11 j 11:07	26°☿13'20	8°11'38
superior conj	1042 Oct 11 j 02:56	23°♎16'04	1°00'23	min. Earth dist.	1045 Mar 10 j 20:56	26°☿35'48	0.28313 AU
minimum elong	1042 Oct 11 j 13:26	23°♎49'03	1°00'01	morning rise	1045 Mar 15 j 03:02	23°☿57'06	
	1042 Oct 16 j 11:36	0°♏		direct	1045 Apr 01 j 07:53	18°☿17'07	
desc. node	1042 Nov 08 j 05:57	28°♏35'55		greatest brilliancy	1045 Apr 12 j 17:06	20°☿38'27	-4.5m
	1042 Nov 09 j 08:43	0°♐		desc. node	1045 Apr 25 j 00:44	27°☿20'22	
evening rise	1042 Nov 20 j 18:16	14°♐19'13			1045 Apr 28 j 19:30	0°☿	
	1042 Dec 03 j 06:02	0°♑		morning max el	1045 May 20 j 06:18	18°☿27'24	45°49'07
	1042 Dec 27 j 04:41	0°♒			1045 May 31 j 21:32	0°♈	
	1043 Jan 20 j 06:32	0°♈			1045 Jun 28 j 18:57	0°♉	
	1043 Feb 13 j 14:45	0°☿			1045 Jul 25 j 00:19	0°☿	
asc. node	1043 Mar 01 j 09:21	19°☿10'06		asc. node	1045 Aug 16 j 04:25	26°☿15'41	
	1043 Mar 10 j 09:51	0°♊			1045 Aug 19 j 07:04	0°♌	
	1043 Apr 04 j 22:45	0°♉			1045 Sep 12 j 22:17	0°♍	
	1043 May 01 j 19:47	0°☿			1045 Oct 07 j 03:03	0°♎	
evening max el	1043 May 23 j 12:14	22°☿08'28	45°21'00		1045 Oct 31 j 01:50	0°♏	
	1043 Jun 01 j 01:02	0°♌		morning set	1045 Nov 15 j 01:25	18°♏50'40	
desc. node	1043 Jun 20 j 22:35	15°♌03'44			1045 Nov 23 j 22:07	0°♐	
greatest brilliancy	1043 Jun 28 j 03:39	18°♌45'49	-4.5m	desc. node	1045 Dec 05 j 17:45	14°♐52'39	
retrograde	1043 Jul 11 j 01:06	21°♌39'37			1045 Dec 17 j 18:06	0°♑	
evening set	1043 Jul 27 j 23:48	16°♌15'17					
inferior conj	1043 Aug 01 j 09:06	13°♌35'36	-7°-50'-30	superior conj	1045 Dec 26 j 16:31	11°♑14'05	0°-47'-15
minimum elong	1043 Aug 01 j 01:10	13°♌47'53	7°49'31	minimum elong	1045 Dec 26 j 05:35	10°♑39'45	0°46'48
min. Earth dist.	1043 Aug 01 j 15:11	13°♌26'11	0.28685 AU	max. Earth dist.	1045 Dec 29 j 07:19	14°♑31'24	1.71171 AU
morning rise	1043 Aug 05 j 02:23	11°♌19'11			1046 Jan 10 j 15:04	0°♒	
direct	1043 Aug 22 j 22:24	5°♌22'29			1046 Feb 03 j 14:10	0°♈	
greatest brilliancy	1043 Sep 06 j 09:01	9°♌04'37	-4.6m	evening rise	1046 Feb 05 j 21:08	2°☿51'32	
	1043 Oct 04 j 09:47	0°♍			1046 Feb 27 j 16:53	0°☿	
morning max el	1043 Oct 12 j 00:36	7°♍23'57	46°31'59		1046 Mar 24 j 00:55	0°♈	
asc. node	1043 Oct 12 j 01:56	7°♍27'19		asc. node	1046 Mar 28 j 21:12	5°♈55'52	
	1043 Nov 02 j 05:26	0°♎			1046 Apr 17 j 16:05	0°♉	
	1043 Nov 28 j 03:27	0°♏			1046 May 12 j 16:34	0°☿	
	1043 Dec 23 j 00:42	0°♐			1046 Jun 07 j 06:32	0°♌	
desc. node	1044 Jan 16 j 12:10	0°♑			1046 Jul 03 j 19:41	0°♍	
	1044 Jan 31 j 15:27	18°♑39'00		desc. node	1046 Jul 18 j 10:27	15°♍43'27	
	1044 Feb 09 j 20:15	0°♒			1046 Aug 01 j 12:14	0°♎	
	1044 Mar 05 j 03:46	0°♈		evening max el	1046 Aug 03 j 14:05	2°♎00'44	46°02'57
	1044 Mar 29 j 12:01	0°☿			1046 Sep 10 j 01:59	0°♏	
morning set	1044 Apr 16 j 10:33	22°☿04'06		greatest brilliancy	1046 Sep 11 j 11:16	0°♏31'49	-4.6m
	1044 Apr 22 j 21:26	0°♊		retrograde	1046 Sep 21 j 20:27	2°♏29'42	
	1044 May 17 j 07:38	0°♉			1046 Oct 03 j 02:53	30°♏	
				evening set	1046 Oct 08 j 02:09	27°♎29'55	
superior conj	1044 May 23 j 08:47	7°♉25'32	0°-1'00	inferior conj	1046 Oct 12 j 15:05	24°♎48'18	-6°-13'-53
minimum elong	1044 May 23 j 09:00	7°♉26'12	0°01'01	minimum elong	1046 Oct 13 j 01:41	24°♎32'08	6°11'30
behind sun begin	1044 May 22 j 10:31	6°♉17'11		min. Earth dist.	1046 Oct 13 j 11:19	24°♎17'27	0.27015 AU
behind sun end	1044 May 24 j 07:28	8°♉35'13		morning rise	1046 Oct 18 j 00:38	21°♎36'32	
max. Earth dist.	1044 May 23 j 04:50	7°♉13'24	1.73616 AU	direct	1046 Nov 02 j 07:58	16°♎59'54	
asc. node	1044 May 23 j 18:53	7°♉56'34		asc. node	1046 Nov 08 j 13:44	17°♎45'21	
	1044 Jun 10 j 17:48	0°☿		greatest brilliancy	1046 Nov 15 j 20:48	20°♎21'51	-4.7m
evening rise	1044 Jun 28 j 08:55	21°☿40'22			1046 Nov 30 j 19:51	0°♏	
	1044 Jul 05 j 03:22	0°♌		morning max el	1046 Dec 23 j 01:46	20°♏26'42	46°57'06
	1044 Jul 29 j 12:38	0°♍			1047 Jan 01 j 04:56	0°♐	
	1044 Aug 22 j 22:42	0°♎			1047 Jan 28 j 00:57	0°♑	
desc. node	1044 Sep 12 j 08:17	24°♎58'42			1047 Feb 22 j 15:11	0°♒	
	1044 Sep 16 j 11:00	0°♏		desc. node	1047 Feb 28 j 03:23	6°♒32'59	
	1044 Oct 11 j 03:06	0°♐			1047 Mar 19 j 17:42	0°♈	
	1044 Nov 05 j 02:11	0°♑			1047 Apr 13 j 14:56	0°☿	
	1044 Nov 30 j 17:03	0°♒			1047 May 08 j 09:22	0°♈	
	1044 Dec 28 j 02:33	0°♈			1047 Jun 02 j 01:22	0°♉	
evening max el	1044 Dec 29 j 09:03	1°☿18'03	47°04'45	asc. node	1047 Jun 21 j 06:47	23°♉29'23	

morning set	1047 Jun 24 j 05:54	27° Π 07'16		evening set	1049 Dec 20 j 10:02	14° Z 12'36	
	1047 Jun 26 j 14:14	0° S		min. Earth dist.	1049 Dec 25 j 10:14	11° Z 15'28	0.26637 AU
	1047 Jul 20 j 23:13	0° Ω		inferior conj	1049 Dec 26 j 05:14	10° Z 46'18	4°55'45
max. Earth dist.	1047 Jul 27 j 02:45	7° Ω 35'54	1.72994 AU	minimum elong	1049 Dec 25 j 19:44	11° Z 00'53	4°53'12
				morning rise	1049 Dec 31 j 05:57	7° Z 46'56	
superior conj	1047 Jul 30 j 14:16	11° Ω 54'19	1°15'39	direct	1050 Jan 15 j 14:05	3° Z 07'14	
minimum elong	1047 Jul 30 j 07:06	11° Ω 32'06	1°15'30	greatest brilliancy	1050 Jan 26 j 12:55	5° Z 22'36	-4.6m
	1047 Aug 14 j 04:35	0° Π			1050 Mar 01 j 06:09	0° \approx	
evening rise	1047 Sep 05 j 05:22	27° Π 23'55		morning max el	1050 Mar 06 j 12:07	5° \approx 04'38	46°29'06
	1047 Sep 07 j 07:31	0° A		desc. node	1050 Mar 27 j 15:04	27° \approx 03'24	
	1047 Oct 01 j 09:37	0° M			1050 Mar 30 j 08:01	0° H	
desc. node	1047 Oct 10 j 20:06	11° M 44'55			1050 Apr 26 j 01:25	0° Y	
	1047 Oct 25 j 12:04	0° J			1050 May 21 j 21:09	0° B	
	1047 Nov 18 j 15:52	0° Z			1050 Jun 16 j 04:51	0° Π	
	1047 Dec 12 j 23:00	0° \approx			1050 Jul 11 j 03:13	0° S	
asc. node	1048 Jan 06 j 14:07	0° H		asc. node	1050 Jul 18 j 18:36	9° S 16'58	
	1048 Jan 31 j 23:27	0° Y 01'57			1050 Aug 04 j 17:03	0° Ω	
	1048 Jan 31 j 22:46	0° Y			1050 Aug 28 j 23:28	0° Π	
	1048 Feb 27 j 22:28	0° B		morning set	1050 Aug 31 j 18:22	3° Π 27'55	
evening max el	1048 Mar 10 j 11:59	11° B 48'17	45°55'22		1050 Sep 22 j 00:34	0° A	
	1048 Mar 31 j 01:04	0° Π		max. Earth dist.	1050 Oct 06 j 10:43	18° A 04'27	1.71512 AU
greatest brilliancy	1048 Apr 13 j 22:31	8° Π 49'06	-4.5m				
retrograde	1048 Apr 28 j 17:07	12° Π 40'00		superior conj	1050 Oct 08 j 16:04	20° A 51'47	1°02'54
evening set	1048 May 13 j 21:15	8° Π 12'11		minimum elong	1050 Oct 09 j 02:29	21° A 24'25	1°02'33
inferior conj	1048 May 20 j 04:26	4° Π 25'11	0°33'04		1050 Oct 15 j 22:46	0° M	
minimum elong	1048 May 20 j 05:38	4° Π 23'17	0°32'43	desc. node	1050 Nov 07 j 08:02	28° M 07'08	
min. Earth dist.	1048 May 20 j 06:35	4° Π 21'49	0.28945 AU		1050 Nov 08 j 19:58	0° J	
desc. node	1048 May 22 j 12:42	2° Π 57'24		evening rise	1050 Nov 18 j 04:29	11° J 45'05	
morning rise	1048 May 26 j 14:01	0° Π 34'14			1050 Dec 02 j 17:24	0° Z	
	1048 May 27 j 15:31	30° R			1050 Dec 26 j 16:11	0° \approx	
direct	1048 Jun 10 j 18:27	26° B 07'16			1051 Jan 19 j 18:15	0° H	
greatest brilliancy	1048 Jun 24 j 08:49	29° B 19'56	-4.5m		1051 Feb 13 j 02:49	0° Y	
	1048 Jun 25 j 19:33	0° Π		asc. node	1051 Feb 28 j 11:18	18° Y 38'38	
morning max el	1048 Jul 29 j 15:10	25° Π 56'37	45°51'10		1051 Mar 09 j 22:32	0° B	
	1048 Aug 02 j 19:11	0° S			1051 Apr 04 j 12:44	0° Π	
	1048 Aug 31 j 01:51	0° Ω			1051 May 01 j 12:49	0° S	
asc. node	1048 Sep 12 j 16:17	14° Ω 20'42		evening max el	1051 May 21 j 04:02	19° S 57'14	45°20'49
	1048 Sep 26 j 01:07	0° Π			1051 Jun 01 j 05:03	0° Ω	
	1048 Oct 20 j 21:54	0° A		desc. node	1051 Jun 20 j 00:42	13° Ω 42'14	
	1048 Nov 14 j 05:00	0° M		greatest brilliancy	1051 Jun 25 j 17:26	16° Ω 32'27	-4.5m
	1048 Dec 08 j 05:54	0° J		retrograde	1051 Jul 08 j 15:57	19° Ω 27'23	
	1049 Jan 01 j 04:51	0° Z		evening set	1051 Jul 25 j 11:58	14° Ω 07'54	
desc. node	1049 Jan 02 j 05:38	1° Z 17'34		inferior conj	1051 Jul 30 j 00:39	11° Ω 23'00	-7°-41'-12
	1049 Jan 25 j 04:03	0° \approx		minimum elong	1051 Jul 29 j 16:16	11° Ω 36'01	7°40'04
morning set	1049 Jan 31 j 07:58	7° \approx 42'14		min. Earth dist.	1051 Jul 30 j 06:05	11° Ω 14'33	0.28717 AU
	1049 Feb 18 j 04:44	0° H		morning rise	1051 Aug 02 j 20:24	9° Ω 02'34	
				direct	1051 Aug 20 j 14:22	3° Ω 09'35	
superior conj	1049 Mar 12 j 08:07	27° H 31'55	-1°-20'-35	greatest brilliancy	1051 Sep 03 j 23:29	6° Ω 49'11	-4.6m
minimum elong	1049 Mar 12 j 14:54	27° H 52'59	1°20'29		1051 Oct 04 j 10:52	0° Π	
	1049 Mar 14 j 07:52	0° Y		morning max el	1051 Oct 09 j 14:39	5° Π 03'21	46°30'22
max. Earth dist.	1049 Mar 15 j 22:10	1° Y 58'42	1.72565 AU	asc. node	1051 Oct 11 j 04:00	6° Π 37'16	
	1049 Apr 07 j 14:07	0° B			1051 Nov 01 j 22:22	0° A	
evening rise	1049 Apr 19 j 18:11	14° B 59'03			1051 Nov 27 j 17:47	0° M	
asc. node	1049 Apr 25 j 09:05	21° B 53'23			1051 Dec 22 j 13:46	0° J	
	1049 May 01 j 23:43	0° Π			1052 Jan 16 j 00:31	0° Z	
	1049 May 26 j 12:34	0° S		desc. node	1052 Jan 30 j 17:30	18° Z 08'09	
	1049 Jun 20 j 05:03	0° Ω			1052 Feb 09 j 08:07	0° \approx	
	1049 Jul 15 j 02:38	0° Π			1052 Mar 04 j 15:17	0° H	
	1049 Aug 09 j 08:22	0° A			1052 Mar 28 j 23:17	0° Y	
desc. node	1049 Aug 14 j 22:19	6° A 33'24		morning set	1052 Apr 14 j 03:10	19° Y 53'31	
	1049 Sep 04 j 03:48	0° M			1052 Apr 22 j 08:30	0° B	
	1049 Oct 01 j 02:13	0° J			1052 May 16 j 18:35	0° Π	
evening max el	1049 Oct 15 j 22:04	15° J 26'59	47°11'14				
	1049 Oct 31 j 08:31	0° Z		superior conj	1052 May 21 j 02:48	5° Π 19'54	0°-4'-11
greatest brilliancy	1049 Nov 23 j 13:20	15° Z 51'13	-4.7m	minimum elong	1052 May 21 j 03:39	5° Π 22'32	0°04'10
retrograde	1049 Dec 05 j 15:20	18° Z 35'55		behind sun begin	1052 May 20 j 05:42	4° Π 15'07	
asc. node	1049 Dec 06 j 01:45	18° Z 35'41		behind sun end	1052 May 22 j 01:36	6° Π 29'56	

max. Earth dist.	1052 May 21 j 01:47	5°II16'46	1.73603 AU	direct	1054 Oct 30 j 21:27	14°♂34'06	
asc. node	1052 May 22 j 21:01	7°II29'32		asc. node	1054 Nov 07 j 15:53	15°♂43'56	
	1052 Jun 10 j 04:44	0°♂		greatest brilliancy	1054 Nov 13 j 13:21	17°♂59'46	-4.7m
evening rise	1052 Jun 26 j 03:59	19°♂37'35			1054 Dec 01 j 09:39	0°♂	
	1052 Jul 04 j 14:24	0°♂		morning max el	1054 Dec 20 j 16:04	18°♂02'30	46°57'07
	1052 Jul 28 j 23:54	0°♂			1055 Jan 01 j 00:42	0°♂	
	1052 Aug 22 j 10:22	0°♂			1055 Jan 27 j 16:29	0°♂	
desc. node	1052 Sep 11 j 10:14	24°♂27'46			1055 Feb 22 j 04:49	0°♂	
	1052 Sep 15 j 23:12	0°♂		desc. node	1055 Feb 27 j 05:20	5°♂58'58	
	1052 Oct 10 j 16:04	0°♂			1055 Mar 19 j 06:14	0°♂	
	1052 Nov 04 j 16:21	0°♂			1055 Apr 13 j 02:45	0°♂	
	1052 Nov 30 j 09:25	0°♂			1055 May 07 j 20:42	0°♂	
evening max el	1052 Dec 26 j 23:05	28°♂54'50	47°06'32		1055 Jun 01 j 12:25	0°♂	
	1052 Dec 28 j 00:44	0°♂		asc. node	1055 Jun 20 j 08:48	23°♂02'08	
asc. node	1053 Jan 02 j 13:38	5°♂29'28		morning set	1055 Jun 21 j 23:57	25°♂02'05	
greatest brilliancy	1053 Feb 01 j 22:17	28°♂50'37	-4.6m		1055 Jun 26 j 01:07	0°♂	
	1053 Feb 04 j 13:35	0°♂			1055 Jul 20 j 10:04	0°♂	
retrograde	1053 Feb 15 j 17:10	2°♂20'03		max. Earth dist.	1055 Jul 24 j 23:52	5°♂39'14	1.73037 AU
	1053 Feb 26 j 09:19	30°♂					
evening set	1053 Mar 05 j 12:47	26°♂10'51		superior conj	1055 Jul 28 j 08:12	9°♂47'42	1°14'10
inferior conj	1053 Mar 08 j 20:13	24°♂06'15	8°19'13	minimum elong	1055 Jul 28 j 00:40	9°♂24'21	1°13'59
minimum elong	1053 Mar 09 j 01:46	23°♂57'26	8°18'44		1055 Aug 13 j 15:27	0°♂	
min. Earth dist.	1053 Mar 08 j 11:39	24°♂19'49	0.28268 AU	evening rise	1055 Sep 02 j 21:17	25°♂09'54	
morning rise	1053 Mar 12 j 14:59	21°♂45'00			1055 Sep 06 j 18:32	0°♂	
direct	1053 Mar 29 j 22:08	16°♂01'02			1055 Sep 30 j 20:50	0°♂	
greatest brilliancy	1053 Apr 10 j 06:16	18°♂20'48	-4.5m	desc. node	1055 Oct 09 j 22:14	11°♂16'26	
desc. node	1053 Apr 24 j 02:54	26°♂05'30			1055 Oct 24 j 23:34	0°♂	
	1053 Apr 29 j 09:49	0°♂			1055 Nov 18 j 03:43	0°♂	
morning max el	1053 May 17 j 20:15	16°♂10'44	45°49'57		1055 Dec 12 j 11:20	0°♂	
	1053 May 31 j 16:30	0°♂			1056 Jan 06 j 03:15	0°♂	
	1053 Jun 28 j 09:39	0°♂		asc. node	1056 Jan 31 j 01:22	29°♂25'06	
	1053 Jul 24 j 13:14	0°♂			1056 Jan 31 j 13:29	0°♂	
asc. node	1053 Aug 15 j 06:26	25°♂45'18			1056 Feb 27 j 17:09	0°♂	
	1053 Aug 18 j 19:06	0°♂		evening max el	1056 Mar 08 j 03:48	9°♂35'37	45°57'47
	1053 Sep 12 j 09:52	0°♂			1056 Mar 31 j 15:48	0°♂	
	1053 Oct 06 j 14:25	0°♂		greatest brilliancy	1056 Apr 11 j 14:11	6°♂38'53	-4.5m
	1053 Oct 30 j 13:07	0°♂		retrograde	1056 Apr 26 j 10:20	10°♂31'13	
morning set	1053 Nov 12 j 12:34	16°♂19'11		evening set	1056 May 11 j 14:49	6°♂01'37	
	1053 Nov 23 j 09:23	0°♂		inferior conj	1056 May 17 j 20:51	2°♂16'00	0°52'49
desc. node	1053 Dec 04 j 19:53	14°♂23'56		minimum elong	1056 May 17 j 22:47	2°♂12'59	0°52'15
	1053 Dec 17 j 05:21	0°♂		min. Earth dist.	1056 May 17 j 22:49	2°♂12'56	0.28938 AU
				desc. node	1056 May 21 j 14:47	29°♂57'06	
superior conj	1053 Dec 24 j 01:55	8°♂37'28	0°-43'-49		1056 May 21 j 12:51	30°♂	
minimum elong	1053 Dec 23 j 15:29	8°♂04'40	0°43'23	morning rise	1056 May 24 j 06:50	28°♂24'50	
max. Earth dist.	1053 Dec 26 j 08:30	11°♂29'01	1.71146 AU	direct	1056 Jun 08 j 10:58	23°♂58'12	
	1054 Jan 10 j 02:18	0°♂		greatest brilliancy	1056 Jun 22 j 00:04	27°♂10'09	-4.5m
evening rise	1054 Feb 03 j 08:00	0°♂20'38			1056 Jun 27 j 13:19	0°♂	
	1054 Feb 03 j 01:23	0°♂		morning max el	1056 Jul 27 j 08:08	23°♂49'00	45°50'17
	1054 Feb 27 j 04:07	0°♂			1056 Aug 02 j 15:36	0°♂	
	1054 Mar 23 j 12:18	0°♂			1056 Aug 30 j 16:56	0°♂	
asc. node	1054 Mar 27 j 23:17	5°♂27'17		asc. node	1056 Sep 11 j 18:17	13°♂46'03	
	1054 Apr 17 j 03:49	0°♂			1056 Sep 25 j 14:13	0°♂	
	1054 May 12 j 04:58	0°♂			1056 Oct 20 j 10:05	0°♂	
	1054 Jun 06 j 20:10	0°♂			1056 Nov 13 j 16:42	0°♂	
	1054 Jul 03 j 11:52	0°♂			1056 Dec 07 j 17:19	0°♂	
desc. node	1054 Jul 17 j 12:30	14°♂59'49			1056 Dec 31 j 16:04	0°♂	
evening max el	1054 Aug 01 j 02:34	29°♂38'38	46°00'40	desc. node	1057 Jan 01 j 07:39	0°♂48'46	
	1054 Aug 01 j 11:29	0°♂			1057 Jan 24 j 15:07	0°♂	
greatest brilliancy	1054 Sep 08 j 23:03	28°♂07'22	-4.6m	morning set	1057 Jan 28 j 18:46	5°♂11'29	
	1054 Sep 17 j 02:04	0°♂			1057 Feb 17 j 15:41	0°♂	
retrograde	1054 Sep 19 j 08:56	0°♂06'05					
	1054 Sep 21 j 15:15	30°♂		superior conj	1057 Mar 09 j 21:56	25°♂12'08	-1°-21'-44
evening set	1054 Oct 05 j 18:07	25°♂00'56		minimum elong	1057 Mar 10 j 04:04	25°♂31'10	1°21'40
inferior conj	1054 Oct 10 j 04:01	22°♂23'50	-6°-29'-54	max. Earth dist.	1057 Mar 13 j 13:40	29°♂44'20	1.72514 AU
minimum elong	1054 Oct 10 j 14:37	22°♂07'42	6°27'37		1057 Mar 13 j 18:44	0°♂	
min. Earth dist.	1054 Oct 11 j 00:56	21°♂52'00	0.27082 AU		1057 Apr 07 j 00:57	0°♂	
morning rise	1054 Oct 15 j 10:31	19°♂16'26		evening rise	1057 Apr 17 j 10:27	12°♂48'15	

asc. node	1057 Apr 24 j 11:13	21°♄26'43		1059 Dec 22 j 02:23	0°♁	
	1057 May 01 j 10:34	0°♂		1060 Jan 15 j 12:26	0°♂	
	1057 May 25 j 23:36	0°♄		desc. node	1060 Jan 29 j 19:29	17°♂38'22
	1057 Jun 19 j 16:27	0°♂			1060 Feb 08 j 19:34	0°♁
	1057 Jul 14 j 14:42	0°♄			1060 Mar 04 j 02:23	0°♄
	1057 Aug 08 j 21:33	0°♂			1060 Mar 28 j 10:06	0°♂
desc. node	1057 Aug 14 j 00:17	5°♂59'48		morning set	1060 Apr 11 j 19:53	17°♂44'32
	1057 Sep 03 j 18:53	0°♄			1060 Apr 21 j 19:07	0°♄
	1057 Sep 30 j 21:19	0°♁			1060 May 16 j 05:07	0°♂
evening max el	1057 Oct 13 j 13:10	13°♁06'36	47°09'45			
	1057 Oct 31 j 18:28	0°♂		superior conj	1060 May 18 j 20:51	3°♂15'41 0°-7'-21
greatest brilliancy	1057 Nov 21 j 03:51	13°♂24'58	-4.7m	minimum elong	1060 May 18 j 22:23	3°♂20'21 0°07'17
retrograde	1057 Dec 03 j 04:47	16°♂07'33		behind sun begin	1060 May 18 j 02:04	2°♂17'59
asc. node	1057 Dec 05 j 03:43	16°♂02'48		behind sun end	1060 May 19 j 18:41	4°♂22'44
evening set	1057 Dec 17 j 20:34	11°♂48'11		max. Earth dist.	1060 May 18 j 21:42	3°♂18'18 1.73594 AU
min. Earth dist.	1057 Dec 22 j 23:29	8°♂47'05	0.26592 AU	asc. node	1060 May 21 j 23:02	7°♂03'24
inferior conj	1057 Dec 23 j 17:50	8°♂18'56	4°35'30		1060 Jun 09 j 15:17	0°♄
minimum elong	1057 Dec 23 j 08:45	8°♂32'53	4°32'59	evening rise	1060 Jun 23 j 23:03	17°♄36'02
morning rise	1057 Dec 28 j 21:28	5°♂15'40			1060 Jul 04 j 01:05	0°♂
direct	1058 Jan 13 j 02:56	0°♂40'49			1060 Jul 28 j 10:49	0°♄
greatest brilliancy	1058 Jan 24 j 01:23	2°♂56'00	-4.6m		1060 Aug 21 j 21:39	0°♂
	1058 Mar 01 j 06:59	0°♁		desc. node	1060 Sep 10 j 12:22	23°♂58'32
morning max el	1058 Mar 04 j 01:43	2°♁43'06	46°30'28		1060 Sep 15 j 11:02	0°♄
desc. node	1058 Mar 26 j 17:15	26°♁22'36			1060 Oct 10 j 04:43	0°♁
	1058 Mar 30 j 00:42	0°♄			1060 Nov 04 j 06:15	0°♂
	1058 Apr 25 j 15:16	0°♂			1060 Nov 30 j 01:40	0°♁
	1058 May 21 j 09:36	0°♄		evening max el	1060 Dec 24 j 12:50	26°♁31'53 47°08'16
	1058 Jun 15 j 16:28	0°♂			1060 Dec 27 j 23:21	0°♄
	1058 Jul 10 j 14:20	0°♄		asc. node	1061 Jan 01 j 15:37	4°♄34'17
asc. node	1058 Jul 17 j 20:35	8°♄49'26		greatest brilliancy	1061 Jan 30 j 15:34	26°♄35'52 -4.6m
	1058 Aug 04 j 03:54	0°♂			1061 Feb 11 j 13:28	0°♂
	1058 Aug 28 j 10:14	0°♄		retrograde	1061 Feb 13 j 08:24	0°♂03'52
morning set	1058 Aug 29 j 10:15	1°♄14'39			1061 Feb 15 j 02:59	30°♄
	1058 Sep 21 j 11:21	0°♂		evening set	1061 Mar 03 j 05:51	23°♄52'26
max. Earth dist.	1058 Oct 03 j 17:48	15°♂22'15	1.71556 AU	inferior conj	1061 Mar 06 j 11:32	21°♄50'40 8°25'19
				minimum elong	1061 Mar 06 j 16:24	21°♄42'57 8°24'58
superior conj	1058 Oct 06 j 05:31	18°♂29'28	1°05'18	min. Earth dist.	1061 Mar 06 j 02:26	22°♄05'05 0.28220 AU
minimum elong	1058 Oct 06 j 15:44	19°♂01'30	1°04'58	morning rise	1061 Mar 10 j 03:10	19°♄34'08
	1058 Oct 15 j 09:38	0°♄		direct	1061 Mar 27 j 12:07	13°♄46'07
desc. node	1058 Nov 06 j 10:09	27°♄39'27		greatest brilliancy	1061 Apr 07 j 20:02	16°♄05'17 -4.5m
	1058 Nov 08 j 06:55	0°♁		desc. node	1061 Apr 23 j 04:57	24°♄54'04
evening rise	1058 Nov 15 j 14:58	9°♁12'43			1061 Apr 29 j 19:48	0°♂
	1058 Dec 02 j 04:26	0°♂		morning max el	1061 May 15 j 10:47	13°♂56'48 45°50'52
	1058 Dec 26 j 03:20	0°♁			1061 May 31 j 10:25	0°♄
	1059 Jan 19 j 05:35	0°♄			1061 Jun 27 j 23:43	0°♂
	1059 Feb 12 j 14:29	0°♂			1061 Jul 24 j 01:41	0°♄
asc. node	1059 Feb 27 j 13:23	18°♂08'45		asc. node	1061 Aug 14 j 08:30	25°♄16'17
	1059 Mar 09 j 10:52	0°♄			1061 Aug 18 j 06:44	0°♂
	1059 Apr 04 j 02:26	0°♂			1061 Sep 11 j 21:04	0°♄
	1059 May 01 j 05:48	0°♄			1061 Oct 06 j 01:25	0°♂
evening max el	1059 May 18 j 19:15	17°♄45'34	45°20'42		1061 Oct 30 j 00:01	0°♄
	1059 Jun 01 j 10:30	0°♂		morning set	1061 Nov 09 j 23:55	13°♄49'34
desc. node	1059 Jun 19 j 02:42	12°♂19'01			1061 Nov 22 j 20:16	0°♁
greatest brilliancy	1059 Jun 23 j 07:18	14°♂20'17	-4.5m	desc. node	1061 Dec 03 j 21:50	13°♁55'45
retrograde	1059 Jul 06 j 06:43	17°♂16'48			1061 Dec 16 j 16:16	0°♂
evening set	1059 Jul 23 j 00:17	12°♂01'56				
inferior conj	1059 Jul 27 j 16:23	9°♂12'03	-7°-31'-10	superior conj	1061 Dec 21 j 11:19	6°♂01'50 0°-40'-17
minimum elong	1059 Jul 27 j 07:36	9°♂25'42	7°29'54	minimum elong	1061 Dec 21 j 01:28	5°♂30'53 0°39'53
min. Earth dist.	1059 Jul 27 j 21:31	9°♂04'03	0.28746 AU	max. Earth dist.	1061 Dec 23 j 11:33	8°♂33'29 1.71128 AU
morning rise	1059 Jul 31 j 14:42	6°♂47'31			1062 Jan 09 j 13:13	0°♁
direct	1059 Aug 18 j 06:01	0°♂58'13		evening rise	1062 Jan 31 j 18:53	27°♁50'44
greatest brilliancy	1059 Sep 01 j 14:38	4°♂36'08	-4.6m		1062 Feb 02 j 12:18	0°♄
	1059 Oct 04 j 10:16	0°♄			1062 Feb 26 j 15:03	0°♂
morning max el	1059 Oct 07 j 04:21	2°♄43'15	46°28'46		1062 Mar 22 j 23:23	0°♄
asc. node	1059 Oct 10 j 06:12	5°♄49'39		asc. node	1062 Mar 27 j 01:25	4°♄59'54
	1059 Nov 01 j 14:32	0°♂			1062 Apr 16 j 15:13	0°♂
	1059 Nov 27 j 07:33	0°♄			1062 May 11 j 17:02	0°♄

	1062 Jun 06 j 09:31	0°♈		desc. node	1064 Dec 31 j 09:43	0°♊19'58	
	1062 Jul 03 j 03:57	0°♎			1064 Dec 31 j 03:20	0°♊	
desc. node	1062 Jul 16 j 14:29	14°♎16'21			1065 Jan 24 j 02:13	0°♊	
evening max el	1062 Jul 29 j 16:08	27°♎20'12	45°58'18	morning set	1065 Jan 26 j 05:12	2°♊39'25	
	1062 Aug 01 j 11:26	0°♊			1065 Feb 17 j 02:40	0°♋	
greatest brilliancy	1062 Sep 06 j 09:56	25°♊43'02	-4.6m				
retrograde	1062 Sep 16 j 21:54	27°♊43'23		superior conj	1065 Mar 07 j 11:24	22°♋51'01	-1°-22'-46
evening set	1062 Oct 03 j 10:09	22°♊32'54		minimum elong	1065 Mar 07 j 16:49	23°♋07'51	1°22'44
inferior conj	1062 Oct 07 j 16:58	20°♊00'11	-6°-45'-2	max. Earth dist.	1065 Mar 11 j 06:48	27°♋34'43	1.72461 AU
minimum elong	1062 Oct 08 j 03:30	19°♊44'10	6°42'53		1065 Mar 13 j 05:38	0°♌	
min. Earth dist.	1062 Oct 08 j 14:09	19°♊27'58	0.27150 AU		1065 Apr 06 j 11:50	0°♌	
morning rise	1062 Oct 12 j 20:19	16°♊57'25		evening rise	1065 Apr 15 j 02:28	10°♌36'22	
direct	1062 Oct 28 j 11:28	12°♊09'20		asc. node	1065 Apr 23 j 13:13	20°♌59'20	
asc. node	1062 Nov 06 j 17:51	13°♊47'54			1065 Apr 30 j 21:31	0°♍	
greatest brilliancy	1062 Nov 11 j 05:13	15°♊37'46	-4.7m		1065 May 25 j 10:44	0°♍	
	1062 Dec 01 j 19:37	0°♍			1065 Jun 19 j 03:57	0°♍	
morning max el	1062 Dec 18 j 07:06	15°♍41'06	46°57'03		1065 Jul 14 j 02:52	0°♎	
	1062 Dec 31 j 19:37	0°♎			1065 Aug 08 j 10:49	0°♎	
	1063 Jan 27 j 07:32	0°♏		desc. node	1065 Aug 13 j 02:29	5°♎26'34	
	1063 Feb 21 j 18:05	0°♏			1065 Sep 03 j 10:11	0°♎	
desc. node	1063 Feb 26 j 07:28	5°♏26'26			1065 Sep 30 j 17:03	0°♎	
	1063 Mar 18 j 18:28	0°♏		evening max el	1065 Oct 11 j 03:36	10°♎44'12	47°07'52
	1063 Apr 12 j 14:19	0°♏			1065 Nov 01 j 08:08	0°♏	
	1063 May 07 j 07:49	0°♏		greatest brilliancy	1065 Nov 18 j 18:58	10°♏58'19	-4.7m
	1063 May 31 j 23:13	0°♏		retrograde	1065 Nov 30 j 17:24	13°♏37'32	
asc. node	1063 Jun 19 j 10:49	22°♏35'40		asc. node	1065 Dec 04 j 05:47	13°♏22'14	
morning set	1063 Jun 19 j 18:21	22°♏58'47		evening set	1065 Dec 15 j 07:03	9°♏22'01	
	1063 Jun 25 j 11:46	0°♏		min. Earth dist.	1065 Dec 20 j 13:02	6°♏16'33	0.26553 AU
	1063 Jul 19 j 20:39	0°♏		inferior conj	1065 Dec 21 j 06:12	5°♏50'10	4°14'27
max. Earth dist.	1063 Jul 22 j 21:16	3°♏44'14	1.73080 AU	minimum elong	1065 Dec 20 j 21:35	6°♏03'24	4°12'00
				morning rise	1065 Dec 26 j 12:39	2°♏42'52	
superior conj	1063 Jul 26 j 02:24	7°♏42'40	1°12'35		1066 Jan 01 j 06:56	30°♏♎	
minimum elong	1063 Jul 25 j 18:33	7°♏18'22	1°12'23	direct	1066 Jan 10 j 15:14	28°♏12'49	
	1063 Aug 13 j 02:07	0°♏			1066 Jan 20 j 07:54	0°♏	
evening rise	1063 Aug 31 j 13:26	22°♏57'12		greatest brilliancy	1066 Jan 21 j 14:41	0°♏28'45	-4.6m
	1063 Sep 06 j 05:23	0°♏			1066 Mar 01 j 07:02	0°♏	
	1063 Sep 30 j 07:57	0°♏		morning max el	1066 Mar 01 j 14:08	0°♏17'31	46°31'55
desc. node	1063 Oct 09 j 00:19	10°♏48'05		desc. node	1066 Mar 25 j 19:21	25°♏41'20	
	1063 Oct 24 j 10:58	0°♏			1066 Mar 29 j 17:21	0°♏	
	1063 Nov 17 j 15:28	0°♏			1066 Apr 25 j 05:12	0°♏	
	1063 Dec 11 j 23:35	0°♏			1066 May 20 j 22:09	0°♏	
	1064 Jan 05 j 16:20	0°♏			1066 Jun 15 j 04:14	0°♏	
asc. node	1064 Jan 30 j 03:29	28°♏48'49			1066 Jul 10 j 01:38	0°♏	
	1064 Jan 31 j 04:15	0°♏		asc. node	1066 Jul 16 j 22:42	8°♏21'42	
	1064 Feb 27 j 12:14	0°♏			1066 Aug 03 j 14:56	0°♏	
evening max el	1064 Mar 05 j 20:22	7°♏24'57	46°00'08	morning set	1066 Aug 27 j 02:30	29°♏01'59	
	1064 Apr 01 j 11:33	0°♏			1066 Aug 27 j 21:10	0°♏	
greatest brilliancy	1064 Apr 09 j 07:06	4°♏30'26	-4.5m		1066 Sep 20 j 22:18	0°♏	
retrograde	1064 Apr 24 j 03:24	8°♏22'25		max. Earth dist.	1066 Oct 01 j 03:06	12°♏46'37	1.71602 AU
evening set	1064 May 09 j 08:35	3°♏51'12					
inferior conj	1064 May 15 j 13:16	0°♏07'01	1°12'30	superior conj	1066 Oct 03 j 19:29	16°♏08'23	1°07'32
minimum elong	1064 May 15 j 15:55	0°♏02'52	1°11'44	minimum elong	1066 Oct 04 j 05:26	16°♏39'35	1°07'14
min. Earth dist.	1064 May 15 j 15:01	0°♏04'16	0.28926 AU		1066 Oct 14 j 20:39	0°♏	
	1064 May 15 j 17:45	30°♏♎		desc. node	1066 Nov 05 j 12:08	27°♏10'42	
desc. node	1064 May 20 j 16:46	26°♏58'46			1066 Nov 07 j 18:04	0°♏	
morning rise	1064 May 21 j 23:27	26°♏15'41		evening rise	1066 Nov 13 j 01:44	6°♏40'42	
direct	1064 Jun 06 j 03:41	21°♏49'31			1066 Dec 01 j 15:43	0°♏	
greatest brilliancy	1064 Jun 19 j 14:07	24°♏59'11	-4.5m		1066 Dec 25 j 14:47	0°♏	
	1064 Jun 28 j 17:51	0°♏			1067 Jan 18 j 17:16	0°♏	
morning max el	1064 Jul 25 j 00:41	21°♏40'52	45°49'29		1067 Feb 12 j 02:32	0°♏	
	1064 Aug 02 j 11:12	0°♏		asc. node	1067 Feb 26 j 15:31	17°♏37'48	
	1064 Aug 30 j 07:41	0°♏			1067 Mar 08 j 23:37	0°♏	
asc. node	1064 Sep 10 j 20:29	13°♏12'32			1067 Apr 03 j 16:40	0°♏	
	1064 Sep 25 j 03:09	0°♏			1067 Apr 30 j 23:36	0°♏	
	1064 Oct 19 j 22:12	0°♏		evening max el	1067 May 16 j 09:40	15°♏30'53	45°20'43
	1064 Nov 13 j 04:25	0°♏			1067 Jun 01 j 18:52	0°♏	
	1064 Dec 07 j 04:47	0°♏		desc. node	1067 Jun 18 j 04:47	10°♏51'52	

greatest brilliancy	1067 Jun 20 j 20:11	12°♌05'45	-4.5m	desc. node	1069 Dec 02 j 23:57	13°♏27'11	
retrograde	1067 Jul 03 j 21:34	15°♌05'12			1069 Dec 16 j 03:28	0°♏	
evening set	1067 Jul 20 j 12:28	9°♌54'37					
inferior conj	1067 Jul 25 j 08:01	6°♌59'58	-7°-20'-26	superior conj	1069 Dec 18 j 21:05	3°♏26'24	0°-36'-42
minimum elong	1067 Jul 24 j 22:53	7°♌14'10	7°19'02	minimum elong	1069 Dec 18 j 11:55	2°♏57'35	0°36'19
min. Earth dist.	1067 Jul 25 j 12:59	6°♌52'15	0.28772 AU	max. Earth dist.	1069 Dec 20 j 18:54	5°♏50'31	1.71108 AU
morning rise	1067 Jul 29 j 09:00	4°♌31'23			1070 Jan 09 j 00:24	0°≈	
	1067 Aug 07 j 23:20	30°♌		evening rise	1070 Jan 29 j 06:08	25°≈21'04	
direct	1067 Aug 15 j 21:22	28°♌45'31			1070 Feb 01 j 23:28	0°♏	
	1067 Aug 24 j 02:22	0°♌			1070 Feb 26 j 02:18	0°♏	
greatest brilliancy	1067 Aug 30 j 06:45	2°♌23'23	-4.5m		1070 Mar 22 j 10:50	0°♏	
	1067 Oct 04 j 09:01	0°♌		asc. node	1070 Mar 26 j 03:22	4°♏30'45	
morning max el	1067 Oct 04 j 18:20	0°♌23'10	46°27'28		1070 Apr 16 j 03:04	0°♌	
asc. node	1067 Oct 09 j 08:07	5°♌01'18			1070 May 11 j 05:36	0°♌	
	1067 Nov 01 j 06:42	0°♌			1070 Jun 05 j 23:27	0°♌	
	1067 Nov 26 j 21:27	0°♌			1070 Jul 02 j 20:50	0°♌	
	1067 Dec 21 j 15:11	0°♏		desc. node	1070 Jul 15 j 16:39	13°♌31'26	
	1068 Jan 15 j 00:37	0°♏		evening max el	1070 Jul 27 j 06:20	25°♌02'13	45°56'00
desc. node	1068 Jan 28 j 21:38	17°♏08'07			1070 Aug 01 j 13:10	0°♌	
	1068 Feb 08 j 07:20	0°≈		greatest brilliancy	1070 Sep 03 j 20:37	23°♌17'34	-4.6m
	1068 Mar 03 j 13:51	0°♏		retrograde	1070 Sep 14 j 10:54	25°♌19'23	
	1068 Mar 27 j 21:18	0°♏		evening set	1070 Oct 01 j 02:10	20°♌03'51	
morning set	1068 Apr 09 j 12:02	15°♏32'22		inferior conj	1070 Oct 05 j 05:52	17°♌35'21	-6°-59'-25
	1068 Apr 21 j 06:08	0°♏		minimum elong	1070 Oct 05 j 16:14	17°♌19'35	6°57'26
	1068 May 15 j 16:02	0°♌		min. Earth dist.	1070 Oct 06 j 03:02	17°♌03'09	0.27215 AU
				morning rise	1070 Oct 10 j 05:51	14°♌37'21	
superior conj	1068 May 16 j 14:31	1°♌09'02	0°-10'-31	direct	1070 Oct 26 j 01:47	9°♌43'35	
minimum elong	1068 May 16 j 16:42	1°♌15'45	0°10'26	asc. node	1070 Nov 05 j 19:55	11°♌55'09	
behind sun begin	1068 May 15 j 23:26	0°♌22'43		greatest brilliancy	1070 Nov 08 j 20:06	13°♌13'19	-4.7m
behind sun end	1068 May 17 j 09:58	2°♌08'46			1070 Dec 02 j 03:23	0°♌	
max. Earth dist.	1068 May 16 j 17:15	1°♌17'27	1.73582 AU	morning max el	1070 Dec 15 j 22:07	13°♌18'40	46°57'05
asc. node	1068 May 21 j 01:01	6°♌36'00			1070 Dec 31 j 14:23	0°♏	
	1068 Jun 09 j 02:13	0°♌			1071 Jan 26 j 22:39	0°♏	
evening rise	1068 Jun 21 j 17:57	15°♌32'51			1071 Feb 21 j 07:28	0°≈	
	1068 Jul 03 j 12:10	0°♌		desc. node	1071 Feb 25 j 09:33	4°≈53'13	
	1068 Jul 27 j 22:10	0°♌			1071 Mar 18 j 06:50	0°♏	
	1068 Aug 21 j 09:23	0°♌			1071 Apr 12 j 02:04	0°♏	
desc. node	1068 Sep 09 j 14:27	23°♌27'53			1071 May 06 j 19:10	0°♏	
	1068 Sep 14 j 23:18	0°♌			1071 May 31 j 10:20	0°♌	
	1068 Oct 09 j 17:45	0°♏		morning set	1071 Jun 17 j 12:38	20°♌54'07	
	1068 Nov 03 j 20:34	0°♏		asc. node	1071 Jun 18 j 12:58	22°♌08'40	
	1068 Nov 29 j 18:28	0°≈			1071 Jun 24 j 22:43	0°♌	
evening max el	1068 Dec 22 j 02:44	24°≈08'32	47°09'53		1071 Jul 19 j 07:34	0°♌	
	1068 Dec 27 j 23:18	0°♏		max. Earth dist.	1071 Jul 20 j 16:43	1°♌42'20	1.73121 AU
asc. node	1068 Dec 31 j 17:43	3°♏37'19					
greatest brilliancy	1069 Jan 28 j 07:31	24°♏18'04	-4.6m	superior conj	1071 Jul 23 j 20:25	5°♌36'10	1°10'53
retrograde	1069 Feb 10 j 23:50	27°♏46'15		minimum elong	1071 Jul 23 j 12:18	5°♌11'06	1°10'41
evening set	1069 Feb 28 j 22:29	21°♏32'39			1071 Aug 12 j 13:06	0°♌	
min. Earth dist.	1069 Mar 03 j 16:54	19°♏48'53	0.28178 AU	evening rise	1071 Aug 29 j 05:27	20°♌43'13	
inferior conj	1069 Mar 04 j 02:46	19°♏33'19	8°30'35		1071 Sep 05 j 16:32	0°♌	
minimum elong	1069 Mar 04 j 06:54	19°♏26'46	8°30'20		1071 Sep 29 j 19:22	0°♌	
morning rise	1069 Mar 07 j 15:30	17°♏21'21		desc. node	1071 Oct 08 j 02:16	10°♌18'24	
direct	1069 Mar 25 j 02:13	11°♏29'16			1071 Oct 23 j 22:41	0°♏	
greatest brilliancy	1069 Apr 05 j 10:05	13°♏48'27	-4.5m		1071 Nov 17 j 03:33	0°♏	
desc. node	1069 Apr 22 j 06:56	23°♏42'54			1071 Dec 11 j 12:09	0°≈	
	1069 Apr 30 j 03:46	0°♏			1072 Jan 05 j 05:43	0°♏	
morning max el	1069 May 13 j 02:09	11°♏43'17	45°51'47	asc. node	1072 Jan 29 j 05:37	28°♏11'56	
	1069 May 31 j 04:29	0°♏			1072 Jan 30 j 19:22	0°♏	
	1069 Jun 27 j 14:08	0°♌			1072 Feb 27 j 07:58	0°♏	
	1069 Jul 23 j 14:30	0°♌		evening max el	1072 Mar 03 j 12:51	5°♏13'47	46°02'29
asc. node	1069 Aug 13 j 10:36	24°♌46'11			1072 Apr 02 j 14:43	0°♌	
	1069 Aug 17 j 18:45	0°♌		greatest brilliancy	1072 Apr 07 j 00:53	2°♌23'05	-4.5m
	1069 Sep 11 j 08:40	0°♌		retrograde	1072 Apr 21 j 20:10	6°♌13'40	
	1069 Oct 05 j 12:48	0°♌		evening set	1072 May 07 j 02:40	1°♌40'50	
	1069 Oct 29 j 11:18	0°♌			1072 May 09 j 23:36	30°♌	
morning set	1069 Nov 07 j 11:43	11°♌20'16		inferior conj	1072 May 13 j 05:54	27°♏58'12	1°31'55
	1069 Nov 22 j 07:30	0°♏		minimum elong	1072 May 13 j 09:13	27°♏52'58	1°30'58

min. Earth dist.	1072 May 13 j 07:34	27°♄55'34	0.28917 AU	desc. node	1074 Nov 04 j 14:15	26°♄42'33	
morning rise	1072 May 19 j 16:02	24°♄06'41			1074 Nov 07 j 05:10	0°♄	
desc. node	1072 May 19 j 18:52	24°♄02'49		evening rise	1074 Nov 10 j 12:24	4°♄08'36	
direct	1072 Jun 03 j 20:33	19°♄41'01			1074 Dec 01 j 02:57	0°♄	
greatest brilliancy	1072 Jun 17 j 03:51	22°♄47'28	-4.5m		1074 Dec 25 j 02:11	0°♄	
	1072 Jun 29 j 14:47	0°♄			1075 Jan 18 j 04:54	0°♄	
morning max el	1072 Jul 22 j 16:39	19°♄30'44	45°48'34		1075 Feb 11 j 14:32	0°♄	
	1072 Aug 02 j 06:29	0°♄		asc. node	1075 Feb 25 j 17:28	17°♄06'29	
	1072 Aug 29 j 22:29	0°♄			1075 Mar 08 j 12:19	0°♄	
asc. node	1072 Sep 09 j 22:27	12°♄37'49			1075 Apr 03 j 06:52	0°♄	
	1072 Sep 24 j 16:14	0°♄			1075 Apr 30 j 17:33	0°♄	
	1072 Oct 19 j 10:27	0°♄		evening max el	1075 May 14 j 00:21	13°♄17'48	45°21'00
	1072 Nov 12 j 16:15	0°♄			1075 Jun 02 j 05:35	0°♄	
	1072 Dec 06 j 16:22	0°♄		desc. node	1075 Jun 17 j 06:53	9°♄23'12	
desc. node	1072 Dec 30 j 11:49	29°♄50'53		greatest brilliancy	1075 Jun 18 j 08:12	9°♄51'41	-4.5m
	1072 Dec 30 j 14:44	0°♄		retrograde	1075 Jul 01 j 13:14	12°♄55'35	
morning set	1073 Jan 23 j 15:38	0°♄06'50		evening set	1075 Jul 18 j 01:02	7°♄48'49	
	1073 Jan 23 j 13:27	0°♄		inferior conj	1075 Jul 22 j 23:57	4°♄49'34	-7°-9'-14
	1073 Feb 16 j 13:45	0°♄		minimum elong	1075 Jul 22 j 14:31	5°♄04'13	7°07'41
				min. Earth dist.	1075 Jul 23 j 04:24	4°♄42'39	0.28802 AU
superior conj	1073 Mar 05 j 01:03	20°♄30'08	-1°-23'-40	morning rise	1075 Jul 27 j 03:41	2°♄17'04	
minimum elong	1073 Mar 05 j 05:42	20°♄44'36	1°23'37		1075 Jul 31 j 07:37	30°♄	
max. Earth dist.	1073 Mar 09 j 00:22	25°♄26'12	1.72400 AU	direct	1075 Aug 13 j 13:12	26°♄34'30	
	1073 Mar 12 j 16:36	0°♄			1075 Aug 27 j 12:23	0°♄	
	1073 Apr 05 j 22:45	0°♄		greatest brilliancy	1075 Aug 28 j 00:05	0°♄13'40	-4.5m
evening rise	1073 Apr 12 j 18:41	8°♄24'58		morning max el	1075 Oct 02 j 09:24	28°♄06'37	46°25'54
asc. node	1073 Apr 22 j 15:17	20°♄32'10			1075 Oct 04 j 06:40	0°♄	
	1073 Apr 30 j 08:29	0°♄		asc. node	1075 Oct 08 j 10:13	4°♄14'40	
	1073 May 24 j 21:54	0°♄			1075 Oct 31 j 22:29	0°♄	
	1073 Jun 18 j 15:33	0°♄			1075 Nov 26 j 11:07	0°♄	
	1073 Jul 13 j 15:11	0°♄			1075 Dec 21 j 03:48	0°♄	
	1073 Aug 08 j 00:20	0°♄			1076 Jan 14 j 12:37	0°♄	
desc. node	1073 Aug 12 j 04:28	4°♄52'11		desc. node	1076 Jan 27 j 23:41	16°♄38'14	
	1073 Sep 03 j 01:50	0°♄			1076 Feb 07 j 18:54	0°♄	
	1073 Sep 30 j 13:31	0°♄			1076 Mar 03 j 01:05	0°♄	
evening max el	1073 Oct 08 j 17:07	8°♄19'16	47°06'00		1076 Mar 27 j 08:17	0°♄	
	1073 Nov 02 j 02:25	0°♄		morning set	1076 Apr 07 j 04:08	13°♄20'39	
greatest brilliancy	1073 Nov 16 j 10:27	8°♄31'56	-4.7m		1076 Apr 20 j 16:55	0°♄	
retrograde	1073 Nov 28 j 05:24	11°♄07'34					
asc. node	1073 Dec 03 j 07:55	10°♄35'26		superior conj	1076 May 14 j 08:22	29°♄03'41	0°-13'-41
evening set	1073 Dec 12 j 17:47	6°♄55'20		minimum elong	1076 May 14 j 11:13	29°♄12'24	0°13'34
min. Earth dist.	1073 Dec 18 j 02:57	3°♄45'33	0.26517 AU	behind sun begin	1076 May 13 j 23:18	28°♄35'50	
inferior conj	1073 Dec 18 j 18:36	3°♄21'29	3°52'56	behind sun end	1076 May 14 j 23:07	29°♄48'57	
minimum elong	1073 Dec 18 j 10:33	3°♄33'51	3°50'34	max. Earth dist.	1076 May 14 j 13:30	29°♄19'25	1.73566 AU
morning rise	1073 Dec 24 j 03:45	0°♄10'16			1076 May 15 j 02:43	0°♄	
	1073 Dec 24 j 11:16	30°♄		asc. node	1076 May 20 j 03:13	6°♄10'01	
direct	1074 Jan 08 j 03:07	25°♄44'35			1076 Jun 08 j 12:54	0°♄	
greatest brilliancy	1074 Jan 19 j 05:07	28°♄02'36	-4.6m	evening rise	1076 Jun 19 j 13:13	13°♄31'46	
	1074 Jan 23 j 11:54	0°♄			1076 Jul 02 j 22:57	0°♄	
morning max el	1074 Feb 27 j 02:13	27°♄50'51	46°33'30		1076 Jul 27 j 09:12	0°♄	
	1074 Mar 01 j 06:03	0°♄			1076 Aug 20 j 20:48	0°♄	
desc. node	1074 Mar 24 j 21:15	25°♄00'06		desc. node	1076 Sep 08 j 16:25	22°♄57'41	
	1074 Mar 29 j 09:39	0°♄			1076 Sep 14 j 11:19	0°♄	
	1074 Apr 24 j 18:56	0°♄			1076 Oct 09 j 06:40	0°♄	
	1074 May 20 j 10:33	0°♄			1076 Nov 03 j 10:52	0°♄	
	1074 Jun 14 j 15:51	0°♄			1076 Nov 29 j 11:28	0°♄	
	1074 Jul 09 j 12:48	0°♄		evening max el	1076 Dec 19 j 17:30	21°♄47'43	47°11'31
asc. node	1074 Jul 16 j 00:47	7°♄54'15			1076 Dec 28 j 00:16	0°♄	
	1074 Aug 03 j 01:54	0°♄		asc. node	1076 Dec 30 j 19:49	2°♄39'23	
morning set	1074 Aug 24 j 18:48	26°♄49'37		greatest brilliancy	1077 Jan 25 j 22:49	21°♄59'36	-4.6m
	1074 Aug 27 j 08:05	0°♄		retrograde	1077 Feb 08 j 15:37	25°♄28'34	
	1074 Sep 20 j 09:15	0°♄		evening set	1077 Feb 26 j 14:40	19°♄13'10	
max. Earth dist.	1074 Sep 28 j 13:58	10°♄15'55	1.71652 AU	inferior conj	1077 Mar 01 j 17:46	17°♄15'52	8°35'09
				minimum elong	1077 Mar 01 j 21:10	17°♄10'30	8°34'58
superior conj	1074 Oct 01 j 09:26	13°♄47'18	1°09'38	min. Earth dist.	1077 Mar 01 j 06:49	17°♄33'07	0.28132 AU
minimum elong	1074 Oct 01 j 19:05	14°♄17'32	1°09'22	morning rise	1077 Mar 05 j 03:50	15°♄08'15	
	1074 Oct 14 j 07:40	0°♄		direct	1077 Mar 22 j 16:35	9°♄12'29	

greatest brilliancy	1077 Apr 02 j 23:19	11° K 31'08	-4.5m		1079 Nov 16 j 15:15	0° Z	
desc. node	1077 Apr 21 j 09:06	22° K 34'45			1079 Dec 11 j 00:25	0° \approx	
	1077 Apr 30 j 09:08	0° Y			1080 Jan 04 j 18:57	0° K	
morning max el	1077 May 10 j 18:04	9° Y 31'58	45°52'48	asc. node	1080 Jan 28 j 07:34	27° K 34'42	
	1077 May 30 j 21:48	0° X			1080 Jan 30 j 10:29	0° Y	
	1077 Jun 27 j 04:02	0° II			1080 Feb 27 j 04:13	0° X	
	1077 Jul 23 j 02:53	0° S		evening max el	1080 Mar 01 j 04:22	3° X 00'12	46°04'45
asc. node	1077 Aug 12 j 12:36	24° S 17'03			1080 Apr 04 j 06:04	0° II	
	1077 Aug 17 j 06:20	0° Q		greatest brilliancy	1080 Apr 04 j 18:59	0° II 15'52	-4.5m
	1077 Sep 10 j 19:51	0° M		retrograde	1080 Apr 19 j 12:16	4° II 04'31	
	1077 Oct 04 j 23:47	0° A			1080 May 03 j 22:36	30° R X	
	1077 Oct 28 j 22:14	0° M		evening set	1080 May 04 j 20:37	29° X 29'54	
morning set	1077 Nov 04 j 23:38	8° M 52'24		inferior conj	1080 May 10 j 22:16	25° X 49'09	1°51'26
	1077 Nov 21 j 18:27	0° X		minimum elong	1080 May 11 j 02:16	25° X 42'52	1°50'17
desc. node	1077 Dec 02 j 02:05	12° X 59'25		min. Earth dist.	1080 May 11 j 00:11	25° X 46'08	0.28904 AU
	1077 Dec 15 j 14:26	0° Z		morning rise	1080 May 17 j 08:10	21° X 57'33	
				desc. node	1080 May 18 j 20:57	21° X 08'58	
superior conj	1077 Dec 16 j 06:24	0° Z 50'12	0°-33'00	direct	1080 Jun 01 j 12:46	17° X 32'18	
minimum elong	1077 Dec 15 j 22:00	0° Z 23'47	0°32'37	greatest brilliancy	1080 Jun 14 j 17:33	20° X 35'46	-4.5m
max. Earth dist.	1077 Dec 18 j 02:46	3° Z 09'47	1.71095 AU		1080 Jun 30 j 06:08	0° II	
	1078 Jan 08 j 11:22	0° \approx		morning max el	1080 Jul 20 j 07:29	17° II 18'30	45°47'51
evening rise	1078 Jan 26 j 16:44	22° \approx 49'58			1080 Aug 02 j 00:58	0° S	
	1078 Feb 01 j 10:26	0° K			1080 Aug 29 j 12:49	0° Q	
	1078 Feb 25 j 13:19	0° Y		asc. node	1080 Sep 09 j 00:30	12° Q 04'28	
	1078 Mar 21 j 22:02	0° X			1080 Sep 24 j 04:55	0° M	
asc. node	1078 Mar 25 j 05:29	4° X 02'54			1080 Oct 18 j 22:20	0° A	
	1078 Apr 15 j 14:38	0° II			1080 Nov 12 j 03:42	0° M	
	1078 May 10 j 17:53	0° S			1080 Dec 06 j 03:33	0° X	
	1078 Jun 05 j 13:08	0° Q		desc. node	1080 Dec 29 j 13:49	29° X 22'36	
	1078 Jul 02 j 13:34	0° M			1080 Dec 30 j 01:45	0° Z	
desc. node	1078 Jul 14 j 18:41	12° M 46'51		morning set	1081 Jan 21 j 02:04	27° Z 35'11	
evening max el	1078 Jul 24 j 21:08	22° M 47'15	45°53'51		1081 Jan 23 j 00:21	0° \approx	
	1078 Aug 01 j 15:37	0° A			1081 Feb 16 j 00:34	0° K	
greatest brilliancy	1078 Sep 01 j 08:11	20° A 55'37	-4.6m				
retrograde	1078 Sep 11 j 23:54	22° A 58'06		superior conj	1081 Mar 02 j 14:24	18° K 08'59	-1°-24'-24
evening set	1078 Sep 28 j 18:32	17° A 37'56		minimum elong	1081 Mar 02 j 18:13	18° K 20'50	1°24'22
inferior conj	1078 Oct 02 j 19:11	15° A 13'26	-7°-12'-49	max. Earth dist.	1081 Mar 06 j 16:01	23° K 12'17	1.72346 AU
minimum elong	1078 Oct 03 j 05:17	14° A 58'01	7°11'00		1081 Mar 12 j 03:23	0° Y	
min. Earth dist.	1078 Oct 03 j 16:11	14° A 41'26	0.27280 AU		1081 Apr 05 j 09:30	0° X	
morning rise	1078 Oct 07 j 15:40	12° A 20'09		evening rise	1081 Apr 10 j 10:17	6° X 12'05	
direct	1078 Oct 23 j 16:30	7° A 20'57		asc. node	1081 Apr 21 j 17:25	20° X 05'37	
asc. node	1078 Nov 04 j 22:05	10° A 09'05			1081 Apr 29 j 19:19	0° II	
greatest brilliancy	1078 Nov 06 j 10:32	10° A 50'34	-4.7m		1081 May 24 j 08:56	0° S	
	1078 Dec 02 j 08:16	0° M			1081 Jun 18 j 03:01	0° Q	
morning max el	1078 Dec 13 j 12:22	10° M 55'39	46°56'38		1081 Jul 13 j 03:23	0° M	
	1078 Dec 31 j 08:19	0° X			1081 Aug 07 j 13:46	0° A	
	1079 Jan 26 j 13:17	0° Z		desc. node	1081 Aug 11 j 06:29	4° A 18'15	
	1079 Feb 20 j 20:31	0° \approx			1081 Sep 02 j 17:29	0° M	
desc. node	1079 Feb 24 j 11:30	4° \approx 20'28			1081 Sep 30 j 10:22	0° X	
	1079 Mar 17 j 18:57	0° K		evening max el	1081 Oct 06 j 05:47	5° X 53'10	47°04'12
	1079 Apr 11 j 13:33	0° Y			1081 Nov 03 j 02:24	0° Z	
	1079 May 06 j 06:14	0° X		greatest brilliancy	1081 Nov 14 j 01:47	6° Z 06'26	-4.7m
	1079 May 30 j 21:07	0° II		retrograde	1081 Nov 25 j 17:30	8° Z 39'10	
morning set	1079 Jun 15 j 06:50	18° II 50'14		asc. node	1081 Dec 02 j 09:55	7° Z 44'05	
asc. node	1079 Jun 17 j 14:59	21° II 42'12		evening set	1081 Dec 10 j 04:50	4° Z 29'27	
	1079 Jun 24 j 09:21	0° S		min. Earth dist.	1081 Dec 15 j 17:04	1° Z 15'45	0.26485 AU
max. Earth dist.	1079 Jul 18 j 10:46	29° S 37'10	1.73157 AU	inferior conj	1081 Dec 16 j 07:08	0° Z 54'10	3°30'52
	1079 Jul 18 j 18:10	0° Q		minimum elong	1081 Dec 15 j 23:42	1° Z 05'34	3°28'39
					1081 Dec 17 j 18:31	30° R X	
superior conj	1079 Jul 21 j 14:37	3° Q 31'21	1°09'07	morning rise	1081 Dec 21 j 18:52	27° X 39'22	
minimum elong	1079 Jul 21 j 06:18	3° Q 05'39	1°08'52	direct	1082 Jan 05 j 14:50	23° X 17'28	
	1079 Aug 11 j 23:45	0° M		greatest brilliancy	1082 Jan 16 j 20:16	25° X 38'32	-4.7m
evening rise	1079 Aug 26 j 21:52	18° M 31'40			1082 Jan 25 j 07:54	0° Z	
	1079 Sep 05 j 03:20	0° A		morning max el	1082 Feb 24 j 14:33	25° Z 25'33	46°34'57
	1079 Sep 29 j 06:23	0° M			1082 Mar 01 j 03:48	0° \approx	
desc. node	1079 Oct 07 j 04:26	9° M 50'37		desc. node	1082 Mar 23 j 23:28	24° \approx 20'47	
	1079 Oct 23 j 10:00	0° X			1082 Mar 29 j 01:28	0° K	

	1082 Apr 24 j 08:25	0°Υ			1084 Nov 29 j 04:56	0°≈		
	1082 May 19 j 22:48	0°Ϡ		evening max el	1084 Dec 17 j 09:08	19°≈28'43	47°13'04	
	1082 Jun 14 j 03:23	0°Π			1084 Dec 28 j 02:45	0°Ϡ		
	1082 Jul 08 j 23:54	0°Ϡ		asc. node	1084 Dec 29 j 21:50	1°Ϡ39'36		
asc. node	1082 Jul 15 j 02:47	7°Ϡ26'44		greatest brilliancy	1085 Jan 23 j 14:42	19°Ϡ41'24	-4.6m	
	1082 Aug 02 j 12:46	0°Ω		retrograde	1085 Feb 06 j 07:35	23°Ϡ10'08		
morning set	1082 Aug 22 j 10:54	24°Ω37'06		evening set	1085 Feb 24 j 06:30	16°Ϡ53'36		
	1082 Aug 26 j 18:52	0°Ϡ		inferior conj	1085 Feb 27 j 08:42	14°Ϡ57'46	8°38'50	
	1082 Sep 19 j 20:04	0°Ω		minimum elong	1085 Feb 27 j 11:20	14°Ϡ53'36	8°38'44	
max. Earth dist.	1082 Sep 26 j 03:33	7°Ω54'11	1.71701 AU	min. Earth dist.	1085 Feb 26 j 20:22	15°Ϡ17'11	0.28080 AU	
				morning rise	1085 Mar 02 j 16:24	12°Ϡ54'01		
superior conj	1082 Sep 28 j 23:21	11°Ω26'32	1°11'38	direct	1085 Mar 20 j 07:20	6°Ϡ55'22		
minimum elong	1082 Sep 29 j 08:38	11°Ω55'36	1°11'23	greatest brilliancy	1085 Mar 31 j 11:24	9°Ϡ12'11	-4.5m	
	1082 Oct 13 j 18:34	0°Ϡ		desc. node	1085 Apr 20 j 11:08	21°Ϡ28'00		
desc. node	1082 Nov 03 j 16:20	26°Ϡ14'34			1085 Apr 30 j 12:43	0°Υ		
	1082 Nov 06 j 16:11	0°Ϡ		morning max el	1085 May 08 j 09:56	7°Υ20'18	45°53'46	
evening rise	1082 Nov 07 j 23:15	1°Ϡ37'28			1085 May 30 j 14:51	0°Ϡ		
	1082 Nov 30 j 14:05	0°Ϡ			1085 Jun 26 j 17:58	0°Π		
	1082 Dec 24 j 13:28	0°≈			1085 Jul 22 j 15:24	0°Ϡ		
	1083 Jan 17 j 16:23	0°Ϡ		asc. node	1085 Aug 11 j 14:42	23°Ϡ47'33		
	1083 Feb 11 j 02:23	0°Υ			1085 Aug 16 j 18:09	0°Ω		
asc. node	1083 Feb 24 j 19:35	16°Υ36'04			1085 Sep 10 j 07:16	0°Ϡ		
	1083 Mar 08 j 00:57	0°Ϡ			1085 Oct 04 j 11:01	0°Ω		
	1083 Apr 02 j 21:09	0°Π			1085 Oct 28 j 09:24	0°Ϡ		
	1083 Apr 30 j 11:58	0°Ϡ		morning set	1085 Nov 02 j 11:32	6°Ϡ23'50		
evening max el	1083 May 11 j 15:31	11°Ϡ05'47	45°21'14		1085 Nov 21 j 05:37	0°Ϡ		
	1083 Jun 02 j 20:18	0°Ω		desc. node	1085 Dec 01 j 04:01	12°Ϡ30'26		
greatest brilliancy	1083 Jun 15 j 20:00	7°Ω36'47	-4.5m					
desc. node	1083 Jun 16 j 08:54	7°Ω50'44		superior conj	1085 Dec 13 j 15:41	28°Ϡ13'18	0°-29'-13	
retrograde	1083 Jun 29 j 05:11	10°Ω45'05		minimum elong	1085 Dec 13 j 08:08	27°Ϡ49'33	0°28'53	
evening set	1083 Jul 15 j 13:28	5°Ω42'06			1085 Dec 15 j 01:36	0°Ϡ		
inferior conj	1083 Jul 20 j 15:38	2°Ω38'17	-6°-57'-15	max. Earth dist.	1085 Dec 15 j 11:16	0°Ϡ30'23	1.71080 AU	
minimum elong	1083 Jul 20 j 05:59	2°Ω53'15	6°55'35		1086 Jan 07 j 22:32	0°≈		
min. Earth dist.	1083 Jul 20 j 19:21	2°Ω32'31	0.28829 AU	evening rise	1086 Jan 24 j 03:19	20°≈17'59		
morning rise	1083 Jul 24 j 22:14	0°Ω01'48			1086 Jan 31 j 21:37	0°Ϡ		
	1083 Jul 24 j 23:28	30°ϠϠ			1086 Feb 25 j 00:35	0°Υ		
direct	1083 Aug 11 j 05:13	24°Ϡ22'43			1086 Mar 21 j 09:27	0°Ϡ		
greatest brilliancy	1083 Aug 25 j 17:02	28°Ϡ03'10	-4.5m	asc. node	1086 Mar 24 j 07:37	3°Ϡ34'26		
	1083 Aug 29 j 10:48	0°Ω			1086 Apr 15 j 02:26	0°Π		
morning max el	1083 Sep 30 j 01:02	25°Ω51'34	46°24'22		1086 May 10 j 06:26	0°Ϡ		
	1083 Oct 04 j 03:35	0°Ϡ			1086 Jun 05 j 03:11	0°Ω		
asc. node	1083 Oct 07 j 12:25	3°Ϡ28'52			1086 Jul 02 j 06:59	0°Ϡ		
	1083 Oct 31 j 14:00	0°Ω		desc. node	1086 Jul 13 j 20:41	12°Ϡ00'35		
	1083 Nov 26 j 00:39	0°Ϡ		evening max el	1086 Jul 22 j 11:18	20°Ϡ29'43	45°51'26	
	1083 Dec 20 j 16:21	0°Ϡ			1086 Aug 01 j 20:18	0°Ω		
	1084 Jan 14 j 00:33	0°Ϡ		greatest brilliancy	1086 Aug 29 j 20:42	18°Ω33'13	-4.6m	
desc. node	1084 Jan 27 j 01:40	16°Ϡ08'10		retrograde	1086 Sep 09 j 12:15	20°Ω35'11		
	1084 Feb 07 j 06:25	0°≈		evening set	1086 Sep 26 j 10:43	15°Ω10'35		
	1084 Mar 02 j 12:16	0°Ϡ		inferior conj	1086 Sep 30 j 08:22	12°Ω50'03	-7°-25'-26	
	1084 Mar 26 j 19:13	0°Υ		minimum elong	1086 Sep 30 j 18:09	12°Ω35'06	7°23'47	
morning set	1084 Apr 04 j 20:19	11°Υ09'09		min. Earth dist.	1086 Oct 01 j 05:29	12°Ω17'47	0.27346 AU	
	1084 Apr 20 j 03:42	0°Ϡ		morning rise	1086 Oct 05 j 01:13	10°Ω01'30		
				direct	1086 Oct 21 j 06:32	4°Ω56'46		
superior conj	1084 May 12 j 02:07	26°Ϡ57'51	0°-16'-50	greatest brilliancy	1086 Nov 04 j 00:59	8°Ω26'17	-4.7m	
minimum elong	1084 May 12 j 05:36	27°Ϡ08'32	0°16'40	asc. node	1086 Nov 04 j 00:02	8°Ω25'09		
max. Earth dist.	1084 May 12 j 11:22	27°Ϡ26'16	1.73556 AU		1086 Dec 02 j 11:55	0°Ϡ		
	1084 May 14 j 13:26	0°Π		morning max el	1086 Dec 11 j 01:28	8°Ϡ28'27	46°56'20	
asc. node	1084 May 19 j 05:13	5°Π43'15			1086 Dec 31 j 02:12	0°Ϡ		
	1084 Jun 07 j 23:40	0°Ϡ			1087 Jan 26 j 04:04	0°Ϡ		
evening rise	1084 Jun 17 j 08:19	11°Ϡ29'49			1087 Feb 20 j 09:46	0°≈		
	1084 Jul 02 j 09:52	0°Ω		desc. node	1087 Feb 23 j 13:40	3°≈47'39		
	1084 Jul 26 j 20:23	0°Ϡ			1087 Mar 17 j 07:17	0°Ϡ		
	1084 Aug 20 j 08:24	0°Ω			1087 Apr 11 j 01:18	0°Υ		
desc. node	1084 Sep 07 j 18:34	22°Ω27'33			1087 May 05 j 17:34	0°Ϡ		
	1084 Sep 13 j 23:32	0°Ϡ			1087 May 30 j 08:10	0°Π		
	1084 Oct 08 j 19:48	0°Ϡ		morning set	1087 Jun 13 j 01:17	16°Π46'19		
	1084 Nov 03 j 01:27	0°Ϡ		asc. node	1087 Jun 16 j 17:01	21°Π15'01		

	1087 Jun 23 j 20:14	0°☿				1089 Dec 11 j 04:27	30°☿♊	
max. Earth dist.	1087 Jul 16 j 05:13	27°☿32'31	1.73199 AU		inferior conj	1089 Dec 13 j 19:20	28°☿24'28	3°08'03
	1087 Jul 18 j 05:01	0°♊			minimum elong	1089 Dec 13 j 12:35	28°☿34'49	3°06'00
					min. Earth dist.	1089 Dec 13 j 06:48	28°☿43'40	0.26462 AU
superior conj	1087 Jul 19 j 09:04	1°♊26'32	1°07'15		morning rise	1089 Dec 19 j 09:36	25°☿06'29	
minimum elong	1087 Jul 19 j 00:34	1°♊00'18	1°07'00		direct	1090 Jan 03 j 02:28	20°☿47'43	
	1087 Aug 11 j 10:44	0°♊			greatest brilliancy	1090 Jan 14 j 11:31	23°☿12'28	-4.7m
evening rise	1087 Aug 24 j 14:29	16°♊19'42				1090 Jan 26 j 15:06	0°☿	
	1087 Sep 04 j 14:31	0°♊			morning max el	1090 Feb 22 j 03:34	23°☿00'15	46°36'33
	1087 Sep 28 j 17:51	0°♊				1090 Mar 01 j 01:21	0°♊	
desc. node	1087 Oct 06 j 06:30	9°♊21'08			desc. node	1090 Mar 23 j 01:31	23°♊40'14	
	1087 Oct 22 j 21:47	0°♊				1090 Mar 28 j 17:27	0°♊	
	1087 Nov 16 j 03:25	0°☿				1090 Apr 23 j 22:06	0°♊	
	1087 Dec 10 j 13:08	0°♊				1090 May 19 j 11:16	0°♊	
asc. node	1088 Jan 04 j 08:39	0°♊				1090 Jun 13 j 15:07	0°♊	
	1088 Jan 27 j 09:41	26°♊56'39				1090 Jul 08 j 11:13	0°☿	
	1088 Jan 30 j 02:12	0°♊			asc. node	1090 Jul 14 j 04:54	6°☿58'59	
	1088 Feb 27 j 01:32	0°♊				1090 Aug 01 j 23:51	0°♊	
evening max el	1088 Feb 27 j 18:59	0°♊43'18	46°07'09		morning set	1090 Aug 20 j 03:33	22°♊25'45	
greatest brilliancy	1088 Apr 02 j 12:39	28°♊07'10	-4.5m			1090 Aug 26 j 05:52	0°♊	
	1088 Apr 06 j 23:11	0°♊				1090 Sep 19 j 07:04	0°♊	
retrograde	1088 Apr 17 j 04:24	1°♊54'53			max. Earth dist.	1090 Sep 23 j 19:12	5°♊38'21	1.71749 AU
	1088 Apr 26 j 23:38	30°♊						
evening set	1088 May 02 j 14:48	27°♊18'04			superior conj	1090 Sep 26 j 13:52	9°♊07'07	1°13'28
inferior conj	1088 May 08 j 14:48	23°♊39'36	2°10'45		minimum elong	1090 Sep 26 j 22:42	9°♊34'46	1°13'14
minimum elong	1088 May 08 j 19:26	23°♊32'17	2°09'25			1090 Oct 13 j 05:39	0°♊	
min. Earth dist.	1088 May 08 j 17:08	23°♊35'55	0.28889 AU		desc. node	1090 Nov 02 j 18:18	25°♊45'36	
morning rise	1088 May 15 j 00:16	19°♊48'11			evening rise	1090 Nov 05 j 10:32	29°♊07'06	
desc. node	1088 May 17 j 22:56	18°♊18'11				1090 Nov 06 j 03:24	0°♊	
direct	1088 May 30 j 04:37	15°♊22'58				1090 Nov 30 j 01:29	0°☿	
greatest brilliancy	1088 Jun 12 j 08:17	18°♊24'40	-4.5m			1090 Dec 24 j 01:03	0°♊	
	1088 Jun 30 j 17:53	0°♊				1091 Jan 17 j 04:13	0°♊	
morning max el	1088 Jul 17 j 22:11	15°♊05'11	45°47'16			1091 Feb 10 j 14:37	0°♊	
	1088 Aug 01 j 19:15	0°☿			asc. node	1091 Feb 23 j 21:41	16°♊04'25	
	1088 Aug 29 j 03:15	0°♊				1091 Mar 07 j 13:59	0°♊	
asc. node	1088 Sep 08 j 02:40	11°♊30'52				1091 Apr 02 j 11:54	0°♊	
	1088 Sep 23 j 17:50	0°♊				1091 Apr 30 j 07:10	0°☿	
	1088 Oct 18 j 10:33	0°♊			evening max el	1091 May 09 j 07:34	8°☿55'21	45°21'44
	1088 Nov 11 j 15:33	0°♊				1091 Jun 03 j 16:21	0°♊	
	1088 Dec 05 j 15:11	0°♊			greatest brilliancy	1091 Jun 13 j 08:34	5°♊22'45	-4.5m
desc. node	1088 Dec 28 j 15:54	28°♊53'14			desc. node	1091 Jun 15 j 10:57	6°♊14'59	
	1088 Dec 29 j 13:12	0°☿			retrograde	1091 Jun 26 j 21:28	8°♊34'36	
morning set	1089 Jan 18 j 12:01	25°☿00'34			evening set	1091 Jul 13 j 02:15	3°♊35'29	
	1089 Jan 22 j 11:40	0°♊			inferior conj	1091 Jul 18 j 07:30	0°♊27'05	-6°-44'-44
	1089 Feb 15 j 11:46	0°♊			minimum elong	1091 Jul 17 j 21:42	0°♊42'18	6°42'58
					min. Earth dist.	1091 Jul 18 j 10:17	0°♊22'47	0.28849 AU
superior conj	1089 Feb 28 j 03:29	15°♊45'51	-1°-24'-58			1091 Jul 19 j 00:58	30°♊☿	
minimum elong	1089 Feb 28 j 06:25	15°♊55'00	1°24'59		morning rise	1091 Jul 22 j 16:56	27°☿46'36	
max. Earth dist.	1089 Mar 04 j 05:56	20°♊51'52	1.72285 AU		direct	1091 Aug 08 j 21:48	22°☿11'16	
	1089 Mar 11 j 14:29	0°♊			greatest brilliancy	1091 Aug 23 j 09:08	25°☿51'42	-4.5m
	1089 Apr 04 j 20:35	0°♊				1091 Aug 30 j 18:05	0°♊	
evening rise	1089 Apr 08 j 01:47	3°♊57'50			morning max el	1091 Sep 27 j 17:08	23°♊37'51	46°22'54
asc. node	1089 Apr 20 j 19:24	19°♊37'35				1091 Oct 03 j 23:52	0°♊	
	1089 Apr 29 j 06:27	0°♊			asc. node	1091 Oct 06 j 14:19	2°♊42'53	
	1089 May 23 j 20:18	0°☿				1091 Oct 31 j 05:21	0°♊	
	1089 Jun 17 j 14:48	0°♊				1091 Nov 25 j 14:07	0°♊	
	1089 Jul 12 j 15:54	0°♊				1091 Dec 20 j 04:54	0°♊	
	1089 Aug 07 j 03:32	0°♊				1092 Jan 13 j 12:35	0°☿	
desc. node	1089 Aug 10 j 08:39	3°♊43'53			desc. node	1092 Jan 26 j 03:49	15°☿38'20	
	1089 Sep 02 j 09:40	0°♊				1092 Feb 06 j 18:05	0°♊	
	1089 Sep 30 j 08:20	0°♊				1092 Mar 01 j 23:38	0°♊	
evening max el	1089 Oct 03 j 17:59	3°♊25'05	47°02'07			1092 Mar 26 j 06:20	0°♊	
	1089 Nov 04 j 12:49	0°☿			morning set	1092 Apr 02 j 12:01	8°♊55'30	
greatest brilliancy	1089 Nov 11 j 15:57	3°☿37'46	-4.7m			1092 Apr 19 j 14:38	0°♊	
retrograde	1089 Nov 23 j 05:35	6°☿08'44						
asc. node	1089 Dec 01 j 11:57	4°☿44'30			superior conj	1092 May 09 j 19:28	24°♊50'18	0°-19'-59
evening set	1089 Dec 07 j 15:45	2°☿00'47			minimum elong	1092 May 09 j 23:36	25°♊02'58	0°19'48

max. Earth dist.	1092 May 10 j 10:04	25°♄35'10	1.73537 AU		1094 Dec 02 j 13:43	0°♍	
	1092 May 14 j 00:17	0°♈		morning max el	1094 Dec 08 j 14:18	6°♍01'15	46°56'05
asc. node	1092 May 18 j 07:13	5°♈16'09			1094 Dec 30 j 19:25	0°♄	
	1092 Jun 07 j 10:32	0°♄			1095 Jan 25 j 18:22	0°♄	
evening rise	1092 Jun 15 j 03:15	9°♄27'09			1095 Feb 19 j 22:36	0°♌	
	1092 Jul 01 j 20:53	0°♌		desc. node	1095 Feb 22 j 15:42	3°♌15'32	
	1092 Jul 26 j 07:39	0°♍			1095 Mar 16 j 19:15	0°♋	
	1092 Aug 19 j 20:05	0°♌			1095 Apr 10 j 12:43	0°♍	
desc. node	1092 Sep 06 j 20:36	21°♌56'51			1095 May 05 j 04:37	0°♄	
	1092 Sep 13 j 11:50	0°♍			1095 May 29 j 18:58	0°♈	
	1092 Oct 08 j 08:59	0°♄		morning set	1095 Jun 10 j 19:29	14°♈42'18	
	1092 Nov 02 j 16:07	0°♄		asc. node	1095 Jun 15 j 19:09	20°♈48'49	
	1092 Nov 28 j 22:40	0°♌			1095 Jun 23 j 06:54	0°♄	
evening max el	1092 Dec 15 j 01:00	17°♌10'24	47°14'18	max. Earth dist.	1095 Jul 13 j 23:47	25°♄28'56	1.73238 AU
	1092 Dec 28 j 06:45	0°♋					
asc. node	1092 Dec 28 j 23:55	0°♋38'46		superior conj	1095 Jul 17 j 03:19	29°♄21'57	1°05'17
greatest brilliancy	1093 Jan 21 j 07:21	17°♋24'02	-4.6m	minimum elong	1095 Jul 16 j 18:42	28°♄55'21	1°05'01
retrograde	1093 Feb 03 j 23:19	20°♋51'05			1095 Jul 17 j 15:39	0°♌	
evening set	1093 Feb 21 j 21:53	14°♋34'18			1095 Aug 10 j 21:26	0°♍	
inferior conj	1093 Feb 24 j 23:33	12°♋39'11	8°41'39	evening rise	1095 Aug 22 j 07:06	14°♍08'49	
minimum elong	1093 Feb 25 j 01:23	12°♋36'17	8°41'37		1095 Sep 04 j 01:25	0°♌	
min. Earth dist.	1093 Feb 24 j 09:52	13°♋00'44	0.28030 AU		1095 Sep 28 j 05:00	0°♍	
morning rise	1093 Feb 28 j 05:08	10°♋38'43		desc. node	1095 Oct 05 j 08:27	8°♍52'16	
direct	1093 Mar 17 j 22:14	4°♋37'55			1095 Oct 22 j 09:16	0°♄	
greatest brilliancy	1093 Mar 28 j 23:01	6°♋52'08	-4.5m		1095 Nov 15 j 15:18	0°♄	
desc. node	1093 Apr 19 j 13:07	20°♋22'34			1095 Dec 10 j 01:37	0°♌	
	1093 Apr 30 j 14:54	0°♍			1096 Jan 03 j 22:06	0°♋	
morning max el	1093 May 06 j 01:12	5°♍06'46	45°54'42	asc. node	1096 Jan 26 j 11:48	26°♋19'25	
	1093 May 30 j 07:39	0°♄			1096 Jan 29 j 17:43	0°♍	
	1093 Jun 26 j 07:46	0°♈		evening max el	1096 Feb 25 j 08:58	28°♍26'00	46°09'38
	1093 Jul 22 j 03:48	0°♄			1096 Feb 26 j 23:07	0°♄	
asc. node	1093 Aug 10 j 16:47	23°♄18'23		greatest brilliancy	1096 Mar 31 j 05:04	25°♄58'00	-4.5m
	1093 Aug 16 j 05:49	0°♌		retrograde	1096 Apr 14 j 20:44	29°♄46'37	
	1093 Sep 09 j 18:33	0°♍		evening set	1096 Apr 30 j 09:04	25°♄07'01	
	1093 Oct 03 j 22:07	0°♌		inferior conj	1096 May 06 j 07:21	21°♄31'11	2°29'44
	1093 Oct 27 j 20:27	0°♍		minimum elong	1096 May 06 j 12:37	21°♄22'52	2°28'15
morning set	1093 Oct 30 j 23:51	3°♍56'58		min. Earth dist.	1096 May 06 j 10:05	21°♄26'52	0.28880 AU
	1093 Nov 20 j 16:39	0°♄		morning rise	1096 May 12 j 16:16	17°♄40'18	
desc. node	1093 Nov 30 j 06:09	12°♄02'31		desc. node	1096 May 17 j 01:02	15°♄32'11	
				direct	1096 May 27 j 20:13	13°♄14'30	
superior conj	1093 Dec 11 j 01:30	25°♄38'36	0°-25'-25	greatest brilliancy	1096 Jun 10 j 00:04	16°♄15'49	-4.5m
minimum elong	1093 Dec 10 j 18:52	25°♄17'41	0°25'08		1096 Jul 01 j 02:09	0°♈	
max. Earth dist.	1093 Dec 12 j 17:57	27°♄45'50	1.71063 AU	morning max el	1096 Jul 15 j 13:39	12°♈54'34	45°46'43
	1093 Dec 14 j 12:36	0°♄			1096 Aug 01 j 12:48	0°♄	
	1094 Jan 07 j 09:30	0°♌			1096 Aug 28 j 17:16	0°♌	
evening rise	1094 Jan 21 j 14:08	17°♌47'16		asc. node	1096 Sep 07 j 04:37	10°♌57'38	
	1094 Jan 31 j 08:37	0°♋			1096 Sep 23 j 06:22	0°♍	
	1094 Feb 24 j 11:41	0°♍			1096 Oct 17 j 22:23	0°♌	
	1094 Mar 20 j 20:46	0°♄			1096 Nov 11 j 03:00	0°♍	
asc. node	1094 Mar 23 j 09:32	3°♄05'39			1096 Dec 05 j 02:24	0°♄	
	1094 Apr 14 j 14:10	0°♈		desc. node	1096 Dec 27 j 17:59	28°♄25'02	
	1094 May 09 j 18:57	0°♄			1096 Dec 29 j 00:16	0°♄	
	1094 Jun 04 j 17:16	0°♌		morning set	1097 Jan 15 j 21:52	22°♄26'42	
	1094 Jul 02 j 00:37	0°♍			1097 Jan 21 j 22:36	0°♌	
desc. node	1094 Jul 12 j 22:51	11°♍14'35			1097 Feb 14 j 22:36	0°♋	
evening max el	1094 Jul 20 j 00:36	18°♍10'45	45°49'14				
	1094 Aug 02 j 02:41	0°♌		superior conj	1097 Feb 25 j 16:31	13°♋23'36	-1°-25'-25
greatest brilliancy	1094 Aug 27 j 09:52	16°♌12'39	-4.6m	minimum elong	1097 Feb 25 j 18:34	13°♋29'59	1°25'25
retrograde	1094 Sep 07 j 00:28	18°♌13'49		max. Earth dist.	1097 Mar 01 j 17:25	18°♋24'57	1.72225 AU
evening set	1094 Sep 24 j 02:58	12°♌44'45			1097 Mar 11 j 01:13	0°♍	
inferior conj	1094 Sep 27 j 21:45	10°♌28'12	-7°-37'-2		1097 Apr 04 j 07:16	0°♄	
minimum elong	1094 Sep 28 j 07:08	10°♌13'50	7°35'34	evening rise	1097 Apr 05 j 17:17	1°♄44'47	
min. Earth dist.	1094 Sep 28 j 19:14	9°♌55'19	0.27412 AU	asc. node	1097 Apr 19 j 21:29	19°♄11'02	
morning rise	1094 Oct 02 j 10:56	7°♌44'26			1097 Apr 28 j 17:13	0°♈	
direct	1094 Oct 18 j 20:11	2°♌33'48			1097 May 23 j 07:19	0°♄	
greatest brilliancy	1094 Nov 01 j 16:19	6°♌04'14	-4.6m		1097 Jun 17 j 02:17	0°♌	
asc. node	1094 Nov 03 j 02:08	6°♌46'13			1097 Jul 12 j 04:10	0°♍	

	1097 Aug 06 j 17:09	0°♊		1100 Jan 13 j 00:23	0°♊	
desc. node	1097 Aug 09 j 10:38	3°♊09'35		desc. node	1100 Jan 25 j 05:52	15°♊08'52
	1097 Sep 02 j 01:48	0°♋			1100 Feb 06 j 05:29	0°♋
	1097 Sep 30 j 06:46	0°♌			1100 Mar 01 j 10:44	0°♌
evening max el	1097 Oct 01 j 06:57	1°♌00'12 47°00'14			1100 Mar 25 j 17:12	0°♍
	1097 Nov 06 j 15:15	0°♎		morning set	1100 Mar 31 j 03:36	6°♍42'12
greatest brilliancy	1097 Nov 09 j 05:17	1°♎09'28 -4.7m			1100 Apr 19 j 01:21	0°♏
retrograde	1097 Nov 20 j 18:13	3°♎39'43				
asc. node	1097 Nov 30 j 14:05	1°♏40'42		superior conj	1100 May 07 j 12:50	22°♏43'22 0°-23'-7
	1097 Dec 04 j 06:21	30°♏♌		minimum elong	1100 May 07 j 17:34	22°♏57'56 0°22'55
evening set	1097 Dec 05 j 02:59	29°♌33'02		max. Earth dist.	1100 May 08 j 08:43	23°♏44'28 1.73514 AU
inferior conj	1097 Dec 11 j 07:33	25°♌55'56 2°44'55			1100 May 13 j 10:56	0°♐
minimum elong	1097 Dec 11 j 01:31	26°♌05'08 2°43'03		asc. node	1100 May 17 j 09:24	4°♐50'10
min. Earth dist.	1097 Dec 10 j 20:12	26°♌13'14 0.26441 AU			1100 Jun 06 j 21:13	0°♑
morning rise	1097 Dec 17 j 00:15	22°♌35'09		evening rise	1100 Jun 12 j 22:14	7°♑25'14
direct	1097 Dec 31 j 14:39	18°♌19'11			1100 Jul 01 j 07:40	0°♒
greatest brilliancy	1098 Jan 12 j 01:59	20°♌46'49 -4.7m			1100 Jul 25 j 18:43	0°♓
	1098 Jan 27 j 13:06	0°♑			1100 Aug 19 j 07:37	0°♑
morning max el	1098 Feb 19 j 17:42	20°♑38'52 46°38'03		desc. node	1100 Sep 05 j 22:36	21°♑26'32
	1098 Feb 28 j 21:43	0°♒			1100 Sep 13 j 00:02	0°♓
desc. node	1098 Mar 22 j 03:27	23°♒00'57			1100 Oct 07 j 22:10	0°♌
	1098 Mar 28 j 08:48	0°♌			1100 Nov 02 j 06:55	0°♑
	1098 Apr 23 j 11:17	0°♍			1100 Nov 28 j 16:48	0°♒
	1098 May 18 j 23:16	0°♏		evening max el	1100 Dec 12 j 16:33	14°♒51'09 47°15'30
	1098 Jun 13 j 02:26	0°♐		asc. node	1100 Dec 28 j 01:59	29°♒36'30
	1098 Jul 07 j 22:09	0°♑			1100 Dec 28 j 12:40	0°♌
asc. node	1098 Jul 13 j 06:58	6°♑32'06				
	1098 Aug 01 j 10:37	0°♒				
morning set	1098 Aug 17 j 20:09	20°♒15'15				
	1098 Aug 25 j 16:35	0°♓				
	1098 Sep 18 j 17:49	0°♑				
max. Earth dist.	1098 Sep 21 j 08:28	3°♑15'59 1.71797 AU				
superior conj	1098 Sep 24 j 04:17	6°♑48'11 1°15'10				
minimum elong	1098 Sep 24 j 12:36	7°♑14'15 1°14'58				
	1098 Oct 12 j 16:29	0°♓				
desc. node	1098 Nov 01 j 20:27	25°♓18'00				
evening rise	1098 Nov 02 j 21:37	26°♓36'55				
	1098 Nov 05 j 14:21	0°♌				
	1098 Nov 29 j 12:35	0°♑				
	1098 Dec 23 j 12:20	0°♒				
	1099 Jan 16 j 15:44	0°♌				
	1099 Feb 10 j 02:35	0°♍				
asc. node	1099 Feb 22 j 23:38	15°♍33'12				
	1099 Mar 07 j 02:47	0°♏				
	1099 Apr 02 j 02:31	0°♐				
	1099 Apr 30 j 02:33	0°♑				
evening max el	1099 May 07 j 00:15	6°♑47'25 45°22'16				
	1099 Jun 04 j 19:06	0°♒				
greatest brilliancy	1099 Jun 10 j 22:09	3°♒11'05 -4.5m				
desc. node	1099 Jun 14 j 13:04	4°♒37'01				
retrograde	1099 Jun 24 j 13:34	6°♒25'04				
evening set	1099 Jul 10 j 15:13	1°♒30'00				
	1099 Jul 13 j 04:31	30°♒♑				
inferior conj	1099 Jul 15 j 23:24	28°♑17'01 -6°-31'-45				
minimum elong	1099 Jul 15 j 13:29	28°♑32'25 6°29'51				
min. Earth dist.	1099 Jul 16 j 01:16	28°♑14'06 0.28869 AU				
morning rise	1099 Jul 20 j 11:36	25°♑32'25				
direct	1099 Aug 06 j 14:33	20°♑01'07				
greatest brilliancy	1099 Aug 20 j 23:59	23°♑39'39 -4.5m				
	1099 Aug 31 j 16:06	0°♒				
morning max el	1099 Sep 25 j 08:49	21°♒23'56 46°21'13				
	1099 Oct 03 j 19:17	0°♓				
asc. node	1099 Oct 05 j 16:26	1°♓58'44				
	1099 Oct 30 j 20:19	0°♑				
	1099 Nov 25 j 03:21	0°♓				
	1099 Dec 19 j 17:15	0°♌				

superior conj	1100 May 07 j 12:50	22° ♄ 43'22	0°-23'-7	morning rise	1102 Sep 29 j 20:52	5° ♁ 28'18	
minimum elong	1100 May 07 j 17:34	22° ♄ 57'56	0°22'55	direct	1102 Oct 16 j 09:51	0° ♁ 11'21	
max. Earth dist.	1100 May 08 j 08:43	23° ♄ 44'28	1.73514 AU	greatest brilliancy	1102 Oct 30 j 08:33	3° ♁ 43'55	-4.6m
	1100 May 13 j 10:56	0° ♁		asc. node	1102 Nov 02 j 04:15	5° ♁ 11'17	
asc. node	1100 May 17 j 09:24	4° ♁ 50'10			1102 Dec 02 j 14:15	0° ♁	
	1100 Jun 06 j 21:13	0° ♁		morning max el	1102 Dec 06 j 03:29	3° ♁ 34'52	46°55'41
evening rise	1100 Jun 12 j 22:14	7° ♁ 25'14			1102 Dec 30 j 12:23	0° ♁	
	1100 Jul 01 j 07:40	0° ♁			1103 Jan 25 j 08:41	0° ♁	
	1100 Jul 25 j 18:43	0° ♁			1103 Feb 19 j 11:34	0° ♁	
	1100 Aug 19 j 07:37	0° ♁		desc. node	1103 Feb 21 j 17:41	2° ♁ 42'50	
desc. node	1100 Sep 05 j 22:36	21° ♁ 26'32			1103 Mar 16 j 07:24	0° ♁	
	1100 Sep 13 j 00:02	0° ♁			1103 Apr 10 j 00:18	0° ♁	
	1100 Oct 07 j 22:10	0° ♁			1103 May 04 j 15:48	0° ♁	
	1100 Nov 02 j 06:55	0° ♁			1103 May 29 j 05:54	0° ♁	
	1100 Nov 28 j 16:48	0° ♁		morning set	1103 Jun 08 j 13:37	12° ♁ 37'39	
evening max el	1100 Dec 12 j 16:33	14° ♁ 51'09	47°15'30	asc. node	1103 Jun 14 j 21:10	20° ♁ 21'48	
asc. node	1100 Dec 28 j 01:59	29° ♁ 36'30			1103 Jun 22 j 17:42	0° ♁	
	1100 Dec 28 j 12:40	0° ♁		max. Earth dist.	1103 Jul 11 j 20:00	23° ♁ 29'56	1.73277 AU
greatest brilliancy	1101 Jan 19 j 00:55	15° ♁ 07'39	-4.6m				
retrograde	1101 Feb 01 j 14:37	18° ♁ 31'39		superior conj	1103 Jul 14 j 21:41	27° ♁ 17'11	1°03'14
evening set	1101 Feb 19 j 12:51	12° ♁ 15'31		minimum elong	1103 Jul 14 j 12:59	26° ♁ 50'20	1°02'57
min. Earth dist.	1101 Feb 21 j 23:34	10° ♁ 43'48	0.27974 AU		1103 Jul 17 j 02:27	0° ♁	
inferior conj	1101 Feb 22 j 14:19	10° ♁ 20'31	8°43'46		1103 Aug 10 j 08:21	0° ♁	
minimum elong	1101 Feb 22 j 15:20	10° ♁ 18'56	8°43'45	evening rise	1103 Aug 20 j 00:05	11° ♁ 58'35	
morning rise	1101 Feb 25 j 18:04	8° ♁ 22'46			1103 Sep 03 j 12:30	0° ♁	
direct	1101 Mar 15 j 12:44	2° ♁ 20'32			1103 Sep 27 j 16:19	0° ♁	
greatest brilliancy	1101 Mar 26 j 10:37	4° ♁ 32'01	-4.5m	desc. node	1103 Oct 04 j 10:38	8° ♁ 23'38	
desc. node	1101 Apr 18 j 15:19	19° ♁ 19'34			1103 Oct 21 j 20:53	0° ♁	
	1101 Apr 30 j 15:37	0° ♁			1103 Nov 15 j 03:21	0° ♁	
morning max el	1101 May 03 j 15:30	2° ♁ 51'02	45°55'39		1103 Dec 09 j 14:18	0° ♁	
	1101 May 30 j 00:01	0° ♁			1104 Jan 03 j 11:52	0° ♁	
	1101 Jun 25 j 21:21	0° ♁		asc. node	1104 Jan 25 j 13:44	25° ♁ 40'35	
	1101 Jul 21 j 16:04	0° ♁			1104 Jan 29 j 09:46	0° ♁	
asc. node	1101 Aug 09 j 18:46	22° ♁ 49'14		evening max el	1104 Feb 22 j 23:24	26° ♁ 08'47	46°12'10
	1101 Aug 15 j 17:22	0° ♁			1104 Feb 26 j 22:00	0° ♁	
	1101 Sep 09 j 05:44	0° ♁		greatest brilliancy	1104 Mar 28 j 20:46	23° ♁ 46'45	-4.5m
	1101 Oct 03 j 09:09	0° ♁		retrograde	1104 Apr 12 j 13:26	27° ♁ 37'15	
	1101 Oct 27 j 07:27	0° ♁		evening set	1104 Apr 28 j 03:23	22° ♁ 54'33	
morning set	1101 Oct 28 j 12:14	1° ♁ 30'26		inferior conj	1104 May 03 j 23:51	19° ♁ 21'33	2°48'37
	1101 Nov 20 j 03:40	0° ♁		minimum elong	1104 May 04 j 05:42	19° ♁ 12'19	2°47'00
desc. node	1101 Nov 29 j 08:16	11° ♁ 34'29		min. Earth dist.	1104 May 04 j 02:46	19° ♁ 16'57	0.28870 AU
				morning rise	1104 May 10 j 08:06	15° ♁ 31'42	
superior conj	1101 Dec 08 j 11:06	23° ♁ 03'02	0°-21'-33	desc. node	1104 May 16 j 03:07	12° ♁ 49'17	
minimum elong	1101 Dec 08 j 05:24	22° ♁ 45'09	0°21'17	direct	1104 May 25 j 11:54	11° ♁ 04'50	
max. Earth dist.	1101 Dec 09 j 20:51	24° ♁ 49'15	1.71053 AU	greatest brilliancy	1104 Jun 07 j 15:58	14° ♁ 06'18	-4.5m
	1101 Dec 13 j 23:39	0° ♁			1104 Jul 01 j 08:24	0° ♁	
	1102 Jan 06 j 20:33	0° ♁		morning max el	1104 Jul 13 j 05:56	10° ♁ 45'17	45°46'12
evening rise	1102 Jan 19 j 00:22	15° ♁ 14'23			1104 Aug 01 j 06:14	0° ♁	
	1102 Jan 30 j 19:41	0° ♁			1104 Aug 28 j 07:22	0° ♁	
	1102 Feb 23 j 22:50	0° ♁		asc. node	1104 Sep 06 j 06:42	10° ♁ 24'20	
	1102 Mar 20 j 08:08	0° ♁			1104 Sep 22 j 19:06	0° ♁	
asc. node	1102 Mar 22 j 11:40	2° ♁ 37'21			1104 Oct 17 j 10:25	0° ♁	
	1102 Apr 14 j 01:58	0° ♁			1104 Nov 10 j 14:39	0° ♁	
	1102 May 09 j 07:35	0° ♁			1104 Dec 04 j 13:49	0° ♁	
	1102 Jun 04 j 07:33	0° ♁		desc. node	1104 Dec 26 j 20:00	27° ♁ 56'01	
desc. node	1102 Jul 01 j 18:44	0° ♁			1104 Dec 28 j 11:32	0° ♁	
	1102 Jul 12 j 00:52	10° ♁ 27'24		morning set	1105 Jan 13 j 08:00	19° ♁ 52'56	
evening max el	1102 Jul 17 j 13:28	15° ♁ 50'46	45°47'09		1105 Jan 21 j 09:46	0° ♁	
	1102 Aug 02 j 11:31	0° ♁			1105 Feb 14 j 09:41	0° ♁	
greatest brilliancy	1102 Aug 24 j 22:38	13° ♁ 52'03	-4.5m				
retrograde	1102 Sep 04 j 12:53	15° ♁ 53'19		superior conj	1105 Feb 23 j 05:27	11° ♁ 00'05	-1°-25'-42
evening set	1102 Sep 21 j 19:11	10° ♁ 19'39		minimum elong	1105 Feb 23 j 06:33	11° ♁ 03'31	1°25'42
inferior conj	1102 Sep 25 j 11:20	8° ♁ 07'04	-7°-47'-40	max. Earth dist.	1105 Feb 27 j 04:13	15° ♁ 55'01	1.72172 AU
minimum elong	1102 Sep 25 j 20:14	7° ♁ 53'26	7°46'24		1105 Mar 10 j 12:14	0° ♁	
min. Earth dist.	1102 Sep 26 j 09:12	7° ♁ 33'33	0.27479 AU	evening rise	1105 Apr 03 j 08:33	29° ♁ 29'59	

	1105 Apr 03 j 18:17	0°♄		morning max el	1107 Sep 22 j 23:42	19°♌07'18	46°19'30
asc. node	1105 Apr 18 j 23:36	18°♄43'34			1107 Oct 03 j 14:29	0°♍	
	1105 Apr 28 j 04:19	0°♄		asc. node	1107 Oct 04 j 18:37	1°♍14'36	
	1105 May 22 j 18:40	0°♄			1107 Oct 30 j 11:22	0°♄	
	1105 Jun 16 j 14:07	0°♌			1107 Nov 24 j 16:46	0°♍	
	1105 Jul 11 j 16:49	0°♍			1107 Dec 19 j 05:50	0°♎	
	1105 Aug 06 j 07:13	0°♄			1108 Jan 12 j 12:27	0°♄	
desc. node	1105 Aug 08 j 12:39	2°♄34'16		desc. node	1108 Jan 24 j 07:52	14°♄38'22	
	1105 Sep 01 j 18:35	0°♍			1108 Feb 05 j 17:09	0°♎	
evening max el	1105 Sep 28 j 21:05	28°♍37'27	46°58'15		1108 Feb 29 j 22:04	0°♎	
	1105 Sep 30 j 06:34	0°♎			1108 Mar 25 j 04:18	0°♍	
greatest brilliancy	1105 Nov 06 j 18:30	28°♎40'27	-4.7m	morning set	1108 Mar 28 j 19:27	4°♍28'55	
	1105 Nov 10 j 13:05	0°♄			1108 Apr 18 j 12:18	0°♄	
retrograde	1105 Nov 18 j 07:20	1°♄10'00					
	1105 Nov 25 j 19:19	30°♎♎		superior conj	1108 May 05 j 06:26	20°♎36'30	0°-26'-12
asc. node	1105 Nov 29 j 16:05	28°♎31'27		minimum elong	1108 May 05 j 11:46	20°♎52'54	0°25'58
evening set	1105 Dec 02 j 14:34	27°♎04'31		max. Earth dist.	1108 May 06 j 07:18	21°♎52'56	1.73491 AU
inferior conj	1105 Dec 08 j 19:47	23°♎26'43	2°21'25		1108 May 12 j 21:50	0°♄	
minimum elong	1105 Dec 08 j 14:33	23°♎34'42	2°19'45	asc. node	1108 May 16 j 11:24	4°♄22'51	
min. Earth dist.	1105 Dec 08 j 09:30	23°♎42'23	0.26419 AU		1108 Jun 06 j 08:08	0°♄	
morning rise	1105 Dec 14 j 14:46	20°♎03'24		evening rise	1108 Jun 10 j 17:21	5°♄22'56	
direct	1105 Dec 29 j 03:21	15°♎50'16			1108 Jun 30 j 18:45	0°♌	
greatest brilliancy	1106 Jan 09 j 15:31	18°♎19'29	-4.7m		1108 Jul 25 j 06:05	0°♍	
	1106 Jan 28 j 05:40	0°♄			1108 Aug 18 j 19:26	0°♄	
morning max el	1106 Feb 17 j 08:10	18°♄17'40	46°39'27	desc. node	1108 Sep 05 j 00:45	20°♄55'47	
	1106 Feb 28 j 17:40	0°♎			1108 Sep 12 j 12:32	0°♍	
desc. node	1106 Mar 21 j 05:41	22°♎22'13			1108 Oct 07 j 11:42	0°♎	
	1106 Mar 28 j 00:10	0°♎			1108 Nov 01 j 22:09	0°♄	
	1106 Apr 23 j 00:39	0°♍			1108 Nov 28 j 11:40	0°♎	
	1106 May 18 j 11:34	0°♄		evening max el	1108 Dec 10 j 07:17	12°♎28'48	47°16'29
	1106 Jun 12 j 14:05	0°♄		asc. node	1108 Dec 27 j 04:01	28°♎31'44	
	1106 Jul 07 j 09:25	0°♄			1108 Dec 28 j 21:21	0°♎	
asc. node	1106 Jul 12 j 08:59	6°♄04'06		greatest brilliancy	1109 Jan 16 j 18:56	12°♎50'35	-4.6m
	1106 Jul 31 j 21:41	0°♌		retrograde	1109 Jan 30 j 05:27	16°♎11'06	
morning set	1106 Aug 15 j 12:50	18°♌04'13		evening set	1109 Feb 17 j 03:23	9°♎56'23	
	1106 Aug 25 j 03:35	0°♍		min. Earth dist.	1109 Feb 19 j 13:41	8°♎25'16	0.27915 AU
	1106 Sep 18 j 04:51	0°♄		inferior conj	1109 Feb 20 j 05:04	8°♎00'59	8°44'58
max. Earth dist.	1106 Sep 18 j 20:19	0°♄48'21	1.71847 AU	minimum elong	1109 Feb 20 j 05:14	8°♎00'42	8°44'58
				morning rise	1109 Feb 23 j 07:20	6°♎05'18	
superior conj	1106 Sep 21 j 18:55	4°♄29'10	1°16'43	direct	1109 Mar 13 j 02:34	0°♎02'08	
minimum elong	1106 Sep 22 j 02:42	4°♄53'30	1°16'34	greatest brilliancy	1109 Mar 23 j 23:01	2°♎11'50	-4.5m
	1106 Oct 12 j 03:38	0°♍		desc. node	1109 Apr 17 j 17:19	18°♎17'12	
evening rise	1106 Oct 31 j 08:51	24°♍06'13			1109 Apr 30 j 15:24	0°♍	
desc. node	1106 Oct 31 j 22:31	24°♍49'04		morning max el	1109 May 01 j 05:10	0°♍33'05	45°56'51
	1106 Nov 05 j 01:39	0°♎			1109 May 29 j 16:15	0°♄	
	1106 Nov 29 j 00:02	0°♄			1109 Jun 25 j 10:57	0°♄	
	1106 Dec 22 j 23:56	0°♎			1109 Jul 21 j 04:26	0°♄	
	1107 Jan 16 j 03:33	0°♎		asc. node	1109 Aug 08 j 20:54	22°♄20'00	
	1107 Feb 09 j 14:50	0°♍			1109 Aug 15 j 05:05	0°♌	
asc. node	1107 Feb 22 j 01:47	15°♍01'44			1109 Sep 08 j 17:07	0°♍	
	1107 Mar 06 j 15:56	0°♄			1109 Oct 02 j 20:23	0°♄	
	1107 Apr 01 j 17:36	0°♄		morning set	1109 Oct 26 j 00:40	29°♄03'31	
	1107 Apr 29 j 22:54	0°♄			1109 Oct 26 j 18:39	0°♍	
evening max el	1107 May 04 j 16:57	4°♄38'32	45°22'41		1109 Nov 19 j 14:51	0°♎	
	1107 Jun 06 j 10:19	0°♌		desc. node	1109 Nov 28 j 10:13	11°♎05'24	
greatest brilliancy	1107 Jun 08 j 12:57	0°♌59'56	-4.5m				
desc. node	1107 Jun 13 j 15:04	2°♌54'34		superior conj	1109 Dec 05 j 20:41	20°♎27'03	0°-17'-38
retrograde	1107 Jun 22 j 05:21	4°♌14'45		minimum elong	1109 Dec 05 j 16:00	20°♎12'17	0°17'25
	1107 Jul 07 j 02:12	30°♎♎		max. Earth dist.	1109 Dec 06 j 23:14	21°♎50'34	1.71049 AU
evening set	1107 Jul 08 j 04:28	29°♄23'47			1109 Dec 13 j 10:50	0°♄	
inferior conj	1107 Jul 13 j 15:27	26°♄06'28	-6°-18'-15		1110 Jan 06 j 07:46	0°♎	
minimum elong	1107 Jul 13 j 05:30	26°♄21'57	6°16'15	evening rise	1110 Jan 16 j 10:35	12°♎40'52	
min. Earth dist.	1107 Jul 13 j 16:49	26°♄04'20	0.28885 AU		1110 Jan 30 j 06:58	0°♎	
morning rise	1107 Jul 18 j 06:24	23°♄17'33			1110 Feb 23 j 10:12	0°♍	
direct	1107 Aug 04 j 07:09	17°♄50'32			1110 Mar 19 j 19:42	0°♄	
greatest brilliancy	1107 Aug 18 j 14:05	21°♄25'56	-4.5m	asc. node	1110 Mar 21 j 13:48	2°♄08'31	
	1107 Sep 01 j 08:47	0°♌			1110 Apr 13 j 13:55	0°♄	

	1110 May 08 j 20:22	0°☿			1112 Dec 04 j 01:09	0°♄		
	1110 Jun 03 j 22:04	0°♌		desc. node	1112 Dec 25 j 22:06	27°♄27'24		
	1110 Jul 01 j 13:22	0°♍			1112 Dec 27 j 22:44	0°♄		
desc. node	1110 Jul 11 j 02:53	9°♍39'23		morning set	1113 Jan 10 j 17:40	17°♄17'55		
evening max el	1110 Jul 15 j 02:18	13°♍30'47	45°45'04		1113 Jan 20 j 20:51	0°≈		
	1110 Aug 02 j 23:33	0°♊			1113 Feb 13 j 20:39	0°♋		
greatest brilliancy	1110 Aug 22 j 10:15	11°♊30'12	-4.5m					
retrograde	1110 Sep 02 j 01:44	13°♊33'01		superior conj	1113 Feb 20 j 17:50	8°♋35'03	-1°-25'-48	
evening set	1110 Sep 19 j 11:19	7°♊54'35		minimum elong	1113 Feb 20 j 17:58	8°♋35'27	1°25'50	
inferior conj	1110 Sep 23 j 00:58	5°♊45'49	-7°-57'-26	max. Earth dist.	1113 Feb 24 j 16:17	13°♋29'13	1.72118 AU	
minimum elong	1110 Sep 23 j 09:21	5°♊33'00	7°56'20		1113 Mar 09 j 23:08	0°♎		
min. Earth dist.	1110 Sep 23 j 23:03	5°♊12'02	0.27550 AU	evening rise	1113 Mar 31 j 23:30	27°♎14'36		
morning rise	1110 Sep 27 j 06:57	3°♊12'14			1113 Apr 03 j 05:10	0°♏		
	1110 Oct 03 j 14:44	30°♏♍		asc. node	1113 Apr 18 j 01:35	18°♏16'02		
direct	1110 Oct 13 j 23:51	27°♏48'43			1113 Apr 27 j 15:19	0°♐		
	1110 Oct 24 j 19:39	0°♑			1113 May 22 j 05:55	0°♑		
greatest brilliancy	1110 Oct 28 j 01:32	1°♑24'32	-4.6m		1113 Jun 16 j 01:50	0°♌		
asc. node	1110 Nov 01 j 06:13	3°♑39'14			1113 Jul 11 j 05:20	0°♍		
	1110 Dec 02 j 13:47	0°♎			1113 Aug 05 j 21:08	0°♊		
morning max el	1110 Dec 03 j 17:37	1°♎10'45	46°55'17	desc. node	1113 Aug 07 j 14:51	2°♊00'03		
	1110 Dec 30 j 05:06	0°♄			1113 Sep 01 j 11:21	0°♎		
	1111 Jan 24 j 22:54	0°♄		evening max el	1113 Sep 26 j 11:44	26°♎17'01	46°56'04	
	1111 Feb 19 j 00:30	0°≈			1113 Sep 30 j 07:07	0°♄		
desc. node	1111 Feb 20 j 19:52	2°≈10'41		greatest brilliancy	1113 Nov 04 j 07:41	26°♄12'03	-4.7m	
	1111 Mar 15 j 19:32	0°♋		retrograde	1113 Nov 15 j 20:05	28°♄40'15		
	1111 Apr 09 j 11:54	0°♎		asc. node	1113 Nov 28 j 18:10	25°♄17'24		
	1111 May 04 j 03:01	0°♏		evening set	1113 Nov 30 j 02:17	24°♄35'57		
	1111 May 28 j 16:50	0°♐		inferior conj	1113 Dec 06 j 07:52	20°♄57'32	1°57'21	
morning set	1111 Jun 06 j 07:58	10°♐33'32		minimum elong	1113 Dec 06 j 03:28	21°♄04'14	1°55'58	
asc. node	1111 Jun 13 j 23:13	19°♐54'54		min. Earth dist.	1113 Dec 05 j 22:43	21°♄11'28	0.26406 AU	
	1111 Jun 22 j 04:29	0°♑		morning rise	1113 Dec 12 j 04:57	17°♄31'39		
max. Earth dist.	1111 Jul 09 j 18:18	21°♑37'30	1.73312 AU	direct	1113 Dec 26 j 16:09	13°♄21'26		
				greatest brilliancy	1114 Jan 07 j 04:46	15°♄51'37	-4.7m	
superior conj	1111 Jul 12 j 16:15	25°♑13'11	1°01'07		1114 Jan 28 j 18:03	0°♄		
minimum elong	1111 Jul 12 j 07:30	24°♑46'12	1°00'49	morning max el	1114 Feb 14 j 21:59	15°♄54'55	46°40'43	
	1111 Jul 16 j 13:13	0°♌			1114 Feb 28 j 12:59	0°≈		
	1111 Aug 09 j 19:13	0°♍		desc. node	1114 Mar 20 j 07:42	21°≈43'34		
evening rise	1111 Aug 17 j 17:22	9°♍49'29			1114 Mar 27 j 15:11	0°♋		
	1111 Sep 02 j 23:34	0°♊			1114 Apr 22 j 13:45	0°♎		
	1111 Sep 27 j 03:40	0°♎			1114 May 17 j 23:36	0°♏		
desc. node	1111 Oct 03 j 12:40	7°♎54'28			1114 Jun 12 j 01:29	0°♐		
	1111 Oct 21 j 08:35	0°♄			1114 Jul 06 j 20:27	0°♑		
	1111 Nov 14 j 15:29	0°♄		asc. node	1114 Jul 11 j 11:07	5°♑37'10		
	1111 Dec 09 j 03:05	0°≈			1114 Jul 31 j 08:30	0°♌		
	1112 Jan 03 j 01:48	0°♋		morning set	1114 Aug 13 j 05:43	15°♌54'36		
asc. node	1112 Jan 24 j 15:54	25°♋02'01			1114 Aug 24 j 14:19	0°♍		
	1112 Jan 29 j 02:07	0°♎		max. Earth dist.	1114 Sep 16 j 07:09	28°♎18'36	1.71894 AU	
evening max el	1112 Feb 20 j 14:33	23°♎53'14	46°14'44		1114 Sep 17 j 15:36	0°♊		
	1112 Feb 26 j 21:57	0°♏						
greatest brilliancy	1112 Mar 26 j 12:19	21°♏35'05	-4.5m	superior conj	1114 Sep 19 j 10:02	2°♊12'41	1°18'09	
retrograde	1112 Apr 10 j 06:22	25°♏27'21		minimum elong	1114 Sep 19 j 17:13	2°♊35'08	1°18'00	
evening set	1112 Apr 25 j 21:41	20°♏41'25			1114 Oct 11 j 14:28	0°♎		
inferior conj	1112 May 01 j 16:08	17°♏11'19	3°07'28	evening rise	1114 Oct 28 j 20:28	21°♎37'47		
minimum elong	1112 May 01 j 22:34	17°♏01'11	3°05'41	desc. node	1114 Oct 31 j 00:30	24°♎20'58		
min. Earth dist.	1112 May 01 j 18:58	17°♏06'52	0.28857 AU		1114 Nov 04 j 12:38	0°♄		
morning rise	1112 May 07 j 23:35	13°♏22'54			1114 Nov 28 j 11:11	0°♄		
desc. node	1112 May 15 j 05:07	10°♏10'20			1114 Dec 22 j 11:17	0°≈		
direct	1112 May 23 j 03:54	8°♏54'41			1115 Jan 15 j 15:11	0°♋		
greatest brilliancy	1112 Jun 05 j 07:14	11°♏55'56	-4.5m		1115 Feb 09 j 02:56	0°♎		
	1112 Jul 01 j 12:35	0°♐		asc. node	1115 Feb 21 j 03:52	14°♎30'33		
morning max el	1112 Jul 10 j 22:52	8°♐37'52	45°45'53		1115 Mar 06 j 05:00	0°♏		
	1112 Jul 31 j 23:10	0°♑			1115 Apr 01 j 08:42	0°♐		
	1112 Aug 27 j 21:11	0°♌			1115 Apr 29 j 19:43	0°♑		
asc. node	1112 Sep 05 j 08:52	9°♌51'55		evening max el	1115 May 02 j 08:41	2°♑27'52	45°23'15	
	1112 Sep 22 j 07:36	0°♍		greatest brilliancy	1115 Jun 06 j 03:49	28°♑49'21	-4.5m	
	1112 Oct 16 j 22:17	0°♊			1115 Jun 09 j 00:55	0°♌		
	1112 Nov 10 j 02:11	0°♎		desc. node	1115 Jun 12 j 17:09	1°♌08'58		

retrograde	1115 Jun 19 j 20:31	2°♌05'00		superior conj	1117 Dec 03 j 06:33	17°♏52'50	0°-13'-42
	1115 Jun 30 j 04:24	30°♊08		minimum elong	1117 Dec 03 j 02:53	17°♏41'17	0°13'32
evening set	1115 Jul 05 j 17:43	27°♏17'52		behind sun begin	1117 Dec 02 j 11:47	16°♏53'47	
inferior conj	1115 Jul 11 j 07:24	23°♏56'32	-6°-4'-7	behind sun end	1117 Dec 03 j 17:58	18°♏28'47	
minimum elong	1115 Jul 10 j 21:29	24°♏12'00	6°02'04	max. Earth dist.	1117 Dec 04 j 02:50	18°♏56'40	1.71042 AU
min. Earth dist.	1115 Jul 11 j 08:38	23°♏54'36	0.28899 AU		1117 Dec 12 j 21:42	0°♏	
morning rise	1115 Jul 16 j 01:04	21°♏03'18			1118 Jan 05 j 18:38	0°♏	
direct	1115 Aug 01 j 23:12	15°♏40'27		evening rise	1118 Jan 13 j 21:08	10°♏09'37	
greatest brilliancy	1115 Aug 16 j 04:33	19°♏13'15	-4.5m		1118 Jan 29 j 17:51	0°♏	
	1115 Sep 01 j 20:54	0°♏			1118 Feb 22 j 21:12	0°♏	
morning max el	1115 Sep 20 j 13:44	16°♏49'33	46°18'04		1118 Mar 19 j 06:55	0°♏	
	1115 Oct 03 j 08:48	0°♏		asc. node	1118 Mar 20 j 15:44	1°♏40'06	
asc. node	1115 Oct 03 j 20:31	0°♏31'18			1118 Apr 13 j 01:37	0°♏	
	1115 Oct 30 j 01:51	0°♏			1118 May 08 j 08:59	0°♏	
	1115 Nov 24 j 05:42	0°♏			1118 Jun 03 j 12:31	0°♏	
	1115 Dec 18 j 17:57	0°♏			1118 Jul 01 j 08:18	0°♏	
	1116 Jan 12 j 00:05	0°♏		desc. node	1118 Jul 10 j 05:03	8°♏51'29	
desc. node	1116 Jan 23 j 10:01	14°♏09'33		evening max el	1118 Jul 12 j 15:38	11°♏12'45	45°43'11
	1116 Feb 05 j 04:27	0°♏			1118 Aug 03 j 15:18	0°♏	
	1116 Feb 29 j 09:06	0°♏		greatest brilliancy	1118 Aug 19 j 20:42	9°♏07'55	-4.5m
	1116 Mar 24 j 15:08	0°♏		retrograde	1118 Aug 30 j 15:05	11°♏13'24	
morning set	1116 Mar 26 j 10:40	2°♏14'26		evening set	1118 Sep 17 j 03:14	5°♏30'16	
	1116 Apr 17 j 23:00	0°♏		inferior conj	1118 Sep 20 j 14:31	3°♏25'02	-8°-6'-17
				minimum elong	1118 Sep 20 j 22:19	3°♏13'06	8°05'20
superior conj	1116 May 02 j 23:30	18°♏28'47	0°-29'-18	min. Earth dist.	1118 Sep 21 j 12:22	2°♏51'39	0.27621 AU
minimum elong	1116 May 03 j 05:24	18°♏46'56	0°29'02	morning rise	1118 Sep 24 j 17:02	0°♏56'41	
max. Earth dist.	1116 May 04 j 03:50	19°♏55'53	1.73464 AU		1118 Sep 26 j 08:59	30°♏	
	1116 May 12 j 08:27	0°♏		direct	1118 Oct 11 j 14:16	25°♏26'41	
asc. node	1116 May 15 j 13:26	3°♏56'31		greatest brilliancy	1118 Oct 25 j 18:14	29°♏05'33	-4.6m
	1116 Jun 05 j 18:47	0°♏			1118 Oct 27 j 13:14	0°♏	
evening rise	1116 Jun 08 j 12:01	3°♏20'09		asc. node	1118 Oct 31 j 08:21	2°♏11'10	
	1116 Jun 30 j 05:33	0°♏		morning max el	1118 Dec 01 j 08:37	28°♏49'31	46°54'54
	1116 Jul 24 j 17:12	0°♏			1118 Dec 02 j 12:08	0°♏	
	1116 Aug 18 j 07:02	0°♏			1118 Dec 29 j 21:17	0°♏	
desc. node	1116 Sep 04 j 02:46	20°♏25'27			1119 Jan 24 j 12:42	0°♏	
	1116 Sep 12 j 00:49	0°♏			1119 Feb 18 j 13:03	0°♏	
	1116 Oct 07 j 00:59	0°♏		desc. node	1119 Feb 19 j 21:52	1°♏39'05	
	1116 Nov 01 j 13:08	0°♏			1119 Mar 15 j 07:19	0°♏	
	1116 Nov 28 j 06:30	0°♏			1119 Apr 08 j 23:10	0°♏	
evening max el	1116 Dec 07 j 21:01	10°♏05'14	47°17'26		1119 May 03 j 13:57	0°♏	
asc. node	1116 Dec 26 j 06:07	27°♏26'56			1119 May 28 j 03:33	0°♏	
	1116 Dec 29 j 08:18	0°♏		morning set	1119 Jun 04 j 02:14	8°♏29'52	
greatest brilliancy	1117 Jan 14 j 12:03	10°♏33'29	-4.7m	asc. node	1119 Jun 13 j 01:22	19°♏28'52	
retrograde	1117 Jan 27 j 19:57	13°♏51'44			1119 Jun 21 j 15:06	0°♏	
evening set	1117 Feb 14 j 17:24	7°♏38'53		max. Earth dist.	1119 Jul 07 j 16:30	19°♏45'19	1.73347 AU
min. Earth dist.	1117 Feb 17 j 03:59	6°♏07'27	0.27862 AU				
inferior conj	1117 Feb 17 j 19:47	5°♏42'29	8°45'09	superior conj	1119 Jul 10 j 10:36	23°♏09'01	0°58'53
minimum elong	1117 Feb 17 j 19:07	5°♏43'33	8°45'09	minimum elong	1119 Jul 10 j 01:52	22°♏42'05	0°58'35
morning rise	1117 Feb 20 j 21:03	3°♏48'16			1119 Jul 15 j 23:50	0°♏	
	1117 Feb 28 j 02:01	30°♏			1119 Aug 09 j 05:56	0°♏	
direct	1117 Mar 10 j 16:05	27°♏44'25		evening rise	1119 Aug 15 j 10:30	7°♏40'25	
greatest brilliancy	1117 Mar 21 j 12:42	29°♏53'49	-4.6m		1119 Sep 02 j 10:30	0°♏	
	1117 Mar 21 j 19:10	0°♏			1119 Sep 26 j 14:53	0°♏	
desc. node	1117 Apr 16 j 19:20	17°♏17'08		desc. node	1119 Oct 02 j 14:38	7°♏25'30	
morning max el	1117 Apr 28 j 18:53	28°♏15'48	45°57'59		1119 Oct 20 j 20:10	0°♏	
	1117 Apr 30 j 13:53	0°♏			1119 Nov 14 j 03:33	0°♏	
	1117 May 29 j 07:58	0°♏			1119 Dec 08 j 15:50	0°♏	
	1117 Jun 25 j 00:12	0°♏			1120 Jan 02 j 15:41	0°♏	
	1117 Jul 20 j 16:28	0°♏		asc. node	1120 Jan 23 j 18:00	24°♏23'32	
asc. node	1117 Aug 07 j 22:58	21°♏51'32			1120 Jan 28 j 18:31	0°♏	
	1117 Aug 14 j 16:28	0°♏		evening max el	1120 Feb 18 j 06:38	21°♏40'42	46°17'26
	1117 Sep 08 j 04:11	0°♏			1120 Feb 26 j 22:42	0°♏	
	1117 Oct 02 j 07:19	0°♏		greatest brilliancy	1120 Mar 24 j 04:53	19°♏25'53	-4.5m
morning set	1117 Oct 23 j 13:14	26°♏37'53		retrograde	1120 Apr 07 j 23:39	23°♏18'35	
	1117 Oct 26 j 05:33	0°♏		evening set	1120 Apr 23 j 16:19	18°♏29'32	
	1117 Nov 19 j 01:44	0°♏		inferior conj	1120 Apr 29 j 08:37	15°♏02'14	3°25'49
desc. node	1117 Nov 27 j 12:22	10°♏37'54		minimum elong	1120 Apr 29 j 15:36	14°♏51'16	3°23'56

min. Earth dist.	1120 Apr 29 j 11:01	14°♄58'28	0.28844 AU		1122 Nov 03 j 23:52	0°♄	
morning rise	1120 May 05 j 15:05	11°♄15'27			1122 Nov 27 j 22:35	0°♄	
desc. node	1120 May 14 j 07:14	7°♄37'22			1122 Dec 21 j 22:52	0°♄	
direct	1120 May 20 j 20:30	6°♄45'53			1123 Jan 15 j 03:03	0°♄	
greatest brilliancy	1120 Jun 02 j 21:41	9°♄45'33	-4.5m		1123 Feb 08 j 15:20	0°♄	
	1120 Jul 01 j 14:52	0°♄		asc. node	1123 Feb 20 j 05:48	13°♄58'08	
morning max el	1120 Jul 08 j 16:00	6°♄31'29	45°45'19		1123 Mar 05 j 18:22	0°♄	
	1120 Jul 31 j 15:41	0°♄			1123 Apr 01 j 00:13	0°♄	
	1120 Aug 27 j 10:51	0°♄			1123 Apr 29 j 17:29	0°♄	
asc. node	1120 Sep 04 j 10:48	9°♄19'06		evening max el	1123 Apr 29 j 23:51	0°♄15'20	45°24'02
	1120 Sep 21 j 20:01	0°♄		greatest brilliancy	1123 Jun 03 j 18:24	26°♄38'30	-4.5m
	1120 Oct 16 j 10:05	0°♄		desc. node	1123 Jun 11 j 19:15	29°♄19'47	
	1120 Nov 09 j 13:39	0°♄		retrograde	1123 Jun 17 j 12:02	29°♄56'02	
	1120 Dec 03 j 12:26	0°♄		evening set	1123 Jul 03 j 07:24	25°♄12'10	
desc. node	1120 Dec 25 j 00:10	26°♄58'50		inferior conj	1123 Jul 08 j 23:41	21°♄47'15	-5°-49'-38
	1120 Dec 27 j 09:54	0°♄		minimum elong	1123 Jul 08 j 13:50	22°♄02'38	5°47'31
morning set	1121 Jan 08 j 03:21	14°♄42'58		min. Earth dist.	1123 Jul 09 j 00:53	21°♄45'23	0.28912 AU
	1121 Jan 20 j 07:55	0°♄		morning rise	1123 Jul 13 j 20:01	18°♄49'54	
	1121 Feb 13 j 07:37	0°♄		direct	1123 Jul 30 j 15:12	13°♄30'54	
				greatest brilliancy	1123 Aug 13 j 20:12	17°♄02'21	-4.5m
superior conj	1121 Feb 18 j 06:11	6°♄09'53	-1°-25'-46		1123 Sep 02 j 05:54	0°♄	
minimum elong	1121 Feb 18 j 05:21	6°♄07'15	1°25'47	morning max el	1123 Sep 18 j 03:46	14°♄31'26	46°16'25
max. Earth dist.	1121 Feb 22 j 05:55	11°♄08'11	1.72060 AU	asc. node	1123 Oct 02 j 22:40	29°♄48'36	
	1121 Mar 09 j 09:59	0°♄			1123 Oct 03 j 02:54	0°♄	
evening rise	1121 Mar 29 j 14:33	24°♄59'33			1123 Oct 29 j 16:29	0°♄	
	1121 Apr 02 j 16:00	0°♄			1123 Nov 23 j 18:54	0°♄	
asc. node	1121 Apr 17 j 03:42	17°♄49'06			1123 Dec 18 j 06:25	0°♄	
	1121 Apr 27 j 02:14	0°♄			1124 Jan 11 j 12:03	0°♄	
	1121 May 21 j 17:07	0°♄		desc. node	1124 Jan 22 j 12:02	13°♄39'14	
	1121 Jun 15 j 13:32	0°♄			1124 Feb 04 j 16:03	0°♄	
	1121 Jul 10 j 17:55	0°♄			1124 Feb 28 j 20:26	0°♄	
	1121 Aug 05 j 11:17	0°♄		morning set	1124 Mar 24 j 01:39	29°♄58'08	
desc. node	1121 Aug 06 j 16:47	1°♄24'39			1124 Mar 24 j 02:16	0°♄	
	1121 Sep 01 j 04:35	0°♄			1124 Apr 17 j 10:00	0°♄	
evening max el	1121 Sep 24 j 02:14	23°♄55'54	46°53'46				
	1121 Sep 30 j 09:08	0°♄		superior conj	1124 Apr 30 j 16:38	16°♄20'17	0°-32'-20
greatest brilliancy	1121 Nov 01 j 21:40	23°♄44'18	-4.7m	minimum elong	1124 Apr 30 j 23:05	16°♄40'08	0°32'04
retrograde	1121 Nov 13 j 08:19	26°♄09'59		max. Earth dist.	1124 May 01 j 22:44	17°♄52'50	1.73434 AU
evening set	1121 Nov 27 j 14:15	22°♄06'49			1124 May 11 j 19:23	0°♄	
asc. node	1121 Nov 27 j 20:16	21°♄58'45		asc. node	1124 May 14 j 15:35	3°♄29'32	
inferior conj	1121 Dec 03 j 19:56	18°♄28'05	1°33'09		1124 Jun 05 j 05:44	0°♄	
minimum elong	1121 Dec 03 j 16:24	18°♄33'27	1°32'01	evening rise	1124 Jun 06 j 06:53	1°♄17'09	
min. Earth dist.	1121 Dec 03 j 12:11	18°♄39'53	0.26393 AU		1124 Jun 29 j 16:38	0°♄	
morning rise	1121 Dec 09 j 18:50	14°♄59'38			1124 Jul 24 j 04:34	0°♄	
direct	1121 Dec 24 j 04:41	10°♄52'17			1124 Aug 17 j 18:54	0°♄	
greatest brilliancy	1122 Jan 04 j 18:15	13°♄23'26	-4.7m	desc. node	1124 Sep 03 j 04:47	19°♄54'15	
	1122 Jan 29 j 03:24	0°♄			1124 Sep 11 j 13:26	0°♄	
morning max el	1122 Feb 12 j 10:51	13°♄29'14	46°41'58		1124 Oct 06 j 14:43	0°♄	
	1122 Feb 28 j 07:52	0°♄			1124 Nov 01 j 04:48	0°♄	
desc. node	1122 Mar 19 j 09:40	21°♄04'51			1124 Nov 28 j 02:29	0°♄	
	1122 Mar 27 j 06:07	0°♄		evening max el	1124 Dec 05 j 10:32	7°♄39'23	47°18'15
	1122 Apr 22 j 02:50	0°♄		asc. node	1124 Dec 25 j 08:10	26°♄18'24	
	1122 May 17 j 11:39	0°♄			1124 Dec 30 j 00:04	0°♄	
	1122 Jun 11 j 12:55	0°♄		greatest brilliancy	1125 Jan 12 j 04:13	8°♄12'54	-4.7m
	1122 Jul 06 j 07:31	0°♄		retrograde	1125 Jan 25 j 10:24	11°♄30'06	
asc. node	1122 Jul 10 j 13:09	5°♄09'47		evening set	1125 Feb 12 j 06:40	5°♄19'32	
	1122 Jul 30 j 19:25	0°♄		min. Earth dist.	1125 Feb 14 j 17:53	3°♄47'24	0.27806 AU
morning set	1122 Aug 10 j 22:42	13°♄45'00		inferior conj	1125 Feb 15 j 10:15	3°♄21'37	8°44'29
	1122 Aug 24 j 01:12	0°♄		minimum elong	1125 Feb 15 j 08:42	3°♄24'04	8°44'27
max. Earth dist.	1122 Sep 13 j 17:42	25°♄47'25	1.71950 AU	morning rise	1125 Feb 18 j 10:55	1°♄28'28	
					1125 Feb 20 j 23:06	30°♄	
superior conj	1122 Sep 17 j 01:14	29°♄55'55	1°19'25	direct	1125 Mar 08 j 05:19	25°♄24'17	
minimum elong	1122 Sep 17 j 07:46	0°♄16'21	1°19'19	greatest brilliancy	1125 Mar 19 j 02:36	27°♄34'14	-4.6m
	1122 Sep 17 j 02:32	0°♄			1125 Mar 24 j 11:19	0°♄	
	1122 Oct 11 j 01:32	0°♄		desc. node	1125 Apr 15 j 21:32	16°♄17'34	
evening rise	1122 Oct 26 j 07:57	19°♄08'15		morning max el	1125 Apr 26 j 09:03	25°♄58'13	45°59'18
desc. node	1122 Oct 30 j 02:38	23°♄52'33			1125 Apr 30 j 11:59	0°♄	

	1125 May 28 j 23:51	0°♄			1127 Oct 20 j 07:57	0°♄		
	1125 Jun 24 j 13:42	0°♂			1127 Nov 13 j 15:49	0°♄		
	1125 Jul 20 j 04:46	0°♄			1127 Dec 08 j 04:50	0°♄		
asc. node	1125 Aug 07 j 00:57	21°♄21'51			1128 Jan 02 j 05:57	0°♄		
	1125 Aug 14 j 04:08	0°♂		asc. node	1128 Jan 22 j 19:55	23°♄43'16		
	1125 Sep 07 j 15:31	0°♄			1128 Jan 28 j 11:35	0°♄		
greatest brilliancy	1125 Sep 21 j 03:53	16°♄45'47	-3.9m	evening max el	1128 Feb 15 j 22:54	19°♄27'15	46°19'50	
	1125 Oct 01 j 18:32	0°♄			1128 Feb 27 j 01:25	0°♄		
morning set	1125 Oct 21 j 02:18	24°♄13'04		greatest brilliancy	1128 Mar 21 j 22:36	17°♄16'17	-4.5m	
	1125 Oct 25 j 16:44	0°♄		retrograde	1128 Apr 05 j 16:26	21°♄07'23		
	1125 Nov 18 j 12:57	0°♄		evening set	1128 Apr 21 j 10:49	16°♄15'27		
desc. node	1125 Nov 26 j 14:27	10°♄09'05		inferior conj	1128 Apr 27 j 00:49	12°♄51'00	3°44'04	
				minimum elong	1128 Apr 27 j 08:17	12°♄39'15	3°42'06	
superior conj	1125 Nov 30 j 16:23	15°♄17'19	0°-9'-44	min. Earth dist.	1128 Apr 27 j 02:49	12°♄47'51	0.28828 AU	
minimum elong	1125 Nov 30 j 13:46	15°♄09'05	0°09'37	morning rise	1128 May 03 j 06:04	9°♄05'56		
behind sun begin	1125 Nov 29 j 16:03	14°♄00'42		desc. node	1128 May 13 j 09:17	5°♄06'53		
behind sun end	1125 Dec 01 j 11:29	16°♄17'28		direct	1128 May 18 j 12:57	4°♄35'09		
max. Earth dist.	1125 Dec 01 j 09:00	16°♄09'37	1.71049 AU	greatest brilliancy	1128 May 31 j 11:01	7°♄32'05	-4.5m	
	1125 Dec 12 j 08:57	0°♄			1128 Jul 01 j 16:18	0°♂		
	1126 Jan 05 j 05:56	0°♄		morning max el	1128 Jul 06 j 08:05	4°♂21'34	45°44'51	
evening rise	1126 Jan 11 j 07:17	7°♄35'36			1128 Jul 31 j 08:12	0°♄		
	1126 Jan 29 j 05:13	0°♄			1128 Aug 27 j 00:37	0°♂		
	1126 Feb 22 j 08:40	0°♄		asc. node	1128 Sep 03 j 12:54	8°♂46'14		
	1126 Mar 18 j 18:37	0°♄			1128 Sep 21 j 08:34	0°♄		
asc. node	1126 Mar 19 j 17:52	1°♄10'54			1128 Oct 15 j 22:01	0°♄		
	1126 Apr 12 j 13:48	0°♂			1128 Nov 09 j 01:13	0°♄		
	1126 May 07 j 22:07	0°♄			1128 Dec 02 j 23:47	0°♄		
	1126 Jun 03 j 03:36	0°♂		desc. node	1128 Dec 24 j 02:11	26°♄29'50		
	1126 Jul 01 j 04:11	0°♄			1128 Dec 26 j 21:07	0°♄		
desc. node	1126 Jul 09 j 07:02	8°♄01'26		morning set	1129 Jan 05 j 13:26	12°♄09'03		
evening max el	1126 Jul 10 j 06:10	8°♄56'53	45°41'30		1129 Jan 19 j 19:03	0°♄		
	1126 Aug 04 j 12:49	0°♄			1129 Feb 12 j 18:39	0°♄		
greatest brilliancy	1126 Aug 17 j 07:05	6°♄45'41	-4.5m					
retrograde	1126 Aug 28 j 05:04	8°♄54'01		superior conj	1129 Feb 15 j 18:31	3°♄44'10	-1°-25'-34	
evening set	1126 Sep 14 j 19:15	3°♄06'46		minimum elong	1129 Feb 15 j 16:41	3°♄38'28	1°25'34	
inferior conj	1126 Sep 18 j 04:23	1°♄04'36	-8°-14'-7	max. Earth dist.	1129 Feb 19 j 21:15	8°♄52'02	1.72010 AU	
minimum elong	1126 Sep 18 j 11:33	0°♄53'39	8°13'22		1129 Mar 08 j 21:00	0°♄		
min. Earth dist.	1126 Sep 19 j 01:28	0°♄32'22	0.27687 AU	evening rise	1129 Mar 27 j 05:11	22°♄42'29		
	1126 Sep 19 j 22:45	30°♄			1129 Apr 02 j 03:02	0°♄		
morning rise	1126 Sep 22 j 03:32	28°♄41'16		asc. node	1129 Apr 16 j 05:47	17°♄21'29		
direct	1126 Oct 09 j 05:24	23°♄05'23			1129 Apr 26 j 13:24	0°♂		
greatest brilliancy	1126 Oct 23 j 10:02	26°♄45'41	-4.6m		1129 May 21 j 04:33	0°♄		
	1126 Oct 29 j 05:35	0°♄			1129 Jun 15 j 01:29	0°♂		
asc. node	1126 Oct 30 j 10:26	0°♄46'02			1129 Jul 10 j 06:46	0°♄		
morning max el	1126 Nov 28 j 23:56	26°♄28'49	46°54'10		1129 Aug 05 j 01:45	0°♄		
	1126 Dec 02 j 09:49	0°♄		desc. node	1129 Aug 05 j 18:51	0°♄48'54		
	1126 Dec 29 j 13:29	0°♄			1129 Aug 31 j 22:21	0°♄		
	1127 Jan 24 j 02:46	0°♄		evening max el	1129 Sep 21 j 15:48	21°♄32'13	46°51'27	
	1127 Feb 18 j 01:58	0°♄			1129 Sep 30 j 12:45	0°♄		
desc. node	1127 Feb 18 j 23:52	1°♄06'11		greatest brilliancy	1129 Oct 30 j 12:38	21°♄17'44	-4.7m	
	1127 Mar 14 j 19:31	0°♄		retrograde	1129 Nov 10 j 20:07	23°♄40'00		
	1127 Apr 08 j 10:51	0°♄		evening set	1129 Nov 25 j 02:32	19°♄37'37		
	1127 May 03 j 01:15	0°♄		asc. node	1129 Nov 26 j 22:16	18°♄37'14		
	1127 May 27 j 14:36	0°♂		inferior conj	1129 Dec 01 j 08:06	15°♄59'06	1°08'49	
morning set	1127 Jun 01 j 20:16	6°♂24'24		minimum elong	1129 Dec 01 j 05:29	16°♄03'06	1°07'58	
asc. node	1127 Jun 12 j 03:20	19°♂01'14		min. Earth dist.	1129 Dec 01 j 02:07	16°♄08'14	0.26379 AU	
	1127 Jun 21 j 02:02	0°♄		morning rise	1129 Dec 07 j 08:37	12°♄28'14		
max. Earth dist.	1127 Jul 05 j 14:22	17°♄51'06	1.73376 AU	direct	1129 Dec 21 j 16:46	8°♄23'31		
				greatest brilliancy	1130 Jan 02 j 08:30	10°♄56'30	-4.7m	
superior conj	1127 Jul 08 j 04:52	21°♄03'38	0°56'35		1130 Jan 29 j 10:01	0°♄		
minimum elong	1127 Jul 07 j 20:12	20°♄36'56	0°56'16	morning max el	1130 Feb 09 j 22:44	11°♄01'18	46°43'15	
	1127 Jul 15 j 10:47	0°♂			1130 Feb 28 j 02:08	0°♄		
	1127 Aug 08 j 16:59	0°♄		desc. node	1130 Mar 18 j 11:54	20°♄27'29		
evening rise	1127 Aug 13 j 03:50	5°♄31'01			1130 Mar 26 j 20:46	0°♄		
	1127 Sep 01 j 21:44	0°♄			1130 Apr 21 j 15:48	0°♄		
	1127 Sep 26 j 02:21	0°♄			1130 May 16 j 23:41	0°♄		
desc. node	1127 Oct 01 j 16:49	6°♄56'29			1130 Jun 11 j 00:23	0°♂		

	1130 Jul 05 j 18:38	0°♄		retrograde	1133 Jan 23 j 01:23	9°♄09'29	
asc. node	1130 Jul 09 j 15:10	4°♄42'09		evening set	1133 Feb 09 j 19:34	3°♄01'30	
	1130 Jul 30 j 06:20	0°♌		min. Earth dist.	1133 Feb 12 j 07:28	1°♄28'36	0.27748 AU
morning set	1130 Aug 08 j 15:26	11°♌34'38		inferior conj	1133 Feb 13 j 00:42	1°♄01'33	8°42'57
	1130 Aug 23 j 12:03	0°♍		minimum elong	1133 Feb 12 j 22:18	1°♄05'19	8°42'51
max. Earth dist.	1130 Sep 11 j 06:45	23°♍24'14	1.72006 AU		1133 Feb 14 j 16:01	30°♌	
				morning rise	1133 Feb 16 j 01:13	29°♌08'54	
superior conj	1130 Sep 14 j 16:23	27°♍39'12	1°20'34	direct	1133 Mar 05 j 18:49	23°♌04'59	
minimum elong	1130 Sep 14 j 22:15	27°♍57'34	1°20'29	greatest brilliancy	1133 Mar 16 j 16:01	25°♌15'12	-4.6m
	1130 Sep 16 j 13:26	0°♎			1133 Mar 26 j 02:32	0°♄	
	1130 Oct 10 j 12:34	0°♏		desc. node	1133 Apr 14 j 23:30	15°♄20'06	
evening rise	1130 Oct 23 j 19:35	16°♏39'30		morning max el	1133 Apr 24 j 00:03	23°♄43'53	46°00'42
desc. node	1130 Oct 29 j 04:42	23°♏24'03			1133 Apr 30 j 08:47	0°♅	
	1130 Nov 03 j 11:03	0°♐			1133 May 28 j 15:00	0°♄	
	1130 Nov 27 j 09:54	0°♑			1133 Jun 24 j 02:41	0°♒	
	1130 Dec 21 j 10:21	0°♒			1133 Jul 19 j 16:40	0°♄	
	1131 Jan 14 j 14:48	0°♈		asc. node	1133 Aug 06 j 03:06	20°♄53'42	
	1131 Feb 08 j 03:34	0°♅			1133 Aug 13 j 15:28	0°♌	
asc. node	1131 Feb 19 j 07:58	13°♅26'57			1133 Sep 07 j 02:35	0°♍	
	1131 Mar 05 j 07:39	0°♈		greatest brilliancy	1133 Sep 27 j 20:22	25°♍46'36	-3.9m
	1131 Mar 31 j 15:48	0°♒			1133 Oct 01 j 05:29	0°♎	
evening max el	1131 Apr 27 j 14:22	28°♒01'32	45°24'41	morning set	1133 Oct 18 j 15:17	21°♎48'52	
	1131 Apr 29 j 16:00	0°♄			1133 Oct 25 j 03:39	0°♏	
greatest brilliancy	1131 Jun 01 j 07:54	24°♄26'07	-4.5m		1133 Nov 17 j 23:51	0°♐	
desc. node	1131 Jun 10 j 21:15	27°♄26'12		desc. node	1133 Nov 25 j 16:25	9°♐40'54	
retrograde	1131 Jun 15 j 03:46	27°♄46'51					
evening set	1131 Jun 30 j 20:59	23°♄05'48		superior conj	1133 Nov 28 j 02:04	12°♐42'21	0°-5'-45
inferior conj	1131 Jul 06 j 15:48	19°♄37'36	-5°-34'-32	minimum elong	1133 Nov 28 j 00:31	12°♐37'29	0°05'41
minimum elong	1131 Jul 06 j 06:03	19°♄52'48	5°32'22	behind sun begin	1133 Nov 26 j 23:27	11°♐18'33	
min. Earth dist.	1131 Jul 06 j 17:00	19°♄35'43	0.28929 AU	behind sun end	1133 Nov 29 j 01:36	13°♐56'24	
morning rise	1131 Jul 11 j 14:50	16°♄36'20		max. Earth dist.	1133 Nov 28 j 17:42	13°♐31'33	1.71050 AU
direct	1131 Jul 28 j 06:52	11°♄20'51			1133 Dec 11 j 19:53	0°♑	
greatest brilliancy	1131 Aug 11 j 12:57	14°♄52'48	-4.5m		1134 Jan 04 j 16:53	0°♒	
	1131 Sep 02 j 12:24	0°♌		evening rise	1134 Jan 08 j 17:24	5°♒02'36	
morning max el	1131 Sep 15 j 18:16	12°♌14'50	46°14'57		1134 Jan 28 j 16:13	0°♈	
asc. node	1131 Oct 02 j 00:48	29°♌06'42			1134 Feb 21 j 19:47	0°♅	
	1131 Oct 02 j 20:29	0°♍			1134 Mar 18 j 05:57	0°♈	
	1131 Oct 29 j 06:48	0°♎		asc. node	1134 Mar 18 j 19:57	0°♈42'41	
	1131 Nov 23 j 07:51	0°♏			1134 Apr 12 j 01:35	0°♒	
	1131 Dec 17 j 18:37	0°♐			1134 May 07 j 10:52	0°♄	
	1132 Jan 10 j 23:46	0°♑			1134 Jun 02 j 18:24	0°♌	
desc. node	1132 Jan 21 j 14:03	13°♑09'40			1134 Jul 01 j 00:13	0°♍	
	1132 Feb 04 j 03:24	0°♒		evening max el	1134 Jul 07 j 21:07	6°♍43'16	45°39'36
	1132 Feb 28 j 07:29	0°♈		desc. node	1134 Jul 08 j 09:06	7°♍11'49	
morning set	1132 Mar 21 j 16:47	27°♈43'02			1134 Aug 05 j 17:45	0°♎	
	1132 Mar 23 j 13:06	0°♅		greatest brilliancy	1134 Aug 14 j 17:57	4°♎24'55	-4.5m
	1132 Apr 16 j 20:42	0°♈		retrograde	1134 Aug 25 j 18:42	6°♎35'06	
				evening set	1134 Sep 12 j 10:57	0°♎44'22	
superior conj	1132 Apr 28 j 09:55	14°♈13'09	0°-35'-19		1134 Sep 13 j 16:43	30°♏	
minimum elong	1132 Apr 28 j 16:54	14°♈34'36	0°35'02	inferior conj	1134 Sep 15 j 18:07	28°♏44'47	-8°-21'-11
max. Earth dist.	1132 Apr 29 j 17:58	15°♈51'41	1.73408 AU	minimum elong	1134 Sep 16 j 00:35	28°♏34'52	8°20'34
	1132 May 11 j 06:01	0°♒		min. Earth dist.	1134 Sep 16 j 14:23	28°♏13'45	0.27756 AU
asc. node	1132 May 13 j 17:35	3°♒02'57		morning rise	1134 Sep 19 j 13:59	26°♏26'08	
evening rise	1132 Jun 04 j 01:50	29°♒15'14		direct	1134 Oct 06 j 20:33	20°♏44'46	
	1132 Jun 04 j 16:26	0°♄		greatest brilliancy	1134 Oct 21 j 00:55	24°♏25'05	-4.6m
	1132 Jun 29 j 03:31	0°♌		asc. node	1134 Oct 29 j 12:24	29°♏23'52	
	1132 Jul 23 j 15:48	0°♍			1134 Oct 30 j 09:24	0°♎	
	1132 Aug 17 j 06:38	0°♎		morning max el	1134 Nov 26 j 14:47	24°♎07'36	46°53'27
desc. node	1132 Sep 02 j 06:56	19°♎23'59			1134 Dec 02 j 06:31	0°♏	
	1132 Sep 11 j 01:55	0°♏			1134 Dec 29 j 05:08	0°♐	
	1132 Oct 06 j 04:20	0°♐			1135 Jan 23 j 16:21	0°♑	
	1132 Oct 31 j 20:24	0°♑			1135 Feb 17 j 14:26	0°♒	
	1132 Nov 27 j 22:43	0°♒		desc. node	1135 Feb 18 j 02:04	0°♒35'11	
evening max el	1132 Dec 03 j 00:30	5°♒15'46	47°19'07		1135 Mar 14 j 07:17	0°♈	
asc. node	1132 Dec 24 j 10:12	25°♒08'55			1135 Apr 07 j 22:07	0°♅	
	1132 Dec 30 j 20:35	0°♈			1135 May 02 j 12:09	0°♈	
greatest brilliancy	1133 Jan 09 j 19:38	5°♈52'16	-4.7m		1135 May 27 j 01:16	0°♒	

morning set	1135 May 30 j 14:41	4°II21'21		minimum elong	1137 Nov 28 j 18:35	13°♂33'13	0°43'39
asc. node	1135 Jun 11 j 05:25	18°II35'10		min. Earth dist.	1137 Nov 28 j 16:17	13°♂36'44	0.26379 AU
	1135 Jun 20 j 12:34	0°♂		morning rise	1137 Dec 04 j 22:13	9°♂57'37	
max. Earth dist.	1135 Jul 03 j 11:52	15°♂57'07	1.73403 AU	direct	1137 Dec 19 j 04:32	5°♂54'45	
				greatest brilliancy	1137 Dec 30 j 23:58	8°♂31'01	-4.7m
superior conj	1135 Jul 05 j 23:32	19°♂00'50	0°54'14		1138 Jan 29 j 14:37	0°♂	
minimum elong	1135 Jul 05 j 14:59	18°♂34'28	0°53'54	morning max el	1138 Feb 07 j 10:46	8°♂33'23	46°44'33
	1135 Jul 14 j 21:19	0°♂			1138 Feb 27 j 19:58	0°♂	
	1135 Aug 08 j 03:39	0°♂		desc. node	1138 Mar 17 j 13:53	19°♂49'48	
evening rise	1135 Aug 10 j 21:31	3°♂23'58			1138 Mar 26 j 11:13	0°♂	
	1135 Sep 01 j 08:37	0°♂			1138 Apr 21 j 04:36	0°♂	
	1135 Sep 25 j 13:33	0°♂			1138 May 16 j 11:32	0°♂	
desc. node	1135 Sep 30 j 18:51	6°♂27'49			1138 Jun 10 j 11:40	0°♂	
	1135 Oct 19 j 19:33	0°♂			1138 Jul 05 j 05:36	0°♂	
	1135 Nov 13 j 03:56	0°♂		asc. node	1138 Jul 08 j 17:18	4°♂15'20	
	1135 Dec 07 j 17:40	0°♂			1138 Jul 29 j 17:07	0°♂	
asc. node	1136 Jan 01 j 20:04	0°♂		morning set	1138 Aug 06 j 08:37	9°♂26'10	
	1136 Jan 21 j 22:06	23°♂04'15			1138 Aug 22 j 22:46	0°♂	
	1136 Jan 28 j 04:38	0°♂		max. Earth dist.	1138 Sep 08 j 22:34	21°♂10'12	1.72058 AU
evening max el	1136 Feb 13 j 14:44	17°♂13'33	46°22'23				
	1136 Feb 27 j 05:15	0°♂		superior conj	1138 Sep 12 j 08:09	25°♂24'56	1°21'34
greatest brilliancy	1136 Mar 19 j 17:15	15°♂09'08	-4.5m	minimum elong	1138 Sep 12 j 13:21	25°♂41'11	1°21'29
retrograde	1136 Apr 03 j 08:57	18°♂57'39			1138 Sep 16 j 00:12	0°♂	
evening set	1136 Apr 19 j 05:36	14°♂02'49			1138 Oct 09 j 23:26	0°♂	
inferior conj	1136 Apr 24 j 17:12	10°♂41'21	4°02'04	evening rise	1138 Oct 21 j 07:55	14°♂13'28	
minimum elong	1136 Apr 25 j 01:06	10°♂28'53	4°00'00	desc. node	1138 Oct 28 j 06:42	22°♂55'53	
min. Earth dist.	1136 Apr 24 j 18:59	10°♂38'32	0.28808 AU		1138 Nov 02 j 22:05	0°♂	
morning rise	1136 Apr 30 j 21:00	6°♂58'04			1138 Nov 26 j 21:08	0°♂	
desc. node	1136 May 12 j 11:19	2°♂42'45			1138 Dec 20 j 21:48	0°♂	
direct	1136 May 16 j 05:23	2°♂26'03			1139 Jan 14 j 02:36	0°♂	
greatest brilliancy	1136 May 29 j 00:15	5°♂19'45	-4.5m		1139 Feb 07 j 15:57	0°♂	
	1136 Jul 01 j 15:58	0°♂		asc. node	1139 Feb 18 j 10:02	12°♂55'05	
morning max el	1136 Jul 03 j 23:35	2°♂11'24	45°44'33		1139 Mar 04 j 21:06	0°♂	
	1136 Jul 31 j 00:00	0°♂			1139 Mar 31 j 07:42	0°♂	
	1136 Aug 26 j 13:53	0°♂		evening max el	1139 Apr 25 j 05:16	25°♂48'41	45°25'43
asc. node	1136 Sep 02 j 15:02	8°♂14'47			1139 Apr 29 j 15:32	0°♂	
	1136 Sep 20 j 20:42	0°♂		greatest brilliancy	1139 May 29 j 20:44	22°♂13'13	-4.5m
	1136 Oct 15 j 09:36	0°♂		desc. node	1139 Jun 09 j 23:20	25°♂28'48	
	1136 Nov 08 j 12:32	0°♂		retrograde	1139 Jun 12 j 20:04	25°♂38'13	
	1136 Dec 02 j 10:58	0°♂		evening set	1139 Jun 28 j 10:53	20°♂59'33	
desc. node	1136 Dec 23 j 04:18	26°♂01'38		inferior conj	1139 Jul 04 j 08:00	17°♂28'20	-5°-19'-1
	1136 Dec 26 j 08:12	0°♂		minimum elong	1139 Jul 03 j 22:27	17°♂43'13	5°16'49
morning set	1137 Jan 02 j 23:00	9°♂33'52		min. Earth dist.	1139 Jul 04 j 08:58	17°♂26'49	0.28942 AU
	1137 Jan 19 j 06:01	0°♂		morning rise	1139 Jul 09 j 09:43	14°♂23'22	
	1137 Feb 12 j 05:31	0°♂		direct	1139 Jul 25 j 22:52	9°♂11'08	
				greatest brilliancy	1139 Aug 09 j 06:10	12°♂44'18	-4.5m
superior conj	1137 Feb 13 j 06:23	1°♂17'39	-1°-25'-11		1139 Sep 02 j 16:46	0°♂	
minimum elong	1137 Feb 13 j 03:33	1°♂08'46	1°25'11	morning max el	1139 Sep 13 j 09:58	10°♂01'34	46°13'37
max. Earth dist.	1137 Feb 17 j 11:36	6°♂33'20	1.71951 AU	asc. node	1139 Oct 01 j 02:43	28°♂24'50	
	1137 Mar 08 j 07:47	0°♂			1139 Oct 02 j 13:38	0°♂	
evening rise	1137 Mar 24 j 19:32	20°♂25'16			1139 Oct 28 j 20:55	0°♂	
	1137 Apr 01 j 13:49	0°♂			1139 Nov 22 j 20:39	0°♂	
asc. node	1137 Apr 15 j 07:46	16°♂54'16			1139 Dec 17 j 06:44	0°♂	
	1137 Apr 26 j 00:19	0°♂			1140 Jan 10 j 11:27	0°♂	
	1137 May 20 j 15:46	0°♂		desc. node	1140 Jan 20 j 16:12	12°♂40'28	
	1137 Jun 14 j 13:13	0°♂			1140 Feb 03 j 14:46	0°♂	
	1137 Jul 09 j 19:23	0°♂			1140 Feb 27 j 18:38	0°♂	
desc. node	1137 Aug 04 j 21:02	0°♂14'18		morning set	1140 Mar 19 j 07:23	25°♂25'45	
	1137 Aug 04 j 16:01	0°♂			1140 Mar 23 j 00:05	0°♂	
	1137 Aug 31 j 16:08	0°♂			1140 Apr 16 j 07:33	0°♂	
evening max el	1137 Sep 19 j 04:19	19°♂07'06	46°48'57				
	1137 Sep 30 j 17:45	0°♂		superior conj	1140 Apr 26 j 02:44	12°♂04'02	0°-38'-18
greatest brilliancy	1137 Oct 28 j 03:28	18°♂51'43	-4.7m	minimum elong	1140 Apr 26 j 10:12	12°♂27'00	0°37'59
retrograde	1137 Nov 08 j 07:35	21°♂10'50		max. Earth dist.	1140 Apr 27 j 12:56	13°♂49'13	1.73378 AU
evening set	1137 Nov 22 j 14:59	17°♂08'27			1140 May 10 j 16:48	0°♂	
asc. node	1137 Nov 26 j 00:21	15°♂13'23		asc. node	1140 May 12 j 19:38	2°♂36'08	
inferior conj	1137 Nov 28 j 20:17	13°♂30'39	0°44'12	evening rise	1140 Jun 01 j 20:32	27°♂12'11	

	1140 Jun 04 j 03:15	0°☿		greatest brilliancy	1142 Oct 18 j 15:15	22°☿03'32	-4.6m
	1140 Jun 28 j 14:31	0°♌		asc. node	1142 Oct 28 j 14:34	28°☿04'12	
	1140 Jul 23 j 03:09	0°♍			1142 Oct 31 j 05:54	0°♌	
	1140 Aug 16 j 18:31	0°♍		morning max el	1142 Nov 24 j 04:56	21°♌43'58	46°52'36
desc. node	1140 Sep 01 j 08:56	18°♌52'51			1142 Dec 02 j 02:49	0°♌	
	1140 Sep 10 j 14:33	0°♌			1142 Dec 28 j 20:49	0°♌	
	1140 Oct 05 j 18:07	0°♌			1143 Jan 23 j 06:05	0°♌	
	1140 Oct 31 j 12:17	0°♌		desc. node	1143 Feb 17 j 04:02	0°≈02'49	
	1140 Nov 27 j 19:38	0°≈			1143 Feb 17 j 03:06	0°≈	
evening max el	1140 Nov 30 j 15:26	2°≈54'33	47°19'53		1143 Mar 13 j 19:15	0°♌	
asc. node	1140 Dec 23 j 12:20	23°≈57'35			1143 Apr 07 j 09:37	0°♌	
	1141 Jan 01 j 00:49	0°♌			1143 May 01 j 23:19	0°♌	
greatest brilliancy	1141 Jan 07 j 10:37	3°♌30'54	-4.7m		1143 May 26 j 12:15	0°♌	
retrograde	1141 Jan 20 j 16:47	6°♌48'25		morning set	1143 May 28 j 08:59	2°♌16'55	
evening set	1141 Feb 07 j 08:02	0°♌43'36		asc. node	1143 Jun 10 j 07:34	18°♌08'13	
	1141 Feb 08 j 12:27	30°♌≈			1143 Jun 19 j 23:28	0°☿	
min. Earth dist.	1141 Feb 09 j 20:45	29°≈09'40	0.27693 AU	max. Earth dist.	1143 Jul 01 j 07:14	13°☿55'28	1.73429 AU
inferior conj	1141 Feb 10 j 15:06	28°≈40'54	8°40'22				
minimum elong	1141 Feb 10 j 11:54	28°≈45'56	8°40'13	superior conj	1143 Jul 03 j 18:03	16°☿56'30	0°51'47
morning rise	1141 Feb 13 j 15:59	26°≈48'01		minimum elong	1143 Jul 03 j 09:39	16°☿30'38	0°51'28
direct	1141 Mar 03 j 08:53	20°≈45'11			1143 Jul 14 j 08:15	0°♌	
greatest brilliancy	1141 Mar 14 j 04:41	22°≈54'44	-4.6m		1143 Aug 07 j 14:41	0°♌	
	1141 Mar 27 j 06:13	0°♌		evening rise	1143 Aug 08 j 15:04	1°♌15'28	
desc. node	1141 Apr 14 j 01:33	14°♌23'16			1143 Aug 31 j 19:50	0°♌	
morning max el	1141 Apr 21 j 15:35	21°♌30'00	46°01'55		1143 Sep 25 j 01:04	0°♌	
	1141 Apr 30 j 05:13	0°♌		desc. node	1143 Sep 29 j 20:50	5°♌58'05	
	1141 May 28 j 06:16	0°♌			1143 Oct 19 j 07:29	0°♌	
	1141 Jun 23 j 15:50	0°♌			1143 Nov 12 j 16:25	0°♌	
	1141 Jul 19 j 04:46	0°☿			1143 Dec 07 j 06:55	0°≈	
asc. node	1141 Aug 05 j 05:09	20°☿24'39			1144 Jan 01 j 10:42	0°♌	
	1141 Aug 13 j 02:59	0°♌		asc. node	1144 Jan 21 j 00:11	22°♌23'30	
	1141 Sep 06 j 13:50	0°♌			1144 Jan 27 j 22:25	0°♌	
	1141 Sep 30 j 16:37	0°♌		evening max el	1144 Feb 11 j 05:40	14°♌56'24	46°24'54
greatest brilliancy	1141 Oct 01 j 13:06	1°♌04'01	-3.9m		1144 Feb 27 j 11:30	0°♌	
morning set	1141 Oct 16 j 04:33	19°♌25'02		greatest brilliancy	1144 Mar 17 j 11:39	13°♌00'30	-4.5m
	1141 Oct 24 j 14:46	0°♌		retrograde	1144 Apr 01 j 01:06	16°♌46'52	
	1141 Nov 17 j 10:58	0°♌		evening set	1144 Apr 17 j 00:24	11°♌48'57	
desc. node	1141 Nov 24 j 18:34	9°♌12'36		inferior conj	1144 Apr 22 j 09:35	8°♌30'45	4°19'36
				minimum elong	1144 Apr 22 j 17:53	8°♌17'37	4°17'28
superior conj	1141 Nov 25 j 12:07	10°♌07'50	0°-1'-45	min. Earth dist.	1144 Apr 22 j 11:25	8°♌27'51	0.28789 AU
minimum elong	1141 Nov 25 j 11:38	10°♌06'21	0°01'45	morning rise	1144 Apr 28 j 11:42	4°♌49'22	
behind sun begin	1141 Nov 24 j 09:21	8°♌43'35		desc. node	1144 May 11 j 13:25	0°♌22'14	
behind sun end	1141 Nov 26 j 13:56	11°♌29'08		direct	1144 May 13 j 21:15	0°♌15'53	
max. Earth dist.	1141 Nov 26 j 02:11	10°♌52'10	1.71051 AU	greatest brilliancy	1144 May 26 j 13:55	3°♌06'49	-4.5m
	1141 Dec 11 j 07:00	0°♌		morning max el	1144 Jul 01 j 14:29	29°♌58'35	45°44'14
	1142 Jan 04 j 04:02	0°≈			1144 Jul 01 j 15:04	0°♌	
evening rise	1142 Jan 06 j 03:46	2°≈29'41			1144 Jul 30 j 15:59	0°☿	
	1142 Jan 28 j 03:26	0°♌			1144 Aug 26 j 03:28	0°♌	
	1142 Feb 21 j 07:06	0°♌		asc. node	1144 Sep 01 j 16:59	7°♌41'39	
asc. node	1142 Mar 17 j 21:55	0°♌13'20			1144 Sep 20 j 09:11	0°♌	
	1142 Mar 17 j 17:33	0°♌			1144 Oct 14 j 21:30	0°♌	
	1142 Apr 11 j 13:44	0°♌			1144 Nov 08 j 00:08	0°♌	
	1142 May 07 j 00:04	0°☿			1144 Dec 01 j 22:25	0°♌	
	1142 Jun 02 j 09:47	0°♌		desc. node	1144 Dec 22 j 06:22	25°♌32'26	
	1142 Jun 30 j 21:21	0°♌			1144 Dec 25 j 19:33	0°♌	
evening max el	1142 Jul 05 j 12:09	4°♌28'57	45°37'52	morning set	1144 Dec 31 j 08:27	6°♌57'22	
desc. node	1142 Jul 07 j 11:16	6°♌20'34			1145 Jan 18 j 17:16	0°≈	
	1142 Aug 07 j 12:05	0°♌					
greatest brilliancy	1142 Aug 12 j 06:05	2°♌05'13	-4.5m	superior conj	1145 Feb 10 j 18:12	28°≈49'51	-1°-24'-39
retrograde	1142 Aug 23 j 08:07	4°♌16'05		minimum elong	1145 Feb 10 j 14:22	28°≈37'54	1°24'38
	1142 Sep 07 j 05:56	30°♌≈			1145 Feb 11 j 16:41	0°♌	
evening set	1142 Sep 10 j 02:41	28°♌22'31		max. Earth dist.	1145 Feb 14 j 22:59	4°♌04'18	1.71893 AU
inferior conj	1142 Sep 13 j 08:08	26°♌25'08	-8°-27'-21		1145 Mar 07 j 18:53	0°♌	
minimum elong	1142 Sep 13 j 13:53	26°♌16'18	8°26'52	evening rise	1145 Mar 22 j 09:46	18°♌06'35	
min. Earth dist.	1142 Sep 14 j 03:46	25°♌54'59	0.27820 AU		1145 Apr 01 j 00:56	0°♌	
morning rise	1142 Sep 17 j 00:50	24°♌10'47		asc. node	1145 Apr 14 j 09:54	16°♌26'37	
direct	1142 Oct 04 j 11:37	18°♌24'25			1145 Apr 25 j 11:33	0°♌	

	1145 May 20 j 03:17	0°☿		desc. node	1148 Jan 19 j 18:14	12°☿10'24	
	1145 Jun 14 j 01:17	0°♌			1148 Feb 03 j 02:16	0°♌	
	1145 Jul 09 j 08:27	0°♍			1148 Feb 27 j 05:53	0°♍	
desc. node	1145 Aug 03 j 22:58	29°♍37'29		morning set	1148 Mar 16 j 21:45	23°♍07'23	
	1145 Aug 04 j 06:53	0°♎			1148 Mar 22 j 11:09	0°♎	
	1145 Aug 31 j 10:50	0°♏			1148 Apr 15 j 18:29	0°♏	
evening max el	1145 Sep 16 j 16:24	16°♏39'50	46°46'35				
	1145 Oct 01 j 01:28	0°♐		superior conj	1148 Apr 23 j 19:25	9°♏54'06	0°-41'-13
greatest brilliancy	1145 Oct 25 j 17:45	16°♐24'00	-4.7m	minimum elong	1148 Apr 24 j 03:21	10°♏18'31	0°40'54
retrograde	1145 Nov 05 j 19:16	18°♐40'53		max. Earth dist.	1148 Apr 25 j 09:04	11°♏49'57	1.73348 AU
evening set	1145 Nov 20 j 03:35	14°♐37'45			1148 May 10 j 03:41	0°♑	
asc. node	1145 Nov 25 j 02:27	11°♐46'44		asc. node	1148 May 11 j 21:48	2°♑09'21	
inferior conj	1145 Nov 26 j 08:24	11°♐01'11	0°19'31	evening rise	1148 May 30 j 15:13	25°♑08'50	
minimum elong	1145 Nov 26 j 07:39	11°♐02'19	0°19'16		1148 Jun 03 j 14:10	0°☿	
min. Earth dist.	1145 Nov 26 j 06:19	11°♐04'21	0.26382 AU		1148 Jun 28 j 01:36	0°♌	
morning rise	1145 Dec 02 j 11:36	7°♐26'29			1148 Jul 22 j 14:34	0°♍	
direct	1145 Dec 16 j 16:08	3°♐24'48			1148 Aug 16 j 06:27	0°♎	
greatest brilliancy	1145 Dec 28 j 15:36	6°♐05'00	-4.7m	desc. node	1148 Aug 31 j 10:59	18°♎21'44	
	1146 Jan 29 j 17:49	0°☿			1148 Sep 10 j 03:17	0°♏	
morning max el	1146 Feb 04 j 23:39	6°☿06'43	46°45'46		1148 Oct 05 j 08:07	0°♐	
	1146 Feb 27 j 13:41	0°♌			1148 Oct 31 j 04:34	0°☿	
desc. node	1146 Mar 16 j 15:53	19°♌11'39			1148 Nov 27 j 17:34	0°♌	
	1146 Mar 26 j 01:46	0°♍		evening max el	1148 Nov 28 j 07:09	0°♌34'44	47°20'26
	1146 Apr 20 j 17:35	0°♎		asc. node	1148 Dec 22 j 14:22	22°♌43'04	
	1146 May 15 j 23:37	0°♏			1149 Jan 02 j 18:21	0°♍	
	1146 Jun 09 j 23:11	0°♑		greatest brilliancy	1149 Jan 05 j 02:09	1°♍09'09	-4.7m
	1146 Jul 04 j 16:46	0°☿		retrograde	1149 Jan 18 j 08:00	4°♍25'42	
asc. node	1146 Jul 07 j 19:21	3°☿47'34			1149 Feb 02 j 02:42	30°♎	
	1146 Jul 29 j 04:07	0°♌		evening set	1149 Feb 04 j 19:52	28°♌24'58	
morning set	1146 Aug 04 j 01:47	7°♌16'55		min. Earth dist.	1149 Feb 07 j 09:39	26°♌49'28	0.27632 AU
	1146 Aug 22 j 09:45	0°♍		inferior conj	1149 Feb 08 j 05:13	26°♌18'51	8°36'53
max. Earth dist.	1146 Sep 06 j 14:58	18°♍57'11	1.72114 AU	minimum elong	1149 Feb 08 j 01:11	26°♌25'09	8°36'39
				morning rise	1149 Feb 11 j 06:47	24°♌25'09	
superior conj	1146 Sep 09 j 23:45	23°♍09'17	1°22'26	direct	1149 Feb 28 j 22:56	18°♌24'21	
minimum elong	1146 Sep 10 j 04:14	23°♍23'16	1°22'22	greatest brilliancy	1149 Mar 11 j 16:04	20°♌32'01	-4.6m
	1146 Sep 15 j 11:15	0°♎			1149 Mar 28 j 02:39	0°♍	
	1146 Oct 09 j 10:38	0°♏		desc. node	1149 Apr 13 j 03:45	13°♍27'49	
evening rise	1146 Oct 18 j 20:00	11°♏45'48		morning max el	1149 Apr 19 j 06:38	19°♍14'47	46°03'10
desc. node	1146 Oct 27 j 08:51	22°♏27'16			1149 Apr 30 j 01:01	0°♎	
	1146 Nov 02 j 09:25	0°♐			1149 May 27 j 21:17	0°♏	
	1146 Nov 26 j 08:37	0°☿			1149 Jun 23 j 04:51	0°♑	
	1146 Dec 20 j 09:31	0°♌			1149 Jul 18 j 16:45	0°☿	
	1147 Jan 13 j 14:38	0°♍		asc. node	1149 Aug 04 j 07:09	19°☿55'39	
	1147 Feb 07 j 04:35	0°♎			1149 Aug 12 j 14:25	0°♌	
asc. node	1147 Feb 17 j 11:59	12°♎22'09			1149 Sep 06 j 00:58	0°♍	
	1147 Mar 04 j 10:54	0°♏			1149 Sep 30 j 03:39	0°♎	
	1147 Mar 31 j 00:05	0°♑		greatest brilliancy	1149 Oct 04 j 00:46	4°♎51'19	-3.9m
evening max el	1147 Apr 22 j 21:07	23°♑37'32	45°26'51	morning set	1149 Oct 13 j 18:05	17°♎02'28	
	1147 Apr 29 j 16:27	0°☿			1149 Oct 24 j 01:45	0°♏	
greatest brilliancy	1147 May 27 j 09:47	20°☿00'11	-4.5m		1149 Nov 16 j 22:00	0°♐	
desc. node	1147 Jun 09 j 01:26	23°☿26'33					
retrograde	1147 Jun 10 j 12:44	23°☿29'03		superior conj	1149 Nov 22 j 22:14	7°♐33'51	0°02'16
evening set	1147 Jun 26 j 00:57	18°☿52'45		minimum elong	1149 Nov 22 j 22:50	7°♐35'45	0°02'13
inferior conj	1147 Jul 02 j 00:11	15°☿18'35	-5°-3'00	behind sun begin	1149 Nov 21 j 20:40	6°♐13'25	
minimum elong	1147 Jul 01 j 14:51	15°☿33'05	5°00'48	behind sun end	1149 Nov 24 j 01:00	8°♐58'05	
min. Earth dist.	1147 Jul 02 j 00:38	15°☿17'53	0.28953 AU	max. Earth dist.	1149 Nov 23 j 09:00	8°♐07'46	1.71058 AU
morning rise	1147 Jul 07 j 04:33	12°☿10'05		desc. node	1149 Nov 23 j 20:38	8°♐44'22	
direct	1147 Jul 23 j 15:17	7°☿01'10			1149 Dec 10 j 18:05	0°☿	
greatest brilliancy	1147 Aug 06 j 22:31	10°☿34'36	-4.5m	evening rise	1150 Jan 03 j 13:43	29°☿55'24	
	1147 Sep 02 j 19:36	0°♌			1150 Jan 03 j 15:10	0°♌	
morning max el	1147 Sep 11 j 02:19	7°♌49'47	46°12'05		1150 Jan 27 j 14:37	0°♍	
asc. node	1147 Sep 30 j 04:54	27°♌43'42			1150 Feb 20 j 18:24	0°♎	
	1147 Oct 02 j 06:38	0°♍		asc. node	1150 Mar 17 j 00:04	29°♎44'44	
	1147 Oct 28 j 11:07	0°♎			1150 Mar 17 j 05:05	0°♏	
	1147 Nov 22 j 09:37	0°♏			1150 Apr 11 j 01:49	0°♑	
	1147 Dec 16 j 19:01	0°♐			1150 May 06 j 13:15	0°☿	
	1148 Jan 09 j 23:16	0°☿			1150 Jun 02 j 01:16	0°♌	

	1150 Jun 30 j 19:04	0°♈				1152 Dec 01 j 09:29	0°♏	
evening max el	1150 Jul 03 j 02:39	2°♈13'51	45°36'10		desc. node	1152 Dec 21 j 08:22	25°♏04'17	
desc. node	1150 Jul 06 j 13:14	5°♈28'19				1152 Dec 25 j 06:30	0°♏	
greatest brilliancy	1150 Aug 09 j 18:57	29°♈47'09	-4.5m		morning set	1152 Dec 28 j 18:19	4°♏23'19	
	1150 Aug 10 j 08:57	0°♏				1153 Jan 18 j 04:06	0°♏	
retrograde	1150 Aug 20 j 21:11	1°♏58'12						
	1150 Aug 30 j 21:59	30°♈			superior conj	1153 Feb 08 j 06:11	26°♏23'49	-1°-23'-56
evening set	1150 Sep 07 j 18:12	26°♈02'20			minimum elong	1153 Feb 08 j 01:24	26°♏08'52	1°23'55
inferior conj	1150 Sep 10 j 22:16	24°♈06'46	-8°-32'-30			1153 Feb 11 j 03:26	0°♈	
minimum elong	1150 Sep 11 j 03:14	23°♈59'07	8°32'10		max. Earth dist.	1153 Feb 12 j 08:23	1°♈30'20	1.71840 AU
min. Earth dist.	1150 Sep 11 j 17:34	23°♈37'04	0.27880 AU			1153 Mar 07 j 05:36	0°♈	
morning rise	1150 Sep 14 j 12:03	21°♈56'22			evening rise	1153 Mar 19 j 23:56	15°♈48'47	
direct	1150 Oct 02 j 02:13	16°♈05'15				1153 Mar 31 j 11:42	0°♈	
greatest brilliancy	1150 Oct 16 j 05:54	19°♈43'27	-4.6m		asc. node	1153 Apr 13 j 11:59	15°♈59'49	
asc. node	1150 Oct 27 j 16:38	26°♈47'44				1153 Apr 24 j 22:28	0°♈	
	1150 Oct 31 j 20:43	0°♏				1153 May 19 j 14:29	0°♏	
morning max el	1150 Nov 21 j 18:13	19°♏19'02	46°51'45			1153 Jun 13 j 13:02	0°♏	
	1150 Dec 01 j 22:10	0°♏				1153 Jul 08 j 21:13	0°♈	
	1150 Dec 28 j 12:01	0°♏			desc. node	1153 Aug 03 j 01:03	29°♈01'58	
	1151 Jan 22 j 19:31	0°♏				1153 Aug 03 j 21:33	0°♏	
desc. node	1151 Feb 16 j 06:04	29°♏31'13				1153 Aug 31 j 05:37	0°♏	
	1151 Feb 16 j 15:32	0°♏			evening max el	1153 Sep 14 j 04:52	14°♏14'59	46°44'12
	1151 Mar 13 j 07:02	0°♈				1153 Oct 01 j 11:19	0°♏	
	1151 Apr 06 j 20:55	0°♈			greatest brilliancy	1153 Oct 23 j 07:11	13°♏56'32	-4.6m
	1151 May 01 j 10:16	0°♈			retrograde	1153 Nov 03 j 07:23	16°♏12'16	
	1151 May 25 j 22:58	0°♈			evening set	1153 Nov 17 j 16:23	12°♏07'52	
morning set	1151 May 26 j 03:02	0°♈12'27			inferior conj	1153 Nov 23 j 20:30	8°♏32'48	0°-5'-10
asc. node	1151 Jun 09 j 09:32	17°♈41'34			minimum elong	1153 Nov 23 j 20:42	8°♏32'30	0°05'08
	1151 Jun 19 j 10:07	0°♏			transit middle	1153 Nov 23 j 20:42	8°♏32'30	0°05'08
max. Earth dist.	1151 Jun 29 j 02:24	11°♏54'03	1.73456 AU		transit begin	1153 Nov 23 j 16:49	8°♏38'24	
					transit end	1153 Nov 24 j 00:34	8°♏26'36	
superior conj	1151 Jul 01 j 12:30	14°♏52'51	0°49'16		min. Earth dist.	1153 Nov 23 j 20:08	8°♏33'21	0.26388 AU
minimum elong	1151 Jul 01 j 04:18	14°♏27'37	0°48'57		asc. node	1153 Nov 24 j 04:27	8°♏20'43	
	1151 Jul 13 j 18:55	0°♏			morning rise	1153 Nov 30 j 00:47	4°♏56'58	
evening rise	1151 Aug 06 j 08:46	29°♏08'22			direct	1153 Dec 14 j 04:16	0°♏55'53	
	1151 Aug 07 j 01:28	0°♈			greatest brilliancy	1153 Dec 26 j 06:59	3°♏39'57	-4.7m
	1151 Aug 31 j 06:49	0°♏				1154 Jan 29 j 19:00	0°♏	
	1151 Sep 24 j 12:20	0°♏			morning max el	1154 Feb 02 j 13:32	3°♏43'54	46°47'07
desc. node	1151 Sep 28 j 23:00	5°♏29'47				1154 Feb 27 j 06:31	0°♏	
	1151 Oct 18 j 19:08	0°♏			desc. node	1154 Mar 15 j 18:05	18°♏35'46	
	1151 Nov 12 j 04:35	0°♏				1154 Mar 25 j 15:40	0°♈	
	1151 Dec 06 j 19:53	0°♏				1154 Apr 20 j 06:04	0°♈	
	1152 Jan 01 j 01:07	0°♈				1154 May 15 j 11:16	0°♈	
asc. node	1152 Jan 20 j 02:07	21°♈42'49				1154 Jun 09 j 10:20	0°♈	
	1152 Jan 27 j 16:17	0°♈				1154 Jul 04 j 03:35	0°♏	
evening max el	1152 Feb 08 j 19:52	12°♈38'00	46°27'18		asc. node	1154 Jul 06 j 21:22	3°♏20'46	
	1152 Feb 27 j 19:52	0°♈				1154 Jul 28 j 14:46	0°♏	
greatest brilliancy	1152 Mar 15 j 05:10	10°♈50'58	-4.6m		morning set	1154 Aug 01 j 18:59	5°♏09'00	
retrograde	1152 Mar 29 j 17:05	14°♈36'28				1154 Aug 21 j 20:21	0°♈	
evening set	1152 Apr 14 j 19:09	9°♈35'06			max. Earth dist.	1154 Sep 04 j 07:45	16°♈46'34	1.72167 AU
inferior conj	1152 Apr 20 j 01:53	6°♈20'32	4°36'47					
minimum elong	1152 Apr 20 j 10:32	6°♈06'50	4°34'38		superior conj	1154 Sep 07 j 15:27	20°♈55'10	1°23'09
min. Earth dist.	1152 Apr 20 j 03:58	6°♈17'14	0.28770 AU		minimum elong	1154 Sep 07 j 19:11	21°♈06'51	1°23'07
morning rise	1152 Apr 26 j 02:10	2°♈41'21				1154 Sep 14 j 21:57	0°♏	
	1152 May 01 j 17:11	30°♈				1154 Oct 08 j 21:28	0°♏	
desc. node	1152 May 10 j 15:28	28°♈06'49			evening rise	1154 Oct 16 j 08:18	9°♏19'56	
direct	1152 May 11 j 12:31	28°♈05'55			desc. node	1154 Oct 26 j 10:52	21°♏59'17	
	1152 May 21 j 19:21	0°♈				1154 Nov 01 j 20:26	0°♏	
greatest brilliancy	1152 May 24 j 04:29	0°♈55'28	-4.5m			1154 Nov 25 j 19:49	0°♏	
morning max el	1152 Jun 29 j 05:24	27°♈46'38	45°44'05			1154 Dec 19 j 20:55	0°♏	
	1152 Jul 01 j 12:54	0°♈				1155 Jan 13 j 02:22	0°♈	
	1152 Jul 30 j 07:21	0°♏				1155 Feb 06 j 16:53	0°♈	
	1152 Aug 25 j 16:34	0°♏			asc. node	1155 Feb 16 j 14:10	11°♈51'01	
asc. node	1152 Aug 31 j 19:07	7°♏10'19				1155 Mar 04 j 00:21	0°♈	
	1152 Sep 19 j 21:14	0°♈				1155 Mar 30 j 16:17	0°♈	
	1152 Oct 14 j 09:01	0°♏			evening max el	1155 Apr 20 j 13:47	21°♈29'40	45°27'54
	1152 Nov 07 j 11:23	0°♏				1155 Apr 29 j 18:10	0°♏	

greatest brilliancy	1155 May 24 j 23:54	17° 5 49'44	-4.5m		1157 Nov 16 j 08:57	0° 2	
retrograde	1155 Jun 08 j 05:27	21° 5 20'59					
desc. node	1155 Jun 08 j 03:25	21° 5 20'59		superior conj	1157 Nov 20 j 08:28	5° 2 00'30	0°06'13
evening set	1155 Jun 23 j 15:20	16° 5 47'07		minimum elong	1157 Nov 20 j 10:06	5° 2 05'40	0°06'08
inferior conj	1155 Jun 29 j 16:28	13° 5 10'01	-4°-46'-39	behind sun begin	1157 Nov 19 j 09:30	3° 2 48'16	
minimum elong	1155 Jun 29 j 07:25	13° 5 24'05	4°44'27	behind sun end	1157 Nov 21 j 10:42	6° 2 23'03	
min. Earth dist.	1155 Jun 29 j 16:20	13° 5 10'12	0.28962 AU	max. Earth dist.	1157 Nov 20 j 13:15	5° 2 15'36	1.71065 AU
morning rise	1155 Jul 04 j 23:23	9° 5 58'00		desc. node	1157 Nov 22 j 22:37	8° 2 16'05	
direct	1155 Jul 21 j 08:13	4° 5 52'34			1157 Dec 10 j 05:05	0° 3	
greatest brilliancy	1155 Aug 04 j 13:59	8° 5 24'54	-4.5m	evening rise	1157 Dec 31 j 23:35	27° 3 21'02	
	1155 Sep 02 j 20:36	0° 9			1158 Jan 03 j 02:15	0° 2	
morning max el	1155 Sep 08 j 18:42	5° 9 39'13	46°10'31		1158 Jan 27 j 01:47	0° 2	
asc. node	1155 Sep 29 j 06:59	27° 9 03'41			1158 Feb 20 j 05:41	0° 2	
	1155 Oct 01 j 22:57	0° 2		asc. node	1158 Mar 16 j 02:08	29° 2 15'48	
	1155 Oct 28 j 00:50	0° 2			1158 Mar 16 j 16:39	0° 2	
	1155 Nov 21 j 22:11	0° 2			1158 Apr 10 j 13:56	0° 2	
	1155 Dec 16 j 06:57	0° 2			1158 May 06 j 02:29	0° 2	
	1156 Jan 09 j 10:48	0° 3			1158 Jun 01 j 16:55	0° 2	
desc. node	1156 Jan 18 j 20:14	11° 3 41'07		evening max el	1158 Jun 30 j 16:15	29° 2 56'50	45°34'29
	1156 Feb 02 j 13:29	0° 2			1158 Jun 30 j 17:35	0° 2	
	1156 Feb 26 j 16:52	0° 2		desc. node	1158 Jul 05 j 15:18	4° 2 35'27	
morning set	1156 Mar 14 j 12:14	20° 2 50'11		greatest brilliancy	1158 Aug 07 j 07:30	27° 2 28'56	-4.5m
	1156 Mar 21 j 21:55	0° 2		retrograde	1158 Aug 18 j 10:08	29° 2 40'49	
	1156 Apr 15 j 05:06	0° 2		evening set	1158 Sep 05 j 09:23	23° 2 42'53	
				inferior conj	1158 Sep 08 j 12:31	21° 2 48'42	-8°-36'-44
superior conj	1156 Apr 21 j 12:13	7° 2 45'26	0°-44'-5	minimum elong	1158 Sep 08 j 16:39	21° 2 42'18	8°36'31
minimum elong	1156 Apr 21 j 20:35	8° 2 11'09	0°43'45	min. Earth dist.	1158 Sep 09 j 07:40	21° 2 19'11	0.27945 AU
max. Earth dist.	1156 Apr 23 j 07:20	9° 2 58'08	1.73315 AU	morning rise	1158 Sep 11 j 23:41	19° 2 41'57	
	1156 May 09 j 14:15	0° 2		direct	1158 Sep 29 j 16:37	13° 2 46'03	
asc. node	1156 May 10 j 23:46	1° 2 42'54		greatest brilliancy	1158 Oct 13 j 21:49	17° 2 24'57	-4.6m
evening rise	1156 May 28 j 10:01	23° 2 06'43		asc. node	1158 Oct 26 j 18:36	25° 2 32'57	
	1156 Jun 03 j 00:48	0° 2			1158 Nov 01 j 07:56	0° 2	
	1156 Jun 27 j 12:28	0° 2		morning max el	1158 Nov 19 j 07:27	16° 2 53'29	46°50'53
	1156 Jul 22 j 01:47	0° 2			1158 Dec 01 j 17:11	0° 2	
	1156 Aug 15 j 18:14	0° 2			1158 Dec 28 j 03:10	0° 2	
desc. node	1156 Aug 30 j 13:07	17° 2 51'21			1159 Jan 22 j 08:58	0° 3	
	1156 Sep 09 j 15:53	0° 2		desc. node	1159 Feb 15 j 08:15	28° 2 59'52	
	1156 Oct 04 j 22:02	0° 2			1159 Feb 16 j 04:02	0° 2	
	1156 Oct 30 j 20:54	0° 3			1159 Mar 12 j 18:54	0° 2	
evening max el	1156 Nov 25 j 22:51	28° 2 15'16	47°20'44		1159 Apr 06 j 08:19	0° 2	
	1156 Nov 27 j 16:09	0° 2			1159 Apr 30 j 21:22	0° 2	
asc. node	1156 Dec 21 j 16:23	21° 2 26'34		morning set	1159 May 23 j 21:07	28° 2 07'31	
greatest brilliancy	1157 Jan 02 j 18:30	28° 2 48'39	-4.7m		1159 May 25 j 09:51	0° 2	
	1157 Jan 05 j 14:25	0° 2		asc. node	1159 Jun 08 j 11:37	17° 2 14'48	
retrograde	1157 Jan 15 j 22:50	2° 2 02'44			1159 Jun 18 j 20:54	0° 2	
	1157 Jan 25 j 20:13	30° 2		max. Earth dist.	1159 Jun 26 j 22:22	9° 2 54'46	1.73479 AU
evening set	1157 Feb 02 j 07:18	26° 2 06'54					
min. Earth dist.	1157 Feb 04 j 22:47	24° 2 28'47	0.27568 AU	superior conj	1159 Jun 29 j 07:09	12° 2 49'26	0°46'43
inferior conj	1157 Feb 05 j 19:12	23° 2 56'48	8°32'34	minimum elong	1159 Jun 28 j 23:11	12° 2 24'55	0°46'23
minimum elong	1157 Feb 05 j 14:23	24° 2 04'21	8°32'13		1159 Jul 13 j 05:42	0° 2	
morning rise	1157 Feb 08 j 21:46	22° 2 01'36		evening rise	1159 Aug 04 j 02:50	27° 2 02'08	
direct	1157 Feb 26 j 12:48	16° 2 03'37			1159 Aug 06 j 12:21	0° 2	
greatest brilliancy	1157 Mar 09 j 03:25	18° 2 09'09	-4.6m		1159 Aug 30 j 17:57	0° 2	
	1157 Mar 28 j 17:43	0° 2			1159 Sep 23 j 23:48	0° 2	
desc. node	1157 Apr 12 j 05:41	12° 2 33'18		desc. node	1159 Sep 28 j 01:01	5° 2 00'21	
morning max el	1157 Apr 16 j 20:56	16° 2 58'02	46°04'35		1159 Oct 18 j 07:04	0° 2	
	1157 Apr 29 j 20:02	0° 2			1159 Nov 11 j 17:05	0° 3	
	1157 May 27 j 11:53	0° 2			1159 Dec 06 j 09:13	0° 2	
	1157 Jun 22 j 17:35	0° 2			1159 Dec 31 j 15:59	0° 2	
	1157 Jul 18 j 04:31	0° 2		asc. node	1160 Jan 19 j 04:18	21° 2 01'29	
asc. node	1157 Aug 03 j 09:17	19° 2 27'32			1160 Jan 27 j 10:54	0° 2	
	1157 Aug 12 j 01:42	0° 2		evening max el	1160 Feb 06 j 09:41	10° 2 17'46	46°29'52
	1157 Sep 05 j 12:02	0° 2			1160 Feb 28 j 07:45	0° 2	
	1157 Sep 29 j 14:36	0° 2		greatest brilliancy	1160 Mar 12 j 21:32	8° 2 38'52	-4.6m
greatest brilliancy	1157 Oct 06 j 10:38	8° 2 33'22	-3.9m	retrograde	1160 Mar 27 j 09:10	12° 2 25'05	
morning set	1157 Oct 11 j 07:38	14° 2 40'06		evening set	1160 Apr 12 j 13:52	7° 2 19'44	
	1157 Oct 23 j 12:42	0° 2		inferior conj	1160 Apr 17 j 18:04	4° 2 09'04	4°53'43

minimum elong	1160 Apr 18 j 03:02	3°♄54'54	4°51'32	minimum elong	1162 Sep 05 j 10:28	18°♍50'19	1°23'43
min. Earth dist.	1160 Apr 17 j 20:18	4°♄05'33	0.28752 AU		1162 Sep 14 j 09:00	0°♌	
morning rise	1160 Apr 23 j 16:24	0°♄32'34			1162 Oct 08 j 08:39	0°♍	
	1160 Apr 24 j 16:06	30°♌		evening rise	1162 Oct 13 j 20:59	6°♍54'16	
direct	1160 May 09 j 03:40	25°♌54'30		desc. node	1162 Oct 25 j 12:53	21°♍30'19	
desc. node	1160 May 09 j 17:30	25°♌54'53			1162 Nov 01 j 07:45	0°♎	
greatest brilliancy	1160 May 21 j 19:43	28°♌43'50	-4.5m		1162 Nov 25 j 07:19	0°♎	
	1160 May 24 j 14:21	0°♌			1162 Dec 19 j 08:41	0°♎	
morning max el	1160 Jun 26 j 21:07	25°♌35'45	45°44'07		1163 Jan 12 j 14:31	0°♏	
	1160 Jul 01 j 10:17	0°♍			1163 Feb 06 j 05:42	0°♏	
	1160 Jul 29 j 22:46	0°♍		asc. node	1163 Feb 15 j 16:10	11°♏17'44	
	1160 Aug 25 j 05:48	0°♎			1163 Mar 03 j 14:26	0°♏	
asc. node	1160 Aug 30 j 21:12	6°♎38'15			1163 Mar 30 j 09:23	0°♍	
	1160 Sep 19 j 09:28	0°♎		evening max el	1163 Apr 18 j 06:33	19°♍20'23	45°29'05
	1160 Oct 13 j 20:45	0°♌			1163 Apr 29 j 22:10	0°♍	
	1160 Nov 06 j 22:53	0°♍		greatest brilliancy	1163 May 22 j 15:08	15°♍39'03	-4.5m
	1160 Nov 30 j 20:53	0°♎		retrograde	1163 Jun 05 j 21:43	19°♍11'02	
desc. node	1160 Dec 20 j 10:30	24°♎35'27		desc. node	1163 Jun 07 j 05:31	19°♍08'59	
	1160 Dec 24 j 17:48	0°♎		evening set	1163 Jun 21 j 05:48	14°♍39'40	
morning set	1160 Dec 26 j 03:48	1°♎46'46		inferior conj	1163 Jun 27 j 08:36	10°♍59'45	-4°-29'-53
	1161 Jan 17 j 15:19	0°♎		minimum elong	1163 Jun 26 j 23:55	11°♍13'18	4°27'42
				min. Earth dist.	1163 Jun 27 j 08:03	11°♍00'36	0.28968 AU
superior conj	1161 Feb 05 j 17:32	23°♎54'28	-1°-23'-4	morning rise	1163 Jul 02 j 17:58	7°♍44'07	
minimum elong	1161 Feb 05 j 11:47	23°♎36'30	1°23'00	direct	1163 Jul 19 j 01:02	2°♍42'22	
max. Earth dist.	1161 Feb 09 j 15:27	28°♎47'49	1.71786 AU	greatest brilliancy	1163 Aug 02 j 04:22	6°♍12'14	-4.5m
	1161 Feb 10 j 14:34	0°♏			1163 Sep 02 j 21:00	0°♎	
	1161 Mar 06 j 16:42	0°♏		morning max el	1163 Sep 06 j 10:16	3°♎25'25	46°09'03
evening rise	1161 Mar 17 j 13:37	13°♏28'21		asc. node	1163 Sep 28 j 08:55	26°♎22'24	
	1161 Mar 30 j 22:51	0°♏			1163 Oct 01 j 15:26	0°♎	
asc. node	1161 Apr 12 j 13:57	15°♏31'34			1163 Oct 27 j 14:48	0°♌	
	1161 Apr 24 j 09:45	0°♍			1163 Nov 21 j 11:00	0°♍	
	1161 May 19 j 02:06	0°♍			1163 Dec 15 j 19:07	0°♎	
	1161 Jun 13 j 01:14	0°♎			1164 Jan 08 j 22:33	0°♎	
	1161 Jul 08 j 10:28	0°♎		desc. node	1164 Jan 17 j 22:24	11°♎11'36	
desc. node	1161 Aug 02 j 03:13	28°♎25'25			1164 Feb 02 j 00:59	0°♎	
	1161 Aug 03 j 12:45	0°♌			1164 Feb 26 j 04:09	0°♏	
	1161 Aug 31 j 01:14	0°♍		morning set	1164 Mar 12 j 02:23	18°♏30'45	
evening max el	1161 Sep 11 j 18:14	11°♍51'49	46°41'51		1164 Mar 21 j 09:03	0°♏	
	1161 Oct 02 j 00:54	0°♎			1164 Apr 14 j 16:07	0°♏	
greatest brilliancy	1161 Oct 20 j 19:24	11°♎27'10	-4.6m				
retrograde	1161 Oct 31 j 19:48	13°♎42'50		superior conj	1164 Apr 19 j 04:34	5°♏34'05	0°-46'-56
evening set	1161 Nov 15 j 05:26	9°♎36'53		minimum elong	1164 Apr 19 j 13:17	6°♏00'56	0°46'34
inferior conj	1161 Nov 21 j 08:33	6°♎03'20	0°-29'-54	max. Earth dist.	1164 Apr 21 j 05:03	8°♏03'23	1.73280 AU
minimum elong	1161 Nov 21 j 09:42	6°♎01'35	0°29'32		1164 May 09 j 01:13	0°♍	
min. Earth dist.	1161 Nov 21 j 09:32	6°♎01'50	0.26402 AU	asc. node	1164 May 10 j 01:50	1°♍15'37	
asc. node	1161 Nov 23 j 06:32	4°♎53'52		evening rise	1164 May 26 j 04:20	21°♍01'52	
morning rise	1161 Nov 27 j 13:46	2°♎26'44			1164 Jun 02 j 11:50	0°♍	
	1161 Dec 03 j 00:31	30°♌			1164 Jun 26 j 23:43	0°♎	
direct	1161 Dec 11 j 17:05	28°♍25'59			1164 Jul 21 j 13:25	0°♎	
	1161 Dec 20 j 17:35	0°♎			1164 Aug 15 j 06:27	0°♌	
greatest brilliancy	1161 Dec 23 j 21:45	1°♎12'58	-4.7m	desc. node	1164 Aug 29 j 15:05	17°♌19'13	
	1162 Jan 29 j 19:33	0°♎			1164 Sep 09 j 04:56	0°♍	
morning max el	1162 Jan 31 j 04:04	1°♎21'14	46°48'10		1164 Oct 04 j 12:26	0°♎	
	1162 Feb 26 j 23:34	0°♎			1164 Oct 30 j 13:50	0°♎	
desc. node	1162 Mar 14 j 20:04	17°♎57'59		evening max el	1164 Nov 23 j 13:59	25°♎53'48	47°21'05
	1162 Mar 25 j 05:58	0°♏			1164 Nov 27 j 15:54	0°♎	
	1162 Apr 19 j 18:57	0°♏		asc. node	1164 Dec 20 j 18:31	20°♎07'39	
	1162 May 14 j 23:19	0°♏		greatest brilliancy	1164 Dec 31 j 11:30	26°♎28'44	-4.7m
	1162 Jun 08 j 21:51	0°♍		retrograde	1165 Jan 13 j 13:21	29°♎39'44	
	1162 Jul 03 j 14:47	0°♍		evening set	1165 Jan 30 j 18:43	23°♎49'22	
asc. node	1162 Jul 05 j 23:30	2°♍53'06		min. Earth dist.	1165 Feb 02 j 12:29	22°♎07'46	0.27505 AU
	1162 Jul 28 j 01:48	0°♎		inferior conj	1165 Feb 03 j 09:24	21°♎34'57	8°27'21
morning set	1162 Jul 30 j 12:15	3°♎00'08		minimum elong	1165 Feb 03 j 03:51	21°♎43'40	8°26'52
	1162 Aug 21 j 07:22	0°♎		morning rise	1165 Feb 06 j 13:17	19°♎37'39	
max. Earth dist.	1162 Sep 01 j 22:48	14°♎29'28	1.72214 AU	direct	1165 Feb 24 j 02:29	13°♎43'02	
				greatest brilliancy	1165 Mar 06 j 15:54	15°♎47'12	-4.6m
superior conj	1162 Sep 05 j 07:28	18°♎40'56	1°23'44		1165 Mar 29 j 05:07	0°♏	

desc. node	1165 Apr 11 j 07:46	11° K 39'38		desc. node	1167 Sep 27 j 03:01	4° M 30'56	
morning max el	1165 Apr 14 j 10:27	14° K 38'35	46°05'46		1167 Oct 17 j 18:59	0° Z	
	1165 Apr 29 j 14:49	0° Y			1167 Nov 11 j 05:35	0° Z	
	1165 May 27 j 02:37	0° B			1167 Dec 05 j 22:36	0° \approx	
	1165 Jun 22 j 06:32	0° II			1167 Dec 31 j 06:58	0° K	
asc. node	1165 Jul 17 j 16:33	0° S		asc. node	1168 Jan 18 j 06:21	20° K 19'37	
	1165 Aug 02 j 11:20	18° S 58'26			1168 Jan 27 j 05:52	0° Y	
	1165 Aug 11 j 13:13	0° Q		evening max el	1168 Feb 04 j 00:17	7° Y 59'54	46°32'38
	1165 Sep 04 j 23:18	0° M			1168 Feb 28 j 23:14	0° B	
	1165 Sep 29 j 01:47	0° A		greatest brilliancy	1168 Mar 10 j 13:33	6° B 27'16	-4.6m
greatest brilliancy	1165 Oct 08 j 02:37	11° A 18'50	-3.9m	retrograde	1168 Mar 25 j 01:58	10° B 15'00	
morning set	1165 Oct 08 j 21:08	12° A 16'56		evening set	1168 Apr 10 j 08:50	5° B 05'28	
	1165 Oct 22 j 23:51	0° M		inferior conj	1168 Apr 15 j 10:28	1° B 58'47	5°10'06
	1165 Nov 15 j 20:08	0° Z		minimum elong	1168 Apr 15 j 19:41	1° B 44'13	5°07'54
				min. Earth dist.	1168 Apr 15 j 12:27	1° B 55'38	0.28732 AU
superior conj	1165 Nov 17 j 18:52	2° Z 27'05	0°10'08		1168 Apr 18 j 14:32	30° R Y	
minimum elong	1165 Nov 17 j 21:32	2° Z 35'27	0°10'01	morning rise	1168 Apr 21 j 06:44	28° Y 25'24	
behind sun begin	1165 Nov 17 j 00:34	1° Z 29'28		direct	1168 May 06 j 19:21	23° Y 44'23	
behind sun end	1165 Nov 18 j 18:30	3° Z 41'26		desc. node	1168 May 08 j 19:36	23° Y 49'03	
max. Earth dist.	1165 Nov 17 j 15:10	2° Z 15'24	1.71073 AU	greatest brilliancy	1168 May 19 j 10:55	26° Y 33'30	-4.5m
desc. node	1165 Nov 22 j 00:47	7° Z 47'42			1168 May 26 j 06:29	0° B	
	1165 Dec 09 j 16:17	0° Z		morning max el	1168 Jun 24 j 13:45	23° B 27'58	45°44'01
evening rise	1165 Dec 29 j 09:39	24° Z 46'55			1168 Jul 01 j 06:36	0° II	
	1166 Jan 02 j 13:28	0° \approx			1168 Jul 29 j 13:44	0° S	
	1166 Jan 26 j 13:01	0° K			1168 Aug 24 j 18:48	0° Q	
	1166 Feb 19 j 17:02	0° Y		asc. node	1168 Aug 29 j 23:09	6° Q 06'20	
asc. node	1166 Mar 15 j 04:05	28° Y 46'21			1168 Sep 18 j 21:31	0° M	
	1166 Mar 16 j 04:18	0° B			1168 Oct 13 j 08:20	0° A	
	1166 Apr 10 j 02:13	0° II			1168 Nov 06 j 10:13	0° M	
	1166 May 05 j 15:59	0° S			1168 Nov 30 j 08:05	0° Z	
	1166 Jun 01 j 09:02	0° Q		desc. node	1168 Dec 19 j 12:33	24° Z 06'58	
evening max el	1166 Jun 28 j 05:27	27° Q 38'22	45°32'56	morning set	1168 Dec 23 j 13:15	29° Z 10'48	
	1166 Jun 30 j 17:20	0° M			1168 Dec 24 j 04:55	0° Z	
desc. node	1166 Jul 04 j 17:27	3° M 41'06			1169 Jan 17 j 02:20	0° \approx	
greatest brilliancy	1166 Aug 04 j 19:12	25° M 09'27	-4.5m	superior conj	1169 Feb 03 j 04:43	21° \approx 25'05	-1°-22'00
retrograde	1166 Aug 15 j 23:25	27° M 23'27		minimum elong	1169 Feb 02 j 22:02	21° \approx 04'12	1°21'55
evening set	1166 Sep 03 j 00:13	21° M 23'38		max. Earth dist.	1169 Feb 06 j 23:34	26° \approx 09'03	1.71735 AU
inferior conj	1166 Sep 06 j 02:47	19° M 30'25	-8°-40'-5		1169 Feb 10 j 01:30	0° K	
minimum elong	1166 Sep 06 j 06:06	19° M 25'18	8°39'56		1169 Mar 06 j 03:36	0° Y	
min. Earth dist.	1166 Sep 06 j 21:42	19° M 01'17	0.28011 AU	evening rise	1169 Mar 15 j 03:21	11° Y 08'44	
morning rise	1166 Sep 09 j 11:42	17° M 27'01			1169 Mar 30 j 09:45	0° B	
direct	1166 Sep 27 j 07:04	11° M 26'33		asc. node	1169 Apr 11 j 16:06	15° B 04'41	
greatest brilliancy	1166 Oct 11 j 14:47	15° M 07'46	-4.6m		1169 Apr 23 j 20:46	0° II	
asc. node	1166 Oct 25 j 20:46	24° M 20'23			1169 May 18 j 13:24	0° S	
	1166 Nov 01 j 16:22	0° A			1169 Jun 12 j 13:09	0° Q	
morning max el	1166 Nov 16 j 21:12	14° A 29'06	46°50'02		1169 Jul 07 j 23:29	0° M	
	1166 Dec 01 j 11:49	0° M		desc. node	1169 Aug 01 j 05:08	27° M 48'36	
	1166 Dec 27 j 18:13	0° Z			1169 Aug 03 j 03:53	0° A	
desc. node	1167 Jan 21 j 22:22	0° Z			1169 Aug 30 j 21:14	0° M	
	1167 Feb 14 j 10:12	28° Z 27'56		evening max el	1169 Sep 09 j 08:27	9° M 31'30	46°39'20
	1167 Feb 15 j 16:27	0° \approx			1169 Oct 02 j 18:41	0° Z	
	1167 Mar 12 j 06:39	0° K		greatest brilliancy	1169 Oct 18 j 07:44	8° Z 58'45	-4.6m
	1167 Apr 05 j 19:37	0° Y		retrograde	1169 Oct 29 j 08:22	11° Z 13'53	
	1167 Apr 30 j 08:21	0° B		evening set	1169 Nov 12 j 18:44	7° Z 06'30	
morning set	1167 May 21 j 15:19	26° B 03'08		inferior conj	1169 Nov 18 j 20:34	3° Z 34'28	0°-54'-36
	1167 May 24 j 20:40	0° II		minimum elong	1169 Nov 18 j 22:40	3° Z 31'18	0°53'56
asc. node	1167 Jun 07 j 13:45	16° II 48'22		min. Earth dist.	1169 Nov 18 j 22:44	3° Z 31'11	0.26417 AU
	1167 Jun 18 j 07:39	0° S		asc. node	1169 Nov 22 j 08:38	1° Z 28'52	
max. Earth dist.	1167 Jun 24 j 19:18	7° S 58'28	1.73507 AU	morning rise	1169 Nov 25 j 02:27	29° M 57'19	
					1169 Nov 25 j 00:26	30° R M	
superior conj	1167 Jun 27 j 01:48	10° S 46'07	0°44'05	direct	1169 Dec 09 j 06:07	25° M 57'00	
minimum elong	1167 Jun 26 j 18:06	10° S 22'26	0°43'45	greatest brilliancy	1169 Dec 21 j 11:39	28° M 45'37	-4.7m
	1167 Jul 12 j 16:28	0° Q			1169 Dec 24 j 02:55	0° Z	
evening rise	1167 Aug 01 j 20:55	24° Q 56'01		morning max el	1170 Jan 28 j 18:16	28° Z 58'28	46°49'07
	1167 Aug 05 j 23:15	0° M			1170 Jan 29 j 18:40	0° Z	
	1167 Aug 30 j 05:04	0° A			1170 Feb 26 j 15:59	0° \approx	
	1167 Sep 23 j 11:17	0° M					

desc. node	1170 Mar 13 j 22:06	17° \approx 21'35		evening max el	1172 Nov 21 j 04:01	23° \approx 29'59	47°21'01
	1170 Mar 24 j 19:48	0° \approx			1172 Nov 27 j 16:35	0° \approx	
	1170 Apr 19 j 07:25	0° \approx		asc. node	1172 Dec 19 j 20:32	18° \approx 45'58	
	1170 May 14 j 10:58	0° \approx		greatest brilliancy	1172 Dec 29 j 04:30	24° \approx 08'22	-4.7m
	1170 Jun 08 j 08:58	0° \approx		retrograde	1173 Jan 11 j 03:02	27° \approx 16'04	
	1170 Jul 03 j 01:35	0° \approx		evening set	1173 Jan 28 j 05:26	21° \approx 31'37	
asc. node	1170 Jul 05 j 01:32	2° \approx 26'24		min. Earth dist.	1173 Jan 31 j 02:13	19° \approx 45'35	0.27443 AU
	1170 Jul 27 j 12:27	0° \approx		inferior conj	1173 Jan 31 j 23:17	19° \approx 12'33	8°20'59
morning set	1170 Jul 28 j 05:58	0° \approx 53'57		minimum elong	1173 Jan 31 j 17:00	19° \approx 22'25	8°20'22
	1170 Aug 20 j 18:01	0° \approx		morning rise	1173 Feb 04 j 04:52	17° \approx 12'38	
max. Earth dist.	1170 Aug 30 j 12:49	12° \approx 10'20	1.72270 AU	direct	1173 Feb 21 j 15:22	11° \approx 21'40	
				greatest brilliancy	1173 Mar 04 j 05:14	13° \approx 25'52	-4.6m
superior conj	1170 Sep 02 j 23:50	16° \approx 28'58	1°24'12		1173 Mar 29 j 13:23	0° \approx	
minimum elong	1170 Sep 03 j 02:05	16° \approx 35'58	1°24'11	desc. node	1173 Apr 10 j 09:57	10° \approx 47'42	
	1170 Sep 13 j 19:46	0° \approx		morning max el	1173 Apr 11 j 23:13	12° \approx 17'36	46°07'12
	1170 Oct 07 j 19:33	0° \approx			1173 Apr 29 j 08:52	0° \approx	
evening rise	1170 Oct 11 j 09:42	4° \approx 29'34			1173 May 26 j 16:52	0° \approx	
desc. node	1170 Oct 24 j 15:03	21° \approx 02'37			1173 Jun 21 j 19:05	0° \approx	
	1170 Oct 31 j 18:50	0° \approx			1173 Jul 17 j 04:12	0° \approx	
	1170 Nov 24 j 18:36	0° \approx		asc. node	1173 Aug 01 j 13:19	18° \approx 30'11	
	1170 Dec 18 j 20:12	0° \approx			1173 Aug 11 j 00:23	0° \approx	
	1171 Jan 12 j 02:25	0° \approx			1173 Sep 04 j 10:12	0° \approx	
	1171 Feb 05 j 18:16	0° \approx			1173 Sep 28 j 12:34	0° \approx	
asc. node	1171 Feb 14 j 18:10	10° \approx 45'13		morning set	1173 Oct 06 j 11:16	9° \approx 56'56	
	1171 Mar 03 j 04:19	0° \approx			1173 Oct 22 j 10:38	0° \approx	
	1171 Mar 30 j 02:24	0° \approx					
evening max el	1171 Apr 15 j 23:02	17° \approx 11'29	45°30'20	superior conj	1173 Nov 15 j 05:38	29° \approx 55'49	0°14'01
	1171 Apr 30 j 03:25	0° \approx		minimum elong	1173 Nov 15 j 09:16	0° \approx 07'15	0°13'50
greatest brilliancy	1171 May 20 j 07:35	13° \approx 31'29	-4.5m	behind sun begin	1173 Nov 15 j 19:11	29° \approx 22'57	
retrograde	1171 Jun 03 j 13:53	17° \approx 03'13		behind sun end	1173 Nov 15 j 23:21	0° \approx 51'33	
desc. node	1171 Jun 06 j 07:37	16° \approx 54'26		max. Earth dist.	1173 Nov 14 j 20:13	29° \approx 26'12	1.71094 AU
evening set	1171 Jun 18 j 20:45	12° \approx 34'14			1173 Nov 15 j 06:58	0° \approx	
inferior conj	1171 Jun 25 j 01:03	8° \approx 51'52	-4°-12'-48	desc. node	1173 Nov 21 j 02:50	7° \approx 20'02	
minimum elong	1171 Jun 24 j 16:45	9° \approx 04'49	4°10'42		1173 Dec 09 j 03:13	0° \approx	
min. Earth dist.	1171 Jun 25 j 00:22	8° \approx 52'55	0.28969 AU	evening rise	1173 Dec 26 j 19:36	22° \approx 13'03	
morning rise	1171 Jun 30 j 12:43	5° \approx 32'38			1174 Jan 02 j 00:28	0° \approx	
direct	1171 Jul 16 j 17:45	0° \approx 34'40			1174 Jan 26 j 00:06	0° \approx	
greatest brilliancy	1171 Jul 30 j 18:27	4° \approx 01'13	-4.5m		1174 Feb 19 j 04:17	0° \approx	
	1171 Sep 02 j 19:38	0° \approx		asc. node	1174 Mar 14 j 06:16	28° \approx 17'51	
morning max el	1171 Sep 04 j 01:00	1° \approx 11'19	46°07'30		1174 Mar 15 j 15:52	0° \approx	
asc. node	1171 Sep 27 j 11:06	25° \approx 04'41			1174 Apr 09 j 14:24	0° \approx	
	1171 Oct 01 j 07:09	0° \approx			1174 May 05 j 05:26	0° \approx	
	1171 Oct 27 j 04:17	0° \approx			1174 Jun 01 j 01:12	0° \approx	
	1171 Nov 20 j 23:26	0° \approx		evening max el	1174 Jun 25 j 19:05	25° \approx 21'53	45°31'38
	1171 Dec 15 j 06:59	0° \approx			1174 Jun 30 j 17:55	0° \approx	
	1172 Jan 08 j 10:03	0° \approx		desc. node	1174 Jul 03 j 19:25	2° \approx 45'56	
desc. node	1172 Jan 17 j 00:24	10° \approx 42'22		greatest brilliancy	1174 Aug 02 j 06:10	22° \approx 07'31	-4.5m
	1172 Feb 01 j 12:11	0° \approx		retrograde	1174 Aug 13 j 13:36	25° \approx 07'44	
	1172 Feb 25 j 15:08	0° \approx		evening set	1174 Aug 31 j 14:53	19° \approx 06'25	
morning set	1172 Mar 09 j 16:11	16° \approx 11'13		inferior conj	1174 Sep 03 j 17:14	17° \approx 13'40	-8°-42'-32
	1172 Mar 20 j 19:51	0° \approx		minimum elong	1174 Sep 03 j 19:43	17° \approx 09'50	8°42'28
	1172 Apr 14 j 02:47	0° \approx		min. Earth dist.	1174 Sep 04 j 11:32	16° \approx 45'31	0.28071 AU
				morning rise	1174 Sep 07 j 00:18	15° \approx 13'12	
superior conj	1172 Apr 16 j 20:53	3° \approx 23'37	0°-49'-41	direct	1174 Sep 24 j 21:56	9° \approx 08'46	
minimum elong	1172 Apr 17 j 05:55	3° \approx 51'28	0°49'21	greatest brilliancy	1174 Oct 09 j 07:55	12° \approx 52'36	-4.6m
max. Earth dist.	1172 Apr 19 j 02:00	6° \approx 07'15	1.73240 AU	asc. node	1174 Oct 24 j 22:49	23° \approx 10'57	
	1172 May 08 j 11:51	0° \approx			1174 Nov 01 j 21:50	0° \approx	
asc. node	1172 May 09 j 03:59	0° \approx 49'33		morning max el	1174 Nov 14 j 11:55	12° \approx 08'37	46°49'10
evening rise	1172 May 23 j 22:45	18° \approx 58'22			1174 Dec 01 j 05:35	0° \approx	
	1172 Jun 01 j 22:32	0° \approx			1174 Dec 27 j 08:45	0° \approx	
	1172 Jun 26 j 10:36	0° \approx			1175 Jan 21 j 11:25	0° \approx	
	1172 Jul 21 j 00:39	0° \approx		desc. node	1175 Feb 13 j 12:15	27° \approx 56'53	
	1172 Aug 14 j 18:13	0° \approx			1175 Feb 15 j 04:40	0° \approx	
desc. node	1172 Aug 28 j 17:11	16° \approx 48'44			1175 Mar 11 j 18:17	0° \approx	
	1172 Sep 08 j 17:36	0° \approx			1175 Apr 05 j 06:51	0° \approx	
	1172 Oct 04 j 02:33	0° \approx			1175 Apr 29 j 19:17	0° \approx	
	1172 Oct 30 j 06:45	0° \approx		morning set	1175 May 19 j 09:06	23° \approx 57'36	

	1175 May 24 j 07:25	0°♊		inferior conj	1177 Nov 16 j 08:38	1°♊05'31	-1°-19'-8
asc. node	1175 Jun 06 j 15:43	16°♊21'43		minimum elong	1177 Nov 16 j 11:39	1°♊00'55	1°18'10
	1175 Jun 17 j 18:18	0°♊		min. Earth dist.	1177 Nov 16 j 12:07	1°♊00'13	0.26431 AU
max. Earth dist.	1175 Jun 22 j 17:45	6°♊07'07	1.73529 AU		1177 Nov 18 j 03:58	30°♋♌	
				asc. node	1177 Nov 21 j 10:39	28°♌05'56	
superior conj	1175 Jun 24 j 20:10	8°♊42'10	0°41'22	morning rise	1177 Nov 22 j 14:52	27°♌27'50	
minimum elong	1175 Jun 24 j 12:47	8°♊19'27	0°41'04	direct	1177 Dec 06 j 19:04	23°♌27'59	
	1175 Jul 12 j 03:09	0°♋		greatest brilliancy	1177 Dec 19 j 01:16	26°♌17'33	-4.7m
evening rise	1175 Jul 30 j 15:03	22°♋50'23			1177 Dec 26 j 01:36	0°♌	
	1175 Aug 05 j 10:04	0°♋		morning max el	1178 Jan 26 j 07:30	26°♌33'05	46°50'08
	1175 Aug 29 j 16:07	0°♌			1178 Jan 29 j 16:54	0°♌	
	1175 Sep 22 j 22:39	0°♌			1178 Feb 26 j 08:07	0°♌	
desc. node	1175 Sep 26 j 05:12	4°♌02'26		desc. node	1178 Mar 13 j 00:18	16°♌45'51	
	1175 Oct 17 j 06:46	0°♌			1178 Mar 24 j 09:33	0°♌	
	1175 Nov 10 j 17:56	0°♌			1178 Apr 18 j 19:56	0°♌	
	1175 Dec 05 j 11:50	0°♌			1178 May 13 j 22:45	0°♌	
	1175 Dec 30 j 21:58	0°♌			1178 Jun 07 j 20:17	0°♌	
asc. node	1176 Jan 17 j 08:19	19°♌37'19			1178 Jul 02 j 12:37	0°♌	
	1176 Jan 27 j 01:19	0°♌		asc. node	1178 Jul 04 j 03:35	1°♌58'59	
evening max el	1176 Feb 01 j 15:36	5°♌43'47	46°35'04	morning set	1178 Jul 25 j 23:19	28°♌45'57	
	1176 Feb 29 j 20:32	0°♌			1178 Jul 26 j 23:21	0°♌	
greatest brilliancy	1176 Mar 08 j 05:38	4°♌14'56	-4.6m		1178 Aug 20 j 04:54	0°♌	
retrograde	1176 Mar 22 j 18:46	8°♌03'25		max. Earth dist.	1178 Aug 28 j 02:06	9°♌48'21	1.72323 AU
evening set	1176 Apr 08 j 03:33	2°♌49'39					
	1176 Apr 12 j 18:10	30°♌♍		superior conj	1178 Aug 31 j 16:01	14°♌15'51	1°24'30
inferior conj	1176 Apr 13 j 02:28	29°♌46'54	5°26'08	minimum elong	1178 Aug 31 j 17:29	14°♌20'27	1°24'30
minimum elong	1176 Apr 13 j 11:55	29°♌32'01	5°23'59		1178 Sep 13 j 06:44	0°♌	
min. Earth dist.	1176 Apr 13 j 03:56	29°♌44'36	0.28714 AU		1178 Oct 07 j 06:40	0°♌	
morning rise	1176 Apr 18 j 20:32	26°♌17'00		evening rise	1178 Oct 08 j 22:22	2°♌04'11	
direct	1176 May 04 j 11:12	21°♌32'48		desc. node	1178 Oct 23 j 17:02	20°♌33'44	
desc. node	1176 May 07 j 21:38	21°♌46'22			1178 Oct 31 j 06:07	0°♌	
greatest brilliancy	1176 May 17 j 01:20	24°♌21'10	-4.5m		1178 Nov 24 j 06:06	0°♌	
	1176 May 27 j 10:48	0°♌			1178 Dec 18 j 07:58	0°♌	
morning max el	1176 Jun 22 j 06:27	21°♌19'53	45°44'01		1179 Jan 11 j 14:34	0°♌	
	1176 Jul 01 j 02:27	0°♌			1179 Feb 05 j 07:03	0°♌	
	1176 Jul 29 j 04:36	0°♌		asc. node	1179 Feb 13 j 20:22	10°♌12'41	
	1176 Aug 24 j 07:44	0°♌			1179 Mar 02 j 18:29	0°♌	
asc. node	1176 Aug 29 j 01:20	5°♌35'09			1179 Mar 29 j 19:59	0°♌	
	1176 Sep 18 j 09:32	0°♌		evening max el	1179 Apr 13 j 14:28	14°♌59'18	45°31'29
	1176 Oct 12 j 19:53	0°♌			1179 Apr 30 j 11:20	0°♌	
	1176 Nov 05 j 21:32	0°♌		greatest brilliancy	1179 May 17 j 23:24	11°♌22'00	-4.5m
	1176 Nov 29 j 19:15	0°♌		retrograde	1179 Jun 01 j 05:34	14°♌54'14	
desc. node	1176 Dec 18 j 14:34	23°♌38'33		desc. node	1179 Jun 05 j 09:36	14°♌33'50	
morning set	1176 Dec 20 j 23:17	26°♌36'47		evening set	1179 Jun 16 j 11:41	10°♌27'10	
	1176 Dec 23 j 15:57	0°♌		inferior conj	1179 Jun 22 j 17:23	6°♌42'45	-3°-55'-19
	1177 Jan 16 j 13:17	0°♌		minimum elong	1179 Jun 22 j 09:32	6°♌55'02	3°53'17
				min. Earth dist.	1179 Jun 22 j 16:57	6°♌43'26	0.28974 AU
superior conj	1177 Jan 31 j 16:06	18°♌56'24	-1°-20'-47	morning rise	1179 Jun 28 j 07:16	3°♌19'58	
minimum elong	1177 Jan 31 j 08:35	18°♌32'50	1°20'41		1179 Jul 05 j 10:34	30°♌♍	
max. Earth dist.	1177 Feb 04 j 11:20	23°♌41'44	1.71689 AU	direct	1179 Jul 14 j 09:56	28°♌25'27	
	1177 Feb 09 j 12:24	0°♌			1179 Jul 23 j 17:43	0°♌	
	1177 Mar 05 j 14:30	0°♌		greatest brilliancy	1179 Jul 28 j 09:25	1°♌49'53	-4.5m
evening rise	1177 Mar 12 j 17:05	8°♌48'53		morning max el	1179 Sep 01 j 15:04	28°♌54'19	46°06'04
	1177 Mar 29 j 20:43	0°♌			1179 Sep 02 j 17:54	0°♌	
asc. node	1177 Apr 10 j 18:10	14°♌37'13		asc. node	1179 Sep 26 j 13:12	25°♌03'57	
	1177 Apr 23 j 07:54	0°♌			1179 Sep 30 j 23:02	0°♌	
	1177 May 18 j 00:53	0°♌			1179 Oct 26 j 17:58	0°♌	
	1177 Jun 12 j 01:17	0°♌			1179 Nov 20 j 12:06	0°♌	
	1177 Jul 07 j 12:48	0°♌			1179 Dec 14 j 19:04	0°♌	
desc. node	1177 Jul 31 j 07:15	27°♌11'34		desc. node	1180 Jan 07 j 21:47	0°♌	
	1177 Aug 02 j 19:26	0°♌			1180 Jan 16 j 02:27	10°♌12'32	
	1177 Aug 30 j 18:03	0°♌			1180 Jan 31 j 23:39	0°♌	
evening max el	1177 Sep 06 j 22:44	7°♌11'05	46°36'48		1180 Feb 25 j 02:22	0°♌	
	1177 Oct 03 j 18:50	0°♌		morning set	1180 Mar 07 j 06:01	13°♌50'47	
greatest brilliancy	1177 Oct 15 j 20:55	6°♌31'12	-4.6m		1180 Mar 20 j 06:53	0°♌	
retrograde	1177 Oct 26 j 20:38	8°♌44'36			1180 Apr 13 j 13:42	0°♌	
evening set	1177 Nov 10 j 08:19	4°♌35'49					

superior conj	1180 Apr 14 j 13:21	1°8'12.52	0°-52'-22	asc. node	1182 Oct 24 j 00:49	22°01'56	
minimum elong	1180 Apr 14 j 22:39	1°8'41.33	0°52'01		1182 Nov 02 j 02:04	0°00'	
max. Earth dist.	1180 Apr 16 j 22:07	4°8'07.46	1.73198 AU	morning max el	1182 Nov 12 j 03:28	9°48'59	46°48'08
	1180 May 07 j 22:44	0°00'			1182 Nov 30 j 23:28	0°00'	
asc. node	1180 May 08 j 05:57	0°00'22.12			1182 Dec 26 j 23:34	0°00'	
evening rise	1180 May 21 j 17:12	16°00'54.12			1183 Jan 21 j 00:46	0°00'	
	1180 Jun 01 j 09:31	0°00'		desc. node	1183 Feb 12 j 14:26	27°00'25.26	
	1180 Jun 25 j 21:49	0°00'			1183 Feb 14 j 17:08	0°00'	
	1180 Jul 20 j 12:17	0°00'			1183 Mar 11 j 06:10	0°00'	
	1180 Aug 14 j 06:28	0°00'			1183 Apr 04 j 18:18	0°00'	
desc. node	1180 Aug 27 j 19:17	16°00'16.54			1183 Apr 29 j 06:27	0°00'	
	1180 Sep 08 j 06:45	0°00'		morning set	1183 May 17 j 03:07	21°00'52.03	
	1180 Oct 03 j 17:14	0°00'			1183 May 23 j 18:24	0°00'	
	1180 Oct 30 j 00:26	0°00'		asc. node	1183 Jun 05 j 17:49	15°00'54.42	
evening max el	1180 Nov 18 j 17:03	21°00'02.37	47°21'03		1183 Jun 17 j 05:11	0°00'	
	1180 Nov 27 j 19:00	0°00'		max. Earth dist.	1183 Jun 20 j 17:16	4°00'18.24	1.73546 AU
asc. node	1180 Dec 18 j 22:35	17°00'20.35					
greatest brilliancy	1180 Dec 26 j 20:51	21°00'45.57	-4.7m	superior conj	1183 Jun 22 j 14:47	6°00'38.23	0°38'38
retrograde	1181 Jan 08 j 16:43	24°00'51.24		minimum elong	1183 Jun 22 j 07:46	6°00'16.46	0°38'19
evening set	1181 Jan 25 j 15:53	19°00'12.47			1183 Jul 11 j 14:02	0°00'	
min. Earth dist.	1181 Jan 28 j 15:58	17°00'22.04	0.27381 AU	evening rise	1183 Jul 28 j 09:31	20°00'45.15	
inferior conj	1181 Jan 29 j 13:07	16°00'48.56	8°13'45		1183 Aug 04 j 21:05	0°00'	
minimum elong	1181 Jan 29 j 06:08	16°00'59.54	8°12'59		1183 Aug 29 j 03:24	0°00'	
morning rise	1181 Feb 01 j 20:39	14°00'46.11			1183 Sep 22 j 10:18	0°00'	
direct	1181 Feb 19 j 03:59	8°00'58.51		desc. node	1183 Sep 25 j 07:11	3°00'32.27	
greatest brilliancy	1181 Mar 01 j 19:14	11°00'04.07	-4.6m		1183 Oct 16 j 18:55	0°00'	
	1181 Mar 29 j 19:42	0°00'			1183 Nov 10 j 06:42	0°00'	
desc. node	1181 Apr 09 j 11:54	9°00'55.21			1183 Dec 05 j 01:35	0°00'	
morning max el	1181 Apr 09 j 12:26	9°00'56.40	46°08'49		1183 Dec 30 j 13:34	0°00'	
	1181 Apr 29 j 02:48	0°00'		asc. node	1184 Jan 16 j 10:30	18°00'54.05	
	1181 May 26 j 07:14	0°00'			1184 Jan 26 j 21:43	0°00'	
	1181 Jun 21 j 07:51	0°00'		evening max el	1184 Jan 30 j 07:31	3°00'28.12	46°37'41
	1181 Jul 16 j 16:08	0°00'			1184 Mar 02 j 02:34	0°00'	
asc. node	1181 Jul 31 j 15:30	18°00'01.36		greatest brilliancy	1184 Mar 05 j 22:49	2°00'03.23	-4.6m
	1181 Aug 10 j 11:53	0°00'		retrograde	1184 Mar 20 j 11:41	5°00'51.01	
	1181 Sep 03 j 21:29	0°00'		evening set	1184 Apr 05 j 22:23	0°00'33.17	
	1181 Sep 27 j 23:46	0°00'			1184 Apr 06 j 20:47	30°00'00.00	
morning set	1181 Oct 04 j 01:10	7°00'34.58		inferior conj	1184 Apr 10 j 18:31	27°00'34.23	5°41'48
	1181 Oct 21 j 21:50	0°00'		minimum elong	1184 Apr 11 j 04:06	27°00'19.15	5°39'41
max. Earth dist.	1181 Nov 12 j 03:38	26°00'43.09	1.71111 AU	min. Earth dist.	1184 Apr 10 j 19:09	27°00'33.23	0.28690 AU
				morning rise	1184 Apr 16 j 10:09	24°00'08.08	
superior conj	1181 Nov 12 j 16:07	27°00'22.25	0°17'53	direct	1184 May 02 j 03:19	19°00'20.51	
minimum elong	1181 Nov 12 j 20:42	27°00'36.50	0°17'39	desc. node	1184 May 06 j 23:41	19°00'47.42	
	1181 Nov 14 j 18:12	0°00'		greatest brilliancy	1184 May 14 j 14:38	22°00'07.01	-4.5m
desc. node	1181 Nov 20 j 04:49	6°00'50.55			1184 May 28 j 07:39	0°00'	
	1181 Dec 08 j 14:30	0°00'		morning max el	1184 Jun 19 j 23:06	19°00'11.20	45°44'04
evening rise	1181 Dec 24 j 05:25	19°00'37.46			1184 Jun 30 j 21:51	0°00'	
	1182 Jan 01 j 11:48	0°00'			1184 Jul 28 j 19:22	0°00'	
	1182 Jan 25 j 11:31	0°00'			1184 Aug 23 j 20:39	0°00'	
	1182 Feb 18 j 15:51	0°00'		asc. node	1184 Aug 28 j 03:22	5°00'03.28	
asc. node	1182 Mar 13 j 08:18	27°00'47.54			1184 Sep 17 j 21:35	0°00'	
	1182 Mar 15 j 03:46	0°00'			1184 Oct 12 j 07:31	0°00'	
	1182 Apr 09 j 02:57	0°00'			1184 Nov 05 j 08:58	0°00'	
	1182 May 04 j 19:16	0°00'			1184 Nov 29 j 06:35	0°00'	
	1182 May 31 j 17:57	0°00'		desc. node	1184 Dec 17 j 16:41	23°00'50.47	
evening max el	1182 Jun 23 j 09:30	23°00'06.43	45°30'23	morning set	1184 Dec 18 j 08:57	24°00'00.54	
	1182 Jun 30 j 20:08	0°00'			1184 Dec 23 j 03:13	0°00'	
desc. node	1182 Jul 02 j 21:31	1°00'49.11			1185 Jan 16 j 00:29	0°00'	
greatest brilliancy	1182 Jul 30 j 16:20	20°00'30.07	-4.5m				
retrograde	1182 Aug 11 j 04:09	22°00'51.11		superior conj	1185 Jan 29 j 02:50	16°00'24.51	-1°-19'-23
evening set	1182 Aug 29 j 05:07	16°00'49.00		minimum elong	1185 Jan 28 j 18:30	15°00'58.44	1°19'14
inferior conj	1182 Sep 01 j 07:40	14°00'55.56	-8°-44'-1	max. Earth dist.	1185 Feb 01 j 23:10	21°00'13.44	1.71639 AU
minimum elong	1182 Sep 01 j 09:18	14°00'53.25	8°44'01		1185 Feb 08 j 23:32	0°00'	
min. Earth dist.	1182 Sep 02 j 00:58	14°00'29.21	0.28135 AU		1185 Mar 05 j 01:35	0°00'	
morning rise	1182 Sep 04 j 13:16	12°00'57.45		evening rise	1185 Mar 10 j 06:15	6°00'26.40	
direct	1182 Sep 22 j 13:19	6°00'50.02			1185 Mar 29 j 07:49	0°00'	
greatest brilliancy	1182 Oct 07 j 00:36	10°00'35.47	-4.6m	asc. node	1185 Apr 09 j 20:08	14°00'09.03	

	1185 Apr 22 j 19:10	0°♄			1187 Sep 30 j 14:24	0°♄	
	1185 May 17 j 12:30	0°♄			1187 Oct 26 j 07:17	0°♄	
	1185 Jun 11 j 13:33	0°♄			1187 Nov 20 j 00:25	0°♄	
	1185 Jul 07 j 02:15	0°♄			1187 Dec 14 j 06:50	0°♄	
desc. node	1185 Jul 30 j 09:23	26°♄34'22			1188 Jan 07 j 09:12	0°♄	
	1185 Aug 02 j 11:11	0°♄		desc. node	1188 Jan 15 j 04:35	9°♄43'54	
	1185 Aug 30 j 15:29	0°♄			1188 Jan 31 j 10:50	0°♄	
evening max el	1185 Sep 04 j 12:31	4°♄49'48	46°34'12		1188 Feb 24 j 13:22	0°♄	
	1185 Oct 05 j 03:59	0°♄		morning set	1188 Mar 04 j 19:28	11°♄29'42	
greatest brilliancy	1185 Oct 13 j 10:47	4°♄05'05	-4.6m		1188 Mar 19 j 17:44	0°♄	
retrograde	1185 Oct 24 j 08:23	6°♄15'57					
evening set	1185 Nov 07 j 22:12	2°♄05'34		superior conj	1188 Apr 12 j 05:25	29°♄01'21	0°-55'00
	1185 Nov 11 j 14:07	30°♄		minimum elong	1188 Apr 12 j 14:57	29°♄30'44	0°54'39
inferior conj	1185 Nov 13 j 20:50	28°♄37'15	-1°-43'-15		1188 Apr 13 j 00:26	0°♄	
minimum elong	1185 Nov 14 j 00:45	28°♄31'18	1°42'02	max. Earth dist.	1188 Apr 14 j 15:18	1°♄59'44	1.73156 AU
min. Earth dist.	1185 Nov 14 j 01:52	28°♄29'36	0.26455 AU	asc. node	1188 May 07 j 08:03	29°♄55'45	
morning rise	1185 Nov 20 j 03:08	24°♄59'07			1188 May 07 j 09:26	0°♄	
asc. node	1185 Nov 20 j 12:43	24°♄46'37		evening rise	1188 May 19 j 11:14	14°♄49'22	
direct	1185 Dec 04 j 07:42	20°♄59'25			1188 May 31 j 20:18	0°♄	
greatest brilliancy	1185 Dec 16 j 15:36	23°♄50'22	-4.7m		1188 Jun 25 j 08:50	0°♄	
	1185 Dec 27 j 09:17	0°♄			1188 Jul 19 j 23:40	0°♄	
morning max el	1186 Jan 23 j 20:03	24°♄05'20	46°50'55		1188 Aug 13 j 18:28	0°♄	
	1186 Jan 29 j 14:28	0°♄		desc. node	1188 Aug 26 j 21:14	15°♄45'21	
	1186 Feb 26 j 00:11	0°♄			1188 Sep 07 j 19:43	0°♄	
desc. node	1186 Mar 12 j 02:13	16°♄09'06			1188 Oct 03 j 07:47	0°♄	
	1186 Mar 23 j 23:20	0°♄			1188 Oct 29 j 18:08	0°♄	
	1186 Apr 18 j 08:28	0°♄		evening max el	1188 Nov 16 j 06:25	18°♄37'22	47°21'06
	1186 May 13 j 10:30	0°♄			1188 Nov 27 j 22:26	0°♄	
	1186 Jun 07 j 07:33	0°♄		asc. node	1188 Dec 18 j 00:42	15°♄53'48	
	1186 Jul 01 j 23:35	0°♄		greatest brilliancy	1188 Dec 24 j 12:12	19°♄23'32	-4.7m
asc. node	1186 Jul 03 j 05:42	1°♄31'59		retrograde	1189 Jan 06 j 06:53	22°♄28'14	
morning set	1186 Jul 23 j 16:50	26°♄38'41		evening set	1189 Jan 23 j 02:13	16°♄55'15	
	1186 Jul 26 j 10:11	0°♄		min. Earth dist.	1189 Jan 26 j 05:33	15°♄00'04	0.27323 AU
	1186 Aug 19 j 15:43	0°♄		inferior conj	1189 Jan 27 j 03:00	14°♄26'36	8°05'36
max. Earth dist.	1186 Aug 25 j 16:16	7°♄29'26	1.72376 AU	minimum elong	1189 Jan 26 j 19:21	14°♄38'31	8°04'38
				morning rise	1189 Jan 30 j 12:46	12°♄20'46	
superior conj	1186 Aug 29 j 08:39	12°♄04'31	1°24'41	direct	1189 Feb 16 j 16:46	6°♄37'13	
minimum elong	1186 Aug 29 j 09:23	12°♄06'49	1°24'42	greatest brilliancy	1189 Feb 27 j 09:10	8°♄43'38	-4.6m
	1186 Sep 12 j 17:37	0°♄			1189 Mar 29 j 23:32	0°♄	
evening rise	1186 Oct 06 j 11:41	29°♄41'18		morning max el	1189 Apr 07 j 02:34	7°♄38'53	46°10'16
	1186 Oct 06 j 17:39	0°♄		desc. node	1189 Apr 08 j 13:59	9°♄05'20	
desc. node	1186 Oct 22 j 19:04	20°♄05'22			1189 Apr 28 j 19:59	0°♄	
	1186 Oct 30 j 17:16	0°♄			1189 May 25 j 21:11	0°♄	
	1186 Nov 23 j 17:28	0°♄			1189 Jun 20 j 20:16	0°♄	
	1186 Dec 17 j 19:39	0°♄			1189 Jul 16 j 03:44	0°♄	
	1187 Jan 11 j 02:40	0°♄		asc. node	1189 Jul 30 j 17:31	17°♄33'33	
	1187 Feb 04 j 19:53	0°♄			1189 Aug 09 j 23:01	0°♄	
asc. node	1187 Feb 12 j 22:21	9°♄39'21			1189 Sep 03 j 08:23	0°♄	
	1187 Mar 02 j 08:47	0°♄			1189 Sep 27 j 10:35	0°♄	
	1187 Mar 29 j 13:58	0°♄		morning set	1189 Oct 01 j 15:16	5°♄14'59	
evening max el	1187 Apr 11 j 05:14	12°♄45'33	45°32'55		1189 Oct 21 j 08:39	0°♄	
	1187 Apr 30 j 22:02	0°♄		max. Earth dist.	1189 Nov 09 j 13:25	24°♄08'42	1.71130 AU
greatest brilliancy	1187 May 15 j 14:27	9°♄11'49	-4.5m				
retrograde	1187 May 29 j 21:28	12°♄45'58		superior conj	1189 Nov 10 j 02:53	24°♄51'03	0°21'40
desc. node	1187 Jun 04 j 11:41	12°♄09'04		minimum elong	1189 Nov 10 j 08:22	25°♄08'19	0°21'25
evening set	1187 Jun 14 j 02:50	8°♄20'15			1189 Nov 14 j 05:04	0°♄	
inferior conj	1187 Jun 20 j 09:49	4°♄34'16	-3°-37'-38	desc. node	1189 Nov 19 j 06:59	6°♄23'30	
minimum elong	1187 Jun 20 j 02:25	4°♄45'50	3°35'39		1189 Dec 08 j 01:25	0°♄	
min. Earth dist.	1187 Jun 20 j 09:42	4°♄34'26	0.28976 AU	evening rise	1189 Dec 21 j 15:33	17°♄04'35	
morning rise	1187 Jun 26 j 01:50	1°♄08'14			1189 Dec 31 j 22:45	0°♄	
	1187 Jun 28 j 04:22	30°♄			1190 Jan 24 j 22:31	0°♄	
direct	1187 Jul 12 j 01:45	26°♄16'47			1190 Feb 18 j 03:01	0°♄	
greatest brilliancy	1187 Jul 26 j 01:23	29°♄40'31	-4.5m	asc. node	1190 Mar 12 j 10:17	27°♄19'01	
	1187 Jul 26 j 18:08	0°♄			1190 Mar 14 j 15:17	0°♄	
morning max el	1187 Aug 30 j 05:38	26°♄39'21	46°04'46		1190 Apr 08 j 15:10	0°♄	
	1187 Sep 02 j 15:04	0°♄			1190 May 04 j 08:52	0°♄	
asc. node	1187 Sep 25 j 15:06	24°♄24'51			1190 May 31 j 10:40	0°♄	

evening max el	1190 Jun 21 j 00:55	20°Ω54'56	45°29'12	desc. node	1192 Dec 16 j 18:44	22°♄41'45	
	1190 Jun 30 j 23:30	0°♍			1192 Dec 22 j 14:10	0°♄	
desc. node	1190 Jul 01 j 23:38	0°♍52'07			1193 Jan 15 j 11:22	0°≈	
greatest brilliancy	1190 Jul 28 j 03:02	18°♍11'31	-4.5m				
retrograde	1190 Aug 08 j 18:41	20°♍35'42		superior conj	1193 Jan 26 j 13:32	13°≈53'58	-1°-17'-49
evening set	1190 Aug 26 j 19:05	14°♍33'33		minimum elong	1193 Jan 26 j 04:26	13°≈25'29	1°17'38
inferior conj	1190 Aug 29 j 22:09	12°♍39'31	-8°-44'-47	max. Earth dist.	1193 Jan 30 j 10:38	18°≈45'24	1.71590 AU
minimum elong	1190 Aug 29 j 22:56	12°♍38'19	8°44'47		1193 Feb 08 j 10:23	0°♋	
min. Earth dist.	1190 Aug 30 j 14:14	12°♍14'46	0.28193 AU		1193 Mar 04 j 12:25	0°♍	
morning rise	1190 Sep 02 j 02:37	10°♍43'01		evening rise	1193 Mar 07 j 19:16	4°♍04'39	
direct	1190 Sep 20 j 05:02	4°♍32'57			1193 Mar 28 j 18:41	0°♄	
greatest brilliancy	1190 Oct 04 j 15:58	8°♍18'45	-4.6m	asc. node	1193 Apr 08 j 22:17	13°♄42'10	
asc. node	1190 Oct 23 j 02:58	20°♍56'20			1193 Apr 22 j 06:10	0°♅	
	1190 Nov 02 j 04:07	0°♄			1193 May 16 j 23:52	0°♄	
morning max el	1190 Nov 09 j 18:55	7°♄30'40	46°46'57		1193 Jun 11 j 01:38	0°♄	
	1190 Nov 30 j 16:32	0°♍			1193 Jul 06 j 15:36	0°♍	
	1190 Dec 26 j 13:48	0°♄		desc. node	1193 Jul 29 j 11:18	25°♍56'37	
	1191 Jan 20 j 13:37	0°♄			1193 Aug 02 j 03:04	0°♄	
desc. node	1191 Feb 11 j 16:21	26°♄54'28			1193 Aug 30 j 13:41	0°♍	
	1191 Feb 14 j 05:08	0°≈		evening max el	1193 Sep 02 j 01:19	2°♍26'24	46°31'28
	1191 Mar 10 j 17:35	0°♋			1193 Oct 07 j 05:14	0°♄	
	1191 Apr 04 j 05:20	0°♍		greatest brilliancy	1193 Oct 11 j 01:18	1°♄39'38	-4.6m
	1191 Apr 28 j 17:13	0°♄		retrograde	1193 Oct 21 j 19:40	3°♄47'25	
morning set	1191 May 14 j 21:06	19°♄47'34			1193 Nov 04 j 17:03	30°♋♍	
	1191 May 23 j 05:00	0°♅		evening set	1193 Nov 05 j 12:07	29°♍34'54	
asc. node	1191 Jun 04 j 19:56	15°♅28'51		inferior conj	1193 Nov 11 j 08:57	26°♍09'09	-2°-7'-18
	1191 Jun 16 j 15:44	0°♄		minimum elong	1193 Nov 11 j 13:44	26°♍01'53	2°05'48
max. Earth dist.	1191 Jun 18 j 16:03	2°♄28'29	1.73563 AU	min. Earth dist.	1193 Nov 11 j 15:54	25°♍58'35	0.26479 AU
				morning rise	1193 Nov 17 j 15:02	22°♍30'50	
superior conj	1191 Jun 20 j 09:14	4°♄35'04	0°35'49	asc. node	1193 Nov 19 j 14:49	21°♍30'54	
minimum elong	1191 Jun 20 j 02:36	4°♄14'40	0°35'31	direct	1193 Dec 01 j 19:41	18°♍30'44	
	1191 Jul 11 j 00:37	0°♄		greatest brilliancy	1193 Dec 14 j 06:36	21°♍24'12	-4.7m
evening rise	1191 Jul 26 j 03:45	18°♄40'22			1193 Dec 28 j 08:01	0°♄	
	1191 Aug 04 j 07:49	0°♍		morning max el	1194 Jan 21 j 08:04	21°♄36'35	46°51'48
	1191 Aug 28 j 14:23	0°♄			1194 Jan 29 j 11:06	0°♄	
	1191 Sep 21 j 21:39	0°♍			1194 Feb 25 j 15:48	0°≈	
desc. node	1191 Sep 24 j 09:12	3°♍03'34		desc. node	1194 Mar 11 j 04:19	15°≈33'42	
	1191 Oct 16 j 06:43	0°♄			1194 Mar 23 j 12:49	0°♋	
	1191 Nov 09 j 19:10	0°♄			1194 Apr 17 j 20:47	0°♍	
	1191 Dec 04 j 15:03	0°≈			1194 May 12 j 22:05	0°♄	
	1191 Dec 30 j 05:00	0°♋			1194 Jun 06 j 18:39	0°♅	
asc. node	1192 Jan 15 j 12:31	18°♋10'54			1194 Jul 01 j 10:24	0°♄	
	1192 Jan 26 j 18:24	0°♍		asc. node	1194 Jul 02 j 07:43	1°♄05'08	
evening max el	1192 Jan 27 j 23:37	1°♍13'55	46°40'12	morning set	1194 Jul 21 j 10:30	24°♄32'15	
greatest brilliancy	1192 Mar 03 j 17:01	29°♍54'10	-4.6m		1194 Jul 25 j 20:53	0°♄	
	1192 Mar 03 j 21:52	0°♄			1194 Aug 19 j 02:27	0°♍	
retrograde	1192 Mar 18 j 04:20	3°♄39'30		max. Earth dist.	1194 Aug 23 j 08:43	5°♍17'52	1.72435 AU
	1192 Mar 31 j 16:01	30°♋♍					
evening set	1192 Apr 03 j 17:19	28°♍18'04		superior conj	1194 Aug 27 j 01:21	9°♍53'39	1°24'45
inferior conj	1192 Apr 08 j 10:34	25°♍23'01	5°56'59	minimum elong	1194 Aug 27 j 01:21	9°♍53'37	1°24'45
minimum elong	1192 Apr 08 j 20:15	25°♍07'43	5°54'54		1194 Sep 12 j 04:27	0°♄	
min. Earth dist.	1192 Apr 08 j 10:29	25°♍23'08	0.28663 AU	evening rise	1194 Oct 04 j 00:57	27°♄18'24	
morning rise	1192 Apr 13 j 23:36	22°♍00'25			1194 Oct 06 j 04:39	0°♍	
direct	1192 Apr 29 j 19:26	17°♍10'14		desc. node	1194 Oct 21 j 21:14	19°♍37'17	
desc. node	1192 May 06 j 01:46	17°♍54'35			1194 Oct 30 j 04:28	0°♄	
greatest brilliancy	1192 May 12 j 02:59	19°♍52'52	-4.5m		1194 Nov 23 j 04:53	0°♄	
	1192 May 28 j 22:32	0°♄			1194 Dec 17 j 07:20	0°≈	
morning max el	1192 Jun 17 j 14:56	17°♄01'52	45°44'01		1195 Jan 10 j 14:46	0°♋	
	1192 Jun 30 j 16:18	0°♅			1195 Feb 04 j 08:45	0°♍	
	1192 Jul 28 j 09:39	0°♄		asc. node	1195 Feb 12 j 00:21	9°♍06'03	
	1192 Aug 23 j 09:15	0°♄			1195 Mar 01 j 23:13	0°♄	
asc. node	1192 Aug 27 j 05:20	4°♄32'25			1195 Mar 29 j 08:23	0°♅	
	1192 Sep 17 j 09:22	0°♍		evening max el	1195 Apr 08 j 19:57	10°♅31'42	45°34'27
	1192 Oct 11 j 18:54	0°♄			1195 May 01 j 12:25	0°♄	
	1192 Nov 04 j 20:09	0°♍		greatest brilliancy	1195 May 13 j 04:36	7°♄00'32	-4.5m
	1192 Nov 28 j 17:38	0°♄		retrograde	1195 May 27 j 13:48	10°♄37'56	
morning set	1192 Dec 15 j 18:38	21°♄26'00		desc. node	1195 Jun 03 j 13:48	9°♄39'46	

evening set	1195 Jun 11 j 18:09	6°☿13'04			1197 Nov 13 j 16:12	0°♊	
inferior conj	1195 Jun 18 j 02:14	2°☿25'51	-3°-19'-30	desc. node	1197 Nov 18 j 09:00	5°♊54'51	
minimum elong	1195 Jun 17 j 19:22	2°☿36'36	3°17'39		1197 Dec 07 j 12:38	0°♋	
min. Earth dist.	1195 Jun 18 j 02:22	2°☿25'39	0.28978 AU	evening rise	1197 Dec 19 j 01:35	14°♋30'08	
	1195 Jun 22 j 00:54	30°♌II			1197 Dec 31 j 10:02	0°♌	
morning rise	1195 Jun 23 j 20:21	28°♌56'53			1198 Jan 24 j 09:54	0°♍	
direct	1195 Jul 09 j 17:30	24°♌08'06			1198 Feb 17 j 14:35	0°♎	
greatest brilliancy	1195 Jul 23 j 17:53	27°♌32'06	-4.5m	asc. node	1198 Mar 11 j 12:25	26°♎49'26	
	1195 Jul 28 j 12:50	0°☿			1198 Mar 14 j 03:13	0°♏	
morning max el	1195 Aug 27 j 21:02	24°☿26'39	46°03'29		1198 Apr 08 j 03:49	0°♐	
	1195 Sep 02 j 11:30	0°♑			1198 May 03 j 22:57	0°♑	
asc. node	1195 Sep 24 j 17:19	23°♑46'57			1198 May 31 j 04:07	0°♒	
	1195 Sep 30 j 05:36	0°♓		evening max el	1198 Jun 18 j 16:44	18°♒43'12	45°28'02
	1195 Oct 25 j 20:35	0°♈		desc. node	1198 Jul 01 j 01:36	29°♒52'31	
	1195 Nov 19 j 12:50	0°♉			1198 Jul 01 j 05:09	0°♓	
	1195 Dec 13 j 18:45	0°♊		greatest brilliancy	1198 Jul 25 j 14:52	15°♓53'34	-4.5m
	1196 Jan 06 j 20:47	0°♋		retrograde	1198 Aug 06 j 09:00	18°♓19'38	
desc. node	1196 Jan 14 j 06:34	9°♋14'17		evening set	1198 Aug 24 j 08:49	12°♓18'23	
	1196 Jan 30 j 22:10	0°♌		inferior conj	1198 Aug 27 j 12:46	10°♓22'45	-8°-44'-42
	1196 Feb 24 j 00:29	0°♍		minimum elong	1198 Aug 27 j 12:43	10°♓22'50	8°44'43
morning set	1196 Mar 02 j 08:30	9°♍06'52		min. Earth dist.	1198 Aug 28 j 03:47	9°♓59'36	0.28246 AU
	1196 Mar 19 j 04:40	0°♎		morning rise	1198 Aug 30 j 16:27	8°♓27'13	
				direct	1198 Sep 17 j 20:49	2°♓15'40	
superior conj	1196 Apr 09 j 21:18	26°♎48'54	0°-57'-33	greatest brilliancy	1198 Oct 02 j 06:18	5°♓59'47	-4.6m
minimum elong	1196 Apr 10 j 07:00	27°♎18'49	0°57'13	asc. node	1198 Oct 22 j 05:00	19°♓51'30	
	1196 Apr 12 j 11:17	0°♏			1198 Nov 02 j 05:09	0°♈	
max. Earth dist.	1196 Apr 12 j 07:58	29°♎49'49	1.73115 AU	morning max el	1198 Nov 07 j 09:47	5°♈10'11	46°45'49
asc. node	1196 May 06 j 10:08	29°♏28'53			1198 Nov 30 j 09:32	0°♉	
	1196 May 06 j 20:16	0°♐			1198 Dec 26 j 04:10	0°♊	
evening rise	1196 May 17 j 05:18	12°♐44'14			1199 Jan 20 j 02:43	0°♋	
	1196 May 31 j 07:15	0°☿		desc. node	1199 Feb 10 j 18:26	26°♋23'00	
	1196 Jun 24 j 19:59	0°♑			1199 Feb 13 j 17:27	0°♌	
	1196 Jul 19 j 11:13	0°♓			1199 Mar 10 j 05:24	0°♍	
	1196 Aug 13 j 06:38	0°♈			1199 Apr 03 j 16:45	0°♎	
desc. node	1196 Aug 25 j 23:21	15°♈13'48			1199 Apr 28 j 04:22	0°♏	
	1196 Sep 07 j 08:55	0°♉		morning set	1199 May 12 j 14:53	17°♏41'19	
	1196 Oct 02 j 22:42	0°♊			1199 May 22 j 15:58	0°♐	
	1196 Oct 29 j 12:32	0°♋		asc. node	1199 Jun 03 j 21:54	15°♐01'24	
evening max el	1196 Nov 13 j 20:36	16°♋13'21	47°20'52		1199 Jun 16 j 02:37	0°☿	
	1196 Nov 28 j 04:14	0°♌		max. Earth dist.	1199 Jun 16 j 14:08	0°☿35'22	1.73576 AU
asc. node	1196 Dec 17 j 02:42	14°♌22'14					
greatest brilliancy	1196 Dec 22 j 02:43	16°♌58'16	-4.7m	superior conj	1199 Jun 18 j 03:37	2°☿30'33	0°32'57
retrograde	1197 Jan 03 j 21:13	20°♌02'49		minimum elong	1199 Jun 17 j 21:25	2°☿11'29	0°32'40
evening set	1197 Jan 20 j 12:03	14°♌35'36			1199 Jul 10 j 11:33	0°♑	
min. Earth dist.	1197 Jan 23 j 18:35	12°♌36'03	0.27262 AU	evening rise	1199 Jul 23 j 22:08	16°♑34'52	
inferior conj	1197 Jan 24 j 16:30	12°♌01'56	7°56'18		1199 Aug 03 j 18:55	0°♓	
minimum elong	1197 Jan 24 j 08:17	12°♌14'43	7°55'11		1199 Aug 28 j 01:45	0°♈	
morning rise	1197 Jan 28 j 04:49	9°♌52'41			1199 Sep 21 j 09:23	0°♉	
direct	1197 Feb 14 j 05:39	4°♌13'22		desc. node	1199 Sep 23 j 11:22	2°♉33'58	
greatest brilliancy	1197 Feb 24 j 22:03	6°♌20'17	-4.6m		1199 Oct 15 j 18:54	0°♊	
	1197 Mar 30 j 02:13	0°♋			1199 Nov 09 j 07:59	0°♋	
morning max el	1197 Apr 04 j 17:18	5°♋21'33	46°11'50		1199 Dec 04 j 04:55	0°♌	
desc. node	1197 Apr 07 j 16:09	8°♋15'30			1199 Dec 29 j 20:59	0°♍	
	1197 Apr 28 j 13:06	0°♎		asc. node	1200 Jan 14 j 14:31	17°♍26'16	
	1197 May 25 j 11:13	0°♏		evening max el	1200 Jan 25 j 15:08	28°♍57'01	46°42'28
	1197 Jun 20 j 08:52	0°♐			1200 Jan 26 j 16:12	0°♎	
	1197 Jul 15 j 15:32	0°☿		greatest brilliancy	1200 Mar 01 j 11:35	27°♎43'59	-4.6m
asc. node	1197 Jul 29 j 19:30	17°☿04'44			1200 Mar 07 j 02:25	0°♏	
	1197 Aug 09 j 10:23	0°♑		retrograde	1200 Mar 15 j 20:26	1°♏26'30	
	1197 Sep 02 j 19:31	0°♓			1200 Mar 24 j 06:07	30°♏♎	
	1197 Sep 26 j 21:37	0°♈		evening set	1200 Apr 01 j 12:16	26°♎01'26	
morning set	1197 Sep 29 j 05:53	2°♈55'56		inferior conj	1200 Apr 06 j 02:39	23°♎10'19	6°11'38
	1197 Oct 20 j 19:42	0°♉		minimum elong	1200 Apr 06 j 12:22	22°♎54'56	6°09'37
max. Earth dist.	1197 Nov 06 j 23:58	21°♉35'54	1.71152 AU	min. Earth dist.	1200 Apr 06 j 02:12	23°♎11'02	0.28636 AU
				morning rise	1200 Apr 11 j 12:51	19°♎51'25	
superior conj	1197 Nov 07 j 14:01	22°♉20'07	0°25'24	direct	1200 Apr 27 j 11:13	14°♎58'14	
minimum elong	1197 Nov 07 j 20:20	22°♉39'58	0°25'06	desc. node	1200 May 05 j 03:49	16°♎04'12	

greatest brilliancy	1200 May 09 j 15:47	17° Υ 37'42	-4.5m		1202 Nov 22 j 16:30	0° \eth	
	1200 May 29 j 10:15	0° \eth			1202 Dec 16 j 19:15	0° \approx	
morning max el	1200 Jun 15 j 06:01	14° \eth 49'14	45°44'06		1203 Jan 10 j 03:06	0° \eth	
	1200 Jun 30 j 10:45	0° Π			1203 Feb 03 j 21:50	0° Υ	
	1200 Jul 28 j 00:08	0° \eth		asc. node	1203 Feb 11 j 02:33	8° Υ 32'49	
	1200 Aug 22 j 22:06	0° Ω			1203 Mar 01 j 13:54	0° \eth	
asc. node	1200 Aug 26 j 07:31	4° Ω 01'10			1203 Mar 29 j 03:21	0° Π	
	1200 Sep 16 j 21:26	0° \mathfrak{M}		evening max el	1203 Apr 06 j 11:18	8° Π 19'18	45°36'05
	1200 Oct 11 j 06:35	0° \eth			1203 May 02 j 07:51	0° \eth	
	1200 Nov 04 j 07:37	0° \mathfrak{M}		greatest brilliancy	1203 May 10 j 18:16	4° \eth 48'42	-4.5m
	1200 Nov 28 j 04:58	0° \eth		retrograde	1203 May 25 j 06:36	8° \eth 29'58	
morning set	1200 Dec 13 j 04:43	18° \eth 51'18		desc. node	1203 Jun 02 j 15:45	7° \eth 06'14	
desc. node	1200 Dec 15 j 20:44	22° \eth 12'38		evening set	1203 Jun 09 j 09:45	4° \eth 05'39	
	1200 Dec 22 j 01:25	0° \eth		inferior conj	1203 Jun 15 j 18:45	0° \eth 17'21	-3°-1'-7
	1201 Jan 14 j 22:32	0° \approx		minimum elong	1203 Jun 15 j 12:25	0° \eth 27'15	2°59'24
				min. Earth dist.	1203 Jun 15 j 18:52	0° \eth 17'11	0.28983 AU
superior conj	1201 Jan 24 j 00:32	11° \approx 23'15	-1°-16'-6		1203 Jun 16 j 05:52	30° $\mathfrak{R}\Pi$	
minimum elong	1201 Jan 23 j 14:46	10° \approx 52'40	1°15'54	morning rise	1203 Jun 21 j 14:54	26° Π 45'45	
max. Earth dist.	1201 Jan 27 j 20:45	16° \approx 12'00	1.71540 AU	direct	1203 Jul 07 j 09:51	21° Π 59'18	
	1201 Feb 07 j 21:30	0° \eth		greatest brilliancy	1203 Jul 21 j 10:44	25° Π 24'01	-4.5m
	1201 Mar 03 j 23:32	0° Υ			1203 Jul 29 j 18:13	0° \eth	
evening rise	1201 Mar 05 j 08:24	1° Υ 42'00		morning max el	1203 Aug 25 j 13:27	22° \eth 16'17	46°02'12
	1201 Mar 28 j 05:51	0° \eth			1203 Sep 02 j 07:26	0° Ω	
asc. node	1201 Apr 08 j 00:20	13° \eth 13'58		asc. node	1203 Sep 23 j 19:21	23° Ω 08'35	
	1201 Apr 21 j 17:31	0° Π			1203 Sep 29 j 20:42	0° \mathfrak{M}	
	1201 May 16 j 11:36	0° \eth			1203 Oct 25 j 09:52	0° \eth	
	1201 Jun 10 j 14:06	0° Ω			1203 Nov 19 j 01:14	0° \mathfrak{M}	
	1201 Jul 06 j 05:24	0° \mathfrak{M}			1203 Dec 13 j 06:40	0° \eth	
desc. node	1201 Jul 28 j 13:27	25° \mathfrak{M} 18'22			1204 Jan 06 j 08:24	0° \eth	
	1201 Aug 01 j 19:30	0° \eth		desc. node	1204 Jan 13 j 08:38	8° \eth 44'45	
evening max el	1201 Aug 30 j 13:26	0° \mathfrak{M} 00'45	46°28'48		1204 Jan 30 j 09:33	0° \approx	
	1201 Aug 30 j 13:08	0° \mathfrak{M}			1204 Feb 23 j 11:39	0° \eth	
greatest brilliancy	1201 Oct 08 j 15:22	29° \mathfrak{M} 13'12	-4.6m	morning set	1204 Feb 28 j 21:28	6° \eth 43'32	
	1201 Oct 10 j 22:24	0° \eth			1204 Mar 18 j 15:39	0° Υ	
retrograde	1201 Oct 19 j 07:02	1° \eth 18'45					
	1201 Oct 27 j 09:01	30° $\mathfrak{R}\mathfrak{M}$		superior conj	1204 Apr 07 j 13:15	24° Υ 36'32	-1°00'-1
evening set	1201 Nov 03 j 02:15	27° \mathfrak{M} 03'23		minimum elong	1204 Apr 07 j 23:05	25° Υ 06'51	0°59'42
inferior conj	1201 Nov 08 j 21:10	23° \mathfrak{M} 40'39	-2°-30'-59	max. Earth dist.	1204 Apr 10 j 01:54	27° Υ 43'39	1.73070 AU
minimum elong	1201 Nov 09 j 02:47	23° \mathfrak{M} 32'07	2°29'14		1204 Apr 11 j 22:07	0° \eth	
min. Earth dist.	1201 Nov 09 j 06:07	23° \mathfrak{M} 27'03	0.26510 AU	asc. node	1204 May 05 j 12:08	29° \eth 01'46	
morning rise	1201 Nov 15 j 02:50	20° \mathfrak{M} 02'37			1204 May 06 j 07:06	0° Π	
asc. node	1201 Nov 18 j 16:49	18° \mathfrak{M} 19'26		evening rise	1204 May 14 j 23:34	10° Π 39'50	
direct	1201 Nov 29 j 07:42	16° \mathfrak{M} 01'16			1204 May 30 j 18:10	0° \eth	
greatest brilliancy	1201 Dec 11 j 22:41	18° \mathfrak{M} 58'44	-4.7m		1204 Jun 24 j 07:09	0° Ω	
	1201 Dec 29 j 01:15	0° \eth			1204 Jul 18 j 22:47	0° \mathfrak{M}	
morning max el	1202 Jan 18 j 20:46	19° \eth 08'41	46°52'51		1204 Aug 12 j 18:53	0° \eth	
	1202 Jan 29 j 07:19	0° \eth		desc. node	1204 Aug 25 j 01:27	14° \eth 42'03	
	1202 Feb 25 j 07:23	0° \approx			1204 Sep 06 j 22:12	0° \mathfrak{M}	
desc. node	1202 Mar 10 j 06:28	14° \approx 58'15			1204 Oct 02 j 13:47	0° \eth	
	1202 Mar 23 j 02:22	0° \eth			1204 Oct 29 j 07:20	0° \eth	
	1202 Apr 17 j 09:12	0° Υ		evening max el	1204 Nov 11 j 11:40	13° \eth 51'50	47°20'35
	1202 May 12 j 09:49	0° \eth			1204 Nov 28 j 12:11	0° \approx	
	1202 Jun 06 j 05:57	0° Π		asc. node	1204 Dec 16 j 04:45	12° \approx 47'42	
	1202 Jun 30 j 21:27	0° \eth		greatest brilliancy	1204 Dec 19 j 17:05	14° \approx 33'03	-4.7m
asc. node	1202 Jul 01 j 09:46	0° \eth 37'39		retrograde	1205 Jan 01 j 11:45	17° \approx 37'17	
morning set	1202 Jul 19 j 04:10	22° \eth 25'13		evening set	1205 Jan 17 j 21:49	12° \approx 16'00	
	1202 Jul 25 j 07:49	0° Ω		min. Earth dist.	1205 Jan 21 j 07:26	10° \approx 12'05	0.27203 AU
	1202 Aug 18 j 13:22	0° \mathfrak{M}		inferior conj	1205 Jan 22 j 05:56	9° \approx 37'06	7°46'05
max. Earth dist.	1202 Aug 21 j 03:00	3° \mathfrak{M} 11'32	1.72490 AU	minimum elong	1205 Jan 21 j 21:12	9° \approx 50'41	7°44'47
				morning rise	1205 Jan 25 j 20:57	7° \approx 24'13	
superior conj	1202 Aug 24 j 18:07	7° \mathfrak{M} 42'27	1°24'40	direct	1205 Feb 11 j 19:01	1° \approx 49'31	
minimum elong	1202 Aug 24 j 17:22	7° \mathfrak{M} 40'06	1°24'40	greatest brilliancy	1205 Feb 22 j 10:19	3° \approx 56'04	-4.6m
	1202 Sep 11 j 15:27	0° \eth			1205 Mar 30 j 03:27	0° \eth	
evening rise	1202 Oct 01 j 14:29	24° \eth 55'56		morning max el	1205 Apr 02 j 08:20	3° \eth 05'02	46°13'24
	1202 Oct 05 j 15:49	0° \mathfrak{M}		desc. node	1205 Apr 06 j 18:05	7° \eth 26'06	
desc. node	1202 Oct 20 j 23:12	19° \mathfrak{M} 08'08			1205 Apr 28 j 05:49	0° Υ	
	1202 Oct 29 j 15:50	0° \eth			1205 May 25 j 01:01	0° \eth	

	1205 Jun 19 j 21:15	0°♁		asc. node	1208 Jan 13 j 16:42	16°♁42'06	
	1205 Jul 15 j 03:10	0°♁		evening max el	1208 Jan 23 j 05:31	26°♁37'31	46°44'49
asc. node	1205 Jul 28 j 21:42	16°♁37'02			1208 Jan 26 j 14:41	0°♁	
	1205 Aug 08 j 21:36	0°♁		greatest brilliancy	1208 Feb 28 j 05:41	25°♁33'18	-4.6m
	1205 Sep 02 j 06:32	0°♁		retrograde	1208 Mar 13 j 12:02	29°♁13'37	
	1205 Sep 26 j 08:35	0°♁		evening set	1208 Mar 30 j 07:01	23°♁44'43	
morning set	1205 Sep 26 j 20:29	0°♁37'15		inferior conj	1208 Apr 03 j 18:32	20°♁57'46	6°25'46
	1205 Oct 20 j 06:41	0°♁		minimum elong	1208 Apr 04 j 04:13	20°♁42'25	6°23'52
max. Earth dist.	1205 Nov 04 j 07:28	18°♁53'57	1.71172 AU	min. Earth dist.	1208 Apr 03 j 17:56	20°♁58'44	0.28609 AU
				morning rise	1208 Apr 09 j 01:45	17°♁42'47	
superior conj	1205 Nov 05 j 01:09	19°♁49'34	0°29'05	direct	1208 Apr 25 j 02:15	12°♁46'12	
minimum elong	1205 Nov 05 j 08:13	20°♁11'47	0°28'44	desc. node	1208 May 04 j 05:53	14°♁18'05	
	1205 Nov 13 j 03:14	0°♁		greatest brilliancy	1208 May 07 j 05:17	15°♁23'33	-4.5m
desc. node	1205 Nov 17 j 11:02	5°♁26'32			1208 May 29 j 18:39	0°♁	
	1205 Dec 06 j 23:42	0°♁		morning max el	1208 Jun 12 j 20:41	12°♁36'08	45°44'23
evening rise	1205 Dec 16 j 11:25	11°♁55'24			1208 Jun 30 j 04:27	0°♁	
	1205 Dec 30 j 21:10	0°♁			1208 Jul 27 j 14:09	0°♁	
	1206 Jan 23 j 21:09	0°♁			1208 Aug 22 j 10:32	0°♁	
	1206 Feb 17 j 02:03	0°♁		asc. node	1208 Aug 25 j 09:33	3°♁30'37	
asc. node	1206 Mar 10 j 14:27	26°♁19'47			1208 Sep 16 j 09:07	0°♁	
	1206 Mar 13 j 15:04	0°♁			1208 Oct 10 j 17:53	0°♁	
	1206 Apr 07 j 16:23	0°♁			1208 Nov 03 j 18:44	0°♁	
	1206 May 03 j 12:59	0°♁			1208 Nov 27 j 16:00	0°♁	
	1206 May 30 j 21:40	0°♁		morning set	1208 Dec 10 j 14:33	16°♁16'40	
evening max el	1206 Jun 16 j 08:05	16°♁31'08	45°26'58	desc. node	1208 Dec 14 j 22:54	21°♁44'52	
desc. node	1206 Jun 30 j 03:43	28°♁52'51			1208 Dec 21 j 12:23	0°♁	
	1206 Jul 01 j 12:36	0°♁			1209 Jan 14 j 09:27	0°♁	
greatest brilliancy	1206 Jul 23 j 03:32	13°♁37'47	-4.5m				
retrograde	1206 Aug 03 j 23:00	16°♁04'59		superior conj	1209 Jan 21 j 10:57	8°♁51'24	-1°-14'-12
evening set	1206 Aug 21 j 22:20	10°♁05'23		minimum elong	1209 Jan 21 j 00:36	8°♁18'59	1°13'57
inferior conj	1206 Aug 25 j 03:36	8°♁07'32	-8°-43'-43	max. Earth dist.	1209 Jan 25 j 02:46	13°♁26'29	1.71493 AU
minimum elong	1206 Aug 25 j 02:42	8°♁08'55	8°43'44		1209 Feb 07 j 08:22	0°♁	
min. Earth dist.	1206 Aug 25 j 17:48	7°♁45'35	0.28299 AU	evening rise	1209 Mar 02 j 20:52	29°♁18'02	
morning rise	1206 Aug 28 j 06:54	6°♁12'17			1209 Mar 03 j 10:23	0°♁	
	1206 Sep 15 j 04:30	30°♁			1209 Mar 27 j 16:45	0°♁	
direct	1206 Sep 15 j 12:24	29°♁59'52		asc. node	1209 Apr 07 j 02:19	12°♁46'24	
	1206 Sep 15 j 20:19	0°♁			1209 Apr 21 j 04:37	0°♁	
greatest brilliancy	1206 Sep 29 j 20:45	3°♁42'00	-4.6m		1209 May 15 j 23:07	0°♁	
asc. node	1206 Oct 21 j 07:01	18°♁48'58			1209 Jun 10 j 02:22	0°♁	
	1206 Nov 02 j 04:48	0°♁			1209 Jul 05 j 19:02	0°♁	
morning max el	1206 Nov 04 j 23:49	2°♁48'12	46°44'29	desc. node	1209 Jul 27 j 15:34	24°♁40'42	
	1206 Nov 30 j 02:04	0°♁			1209 Aug 01 j 11:53	0°♁	
	1206 Dec 25 j 18:14	0°♁		evening max el	1209 Aug 28 j 01:37	27°♁36'46	46°26'21
	1207 Jan 19 j 15:31	0°♁			1209 Aug 30 j 13:06	0°♁	
desc. node	1207 Feb 09 j 20:37	25°♁52'39		greatest brilliancy	1209 Oct 06 j 04:19	26°♁47'21	-4.6m
	1207 Feb 13 j 05:30	0°♁		retrograde	1209 Oct 16 j 18:51	28°♁52'13	
	1207 Mar 09 j 16:55	0°♁		evening set	1209 Oct 31 j 16:41	24°♁33'24	
	1207 Apr 03 j 03:55	0°♁		inferior conj	1209 Nov 06 j 09:31	21°♁13'54	-2°-54'-3
	1207 Apr 27 j 15:17	0°♁		minimum elong	1209 Nov 06 j 15:55	21°♁04'11	2°52'07
morning set	1207 May 10 j 08:36	15°♁35'29		min. Earth dist.	1209 Nov 06 j 20:04	20°♁57'53	0.26547 AU
	1207 May 22 j 02:42	0°♁		morning rise	1209 Nov 12 j 14:36	17°♁36'45	
asc. node	1207 Jun 03 j 00:01	14°♁35'10		asc. node	1209 Nov 17 j 18:55	15°♁14'58	
max. Earth dist.	1207 Jun 14 j 10:26	28°♁37'36	1.73584 AU	direct	1209 Nov 26 j 20:14	13°♁33'29	
				greatest brilliancy	1209 Dec 09 j 14:57	16°♁35'13	-4.7m
superior conj	1207 Jun 15 j 22:07	0°♁27'12	0°30'03		1209 Dec 29 j 13:35	0°♁	
minimum elong	1207 Jun 15 j 16:22	0°♁09'35	0°29'47	morning max el	1210 Jan 16 j 10:30	16°♁44'22	46°53'34
	1207 Jun 15 j 13:15	0°♁			1210 Jan 29 j 02:38	0°♁	
	1207 Jul 09 j 22:12	0°♁			1210 Feb 24 j 22:30	0°♁	
evening rise	1207 Jul 21 j 16:44	14°♁31'02		desc. node	1210 Mar 09 j 08:25	14°♁23'03	
	1207 Aug 03 j 05:43	0°♁			1210 Mar 22 j 15:36	0°♁	
	1207 Aug 27 j 12:50	0°♁			1210 Apr 16 j 21:21	0°♁	
	1207 Sep 20 j 20:50	0°♁			1210 May 11 j 21:16	0°♁	
desc. node	1207 Sep 22 j 13:21	2°♁04'44			1210 Jun 05 j 16:58	0°♁	
	1207 Oct 15 j 06:52	0°♁		asc. node	1210 Jun 30 j 11:54	0°♁11'14	
	1207 Nov 08 j 20:39	0°♁			1210 Jun 30 j 08:13	0°♁	
	1207 Dec 03 j 18:44	0°♁		morning set	1210 Jul 16 j 21:43	20°♁18'37	
	1207 Dec 29 j 13:02	0°♁			1210 Jul 24 j 18:29	0°♁	

	1210 Aug 18 j 00:03	0° \cap		inferior conj	1213 Jan 19 j 19:26	7° \approx 13'11	7°35'08
max. Earth dist.	1210 Aug 18 j 21:27	1° \cap 06'31	1.72540 AU	minimum elong	1213 Jan 19 j 10:15	7° \approx 27'27	7°33'38
				morning rise	1213 Jan 23 j 13:13	4° \approx 56'23	
superior conj	1210 Aug 22 j 10:56	5° \cap 32'12	1°24'27		1213 Feb 04 j 04:17	30° \cap 3	
minimum elong	1210 Aug 22 j 09:27	5° \cap 27'36	1°24'27	direct	1213 Feb 09 j 08:40	29° \cap 26'50	
	1210 Sep 11 j 02:12	0° Δ			1213 Feb 14 j 16:10	0° \approx	
evening rise	1210 Sep 29 j 04:19	22° Δ 35'21		greatest brilliancy	1213 Feb 19 j 22:08	1° \approx 32'11	-4.6m
	1210 Oct 05 j 02:41	0° \cap			1213 Mar 30 j 03:10	0° \cap	
desc. node	1210 Oct 20 j 01:15	18° \cap 40'11		morning max el	1213 Mar 30 j 22:38	0° \cap 47'17	46°14'45
	1210 Oct 29 j 02:53	0° \cap		desc. node	1213 Apr 05 j 20:12	6° \cap 38'45	
	1210 Nov 22 j 03:48	0° \cap			1213 Apr 27 j 22:03	0° \cap	
	1210 Dec 16 j 06:52	0° \approx			1213 May 24 j 14:36	0° \cap	
	1211 Jan 09 j 15:11	0° \cap			1213 Jun 19 j 09:33	0° \cap	
	1211 Feb 03 j 10:44	0° \cap			1213 Jul 14 j 14:43	0° \cap	
asc. node	1211 Feb 10 j 04:31	7° \cap 59'25		asc. node	1213 Jul 27 j 23:41	16° \cap 08'49	
	1211 Mar 01 j 04:35	0° \cap			1213 Aug 08 j 08:45	0° \cap	
	1211 Mar 28 j 22:44	0° \cap			1213 Sep 01 j 17:28	0° \cap	
evening max el	1211 Apr 04 j 03:22	6° \cap 08'57	45°37'47	morning set	1213 Sep 24 j 10:55	28° \cap 18'13	
	1211 May 03 j 10:28	0° \cap			1213 Sep 25 j 19:28	0° Δ	
greatest brilliancy	1211 May 08 j 08:47	2° \cap 38'03	-4.5m		1213 Oct 19 j 17:37	0° \cap	
retrograde	1211 May 22 j 23:28	6° \cap 21'44		max. Earth dist.	1213 Nov 01 j 12:00	16° \cap 02'46	1.71196 AU
desc. node	1211 Jun 01 j 17:53	4° \cap 27'52					
evening set	1211 Jun 07 j 01:22	1° \cap 58'01		superior conj	1213 Nov 02 j 12:22	17° \cap 19'22	0°32'40
	1211 Jun 10 j 10:56	30° \cap II		minimum elong	1213 Nov 02 j 20:07	17° \cap 43'46	0°32'19
inferior conj	1211 Jun 13 j 11:02	28° \cap 08'37	-2°-42'-28		1213 Nov 12 j 14:15	0° \cap	
minimum elong	1211 Jun 13 j 05:17	28° \cap 17'35	2°40'52	desc. node	1213 Nov 16 j 13:10	4° \cap 58'33	
min. Earth dist.	1211 Jun 13 j 10:51	28° \cap 08'55	0.28985 AU		1213 Dec 06 j 10:46	0° \cap	
morning rise	1211 Jun 19 j 09:07	24° \cap 34'36		evening rise	1213 Dec 13 j 21:14	9° \cap 20'40	
direct	1211 Jul 05 j 02:30	19° \cap 50'30			1213 Dec 30 j 08:17	0° \approx	
greatest brilliancy	1211 Jul 19 j 02:37	23° \cap 15'02	-4.5m		1214 Jan 23 j 08:21	0° \cap	
	1211 Jul 30 j 15:21	0° \cap			1214 Feb 16 j 13:25	0° \cap	
morning max el	1211 Aug 23 j 06:02	20° \cap 07'00	46°00'54	asc. node	1214 Mar 09 j 16:28	25° \cap 50'24	
	1211 Sep 02 j 02:36	0° \cap			1214 Mar 13 j 02:49	0° \cap	
asc. node	1211 Sep 22 j 21:20	22° \cap 31'01			1214 Apr 07 j 04:55	0° \cap	
	1211 Sep 29 j 11:24	0° \cap			1214 May 03 j 03:07	0° \cap	
	1211 Oct 24 j 22:49	0° Δ			1214 May 30 j 15:41	0° \cap	
	1211 Nov 18 j 13:20	0° \cap		evening max el	1214 Jun 13 j 22:41	14° \cap 17'01	45°25'51
	1211 Dec 12 j 18:17	0° \cap		desc. node	1214 Jun 29 j 05:49	27° \cap 51'25	
	1212 Jan 05 j 19:43	0° \cap			1214 Jul 01 j 22:58	0° \cap	
desc. node	1212 Jan 12 j 10:46	8° \cap 16'24		greatest brilliancy	1214 Jul 20 j 16:34	11° \cap 22'02	-4.5m
	1212 Jan 29 j 20:37	0° \approx		retrograde	1214 Aug 01 j 12:41	13° \cap 50'17	
	1212 Feb 22 j 22:32	0° \cap		evening set	1214 Aug 19 j 11:27	7° \cap 52'51	
morning set	1212 Feb 26 j 10:24	4° \cap 20'43		inferior conj	1214 Aug 22 j 18:28	5° \cap 52'16	-8°-41'-53
	1212 Mar 18 j 02:24	0° \cap		minimum elong	1214 Aug 22 j 16:42	5° \cap 55'00	8°41'52
				min. Earth dist.	1214 Aug 23 j 08:07	5° \cap 31'08	0.28350 AU
superior conj	1212 Apr 05 j 04:52	22° \cap 23'30	-1°-2'-25	morning rise	1214 Aug 25 j 21:46	3° \cap 56'47	
minimum elong	1212 Apr 05 j 14:46	22° \cap 54'03	1°02'06		1214 Sep 02 j 10:54	30° \cap II	
max. Earth dist.	1212 Apr 07 j 20:39	25° \cap 40'22	1.73030 AU	direct	1214 Sep 13 j 03:31	27° \cap 43'53	
	1212 Apr 11 j 08:49	0° \cap			1214 Sep 24 j 06:11	0° \cap	
asc. node	1212 May 04 j 14:15	28° \cap 35'23		greatest brilliancy	1214 Sep 27 j 12:05	1° \cap 25'12	-4.6m
	1212 May 05 j 17:48	0° \cap		asc. node	1214 Oct 20 j 09:11	17° \cap 48'02	
evening rise	1212 May 12 j 17:22	8° \cap 34'21			1214 Nov 02 j 03:34	0° Δ	
	1212 May 30 j 04:58	0° \cap		morning max el	1214 Nov 02 j 12:58	0° Δ 23'47	46°43'10
	1212 Jun 23 j 18:12	0° \cap			1214 Nov 29 j 18:24	0° \cap	
	1212 Jul 18 j 10:16	0° \cap			1214 Dec 25 j 08:15	0° \cap	
	1212 Aug 12 j 07:04	0° Δ			1215 Jan 19 j 04:20	0° \cap	
desc. node	1212 Aug 24 j 03:24	14° Δ 10'05		desc. node	1215 Feb 08 j 22:30	25° \cap 21'13	
	1212 Sep 06 j 11:30	0° \cap			1215 Feb 12 j 17:34	0° \approx	
	1212 Oct 02 j 04:58	0° \cap			1215 Mar 09 j 04:28	0° \cap	
	1212 Oct 29 j 02:29	0° \cap			1215 Apr 02 j 15:06	0° \cap	
evening max el	1212 Nov 09 j 03:23	11° \cap 32'29	47°20'17		1215 Apr 27 j 02:12	0° \cap	
	1212 Nov 28 j 22:36	0° \approx		morning set	1215 May 08 j 02:32	13° \cap 30'15	
asc. node	1212 Dec 15 j 06:54	11° \approx 10'39			1215 May 21 j 13:28	0° \cap	
greatest brilliancy	1212 Dec 17 j 08:11	12° \approx 09'35	-4.7m	asc. node	1215 Jun 02 j 02:07	14° \cap 08'41	
retrograde	1212 Dec 30 j 02:13	15° \approx 12'23		max. Earth dist.	1215 Jun 12 j 06:05	26° \cap 37'37	1.73597 AU
evening set	1213 Jan 15 j 07:43	9° \approx 57'22					
min. Earth dist.	1213 Jan 18 j 20:25	7° \approx 48'55	0.27139 AU	superior conj	1215 Jun 13 j 16:46	28° \cap 24'09	0°27'07

minimum elong	1215 Jun 13 j 11:31	28°II08'02	0°26'52	morning max el	1218 Jan 14 j 00:49	14°X20'25	46°54'17
	1215 Jun 14 j 23:58	0°☿			1218 Jan 28 j 21:49	0°☿	
	1215 Jul 09 j 08:59	0°♂			1218 Feb 24 j 13:47	0°≈	
evening rise	1215 Jul 19 j 11:23	12°♂27'02		desc. node	1218 Mar 08 j 10:30	13°≈47'32	
	1215 Aug 02 j 16:41	0°♍			1218 Mar 22 j 05:03	0°✕	
	1215 Aug 27 j 00:05	0°♌			1218 Apr 16 j 09:46	0°♍	
	1215 Sep 20 j 08:29	0°♍			1218 May 11 j 09:00	0°♎	
desc. node	1215 Sep 21 j 15:23	1°♍35'04			1218 Jun 05 j 04:15	0°♏	
	1215 Oct 14 j 19:02	0°♎		asc. node	1218 Jun 29 j 13:54	29°♏43'39	
	1215 Nov 08 j 09:34	0°☿			1218 Jun 29 j 19:15	0°☿	
	1215 Dec 03 j 08:52	0°≈		morning set	1218 Jul 14 j 15:44	18°☿12'48	
	1215 Dec 29 j 05:36	0°✕			1218 Jul 24 j 05:24	0°♂	
asc. node	1216 Jan 12 j 18:41	15°✕56'11		max. Earth dist.	1218 Aug 16 j 16:31	29°♂02'39	1.72593 AU
evening max el	1216 Jan 20 j 19:21	24°✕15'55	46°47'13		1218 Aug 17 j 10:59	0°♍	
	1216 Jan 26 j 14:23	0°♍					
greatest brilliancy	1216 Feb 25 j 23:11	23°♍21'17	-4.6m	superior conj	1218 Aug 20 j 04:05	3°♍22'17	1°24'07
retrograde	1216 Mar 11 j 03:50	27°♍00'40		minimum elong	1218 Aug 20 j 01:55	3°♍15'33	1°24'07
evening set	1216 Mar 28 j 01:51	21°♍27'42			1218 Sep 10 j 13:15	0°♌	
inferior conj	1216 Apr 01 j 10:33	18°♍45'07	6°39'20	evening rise	1218 Sep 26 j 18:21	20°♌14'18	
minimum elong	1216 Apr 01 j 20:09	18°♍29'56	6°37'32		1218 Oct 04 j 13:55	0°♍	
min. Earth dist.	1216 Apr 01 j 09:49	18°♍46'17	0.28578 AU	desc. node	1218 Oct 19 j 03:24	18°♍11'20	
morning rise	1216 Apr 06 j 14:41	15°♍34'24			1218 Oct 28 j 14:21	0°♎	
direct	1216 Apr 22 j 17:07	10°♍33'57			1218 Nov 21 j 15:32	0°☿	
desc. node	1216 May 03 j 07:57	12°♍35'50			1218 Dec 15 j 18:54	0°≈	
greatest brilliancy	1216 May 04 j 19:39	13°♍10'22	-4.5m		1219 Jan 09 j 03:42	0°✕	
	1216 May 30 j 00:42	0°♎			1219 Feb 03 j 00:08	0°♍	
morning max el	1216 Jun 10 j 11:39	10°♎23'31	45°44'43	asc. node	1219 Feb 09 j 06:31	7°♍24'50	
	1216 Jun 29 j 21:51	0°♏			1219 Feb 28 j 19:52	0°♎	
	1216 Jul 27 j 04:11	0°☿			1219 Mar 28 j 19:08	0°♏	
	1216 Aug 21 j 23:09	0°♂		evening max el	1219 Apr 01 j 20:01	3°♏59'00	45°39'34
asc. node	1216 Aug 24 j 11:31	2°♂59'20			1219 May 05 j 01:21	0°☿	
	1216 Sep 15 j 21:02	0°♍		greatest brilliancy	1219 May 06 j 00:51	0°☿28'41	-4.5m
	1216 Oct 10 j 05:27	0°♌		retrograde	1219 May 20 j 16:29	4°☿12'52	
	1216 Nov 03 j 06:07	0°♍		desc. node	1219 May 31 j 19:56	1°☿45'03	
	1216 Nov 27 j 03:16	0°♎			1219 Jun 04 j 09:57	30°♏	
morning set	1216 Dec 08 j 00:22	13°♎41'10		evening set	1219 Jun 04 j 17:22	29°♏49'55	
desc. node	1216 Dec 14 j 00:55	21°♎15'52		inferior conj	1219 Jun 11 j 03:28	25°♏59'28	-2°-23'-38
	1216 Dec 20 j 23:36	0°☿		minimum elong	1219 Jun 10 j 22:20	26°♏07'28	2°22'11
	1217 Jan 13 j 20:38	0°≈		min. Earth dist.	1219 Jun 11 j 02:56	26°♏00'18	0.28980 AU
				morning rise	1219 Jun 17 j 03:21	22°♏23'05	
superior conj	1217 Jan 18 j 21:15	6°≈18'16	-1°-12'-8	direct	1219 Jul 02 j 19:27	17°♏41'36	
minimum elong	1217 Jan 18 j 10:22	5°≈44'10	1°11'51	greatest brilliancy	1219 Jul 16 j 17:21	21°♏04'15	-4.5m
max. Earth dist.	1217 Jan 22 j 07:21	10°≈35'31	1.71451 AU		1219 Jul 31 j 07:14	0°☿	
	1217 Feb 06 j 19:32	0°✕		morning max el	1219 Aug 20 j 22:17	17°☿56'31	45°59'36
evening rise	1217 Feb 28 j 09:21	26°✕53'11			1219 Sep 01 j 21:25	0°♂	
	1217 Mar 02 j 21:31	0°♍		asc. node	1219 Sep 21 j 23:31	21°♂53'47	
	1217 Mar 27 j 03:56	0°♎			1219 Sep 29 j 02:08	0°♍	
asc. node	1217 Apr 06 j 04:29	12°♎18'34			1219 Oct 24 j 11:58	0°♌	
	1217 Apr 20 j 15:58	0°♏			1219 Nov 18 j 01:43	0°♍	
	1217 May 15 j 10:52	0°☿			1219 Dec 12 j 06:16	0°♎	
	1217 Jun 09 j 14:53	0°♂			1220 Jan 05 j 07:25	0°☿	
	1217 Jul 05 j 09:00	0°♍		desc. node	1220 Jan 11 j 12:44	7°☿46'17	
desc. node	1217 Jul 26 j 17:29	24°♍01'20			1220 Jan 29 j 08:05	0°≈	
	1217 Aug 01 j 04:52	0°♌			1220 Feb 22 j 09:48	0°✕	
evening max el	1217 Aug 25 j 14:26	25°♌13'31	46°23'44	morning set	1220 Feb 23 j 22:49	1°✕55'10	
	1217 Aug 30 j 14:46	0°♍			1220 Mar 17 j 13:30	0°♍	
greatest brilliancy	1217 Oct 03 j 16:21	24°♍19'19	-4.6m				
retrograde	1217 Oct 14 j 07:07	26°♍24'19		superior conj	1220 Apr 02 j 20:09	20°♍08'19	-1°-4'-44
evening set	1217 Oct 29 j 07:10	22°♍01'46		minimum elong	1220 Apr 03 j 06:01	20°♍38'50	1°04'26
inferior conj	1217 Nov 03 j 21:44	18°♍45'32	-3°-16'-52	max. Earth dist.	1220 Apr 05 j 16:58	23°♍40'50	1.72984 AU
minimum elong	1217 Nov 04 j 04:52	18°♍34'44	3°14'44		1220 Apr 10 j 19:50	0°♎	
min. Earth dist.	1217 Nov 04 j 09:33	18°♍27'38	0.26589 AU	asc. node	1220 May 03 j 16:20	28°♎07'53	
morning rise	1217 Nov 10 j 02:01	15°♍09'48			1220 May 05 j 04:49	0°♏	
asc. node	1217 Nov 16 j 20:59	12°♍14'27		evening rise	1220 May 10 j 11:02	6°♏27'28	
direct	1217 Nov 24 j 09:14	11°♍04'13			1220 May 29 j 16:05	0°☿	
greatest brilliancy	1217 Dec 07 j 06:36	14°♍09'38	-4.7m		1220 Jun 23 j 05:32	0°♂	
	1217 Dec 29 j 23:19	0°♎			1220 Jul 17 j 22:02	0°♍	

	1220 Aug 11 j 19:31	0°♄			1223 Jan 18 j 17:03	0°♄		
desc. node	1220 Aug 23 j 05:31	13°♄37'58		desc. node	1223 Feb 08 j 00:38	24°♄50'30		
	1220 Sep 06 j 01:06	0°♄			1223 Feb 12 j 05:37	0°♄		
	1220 Oct 01 j 20:34	0°♄			1223 Mar 08 j 16:05	0°♄		
	1220 Oct 28 j 22:31	0°♄			1223 Apr 02 j 02:24	0°♄		
evening max el	1220 Nov 06 j 18:26	9°♄10'24	47°19'28		1223 Apr 26 j 13:14	0°♄		
	1220 Nov 29 j 13:17	0°♄		morning set	1223 May 05 j 19:52	11°♄22'41		
asc. node	1220 Dec 14 j 08:52	9°♄27'51			1223 May 21 j 00:19	0°♄		
greatest brilliancy	1220 Dec 14 j 23:56	9°♄45'02	-4.7m	asc. node	1223 Jun 01 j 04:05	13°♄41'29		
retrograde	1220 Dec 27 j 15:55	12°♄44'55		max. Earth dist.	1223 Jun 10 j 01:57	24°♄38'05	1.73606 AU	
evening set	1221 Jan 12 j 17:15	7°♄36'31						
min. Earth dist.	1221 Jan 16 j 09:33	5°♄22'45	0.27079 AU	superior conj	1223 Jun 11 j 10:58	26°♄19'31	0°24'07	
inferior conj	1221 Jan 17 j 08:36	4°♄46'55	7°23'01	minimum elong	1223 Jun 11 j 06:14	26°♄04'59	0°23'54	
minimum elong	1221 Jan 16 j 23:03	5°♄01'46	7°21'22		1223 Jun 14 j 10:45	0°♄		
morning rise	1221 Jan 21 j 05:19	2°♄25'49			1223 Jul 08 j 19:50	0°♄		
	1221 Jan 25 j 18:27	30°♄		evening rise	1223 Jul 17 j 05:54	10°♄22'34		
direct	1221 Feb 06 j 21:41	27°♄01'50			1223 Aug 02 j 03:42	0°♄		
greatest brilliancy	1221 Feb 17 j 10:25	29°♄06'27	-4.6m		1223 Aug 26 j 11:23	0°♄		
	1221 Feb 19 j 14:52	0°♄			1223 Sep 19 j 20:09	0°♄		
morning max el	1221 Mar 28 j 11:39	28°♄24'51	46°16'14	desc. node	1223 Sep 20 j 17:31	1°♄05'42		
	1221 Mar 30 j 02:26	0°♄			1223 Oct 14 j 07:12	0°♄		
desc. node	1221 Apr 04 j 22:20	5°♄50'54			1223 Nov 07 j 22:27	0°♄		
	1221 Apr 27 j 14:23	0°♄			1223 Dec 02 j 22:57	0°♄		
	1221 May 24 j 04:22	0°♄			1223 Dec 28 j 22:14	0°♄		
	1221 Jun 18 j 22:01	0°♄		asc. node	1224 Jan 11 j 20:42	15°♄10'16		
	1221 Jul 14 j 02:28	0°♄		evening max el	1224 Jan 18 j 09:07	21°♄54'35	46°49'28	
asc. node	1221 Jul 27 j 01:42	15°♄40'06			1224 Jan 26 j 15:02	0°♄		
	1221 Aug 07 j 20:04	0°♄		greatest brilliancy	1224 Feb 23 j 15:21	21°♄07'29	-4.6m	
	1221 Sep 01 j 04:35	0°♄		retrograde	1224 Mar 08 j 19:43	24°♄47'28		
morning set	1221 Sep 22 j 01:56	26°♄00'39		evening set	1224 Mar 25 j 20:30	19°♄10'00		
	1221 Sep 25 j 06:30	0°♄		inferior conj	1224 Mar 30 j 02:24	16°♄31'54	6°52'21	
	1221 Oct 19 j 04:40	0°♄		minimum elong	1224 Mar 30 j 11:51	16°♄16'57	6°50'39	
max. Earth dist.	1221 Oct 29 j 17:25	13°♄14'11	1.71225 AU	min. Earth dist.	1224 Mar 30 j 01:19	16°♄33'37	0.28554 AU	
				morning rise	1224 Apr 04 j 03:24	13°♄25'51		
superior conj	1221 Oct 31 j 00:17	14°♄51'10	0°36'09	direct	1224 Apr 20 j 08:00	8°♄20'58		
minimum elong	1221 Oct 31 j 08:39	15°♄17'31	0°35'46	desc. node	1224 May 02 j 09:59	10°♄56'52		
	1221 Nov 12 j 01:21	0°♄		greatest brilliancy	1224 May 02 j 10:38	10°♄57'31	-4.5m	
desc. node	1221 Nov 15 j 15:11	4°♄29'55			1224 May 30 j 04:52	0°♄		
	1221 Dec 05 j 21:58	0°♄		morning max el	1224 Jun 08 j 03:17	8°♄12'19	45°45'07	
evening rise	1221 Dec 11 j 07:21	6°♄46'25			1224 Jun 29 j 14:54	0°♄		
	1221 Dec 29 j 19:34	0°♄			1224 Jul 26 j 18:02	0°♄		
	1222 Jan 22 j 19:47	0°♄			1224 Aug 21 j 11:35	0°♄		
	1222 Feb 16 j 01:05	0°♄		asc. node	1224 Aug 23 j 13:43	2°♄29'05		
asc. node	1222 Mar 08 j 18:36	25°♄20'32			1224 Sep 15 j 08:47	0°♄		
	1222 Mar 12 j 14:54	0°♄			1224 Oct 09 j 16:51	0°♄		
	1222 Apr 06 j 17:47	0°♄			1224 Nov 02 j 17:19	0°♄		
	1222 May 02 j 17:40	0°♄			1224 Nov 26 j 14:21	0°♄		
	1222 May 30 j 10:23	0°♄		morning set	1224 Dec 05 j 10:37	11°♄07'39		
evening max el	1222 Jun 11 j 12:27	12°♄00'26	45°24'57	desc. node	1224 Dec 13 j 02:55	20°♄47'29		
desc. node	1222 Jun 28 j 07:46	26°♄47'40			1224 Dec 20 j 10:35	0°♄		
	1222 Jul 02 j 13:09	0°♄			1225 Jan 13 j 07:33	0°♄		
greatest brilliancy	1222 Jul 18 j 05:08	9°♄05'31	-4.5m					
retrograde	1222 Jul 30 j 02:41	11°♄35'47		superior conj	1225 Jan 16 j 07:47	3°♄46'35	-1°-9'-55	
evening set	1222 Aug 17 j 00:20	5°♄40'42		minimum elong	1225 Jan 15 j 20:28	3°♄11'06	1°09'37	
inferior conj	1222 Aug 20 j 09:24	3°♄37'06	-8°-39'-20	max. Earth dist.	1225 Jan 19 j 13:58	7°♄51'46	1.71409 AU	
minimum elong	1222 Aug 20 j 06:49	3°♄41'07	8°39'15		1225 Feb 06 j 06:24	0°♄		
min. Earth dist.	1222 Aug 20 j 22:38	3°♄16'38	0.28398 AU	evening rise	1225 Feb 25 j 22:01	24°♄29'46		
morning rise	1222 Aug 23 j 13:05	1°♄40'58			1225 Mar 02 j 08:23	0°♄		
	1222 Aug 26 j 10:47	30°♄			1225 Mar 26 j 14:52	0°♄		
direct	1222 Sep 10 j 18:22	25°♄27'52		asc. node	1225 Apr 05 j 06:29	11°♄50'56		
greatest brilliancy	1222 Sep 25 j 04:25	29°♄09'54	-4.6m		1225 Apr 20 j 03:08	0°♄		
	1222 Sep 26 j 20:11	0°♄			1225 May 14 j 22:30	0°♄		
asc. node	1222 Oct 19 j 11:11	16°♄48'17			1225 Jun 09 j 03:20	0°♄		
morning max el	1222 Oct 31 j 02:28	28°♄00'30	46°42'04		1225 Jul 04 j 22:58	0°♄		
	1222 Nov 02 j 01:23	0°♄		desc. node	1225 Jul 25 j 19:38	23°♄22'48		
	1222 Nov 29 j 10:23	0°♄			1225 Jul 31 j 22:01	0°♄		
	1222 Dec 24 j 22:04	0°♄		evening max el	1225 Aug 23 j 03:59	22°♄52'56	46°21'14	

	1225 Aug 30 j 17:36	0°♄			1228 Mar 17 j 00:13	0°♅	
greatest brilliancy	1225 Oct 01 j 03:54	21°♄51'46	-4.6m				
retrograde	1225 Oct 11 j 19:38	23°♄57'03		superior conj	1228 Mar 31 j 11:33	17°♅54'44	-1°-6'-56
evening set	1225 Oct 26 j 21:49	19°♄30'50		minimum elong	1228 Mar 31 j 21:21	18°♅25'01	1°06'39
inferior conj	1225 Nov 01 j 09:52	16°♄17'48	-3°-39'-21	max. Earth dist.	1228 Apr 03 j 13:52	21°♅44'20	1.72933 AU
minimum elong	1225 Nov 01 j 17:41	16°♄05'58	3°37'03		1228 Apr 10 j 06:27	0°♄	
min. Earth dist.	1225 Nov 01 j 22:37	15°♄58'30	0.26631 AU	asc. node	1228 May 02 j 18:18	27°♄41'25	
morning rise	1225 Nov 07 j 13:05	12°♄43'48			1228 May 04 j 15:25	0°♂	
asc. node	1225 Nov 15 j 23:00	9°♄20'25		evening rise	1228 May 08 j 04:49	4°♂22'10	
direct	1225 Nov 21 j 22:32	8°♄35'50			1228 May 29 j 02:48	0°♄	
greatest brilliancy	1225 Dec 04 j 21:15	11°♄43'33	-4.7m		1228 Jun 22 j 16:31	0°♂	
	1225 Dec 30 j 06:04	0°♄			1228 Jul 17 j 09:30	0°♄	
morning max el	1226 Jan 11 j 15:21	11°♄57'53	46°55'02		1228 Aug 11 j 07:46	0°♄	
	1226 Jan 28 j 16:08	0°♄		desc. node	1228 Aug 22 j 07:36	13°♄06'23	
	1226 Feb 24 j 04:27	0°♄			1228 Sep 05 j 14:33	0°♄	
desc. node	1226 Mar 07 j 12:38	13°♄13'33			1228 Oct 01 j 12:08	0°♄	
	1226 Mar 21 j 18:00	0°♄			1228 Oct 28 j 18:49	0°♄	
	1226 Apr 15 j 21:42	0°♅		evening max el	1228 Nov 04 j 08:23	6°♄46'26	47°18'43
	1226 May 10 j 20:20	0°♄			1228 Nov 30 j 08:17	0°♄	
	1226 Jun 04 j 15:13	0°♂		greatest brilliancy	1228 Dec 12 j 16:23	7°♄22'12	-4.7m
asc. node	1226 Jun 28 j 15:57	29°♂17'00		asc. node	1228 Dec 13 j 10:56	7°♄42'14	
	1226 Jun 29 j 06:00	0°♄		retrograde	1228 Dec 25 j 05:07	10°♄18'25	
morning set	1226 Jul 12 j 09:32	16°♄07'12		evening set	1229 Jan 10 j 02:51	5°♄16'33	
	1226 Jul 23 j 16:05	0°♂		min. Earth dist.	1229 Jan 13 j 23:06	2°♄57'05	0.27017 AU
max. Earth dist.	1226 Aug 14 j 09:31	26°♂53'19	1.72642 AU	inferior conj	1229 Jan 14 j 21:48	2°♄21'47	7°10'03
	1226 Aug 16 j 21:39	0°♄		minimum elong	1229 Jan 14 j 11:56	2°♄37'08	7°08'13
				morning rise	1229 Jan 18 j 21:28	29°♄56'14	
superior conj	1226 Aug 17 j 21:04	1°♄12'42	1°23'40		1229 Jan 18 j 18:54	30°♄	
minimum elong	1226 Aug 17 j 18:12	1°♄03'50	1°23'38	direct	1229 Feb 04 j 10:11	24°♄37'44	
	1226 Sep 10 j 00:00	0°♄		greatest brilliancy	1229 Feb 14 j 23:40	26°♄42'41	-4.6m
evening rise	1226 Sep 24 j 08:14	17°♄53'52			1229 Feb 21 j 22:27	0°♄	
	1226 Oct 04 j 00:51	0°♄		morning max el	1229 Mar 26 j 00:00	26°♄01'39	46°17'51
desc. node	1226 Oct 18 j 05:22	17°♄42'53			1229 Mar 30 j 00:18	0°♄	
	1226 Oct 28 j 01:31	0°♄		desc. node	1229 Apr 04 j 00:16	5°♄04'26	
	1226 Nov 21 j 02:57	0°♄			1229 Apr 27 j 06:02	0°♅	
	1226 Dec 15 j 06:38	0°♄			1229 May 23 j 17:36	0°♄	
	1227 Jan 08 j 15:53	0°♄			1229 Jun 18 j 10:01	0°♂	
	1227 Feb 02 j 13:12	0°♅			1229 Jul 13 j 13:47	0°♄	
asc. node	1227 Feb 08 j 08:43	6°♅51'54		asc. node	1229 Jul 26 j 03:52	15°♄12'59	
	1227 Feb 28 j 10:51	0°♄			1229 Aug 07 j 07:01	0°♂	
	1227 Mar 28 j 15:38	0°♂			1229 Aug 31 j 15:23	0°♄	
evening max el	1227 Mar 30 j 12:34	1°♂50'06	45°41'19	morning set	1229 Sep 19 j 16:47	23°♄43'21	
greatest brilliancy	1227 May 03 j 17:32	28°♂21'27	-4.5m		1229 Sep 24 j 17:19	0°♄	
	1227 May 07 j 14:30	0°♄			1229 Oct 18 j 15:32	0°♄	
retrograde	1227 May 18 j 09:05	2°♄05'12		max. Earth dist.	1229 Oct 26 j 23:28	10°♄28'12	1.71258 AU
	1227 May 28 j 15:09	30°♄					
desc. node	1227 May 30 j 21:54	28°♂59'39		superior conj	1229 Oct 28 j 11:58	12°♄22'53	0°39'35
evening set	1227 Jun 02 j 09:36	27°♂42'58		minimum elong	1229 Oct 28 j 20:53	12°♄50'57	0°39'10
inferior conj	1227 Jun 08 j 19:57	23°♂51'38	-2°-4'-32		1229 Nov 11 j 12:16	0°♄	
minimum elong	1227 Jun 08 j 15:28	23°♂58'39	2°03'17	desc. node	1229 Nov 14 j 17:12	4°♄01'55	
min. Earth dist.	1227 Jun 08 j 19:18	23°♂52'39	0.28978 AU		1229 Dec 05 j 08:56	0°♄	
morning rise	1227 Jun 14 j 21:27	20°♂12'49		evening rise	1229 Dec 08 j 17:09	4°♄11'56	
direct	1227 Jun 30 j 12:23	15°♂33'59			1229 Dec 29 j 06:37	0°♄	
greatest brilliancy	1227 Jul 14 j 07:37	18°♂53'49	-4.5m		1230 Jan 22 j 06:57	0°♄	
	1227 Jul 31 j 18:40	0°♄			1230 Feb 15 j 12:29	0°♅	
morning max el	1227 Aug 18 j 13:46	15°♄45'05	45°58'15	asc. node	1230 Mar 07 j 20:36	24°♅51'03	
	1227 Sep 01 j 15:29	0°♂			1230 Mar 12 j 02:43	0°♄	
asc. node	1227 Sep 21 j 01:31	21°♂17'09			1230 Apr 06 j 06:25	0°♂	
	1227 Sep 28 j 16:25	0°♄			1230 May 02 j 08:02	0°♄	
	1227 Oct 24 j 00:43	0°♄			1230 May 30 j 05:10	0°♂	
	1227 Nov 17 j 13:43	0°♄		evening max el	1230 Jun 09 j 02:18	9°♂45'22	45°24'15
	1227 Dec 11 j 17:51	0°♄		desc. node	1230 Jun 27 j 09:55	25°♂44'00	
	1228 Jan 04 j 18:43	0°♄			1230 Jul 03 j 07:21	0°♄	
desc. node	1228 Jan 10 j 14:49	7°♄17'40		greatest brilliancy	1230 Jul 15 j 16:32	6°♄49'13	-4.5m
	1228 Jan 28 j 19:10	0°♄		retrograde	1230 Jul 27 j 17:17	9°♄23'08	
morning set	1228 Feb 21 j 11:13	29°♄30'37		evening set	1230 Aug 14 j 13:00	3°♄30'32	
	1228 Feb 21 j 20:40	0°♄		inferior conj	1230 Aug 18 j 00:32	1°♄23'28	-8°-35'-48

minimum elong	1230 Aug 17 j 21:09	1° \mathbb{M} 28'42	8°35'39		1233 Feb 05 j 17:26	0° \mathbb{H}		
min. Earth dist.	1230 Aug 18 j 13:07	1° \mathbb{M} 04'00	0.28451 AU	evening rise	1233 Feb 23 j 10:05	22° \mathbb{H} 03'49		
	1230 Aug 20 j 06:42	30° \mathbb{R} \mathbb{Q}			1233 Mar 01 j 19:24	0° \mathbb{Y}		
morning rise	1230 Aug 21 j 05:04	29° \mathbb{Q} 26'07			1233 Mar 26 j 01:58	0° \mathbb{B}		
direct	1230 Sep 08 j 09:32	23° \mathbb{Q} 13'15		asc. node	1233 Apr 04 j 08:30	11° \mathbb{B} 22'52		
greatest brilliancy	1230 Sep 22 j 21:38	26° \mathbb{Q} 57'06	-4.6m		1233 Apr 19 j 14:27	0° \mathbb{H}		
	1230 Sep 28 j 10:20	0° \mathbb{M}			1233 May 14 j 10:17	0° \mathbb{S}		
asc. node	1230 Oct 18 j 13:12	15° \mathbb{M} 50'30			1233 Jun 08 j 15:58	0° \mathbb{Q}		
morning max el	1230 Oct 28 j 17:01	25° \mathbb{M} 40'29	46°40'44		1233 Jul 04 j 13:10	0° \mathbb{M}		
	1230 Nov 01 j 22:17	0° \mathbb{A}		desc. node	1233 Jul 24 j 21:44	22° \mathbb{M} 43'34		
	1230 Nov 29 j 02:03	0° \mathbb{M}			1233 Jul 31 j 15:34	0° \mathbb{A}		
	1230 Dec 24 j 11:43	0° \mathbb{J}		evening max el	1233 Aug 20 j 18:27	20° \mathbb{A} 34'48	46°18'46	
	1231 Jan 18 j 05:38	0° \mathbb{Z}			1233 Aug 30 j 22:00	0° \mathbb{M}		
desc. node	1231 Feb 07 j 02:46	24° \mathbb{Z} 20'14		greatest brilliancy	1233 Sep 28 j 16:07	19° \mathbb{M} 25'59	-4.6m	
	1231 Feb 11 j 17:31	0° \mathbb{A}		retrograde	1233 Oct 09 j 08:18	21° \mathbb{M} 30'49		
	1231 Mar 08 j 03:31	0° \mathbb{H}		evening set	1233 Oct 24 j 12:57	17° \mathbb{M} 01'05		
	1231 Apr 01 j 13:29	0° \mathbb{Y}		inferior conj	1233 Oct 29 j 22:22	13° \mathbb{M} 51'16	-4°00'-58	
	1231 Apr 26 j 00:04	0° \mathbb{B}		minimum elong	1233 Oct 30 j 06:47	13° \mathbb{M} 38'30	3°58'33	
morning set	1231 May 03 j 13:17	9° \mathbb{B} 15'50		min. Earth dist.	1233 Oct 30 j 11:54	13° \mathbb{M} 30'45	0.26675 AU	
	1231 May 20 j 10:59	0° \mathbb{H}		morning rise	1233 Nov 05 j 00:13	10° \mathbb{M} 19'01		
asc. node	1231 May 31 j 06:11	13° \mathbb{H} 15'18		asc. node	1233 Nov 15 j 01:04	6° \mathbb{M} 33'31		
max. Earth dist.	1231 Jun 07 j 23:11	22° \mathbb{H} 43'18	1.73612 AU	direct	1233 Nov 19 j 12:13	6° \mathbb{M} 08'47		
				greatest brilliancy	1233 Dec 02 j 11:14	9° \mathbb{M} 17'07	-4.7m	
superior conj	1231 Jun 09 j 05:26	24° \mathbb{H} 16'14	0°21'06		1233 Dec 30 j 10:49	0° \mathbb{J}		
minimum elong	1231 Jun 09 j 01:15	24° \mathbb{H} 03'22	0°20'54	morning max el	1234 Jan 09 j 05:32	9° \mathbb{J} 34'09	46°55'21	
	1231 Jun 13 j 21:21	0° \mathbb{S}			1234 Jan 28 j 10:15	0° \mathbb{Z}		
	1231 Jul 08 j 06:29	0° \mathbb{Q}			1234 Feb 23 j 19:15	0° \mathbb{A}		
evening rise	1231 Jul 15 j 00:52	8° \mathbb{Q} 20'12		desc. node	1234 Mar 06 j 14:34	12° \mathbb{A} 38'11		
	1231 Aug 01 j 14:32	0° \mathbb{M}			1234 Mar 21 j 07:10	0° \mathbb{H}		
	1231 Aug 25 j 22:30	0° \mathbb{A}			1234 Apr 15 j 09:55	0° \mathbb{Y}		
	1231 Sep 19 j 07:41	0° \mathbb{M}			1234 May 10 j 07:55	0° \mathbb{B}		
desc. node	1231 Sep 19 j 19:31	0° \mathbb{M} 36'18			1234 Jun 04 j 02:24	0° \mathbb{H}		
	1231 Oct 13 j 19:19	0° \mathbb{J}		asc. node	1234 Jun 27 j 18:04	28° \mathbb{H} 49'57		
	1231 Nov 07 j 11:24	0° \mathbb{Z}			1234 Jun 28 j 16:58	0° \mathbb{S}		
	1231 Dec 02 j 13:16	0° \mathbb{A}		morning set	1234 Jul 10 j 03:27	14° \mathbb{S} 01'25		
	1231 Dec 28 j 15:19	0° \mathbb{H}			1234 Jul 23 j 02:56	0° \mathbb{Q}		
asc. node	1232 Jan 10 j 22:53	14° \mathbb{H} 23'47		max. Earth dist.	1234 Aug 12 j 00:59	24° \mathbb{Q} 38'45	1.72690 AU	
evening max el	1232 Jan 15 j 23:44	19° \mathbb{H} 35'04	46°51'54					
	1232 Jan 26 j 17:06	0° \mathbb{Y}		superior conj	1234 Aug 15 j 14:25	29° \mathbb{Q} 03'48	1°23'05	
greatest brilliancy	1232 Feb 21 j 07:22	18° \mathbb{Y} 53'12	-4.6m	minimum elong	1234 Aug 15 j 10:54	28° \mathbb{Q} 52'54	1°23'04	
retrograde	1232 Mar 06 j 12:13	22° \mathbb{Y} 34'00			1234 Aug 16 j 08:31	0° \mathbb{M}		
evening set	1232 Mar 23 j 15:06	16° \mathbb{Y} 52'01			1234 Sep 09 j 10:58	0° \mathbb{A}		
inferior conj	1232 Mar 27 j 18:10	14° \mathbb{Y} 18'18	7°04'44	evening rise	1234 Sep 21 j 22:41	15° \mathbb{A} 34'37		
minimum elong	1232 Mar 28 j 03:26	14° \mathbb{Y} 03'41	7°03'09		1234 Oct 03 j 11:58	0° \mathbb{M}		
min. Earth dist.	1232 Mar 27 j 16:19	14° \mathbb{Y} 21'14	0.28523 AU	desc. node	1234 Oct 17 j 07:26	17° \mathbb{M} 14'15		
morning rise	1232 Apr 01 j 15:59	11° \mathbb{Y} 17'15			1234 Oct 27 j 12:51	0° \mathbb{J}		
direct	1232 Apr 17 j 23:09	6° \mathbb{Y} 07'47			1234 Nov 20 j 14:33	0° \mathbb{Z}		
greatest brilliancy	1232 Apr 30 j 00:47	8° \mathbb{Y} 43'48	-4.5m		1234 Dec 14 j 18:35	0° \mathbb{A}		
desc. node	1232 May 01 j 12:03	9° \mathbb{Y} 21'25			1235 Jan 08 j 04:23	0° \mathbb{H}		
	1232 May 30 j 07:19	0° \mathbb{B}			1235 Feb 02 j 02:42	0° \mathbb{Y}		
morning max el	1232 Jun 05 j 19:44	6° \mathbb{B} 03'19	45°45'35	asc. node	1235 Feb 07 j 10:39	6° \mathbb{Y} 17'02		
	1232 Jun 29 j 07:31	0° \mathbb{H}			1235 Feb 28 j 02:30	0° \mathbb{B}		
	1232 Jul 26 j 07:40	0° \mathbb{S}		evening max el	1235 Mar 28 j 04:34	29° \mathbb{B} 38'21	45°43'05	
	1232 Aug 20 j 23:54	0° \mathbb{Q}			1235 Mar 28 j 13:27	0° \mathbb{H}		
asc. node	1232 Aug 22 j 15:40	1° \mathbb{Q} 58'28		greatest brilliancy	1235 May 01 j 10:43	26° \mathbb{H} 13'20	-4.5m	
	1232 Sep 14 j 20:26	0° \mathbb{M}		retrograde	1235 May 16 j 01:13	29° \mathbb{H} 56'12		
	1232 Oct 09 j 04:10	0° \mathbb{A}		desc. node	1235 May 30 j 00:02	26° \mathbb{H} 09'00		
	1232 Nov 02 j 04:28	0° \mathbb{M}		evening set	1235 May 31 j 01:57	25° \mathbb{H} 34'28		
	1232 Nov 26 j 01:27	0° \mathbb{J}		inferior conj	1235 Jun 06 j 12:25	21° \mathbb{H} 42'42	-1°-45'-21	
morning set	1232 Dec 02 j 20:56	8° \mathbb{J} 34'11		minimum elong	1235 Jun 06 j 08:36	21° \mathbb{H} 48'41	1°44'16	
desc. node	1232 Dec 12 j 05:04	20° \mathbb{J} 19'18		min. Earth dist.	1235 Jun 06 j 12:00	21° \mathbb{H} 43'22	0.28972 AU	
	1232 Dec 19 j 21:41	0° \mathbb{Z}		morning rise	1235 Jun 12 j 15:21	18° \mathbb{H} 01'28		
	1233 Jan 12 j 18:38	0° \mathbb{A}		direct	1235 Jun 28 j 04:48	13° \mathbb{H} 25'16		
				greatest brilliancy	1235 Jul 11 j 21:43	16° \mathbb{H} 42'04	-4.5m	
superior conj	1233 Jan 13 j 17:44	1° \mathbb{A} 12'29	-1°-7'-32		1235 Aug 01 j 03:30	0° \mathbb{S}		
minimum elong	1233 Jan 13 j 06:06	0° \mathbb{A} 36'00	1°07'12	morning max el	1235 Aug 16 j 04:31	13° \mathbb{S} 30'58	45°57'01	
max. Earth dist.	1233 Jan 16 j 21:16	5° \mathbb{A} 09'27	1.71374 AU		1235 Sep 01 j 09:25	0° \mathbb{Q}		

asc. node	1235 Sep 20 j 03:31	20°♌39'56		1238 Apr 05 j 19:27	0°♈	
	1235 Sep 28 j 06:48	0°♍		1238 May 01 j 22:58	0°♉	
	1235 Oct 23 j 13:39	0°♊		1238 May 30 j 01:01	0°♈	
	1235 Nov 17 j 01:56	0°♋	evening max el	1238 Jun 06 j 17:00	7°♌31'09	45°23'34
	1235 Dec 11 j 05:39	0°♌	desc. node	1238 Jun 26 j 11:59	24°♌37'02	
	1236 Jan 04 j 06:14	0°♍		1238 Jul 04 j 09:06	0°♍	
desc. node	1236 Jan 09 j 16:56	6°♌48'28	greatest brilliancy	1238 Jul 13 j 03:09	4°♍30'46	-4.5m
	1236 Jan 28 j 06:27	0°♎	retrograde	1238 Jul 25 j 08:22	7°♍09'08	
morning set	1236 Feb 18 j 23:33	27°♎04'54	evening set	1238 Aug 12 j 01:21	1°♍19'29	
	1236 Feb 21 j 07:48	0°♏		1238 Aug 14 j 06:08	30°♌	
	1236 Mar 16 j 11:16	0°♐	inferior conj	1238 Aug 15 j 15:35	29°♌08'31	-8°-31'-29
			minimum elong	1238 Aug 15 j 11:26	29°♌14'56	8°31'16
superior conj	1236 Mar 29 j 02:44	15°♐39'18	min. Earth dist.	1238 Aug 16 j 03:14	28°♌50'32	0.28499 AU
minimum elong	1236 Mar 29 j 12:24	16°♐09'09	morning rise	1238 Aug 18 j 21:17	27°♌09'35	
max. Earth dist.	1236 Apr 01 j 08:40	19°♐40'08	direct	1238 Sep 06 j 01:03	20°♌57'31	
	1236 Apr 09 j 17:27	0°♑	greatest brilliancy	1238 Sep 20 j 14:35	24°♌43'08	-4.6m
asc. node	1236 May 01 j 20:26	27°♑14'11		1238 Sep 29 j 13:35	0°♍	
	1236 May 04 j 02:25	0°♈	asc. node	1238 Oct 17 j 15:23	14°♍53'27	
evening rise	1236 May 05 j 22:08	2°♈14'13	morning max el	1238 Oct 26 j 08:24	23°♍21'59	46°39'25
	1236 May 28 j 13:54	0°♉		1238 Nov 01 j 18:49	0°♊	
	1236 Jun 22 j 03:53	0°♈		1238 Nov 28 j 17:45	0°♋	
	1236 Jul 16 j 21:21	0°♍		1238 Dec 24 j 01:29	0°♌	
	1236 Aug 10 j 20:24	0°♊		1239 Jan 17 j 18:23	0°♋	
desc. node	1236 Aug 21 j 09:33	12°♊33'22	desc. node	1239 Feb 06 j 04:41	23°♋48'35	
	1236 Sep 05 j 04:27	0°♋		1239 Feb 11 j 05:38	0°♌	
	1236 Oct 01 j 04:16	0°♌		1239 Mar 07 j 15:10	0°♍	
	1236 Oct 28 j 16:09	0°♍		1239 Apr 01 j 00:47	0°♐	
evening max el	1236 Nov 01 j 21:45	4°♋20'08		1239 Apr 25 j 11:07	0°♑	
	1236 Dec 01 j 10:27	0°♎	morning set	1239 May 01 j 06:47	7°♑08'31	
greatest brilliancy	1236 Dec 10 j 08:46	4°♎58'31		1239 May 19 j 21:53	0°♈	
asc. node	1236 Dec 12 j 13:04	5°♎51'52	asc. node	1239 May 30 j 08:18	12°♈48'20	
retrograde	1236 Dec 22 j 18:13	7°♎51'37	max. Earth dist.	1239 Jun 05 j 22:06	20°♈52'50	1.73622 AU
evening set	1237 Jan 07 j 12:36	2°♎55'51				
min. Earth dist.	1237 Jan 11 j 12:59	0°♎30'42	superior conj	1239 Jun 06 j 23:51	22°♈11'57	0°18'03
inferior conj	1237 Jan 12 j 11:07	29°♋56'18	minimum elong	1239 Jun 06 j 20:14	22°♈00'50	0°17'52
minimum elong	1237 Jan 12 j 01:00	0°♎12'01		1239 Jun 13 j 08:14	0°♉	
	1237 Jan 12 j 08:44	30°♋		1239 Jul 07 j 17:27	0°♈	
morning rise	1237 Jan 16 j 13:48	27°♋26'21	evening rise	1239 Jul 12 j 19:45	6°♈16'39	
direct	1237 Feb 01 j 22:25	22°♋13'02		1239 Aug 01 j 01:41	0°♍	
greatest brilliancy	1237 Feb 12 j 13:47	24°♋19'21		1239 Aug 25 j 09:56	0°♊	
	1237 Feb 23 j 10:48	0°♎	desc. node	1239 Sep 18 j 21:34	0°♋06'16	
morning max el	1237 Mar 23 j 12:32	23°♎37'54		1239 Sep 18 j 19:32	0°♋	
	1237 Mar 29 j 21:41	0°♏		1239 Oct 13 j 07:43	0°♌	
desc. node	1237 Apr 03 j 02:25	4°♏18'24		1239 Nov 07 j 00:39	0°♍	
	1237 Apr 26 j 21:48	0°♐		1239 Dec 02 j 03:56	0°♎	
	1237 May 23 j 07:08	0°♑		1239 Dec 28 j 08:59	0°♏	
	1237 Jun 17 j 22:24	0°♈	asc. node	1240 Jan 10 j 00:51	13°♏35'24	
	1237 Jul 13 j 01:29	0°♉	evening max el	1240 Jan 13 j 15:20	17°♏17'21	46°54'11
asc. node	1237 Jul 25 j 05:51	14°♉44'08		1240 Jan 26 j 21:02	0°♐	
	1237 Aug 06 j 18:20	0°♈	greatest brilliancy	1240 Feb 18 j 23:46	16°♐38'36	-4.6m
	1237 Aug 31 j 02:32	0°♍	retrograde	1240 Mar 04 j 04:55	20°♐19'23	
morning set	1237 Sep 17 j 07:44	21°♍25'26	evening set	1240 Mar 21 j 09:35	14°♐33'10	
	1237 Sep 24 j 04:25	0°♊	inferior conj	1240 Mar 25 j 09:49	12°♐03'41	7°16'33
	1237 Oct 18 j 02:41	0°♋	minimum elong	1240 Mar 25 j 18:49	11°♐49'29	7°15'07
max. Earth dist.	1237 Oct 24 j 08:53	7°♋51'50	min. Earth dist.	1240 Mar 25 j 06:56	12°♐08'14	0.28491 AU
			morning rise	1240 Mar 30 j 04:20	9°♐07'44	
superior conj	1237 Oct 25 j 23:50	9°♋54'14	direct	1240 Apr 15 j 14:34	3°♐53'48	
minimum elong	1237 Oct 26 j 09:14	10°♋23'47	greatest brilliancy	1240 Apr 27 j 13:41	6°♐27'58	-4.5m
	1237 Nov 10 j 23:30	0°♌	desc. node	1240 Apr 30 j 14:08	7°♐48'41	
desc. node	1237 Nov 13 j 19:21	3°♌33'20		1240 May 30 j 08:34	0°♑	
	1237 Dec 04 j 20:14	0°♍	morning max el	1240 Jun 03 j 12:15	3°♑54'01	45°46'03
evening rise	1237 Dec 06 j 03:12	1°♍37'15		1240 Jun 29 j 00:00	0°♈	
	1237 Dec 28 j 18:00	0°♎		1240 Jul 25 j 21:22	0°♉	
	1238 Jan 21 j 18:27	0°♏		1240 Aug 20 j 12:22	0°♈	
	1238 Feb 15 j 00:12	0°♐	asc. node	1240 Aug 21 j 17:43	1°♈27'33	
asc. node	1238 Mar 06 j 22:38	24°♐20'45		1240 Sep 14 j 08:16	0°♍	
	1238 Mar 11 j 14:51	0°♑		1240 Oct 08 j 15:40	0°♊	

	1240 Nov 01 j 15:48	0°♌		desc. node	1243 May 29 j 02:06	23°♊15'26	
	1240 Nov 25 j 12:41	0°♌		inferior conj	1243 Jun 04 j 04:54	19°♊34'14	-1°-25'-59
morning set	1240 Nov 30 j 07:16	6°♌00'23		minimum elong	1243 Jun 04 j 01:46	19°♊39'09	1°25'04
desc. node	1240 Dec 11 j 07:06	19°♌50'24		min. Earth dist.	1243 Jun 04 j 05:01	19°♊34'03	0.28965 AU
	1240 Dec 19 j 08:52	0°♍		morning rise	1243 Jun 10 j 09:07	15°♊50'47	
				direct	1243 Jun 25 j 20:41	11°♊16'51	
superior conj	1241 Jan 11 j 03:34	28°♋37'42	-1°-5'00	greatest brilliancy	1243 Jul 09 j 12:32	14°♊31'40	-4.5m
minimum elong	1241 Jan 10 j 15:43	28°♋00'31	1°04'38		1243 Aug 01 j 09:36	0°♎	
	1241 Jan 12 j 05:47	0°♎		morning max el	1243 Aug 13 j 19:02	11°♎16'59	45°55'58
max. Earth dist.	1241 Jan 14 j 07:05	2°♎34'41	1.71338 AU		1243 Sep 01 j 02:43	0°♏	
	1241 Feb 05 j 04:34	0°♏		asc. node	1243 Sep 19 j 05:43	20°♏04'14	
evening rise	1241 Feb 20 j 22:04	19°♏37'13			1243 Sep 27 j 20:49	0°♐	
	1241 Mar 01 j 06:32	0°♐			1243 Oct 23 j 02:19	0°♑	
	1241 Mar 25 j 13:10	0°♑			1243 Nov 16 j 13:57	0°♒	
asc. node	1241 Apr 03 j 10:40	10°♑55'01			1243 Dec 10 j 17:18	0°♓	
	1241 Apr 19 j 01:53	0°♒			1244 Jan 03 j 17:38	0°♓	
	1241 May 13 j 22:10	0°♓		desc. node	1244 Jan 08 j 18:54	6°♓19'09	
	1241 Jun 08 j 04:42	0°♏			1244 Jan 27 j 17:38	0°♎	
desc. node	1241 Jul 04 j 03:33	0°♐		morning set	1244 Feb 16 j 11:20	24°♎37'49	
	1241 Jul 23 j 23:40	22°♐03'11			1244 Feb 20 j 18:47	0°♏	
	1241 Jul 31 j 09:38	0°♑			1244 Mar 15 j 22:06	0°♐	
evening max el	1241 Aug 18 j 08:31	18°♑15'18	46°16'02				
	1241 Aug 31 j 04:41	0°♒		superior conj	1244 Mar 26 j 17:40	13°♐23'43	-1°-11'-4
greatest brilliancy	1241 Sep 26 j 05:10	17°♒00'19	-4.6m	minimum elong	1244 Mar 27 j 03:07	13°♐52'56	1°10'49
retrograde	1241 Oct 06 j 20:11	19°♒03'28		max. Earth dist.	1244 Mar 30 j 01:52	17°♐31'39	1.72833 AU
evening set	1241 Oct 22 j 04:02	14°♒30'18			1244 Apr 09 j 04:13	0°♑	
inferior conj	1241 Oct 27 j 10:41	11°♒23'56	-4°-22'-10	asc. node	1244 Apr 30 j 22:30	26°♑47'27	
minimum elong	1241 Oct 27 j 19:39	11°♒10'19	4°19'41	evening rise	1244 May 03 j 15:22	0°♒06'38	
min. Earth dist.	1241 Oct 28 j 01:20	11°♒01'40	0.26721 AU		1244 May 03 j 13:12	0°♒	
morning rise	1241 Nov 02 j 10:51	7°♒53'32			1244 May 28 j 00:48	0°♓	
asc. node	1241 Nov 14 j 03:10	3°♒51'25			1244 Jun 21 j 15:03	0°♏	
direct	1241 Nov 17 j 01:24	3°♒40'52			1244 Jul 16 j 09:00	0°♐	
greatest brilliancy	1241 Nov 30 j 01:12	6°♒49'50	-4.7m		1244 Aug 10 j 08:49	0°♑	
	1241 Dec 30 j 14:00	0°♓		desc. node	1244 Aug 20 j 11:42	12°♑01'43	
morning max el	1242 Jan 06 j 18:35	7°♓07'07	46°55'46		1244 Sep 04 j 18:09	0°♒	
	1242 Jan 28 j 03:58	0°♓			1244 Sep 30 j 20:20	0°♓	
	1242 Feb 23 j 09:50	0°♎			1244 Oct 28 j 13:56	0°♓	
desc. node	1242 Mar 05 j 16:42	12°♎03'50		evening max el	1244 Oct 30 j 10:35	1°♓53'23	47°16'55
	1242 Mar 20 j 20:12	0°♏			1244 Dec 02 j 23:10	0°♎	
	1242 Apr 14 j 22:01	0°♐		greatest brilliancy	1244 Dec 08 j 00:01	2°♎33'23	-4.7m
	1242 May 09 j 19:25	0°♑		asc. node	1244 Dec 11 j 15:02	3°♎56'49	
	1242 Jun 03 j 13:32	0°♒		retrograde	1244 Dec 20 j 07:14	5°♎24'35	
asc. node	1242 Jun 26 j 20:04	28°♒22'44		evening set	1245 Jan 04 j 22:05	0°♎34'20	
	1242 Jun 28 j 03:51	0°♓			1245 Jan 05 j 21:52	30°♒♓	
morning set	1242 Jul 07 j 21:31	11°♓56'16		min. Earth dist.	1245 Jan 09 j 02:36	28°♓03'41	0.26906 AU
	1242 Jul 22 j 13:43	0°♏		inferior conj	1245 Jan 10 j 00:08	27°♓30'19	6°41'27
max. Earth dist.	1242 Aug 09 j 16:53	22°♏25'48	1.72741 AU	minimum elong	1245 Jan 09 j 13:51	27°♓46'16	6°39'17
				morning rise	1245 Jan 14 j 05:59	24°♓55'59	
superior conj	1242 Aug 13 j 07:56	26°♏55'46	1°22'23	direct	1245 Jan 30 j 10:18	19°♓47'35	
minimum elong	1242 Aug 13 j 03:49	26°♏42'58	1°22'21	greatest brilliancy	1245 Feb 10 j 04:12	21°♓56'08	-4.6m
	1242 Aug 15 j 19:19	0°♐			1245 Feb 24 j 12:32	0°♎	
	1242 Sep 08 j 21:53	0°♑		morning max el	1245 Mar 21 j 01:48	21°♎16'15	46°21'05
evening rise	1242 Sep 19 j 13:12	13°♑15'51			1245 Mar 29 j 18:09	0°♏	
	1242 Oct 02 j 23:05	0°♒		desc. node	1245 Apr 02 j 04:31	3°♏33'26	
desc. node	1242 Oct 16 j 09:34	16°♒45'53			1245 Apr 26 j 13:04	0°♐	
	1242 Oct 27 j 00:13	0°♓			1245 May 22 j 20:15	0°♑	
	1242 Nov 20 j 02:10	0°♓			1245 Jun 17 j 10:23	0°♒	
	1242 Dec 14 j 06:32	0°♎			1245 Jul 12 j 12:50	0°♓	
	1243 Jan 07 j 16:52	0°♏		asc. node	1245 Jul 24 j 07:53	14°♓16'23	
	1243 Feb 01 j 16:12	0°♐			1245 Aug 06 j 05:20	0°♏	
asc. node	1243 Feb 06 j 12:43	5°♐42'36			1245 Aug 30 j 13:21	0°♐	
	1243 Feb 27 j 18:16	0°♑		morning set	1245 Sep 14 j 23:04	19°♐09'52	
evening max el	1243 Mar 25 j 19:36	27°♑24'31	45°44'55		1245 Sep 23 j 15:12	0°♑	
	1243 Mar 28 j 12:00	0°♒			1245 Oct 17 j 13:29	0°♒	
greatest brilliancy	1243 Apr 29 j 03:11	24°♒04'35	-4.5m	max. Earth dist.	1245 Oct 21 j 20:52	5°♒24'45	1.71326 AU
retrograde	1243 May 13 j 17:10	27°♒47'43					
evening set	1243 May 28 j 18:25	23°♒26'00		superior conj	1245 Oct 23 j 12:08	7°♒28'04	0°46'05

minimum elong	1245 Oct 23 j 21:56	7° \mathbb{M} 58'52	0°45'41	morning rise	1248 Mar 27 j 16:34	6° Υ 59'02	
	1245 Nov 10 j 10:21	0° \mathcal{Z}		direct	1248 Apr 13 j 06:16	1° Υ 40'50	
desc. node	1245 Nov 12 j 21:22	3° \mathcal{Z} 05'29		greatest brilliancy	1248 Apr 25 j 01:52	4° Υ 12'02	-4.5m
evening rise	1245 Dec 03 j 13:31	29° \mathcal{Z} 04'33		desc. node	1248 Apr 29 j 16:09	6° Υ 19'46	
	1245 Dec 04 j 07:10	0° \mathcal{Z}			1248 May 30 j 08:17	0° \mathcal{B}	
	1245 Dec 28 j 05:04	0° \approx		morning max el	1248 Jun 01 j 04:25	1° \mathcal{B} 44'38	45°46'28
	1246 Jan 21 j 05:41	0° \mathcal{H}			1248 Jun 28 j 15:54	0° \mathbb{I}	
	1246 Feb 14 j 11:40	0° Υ			1248 Jul 25 j 10:39	0° \mathcal{S}	
asc. node	1246 Mar 06 j 00:47	23° Υ 51'33			1248 Aug 20 j 00:26	0° \mathcal{Q}	
	1246 Mar 11 j 02:46	0° \mathcal{B}		asc. node	1248 Aug 20 j 19:53	0° \mathcal{Q} 58'03	
	1246 Apr 05 j 08:16	0° \mathbb{I}			1248 Sep 13 j 19:45	0° \mathbb{M}	
	1246 May 01 j 13:45	0° \mathcal{S}			1248 Oct 08 j 02:51	0° $\underline{\mathcal{A}}$	
	1246 May 29 j 21:04	0° \mathcal{Q}			1248 Nov 01 j 02:50	0° \mathbb{M}	
evening max el	1246 Jun 04 j 08:30	5° \mathcal{Q} 20'05	45°23'04		1248 Nov 24 j 23:39	0° \mathcal{Z}	
desc. node	1246 Jun 25 j 13:56	23° \mathcal{Q} 29'07		morning set	1248 Nov 27 j 17:51	3° \mathcal{Z} 28'15	
	1246 Jul 05 j 20:34	0° \mathbb{M}		desc. node	1248 Dec 10 j 09:06	19° \mathcal{Z} 22'20	
greatest brilliancy	1246 Jul 10 j 13:54	2° \mathbb{M} 13'51	-4.5m		1248 Dec 18 j 19:46	0° \mathcal{Z}	
retrograde	1246 Jul 22 j 23:39	4° \mathbb{M} 56'25					
	1246 Aug 08 j 02:57	30° \mathcal{R} \mathcal{Q}		superior conj	1249 Jan 08 j 13:40	26° \mathcal{Z} 04'38	-1°-2'-20
evening set	1246 Aug 09 j 13:36	29° \mathcal{Q} 10'06		minimum elong	1249 Jan 08 j 01:42	25° \mathcal{Z} 27'06	1°01'56
inferior conj	1246 Aug 13 j 06:41	26° \mathcal{Q} 54'52	-8°-26'-30	max. Earth dist.	1249 Jan 11 j 17:12	0° \approx 01'47	1.71299 AU
minimum elong	1246 Aug 13 j 01:48	27° \mathcal{Q} 02'24	8°26'10		1249 Jan 11 j 16:38	0° \approx	
min. Earth dist.	1246 Aug 13 j 17:07	26° \mathcal{Q} 38'44	0.28544 AU		1249 Feb 04 j 15:22	0° \mathcal{H}	
morning rise	1246 Aug 16 j 13:47	24° \mathcal{Q} 53'53		evening rise	1249 Feb 18 j 10:14	17° \mathcal{H} 12'03	
direct	1246 Sep 03 j 17:04	18° \mathcal{Q} 43'15			1249 Feb 28 j 17:19	0° Υ	
greatest brilliancy	1246 Sep 18 j 06:40	22° \mathcal{Q} 29'25	-4.6m		1249 Mar 25 j 00:04	0° \mathcal{B}	
	1246 Sep 30 j 08:53	0° \mathbb{M}		asc. node	1249 Apr 02 j 12:40	10° \mathcal{B} 27'34	
asc. node	1246 Oct 16 j 17:21	13° \mathbb{M} 58'17			1249 Apr 18 j 13:03	0° \mathbb{I}	
morning max el	1246 Oct 24 j 00:22	21° \mathbb{M} 06'26	46°38'08		1249 May 13 j 09:49	0° \mathcal{S}	
	1246 Nov 01 j 14:15	0° $\underline{\mathcal{A}}$			1249 Jun 07 j 17:16	0° \mathcal{Q}	
	1246 Nov 28 j 08:46	0° \mathbb{M}			1249 Jul 03 j 17:51	0° \mathbb{M}	
	1246 Dec 23 j 14:43	0° \mathcal{Z}		desc. node	1249 Jul 23 j 01:50	21° \mathbb{M} 23'44	
	1247 Jan 17 j 06:39	0° \mathcal{Z}			1249 Jul 31 j 03:51	0° $\underline{\mathcal{A}}$	
desc. node	1247 Feb 05 j 06:49	23° \mathcal{Z} 18'49		evening max el	1249 Aug 15 j 21:52	15° $\underline{\mathcal{A}}$ 54'56	46°13'24
	1247 Feb 10 j 17:19	0° \approx			1249 Aug 31 j 13:25	0° \mathbb{M}	
	1247 Mar 07 j 02:28	0° \mathcal{H}		greatest brilliancy	1249 Sep 23 j 18:46	14° \mathbb{M} 36'31	-4.6m
	1247 Mar 31 j 11:46	0° Υ		retrograde	1249 Oct 04 j 07:38	16° \mathbb{M} 37'36	
	1247 Apr 24 j 21:51	0° \mathcal{B}		evening set	1249 Oct 19 j 19:22	12° \mathbb{M} 00'38	
morning set	1247 Apr 29 j 00:01	5° \mathcal{B} 01'15		inferior conj	1249 Oct 24 j 23:13	8° \mathbb{M} 58'01	-4°-42'-44
	1247 May 19 j 08:28	0° \mathbb{I}		minimum elong	1249 Oct 25 j 08:37	8° \mathbb{M} 43'40	4°40'11
asc. node	1247 May 29 j 10:16	12° \mathbb{I} 21'58		min. Earth dist.	1249 Oct 25 j 15:12	8° \mathbb{M} 33'40	0.26771 AU
max. Earth dist.	1247 Jun 03 j 21:57	19° \mathbb{I} 06'17	1.73624 AU	morning rise	1249 Oct 30 j 21:24	5° \mathbb{M} 29'41	
				asc. node	1249 Nov 13 j 05:10	1° \mathbb{M} 16'22	
superior conj	1247 Jun 04 j 17:58	20° \mathbb{I} 07'47	0°14'57	direct	1249 Nov 14 j 14:17	1° \mathbb{M} 14'03	
minimum elong	1247 Jun 04 j 14:57	19° \mathbb{I} 58'29	0°14'48	greatest brilliancy	1249 Nov 27 j 16:16	4° \mathbb{M} 24'47	-4.7m
behind sun begin	1247 Jun 04 j 06:58	19° \mathbb{I} 33'59			1249 Dec 30 j 15:28	0° \mathcal{Z}	
behind sun end	1247 Jun 04 j 22:55	20° \mathbb{I} 22'59		morning max el	1250 Jan 04 j 07:08	4° \mathcal{Z} 39'15	46°56'14
	1247 Jun 12 j 18:46	0° \mathcal{S}			1250 Jan 27 j 21:06	0° \mathcal{Z}	
	1247 Jul 07 j 04:04	0° \mathcal{Q}			1250 Feb 23 j 00:02	0° \approx	
evening rise	1247 Jul 10 j 14:33	4° \mathcal{Q} 13'58		desc. node	1250 Mar 04 j 18:47	11° \approx 30'07	
	1247 Jul 31 j 12:30	0° \mathbb{M}			1250 Mar 20 j 08:54	0° \mathcal{H}	
	1247 Aug 24 j 21:04	0° $\underline{\mathcal{A}}$			1250 Apr 14 j 09:50	0° Υ	
desc. node	1247 Sep 17 j 23:41	29° $\underline{\mathcal{A}}$ 37'22			1250 May 09 j 06:42	0° \mathcal{B}	
	1247 Sep 18 j 07:04	0° \mathbb{M}			1250 Jun 03 j 00:28	0° \mathbb{I}	
	1247 Oct 12 j 19:51	0° \mathcal{Z}		asc. node	1250 Jun 25 j 22:09	27° \mathbb{I} 56'11	
	1247 Nov 06 j 13:38	0° \mathcal{Z}			1250 Jun 27 j 14:36	0° \mathcal{S}	
	1247 Dec 01 j 18:20	0° \approx		morning set	1250 Jul 05 j 15:32	9° \mathcal{S} 51'27	
	1247 Dec 28 j 02:32	0° \mathcal{H}			1250 Jul 22 j 00:23	0° \mathcal{Q}	
asc. node	1248 Jan 09 j 02:54	12° \mathcal{H} 47'44		max. Earth dist.	1250 Aug 07 j 09:36	20° \mathcal{Q} 15'50	1.72793 AU
evening max el	1248 Jan 11 j 07:32	15° \mathcal{H} 02'20	46°56'19				
	1248 Jan 27 j 02:14	0° Υ		superior conj	1250 Aug 11 j 01:28	24° \mathcal{Q} 48'10	1°21'35
greatest brilliancy	1248 Feb 16 j 16:50	14° Υ 25'59	-4.6m	minimum elong	1250 Aug 10 j 20:45	24° \mathcal{Q} 33'32	1°21'30
retrograde	1248 Mar 01 j 21:21	18° Υ 05'30			1250 Aug 15 j 05:59	0° \mathbb{M}	
evening set	1248 Mar 19 j 04:03	12° Υ 15'20			1250 Sep 08 j 08:41	0° $\underline{\mathcal{A}}$	
inferior conj	1248 Mar 23 j 01:28	9° Υ 49'55	7°27'48	evening rise	1250 Sep 17 j 03:51	10° $\underline{\mathcal{A}}$ 58'00	
minimum elong	1248 Mar 23 j 10:09	9° Υ 36'13	7°26'29		1250 Oct 02 j 10:05	0° \mathbb{M}	
min. Earth dist.	1248 Mar 22 j 21:30	9° Υ 56'11	0.28458 AU	desc. node	1250 Oct 15 j 11:31	16° \mathbb{M} 17'16	

	1250 Oct 26 j 11:28	0°♊			1253 May 22 j 09:29	0°♋		
	1250 Nov 19 j 13:44	0°♌			1253 Jun 16 j 22:30	0°♍		
	1250 Dec 13 j 18:28	0°♎			1253 Jul 12 j 00:19	0°♏		
	1251 Jan 07 j 05:22	0°♐		asc. node	1253 Jul 23 j 10:03	13°♏48'36		
	1251 Feb 01 j 05:46	0°♑			1253 Aug 05 j 16:29	0°♐		
asc. node	1251 Feb 05 j 14:53	5°♑08'30			1253 Aug 30 j 00:23	0°♑		
	1251 Feb 27 j 10:10	0°♋		morning set	1253 Sep 12 j 14:28	16°♑53'53		
evening max el	1251 Mar 23 j 10:11	25°♋09'57	45°46'55		1253 Sep 23 j 02:13	0°♒		
	1251 Mar 28 j 11:19	0°♌			1253 Oct 17 j 00:34	0°♓		
greatest brilliancy	1251 Apr 26 j 18:35	21°♌55'04	-4.5m	max. Earth dist.	1253 Oct 19 j 07:54	2°♓53'44	1.71362 AU	
retrograde	1251 May 11 j 09:26	25°♌40'15						
evening set	1251 May 26 j 11:09	21°♌17'55		superior conj	1253 Oct 21 j 00:23	5°♓00'53	0°49'13	
desc. node	1251 May 28 j 04:03	20°♌20'14		minimum elong	1253 Oct 21 j 10:29	5°♓32'37	0°48'48	
inferior conj	1251 Jun 01 j 21:32	17°♌26'34	-1°-6'-33		1253 Nov 09 j 21:30	0°♊		
minimum elong	1251 Jun 01 j 19:06	17°♌30'23	1°05'51	desc. node	1253 Nov 11 j 23:23	2°♊36'45		
min. Earth dist.	1251 Jun 01 j 22:11	17°♌25'32	0.28962 AU	evening rise	1253 Nov 30 j 23:35	26°♊30'08		
morning rise	1251 Jun 08 j 02:58	13°♌41'13			1253 Dec 03 j 18:25	0°♌		
direct	1251 Jun 23 j 12:34	9°♌08'59			1253 Dec 27 j 16:25	0°♍		
greatest brilliancy	1251 Jul 07 j 04:38	12°♌23'22	-4.5m		1254 Jan 20 j 17:11	0°♎		
	1251 Aug 01 j 13:39	0°♏			1254 Feb 13 j 23:27	0°♑		
morning max el	1251 Aug 11 j 10:17	9°♏04'53	45°54'53	asc. node	1254 Mar 05 j 02:45	23°♑20'48		
	1251 Aug 31 j 19:39	0°♐			1254 Mar 10 j 15:02	0°♋		
asc. node	1251 Sep 18 j 07:41	19°♐28'05			1254 Apr 04 j 21:31	0°♌		
	1251 Sep 27 j 10:44	0°♑			1254 May 01 j 05:05	0°♍		
	1251 Oct 22 j 14:57	0°♒			1254 May 29 j 18:10	0°♎		
	1251 Nov 16 j 01:57	0°♓		evening max el	1254 Jun 02 j 00:40	3°♎09'46	45°22'40	
	1251 Dec 10 j 04:56	0°♊		desc. node	1254 Jun 24 j 16:06	22°♎19'02		
desc. node	1252 Jan 03 j 05:01	0°♋		greatest brilliancy	1254 Jul 08 j 01:44	29°♎57'50	-4.5m	
	1252 Jan 07 j 21:00	5°♋50'11			1254 Jul 08 j 03:49	0°♑		
	1252 Jan 27 j 04:50	0°♌		retrograde	1254 Jul 20 j 14:54	2°♑43'20		
morning set	1252 Feb 13 j 22:53	22°♌09'39			1254 Aug 01 j 09:58	30°♒♎		
	1252 Feb 20 j 05:50	0°♎		evening set	1254 Aug 07 j 01:53	27°♒00'55		
	1252 Mar 15 j 09:02	0°♑		inferior conj	1254 Aug 10 j 21:56	24°♒41'02	-8°-20'-47	
				minimum elong	1254 Aug 10 j 16:23	24°♒49'37	8°20'20	
superior conj	1252 Mar 24 j 08:34	11°♑07'41	-1°-12'-59	min. Earth dist.	1254 Aug 11 j 07:06	24°♒26'52	0.28585 AU	
minimum elong	1252 Mar 24 j 17:44	11°♑36'03	1°12'45	morning rise	1254 Aug 14 j 06:43	22°♒37'29		
max. Earth dist.	1252 Mar 27 j 16:50	15°♑15'57	1.72777 AU	direct	1254 Sep 01 j 09:31	16°♒29'03		
	1252 Apr 08 j 15:03	0°♋		greatest brilliancy	1254 Sep 15 j 21:39	20°♒13'54	-4.6m	
asc. node	1252 Apr 30 j 00:29	26°♋20'21			1254 Sep 30 j 23:33	0°♑		
evening rise	1252 May 01 j 08:37	27°♋59'01		asc. node	1254 Oct 15 j 19:24	13°♑03'29		
	1252 May 03 j 00:02	0°♌		morning max el	1254 Oct 21 j 15:50	18°♑48'48	46°36'33	
	1252 May 27 j 11:45	0°♍			1254 Nov 01 j 09:32	0°♒		
	1252 Jun 21 j 02:18	0°♎			1254 Nov 28 j 00:01	0°♓		
	1252 Jul 15 j 20:46	0°♏			1254 Dec 23 j 04:17	0°♊		
	1252 Aug 09 j 21:27	0°♐			1255 Jan 16 j 19:19	0°♑		
desc. node	1252 Aug 19 j 13:44	11°♐29'03		desc. node	1255 Feb 04 j 08:56	22°♐47'52		
	1252 Sep 04 j 08:10	0°♑			1255 Feb 10 j 05:23	0°♒		
	1252 Sep 30 j 12:53	0°♋			1255 Mar 06 j 14:06	0°♎		
evening max el	1252 Oct 27 j 23:55	29°♋27'31	47°15'58		1255 Mar 30 j 23:05	0°♑		
	1252 Oct 28 j 12:49	0°♌			1255 Apr 24 j 08:57	0°♋		
	1252 Dec 05 j 08:32	0°♍		morning set	1255 Apr 26 j 17:03	2°♋52'10		
greatest brilliancy	1252 Dec 05 j 14:09	0°♍06'12	-4.7m		1255 May 18 j 19:26	0°♌		
asc. node	1252 Dec 10 j 17:07	1°♍56'24		asc. node	1255 May 28 j 12:22	11°♌54'50		
retrograde	1252 Dec 17 j 20:34	2°♍56'48		max. Earth dist.	1255 Jun 01 j 20:55	17°♌15'46	1.73621 AU	
	1252 Dec 29 j 20:19	30°♒♌						
evening set	1253 Jan 02 j 07:34	28°♌11'33		superior conj	1255 Jun 02 j 12:03	18°♌02'16	0°11'49	
min. Earth dist.	1253 Jan 06 j 15:52	25°♌35'58	0.26855 AU	minimum elong	1255 Jun 02 j 09:38	17°♌54'51	0°11'43	
inferior conj	1253 Jan 07 j 13:01	25°♌03'19	6°25'39	behind sun begin	1255 Jun 01 j 18:20	17°♌07'52		
minimum elong	1253 Jan 07 j 02:39	25°♌19'20	6°23'22	behind sun end	1255 Jun 03 j 00:56	18°♌41'51		
morning rise	1253 Jan 11 j 22:06	22°♌24'43			1255 Jun 12 j 05:42	0°♍		
direct	1253 Jan 27 j 22:32	17°♌21'01			1255 Jul 06 j 15:03	0°♎		
greatest brilliancy	1253 Feb 07 j 18:11	19°♌31'37	-4.6m	evening rise	1255 Jul 08 j 09:26	2°♎10'25		
	1253 Feb 25 j 07:49	0°♍			1255 Jul 30 j 23:40	0°♑		
morning max el	1253 Mar 18 j 15:57	18°♍56'02	46°22'44		1255 Aug 24 j 08:31	0°♒		
	1253 Mar 29 j 14:15	0°♎		desc. node	1255 Sep 17 j 01:40	29°♒06'58		
desc. node	1253 Apr 01 j 06:28	2°♎47'58			1255 Sep 17 j 18:59	0°♓		
	1253 Apr 26 j 04:21	0°♑			1255 Oct 12 j 08:24	0°♊		

	1255 Nov 06 j 03:08	0°☾		1258 Apr 13 j 21:59	0°☿	
	1255 Dec 01 j 09:25	0°♊		1258 May 08 j 18:18	0°♈	
	1255 Dec 27 j 21:06	0°♋		1258 Jun 02 j 11:42	0°♉	
asc. node	1256 Jan 08 j 05:04	11°♋57'50		1258 Jun 25 j 00:14	27°♊28'49	
evening max el	1256 Jan 08 j 23:19	12°♋44'22	46°58'22	1258 Jun 27 j 01:37	0°☾	
	1256 Jan 27 j 10:32	0°☿		1258 Jul 03 j 09:17	7°☾44'56	
greatest brilliancy	1256 Feb 14 j 10:51	12°☿12'34	-4.6m	1258 Jul 21 j 11:19	0°♌	
retrograde	1256 Feb 28 j 13:13	15°☿49'18		1258 Aug 05 j 03:53	18°♌09'51	1.72844 AU
evening set	1256 Mar 16 j 22:18	9°☿55'35				
inferior conj	1256 Mar 20 j 16:56	7°☿34'07	7°38'23	1258 Aug 08 j 18:56	22°♌39'33	1°20'38
minimum elong	1256 Mar 21 j 01:14	7°☿20'59	7°37'13	1258 Aug 08 j 13:38	22°♌23'08	1°20'33
min. Earth dist.	1256 Mar 20 j 12:04	7°☿41'49	0.28420 AU	1258 Aug 14 j 16:57	0°♍	
morning rise	1256 Mar 25 j 04:31	4°☿48'16		1258 Sep 07 j 19:45	0°♎	
	1256 Apr 05 j 14:07	30°♋		1258 Sep 14 j 18:46	8°♎40'14	
direct	1256 Apr 10 j 21:37	29°♋25'58		1258 Oct 01 j 21:21	0°♏	
	1256 Apr 16 j 08:31	0°☿		1258 Oct 14 j 13:35	15°♏48'21	
greatest brilliancy	1256 Apr 22 j 13:39	1°☿53'48	-4.5m	1258 Oct 25 j 22:56	0°♐	
desc. node	1256 Apr 28 j 18:14	4°☿52'15		1258 Nov 19 j 01:27	0°☾	
morning max el	1256 May 29 j 19:35	29°☿31'23	45°46'56	1258 Dec 13 j 06:33	0°♊	
	1256 May 30 j 07:32	0°♈		1259 Jan 06 j 18:04	0°♋	
	1256 Jun 28 j 07:59	0°♉		1259 Jan 31 j 19:37	0°☿	
	1256 Jul 25 j 00:15	0°☾		1259 Feb 04 j 16:48	4°☿32'51	
asc. node	1256 Aug 19 j 21:50	0°♌26'51		1259 Feb 27 j 02:36	0°♈	
	1256 Aug 19 j 12:51	0°♌		1259 Mar 21 j 00:50	22°♈54'38	45°48'57
	1256 Sep 13 j 07:32	0°♍		1259 Mar 28 j 12:12	0°♉	
	1256 Oct 07 j 14:19	0°♎		1259 Apr 24 j 09:25	19°♉43'36	-4.5m
	1256 Oct 31 j 14:09	0°♏		1259 May 09 j 01:57	23°♉31'27	
	1256 Nov 24 j 10:55	0°♐		1259 May 24 j 03:52	19°♉08'07	
morning set	1256 Nov 25 j 04:33	0°♐55'26		1259 May 27 j 06:11	17°♉20'51	
desc. node	1256 Dec 09 j 11:15	18°♐53'37		1259 May 30 j 13:58	15°♉17'24	0°-46'-52
	1256 Dec 18 j 07:03	0°☾		1259 May 30 j 12:15	15°♉20'06	0°46'23
				1259 May 30 j 14:54	15°♉15'56	0.28959 AU
superior conj	1257 Jan 05 j 23:26	23°☾29'18	0°-59'-30	1259 May 30 j 20:32	11°♉30'37	
minimum elong	1257 Jan 05 j 11:30	22°☾51'48	0°59'06	1259 Jun 21 j 04:24	6°♉59'38	
max. Earth dist.	1257 Jan 09 j 00:28	27°☾18'35	1.71265 AU	1259 Jun 04 j 21:08	10°♉14'36	-4.5m
	1257 Jan 11 j 03:54	0°♊		1259 Aug 01 j 16:22	0°☾	
	1257 Feb 04 j 02:35	0°♋		1259 Aug 09 j 02:10	6°☾53'48	45°53'53
evening rise	1257 Feb 15 j 21:42	14°♋43'17		1259 Aug 31 j 12:27	0°♌	
	1257 Feb 28 j 04:33	0°☿		1259 Sep 17 j 09:42	18°♌51'47	
	1257 Mar 24 j 11:24	0°♈		1259 Sep 27 j 00:40	0°♍	
asc. node	1257 Apr 01 j 14:39	9°♈58'48		1259 Oct 22 j 03:39	0°♎	
	1257 Apr 18 j 00:39	0°♉		1259 Nov 15 j 14:01	0°♏	
	1257 May 12 j 21:56	0°☾		1259 Dec 09 j 16:37	0°♐	
	1257 Jun 07 j 06:20	0°♌		1260 Jan 02 j 16:24	0°☾	
desc. node	1257 Jul 03 j 08:46	0°♍		1260 Jan 06 j 23:04	5°☾21'10	
	1257 Jul 22 j 03:53	20°♍42'23		1260 Jan 26 j 16:00	0°♊	
	1257 Jul 30 j 22:59	0°♎		1260 Feb 11 j 10:35	19°♊41'54	
evening max el	1257 Aug 13 j 10:23	13°♎31'41	46°10'54	1260 Feb 19 j 16:52	0°♋	
	1257 Sep 01 j 01:38	0°♏		1260 Mar 14 j 19:57	0°☿	
greatest brilliancy	1257 Sep 21 j 08:23	12°♏12'20	-4.6m			
retrograde	1257 Oct 01 j 19:12	14°♏11'52		1260 Mar 21 j 23:22	8°☿51'13	-1°-14'-45
evening set	1257 Oct 17 j 10:54	9°♏30'39		1260 Mar 22 j 08:12	9°☿18'34	1°14'34
inferior conj	1257 Oct 22 j 11:54	6°♏32'06	-5°-2'-30	1260 Mar 25 j 07:27	12°☿59'06	1.72729 AU
minimum elong	1257 Oct 22 j 21:42	6°♏17'09	4°59'55	1260 Apr 08 j 01:56	0°♈	
min. Earth dist.	1257 Oct 23 j 05:17	6°♏05'38	0.26823 AU	1260 Apr 29 j 01:39	25°♈50'30	
morning rise	1257 Oct 28 j 07:57	3°♏06'18		1260 Apr 29 j 02:36	25°♈53'26	
	1257 Nov 04 j 10:03	30°♋		1260 May 02 j 10:55	0°♉	
direct	1257 Nov 12 j 02:59	28°♋47'03		1260 May 26 j 22:46	0°☾	
asc. node	1257 Nov 12 j 07:15	28°♋47'06		1260 Jun 20 j 13:38	0°♌	
	1257 Nov 20 j 01:39	0°♏		1260 Jul 15 j 08:39	0°♍	
greatest brilliancy	1257 Nov 25 j 08:12	2°♏00'43	-4.7m	1260 Aug 09 j 10:12	0°♎	
	1257 Dec 30 j 15:56	0°♐		1260 Aug 18 j 15:42	10°♎55'54	
morning max el	1258 Jan 01 j 19:43	2°♐10'41	46°56'31	1260 Sep 03 j 22:21	0°♏	
	1258 Jan 27 j 14:10	0°☾		1260 Sep 30 j 05:46	0°♐	
	1258 Feb 22 j 14:26	0°♊		1260 Oct 25 j 14:19	27°♐04'29	47°14'58
desc. node	1258 Mar 03 j 20:43	10°♊55'02		1260 Oct 28 j 12:42	0°☾	
	1258 Mar 19 j 21:54	0°♋		1260 Dec 03 j 03:52	27°☾38'45	-4.7m

asc. node	1260 Dec 09 j 19:13	29°♄51'15			1263 May 18 j 06:00	0°♈	
	1260 Dec 10 j 12:07	0°♊		asc. node	1263 May 27 j 14:28	11°♈28'53	
retrograde	1260 Dec 15 j 10:21	0°♊29'12					
	1260 Dec 20 j 06:03	30°♈		superior conj	1263 May 31 j 06:27	15°♈58'58	0°08'43
evening set	1260 Dec 30 j 17:14	25°♈48'51		minimum elong	1263 May 31 j 04:39	15°♈53'28	0°08'38
min. Earth dist.	1261 Jan 04 j 04:51	23°♈08'55	0.26801 AU	behind sun begin	1263 May 30 j 09:35	14°♈54'53	
inferior conj	1261 Jan 05 j 01:52	22°♈36'33	6°09'06	behind sun end	1263 May 31 j 23:44	16°♈52'03	
minimum elong	1261 Jan 04 j 15:30	22°♈52'32	6°06'43	max. Earth dist.	1263 May 30 j 19:27	15°♈25'11	1.73618 AU
morning rise	1261 Jan 09 j 14:11	19°♈53'52			1263 Jun 11 j 16:15	0°♉	
direct	1261 Jan 25 j 11:23	14°♈55'02		evening rise	1263 Jul 06 j 04:31	0°♉08'35	
greatest brilliancy	1261 Feb 05 j 07:11	17°♈06'35	-4.6m		1263 Jul 06 j 01:43	0°♉	
	1261 Feb 25 j 21:53	0°♊			1263 Jul 30 j 10:32	0°♊	
morning max el	1261 Mar 16 j 06:30	16°♊37'28	46°24'20		1263 Aug 23 j 19:42	0°♊	
	1261 Mar 29 j 09:29	0°♋		desc. node	1263 Sep 16 j 03:44	28°♊37'44	
desc. node	1261 Mar 31 j 08:36	2°♋04'18			1263 Sep 17 j 06:37	0°♋	
	1261 Apr 25 j 19:13	0°♌			1263 Oct 11 j 20:42	0°♌	
	1261 May 21 j 22:28	0°♌			1263 Nov 05 j 16:23	0°♌	
	1261 Jun 16 j 10:28	0°♈			1263 Dec 01 j 00:20	0°♊	
	1261 Jul 11 j 11:42	0°♉			1263 Dec 27 j 15:44	0°♋	
asc. node	1261 Jul 22 j 12:00	13°♉20'25		evening max el	1264 Jan 06 j 14:14	10°♋25'00	47°00'19
	1261 Aug 05 j 03:32	0°♊		asc. node	1264 Jan 07 j 06:59	11°♋07'31	
	1261 Aug 29 j 11:18	0°♊			1264 Jan 27 j 21:12	0°♌	
morning set	1261 Sep 10 j 05:52	14°♊38'26		greatest brilliancy	1264 Feb 12 j 05:26	10°♌00'46	-4.6m
	1261 Sep 22 j 13:07	0°♋		retrograde	1264 Feb 26 j 04:45	13°♌34'13	
	1261 Oct 16 j 11:30	0°♋		evening set	1264 Mar 14 j 16:31	7°♌37'15	
max. Earth dist.	1261 Oct 16 j 17:35	0°♋19'05	1.71398 AU	inferior conj	1264 Mar 18 j 08:29	5°♌19'40	7°48'16
				minimum elong	1264 Mar 18 j 16:21	5°♌07'14	7°47'15
superior conj	1261 Oct 18 j 12:45	2°♋34'38	0°52'13	min. Earth dist.	1264 Mar 18 j 03:01	5°♌28'20	0.28377 AU
minimum elong	1261 Oct 18 j 23:04	3°♋06'59	0°51'49	morning rise	1264 Mar 22 j 16:29	2°♌38'51	
	1261 Nov 09 j 08:31	0°♌			1264 Mar 27 j 16:04	30°♌	
desc. node	1261 Nov 11 j 01:31	2°♌08'48		direct	1264 Apr 08 j 12:33	27°♌12'26	
evening rise	1261 Nov 28 j 09:41	23°♌56'15		greatest brilliancy	1264 Apr 20 j 02:17	29°♌37'44	-4.5m
	1261 Dec 03 j 05:32	0°♍			1264 Apr 21 j 00:01	0°♌	
	1261 Dec 27 j 03:37	0°♊		desc. node	1264 Apr 27 j 20:18	3°♌28'53	
	1262 Jan 20 j 04:31	0°♋		morning max el	1264 May 27 j 09:55	27°♌17'28	45°47'36
	1262 Feb 13 j 10:59	0°♌			1264 May 30 j 05:14	0°♌	
asc. node	1262 Mar 04 j 04:48	22°♌51'07			1264 Jun 27 j 23:17	0°♈	
	1262 Mar 10 j 03:03	0°♌			1264 Jul 24 j 13:14	0°♉	
	1262 Apr 04 j 10:31	0°♈		asc. node	1264 Aug 18 j 23:53	29°♉57'18	
	1262 Apr 30 j 20:20	0°♉			1264 Aug 19 j 00:47	0°♊	
	1262 May 29 j 15:43	0°♊			1264 Sep 12 j 18:56	0°♊	
evening max el	1262 May 30 j 16:50	1°♊00'14	45°22'07		1264 Oct 07 j 01:26	0°♋	
desc. node	1262 Jun 23 j 18:08	21°♊07'19			1264 Oct 31 j 01:09	0°♋	
greatest brilliancy	1262 Jul 05 j 14:55	27°♊44'07	-4.5m	morning set	1264 Nov 22 j 15:13	28°♋23'31	
	1262 Jul 12 j 23:06	0°♌			1264 Nov 23 j 21:53	0°♌	
retrograde	1262 Jul 18 j 05:51	0°♌31'02		desc. node	1264 Dec 08 j 13:16	18°♌25'37	
	1262 Jul 23 j 09:11	30°♌			1264 Dec 17 j 17:58	0°♍	
evening set	1262 Aug 04 j 14:05	24°♌53'05					
inferior conj	1262 Aug 08 j 13:17	22°♌28'12	-8°-14'-12	superior conj	1265 Jan 03 j 09:07	20°♍54'48	0°-56'-33
minimum elong	1262 Aug 08 j 07:05	22°♌37'49	8°13'39	minimum elong	1265 Jan 02 j 21:17	20°♍17'40	0°56'08
min. Earth dist.	1262 Aug 08 j 21:25	22°♌15'35	0.28623 AU	max. Earth dist.	1265 Jan 06 j 05:10	24°♍28'31	1.71232 AU
morning rise	1262 Aug 11 j 23:56	20°♌21'40			1265 Jan 10 j 14:47	0°♊	
direct	1262 Aug 30 j 01:47	14°♌15'59			1265 Feb 03 j 13:27	0°♋	
greatest brilliancy	1262 Sep 13 j 12:08	17°♌58'32	-4.6m	evening rise	1265 Feb 13 j 09:05	12°♋15'15	
	1262 Oct 01 j 10:10	0°♌			1265 Feb 27 j 15:27	0°♌	
asc. node	1262 Oct 14 j 21:32	12°♌10'39			1265 Mar 23 j 22:24	0°♌	
morning max el	1262 Oct 19 j 06:18	16°♌29'33	46°34'57	asc. node	1265 Mar 31 j 16:49	9°♌31'38	
	1262 Nov 01 j 04:01	0°♍			1265 Apr 17 j 11:53	0°♈	
	1262 Nov 27 j 14:47	0°♋			1265 May 12 j 09:40	0°♉	
	1262 Dec 22 j 17:28	0°♌			1265 Jun 06 j 19:00	0°♊	
	1263 Jan 16 j 07:38	0°♍			1265 Jul 02 j 23:20	0°♊	
desc. node	1263 Feb 03 j 10:50	22°♍17'09		desc. node	1265 Jul 21 j 05:50	20°♊01'37	
	1263 Feb 09 j 17:08	0°♊			1265 Jul 30 j 18:08	0°♋	
	1263 Mar 06 j 01:25	0°♋		evening max el	1265 Aug 10 j 22:21	11°♋08'37	46°08'16
	1263 Mar 30 j 10:03	0°♌			1265 Sep 01 j 17:15	0°♋	
	1263 Apr 23 j 19:40	0°♌		greatest brilliancy	1265 Sep 18 j 21:09	9°♋48'20	-4.6m
morning set	1263 Apr 24 j 10:24	0°♌45'16		retrograde	1265 Sep 29 j 07:00	11°♋47'22	

evening set	1265 Oct 15 j 02:26	7° \mathbb{M} 01'18		minimum elong	1268 Mar 19 j 22:05	6° Υ 59'26	1°16'16
inferior conj	1265 Oct 20 j 00:33	4° \mathbb{M} 07'04	-5°-21'-31	max. Earth dist.	1268 Mar 22 j 23:19	10° Υ 46'17	1.72678 AU
minimum elong	1265 Oct 20 j 10:41	3° \mathbb{M} 51'39	5°18'58		1268 Apr 07 j 12:41	0° \mathcal{B}	
min. Earth dist.	1265 Oct 20 j 19:12	3° \mathbb{M} 38'40	0.26884 AU	evening rise	1268 Apr 26 j 18:27	23° \mathcal{B} 41'36	
morning rise	1265 Oct 25 j 18:18	0° \mathbb{M} 44'19		asc. node	1268 Apr 28 j 04:39	25° \mathcal{B} 26'40	
	1265 Oct 27 j 03:45	30° \mathbb{R} $\underline{\mathcal{A}}$			1268 May 01 j 21:42	0° \mathbb{I}	
direct	1265 Nov 09 j 15:50	26° $\underline{\mathcal{A}}$ 20'40			1268 May 26 j 09:42	0° \mathcal{S}	
asc. node	1265 Nov 11 j 09:19	26° $\underline{\mathcal{A}}$ 24'16			1268 Jun 20 j 00:52	0° \mathcal{Q}	
greatest brilliancy	1265 Nov 23 j 00:59	29° $\underline{\mathcal{A}}$ 38'34	-4.7m		1268 Jul 14 j 20:25	0° \mathbb{M}	
	1265 Nov 23 j 19:02	0° \mathbb{M}			1268 Aug 08 j 22:49	0° $\underline{\mathcal{A}}$	
morning max el	1265 Dec 30 j 08:59	29° \mathbb{M} 44'37	46°56'52	desc. node	1268 Aug 17 j 17:52	10° $\underline{\mathcal{A}}$ 23'53	
	1265 Dec 30 j 15:02	0° \mathcal{A}			1268 Sep 03 j 12:25	0° \mathbb{M}	
	1266 Jan 27 j 06:38	0° \mathcal{Z}			1268 Sep 29 j 22:40	0° \mathcal{A}	
	1266 Feb 22 j 04:20	0° \approx		evening max el	1268 Oct 23 j 05:14	24° \mathcal{A} 43'36	47°13'39
desc. node	1266 Mar 02 j 22:53	10° \approx 21'52			1268 Oct 28 j 13:26	0° \mathcal{Z}	
	1266 Mar 19 j 10:28	0° \mathcal{H}		greatest brilliancy	1268 Nov 30 j 17:40	25° \mathcal{Z} 11'44	-4.7m
	1266 Apr 13 j 09:45	0° Υ		asc. node	1268 Dec 08 j 21:11	27° \mathcal{Z} 40'48	
	1266 May 08 j 05:32	0° \mathcal{B}		retrograde	1268 Dec 13 j 00:01	28° \mathcal{Z} 01'16	
	1266 Jun 01 j 22:34	0° \mathbb{I}		evening set	1268 Dec 28 j 03:00	23° \mathcal{Z} 25'48	
asc. node	1266 Jun 24 j 02:14	27° \mathbb{I} 02'21		min. Earth dist.	1269 Jan 01 j 17:44	20° \mathcal{Z} 41'27	0.26754 AU
	1266 Jun 26 j 12:16	0° \mathcal{S}		inferior conj	1269 Jan 02 j 14:36	20° \mathcal{Z} 09'22	5°51'39
morning set	1266 Jul 01 j 03:32	5° \mathcal{S} 41'05		minimum elong	1269 Jan 02 j 04:19	20° \mathcal{Z} 25'11	5°49'10
	1266 Jul 20 j 21:51	0° \mathcal{Q}		morning rise	1269 Jan 07 j 06:09	17° \mathcal{Z} 22'27	
max. Earth dist.	1266 Aug 03 j 01:05	16° \mathcal{Q} 14'09	1.72892 AU	direct	1269 Jan 23 j 00:29	12° \mathcal{Z} 28'44	
				greatest brilliancy	1269 Feb 02 j 19:45	14° \mathcal{Z} 40'25	-4.6m
superior conj	1266 Aug 06 j 12:54	20° \mathcal{Q} 33'45	1°19'35		1269 Feb 26 j 08:33	0° \approx	
minimum elong	1266 Aug 06 j 07:05	20° \mathcal{Q} 15'43	1°19'30	morning max el	1269 Mar 13 j 20:39	14° \approx 17'24	46°25'48
	1266 Aug 14 j 03:31	0° \mathbb{M}			1269 Mar 29 j 04:20	0° \mathcal{H}	
	1266 Sep 07 j 06:29	0° $\underline{\mathcal{A}}$		desc. node	1269 Mar 30 j 10:42	1° \mathcal{H} 20'46	
evening rise	1266 Sep 12 j 10:14	6° $\underline{\mathcal{A}}$ 25'23			1269 Apr 25 j 10:00	0° Υ	
	1266 Oct 01 j 08:18	0° \mathbb{M}			1269 May 21 j 11:24	0° \mathcal{B}	
desc. node	1266 Oct 13 j 15:44	15° \mathbb{M} 20'34			1269 Jun 15 j 22:23	0° \mathbb{I}	
	1266 Oct 25 j 10:09	0° \mathcal{A}			1269 Jul 10 j 23:03	0° \mathcal{S}	
	1266 Nov 18 j 12:58	0° \mathcal{Z}		asc. node	1269 Jul 21 j 14:04	12° \mathcal{S} 52'38	
	1266 Dec 12 j 18:29	0° \approx			1269 Aug 04 j 14:35	0° \mathcal{Q}	
	1267 Jan 06 j 06:39	0° \mathcal{H}			1269 Aug 28 j 22:12	0° \mathbb{M}	
	1267 Jan 31 j 09:24	0° Υ		morning set	1269 Sep 07 j 21:41	12° \mathbb{M} 24'25	
asc. node	1267 Feb 03 j 18:53	3° Υ 58'04			1269 Sep 21 j 23:58	0° $\underline{\mathcal{A}}$	
	1267 Feb 26 j 19:06	0° \mathcal{B}		max. Earth dist.	1269 Oct 14 j 02:10	27° $\underline{\mathcal{A}}$ 41'16	1.71432 AU
evening max el	1267 Mar 18 j 16:06	20° \mathcal{B} 41'33	45°51'09		1269 Oct 15 j 22:22	0° \mathbb{M}	
	1267 Mar 28 j 14:04	0° \mathbb{I}		superior conj	1269 Oct 16 j 01:51	0° \mathbb{M} 10'53	0°55'04
greatest brilliancy	1267 Apr 22 j 00:32	17° \mathbb{I} 33'24	-4.5m	minimum elong	1269 Oct 16 j 12:17	0° \mathbb{M} 43'38	0°54'41
retrograde	1267 May 06 j 19:00	21° \mathbb{I} 23'33			1269 Nov 08 j 19:28	0° \mathcal{A}	
evening set	1267 May 21 j 20:50	16° \mathbb{I} 59'05		desc. node	1269 Nov 10 j 03:31	1° \mathcal{A} 40'41	
desc. node	1267 May 26 j 08:14	14° \mathbb{I} 21'05		evening rise	1269 Nov 25 j 20:14	21° \mathcal{A} 23'54	
inferior conj	1267 May 28 j 06:26	13° \mathbb{I} 09'04	0°-27'-11		1269 Dec 02 j 16:36	0° \mathcal{Z}	
minimum elong	1267 May 28 j 05:26	13° \mathbb{I} 10'38	0°26'54		1269 Dec 26 j 14:51	0° \approx	
min. Earth dist.	1267 May 28 j 07:22	13° \mathbb{I} 07'37	0.28951 AU		1270 Jan 19 j 15:55	0° \mathcal{H}	
morning rise	1267 Jun 03 j 14:01	9° \mathbb{I} 21'12			1270 Feb 12 j 22:41	0° Υ	
direct	1267 Jun 18 j 20:45	4° \mathbb{I} 51'15		asc. node	1270 Mar 03 j 06:56	22° Υ 21'00	
greatest brilliancy	1267 Jul 02 j 13:18	8° \mathbb{I} 06'31	-4.5m		1270 Mar 09 j 15:18	0° \mathcal{B}	
	1267 Aug 01 j 17:14	0° \mathcal{S}			1270 Apr 03 j 23:52	0° \mathbb{I}	
morning max el	1267 Aug 06 j 18:49	4° \mathcal{S} 45'49	45°53'02		1270 Apr 30 j 12:03	0° \mathcal{S}	
	1267 Aug 31 j 04:33	0° \mathcal{Q}		evening max el	1270 May 28 j 08:06	28° \mathcal{S} 47'51	45°21'44
asc. node	1267 Sep 16 j 11:53	18° \mathcal{Q} 17'18			1270 May 29 j 14:26	0° \mathcal{Q}	
	1267 Sep 26 j 14:08	0° \mathbb{M}		desc. node	1270 Jun 22 j 20:07	19° \mathcal{Q} 52'46	
	1267 Oct 21 j 16:00	0° $\underline{\mathcal{A}}$		greatest brilliancy	1270 Jul 03 j 04:45	25° \mathcal{Q} 30'30	-4.5m
	1267 Nov 15 j 01:49	0° \mathbb{M}		retrograde	1270 Jul 15 j 20:22	28° \mathcal{Q} 18'17	
	1267 Dec 09 j 04:05	0° \mathcal{A}		evening set	1270 Aug 02 j 02:10	22° \mathcal{Q} 44'59	
desc. node	1268 Jan 02 j 03:40	0° \mathcal{Z}		inferior conj	1270 Aug 06 j 04:37	20° \mathcal{Q} 15'03	-8°-7'-3
	1268 Jan 06 j 01:04	4° \mathcal{Z} 52'15		minimum elong	1270 Aug 05 j 21:48	20° \mathcal{Q} 25'39	8°06'22
morning set	1268 Jan 26 j 03:06	0° \approx		min. Earth dist.	1270 Aug 06 j 12:06	20° \mathcal{Q} 03'26	0.28657 AU
	1268 Feb 08 j 21:41	17° \approx 12'23		morning rise	1270 Aug 09 j 17:15	18° \mathcal{Q} 05'13	
	1268 Feb 19 j 03:48	0° \mathcal{H}		direct	1270 Aug 27 j 17:24	12° \mathcal{Q} 02'27	
	1268 Mar 14 j 06:47	0° Υ		greatest brilliancy	1270 Sep 11 j 02:42	15° \mathcal{Q} 42'50	-4.6m
superior conj	1268 Mar 19 j 13:38	6° Υ 33'17	-1°-16'-26		1270 Oct 01 j 18:07	0° \mathbb{M}	

asc. node	1270 Oct 13 j 23:32	11° \cap 18'10			1273 Mar 23 j 09:40	0° δ	
morning max el	1270 Oct 16 j 20:00	14° \cap 08'08	46°33'37	asc. node	1273 Mar 30 j 18:49	9° δ 03'07	
	1270 Oct 31 j 22:08	0° $\underline{\Delta}$			1273 Apr 16 j 23:27	0° Π	
	1270 Nov 27 j 05:25	0° \mathbb{M}			1273 May 11 j 21:47	0° $\textcircled{\Delta}$	
	1270 Dec 22 j 06:35	0° $\textcircled{\Delta}$			1273 Jun 06 j 08:11	0° Ω	
	1271 Jan 15 j 19:56	0° $\textcircled{\Delta}$			1273 Jul 02 j 14:36	0° \cap	
desc. node	1271 Feb 02 j 13:00	21° $\textcircled{\Delta}$ 47'10		desc. node	1273 Jul 20 j 08:02	19° \cap 19'41	
	1271 Feb 09 j 04:56	0° \approx			1273 Jul 30 j 14:23	0° $\underline{\Delta}$	
	1271 Mar 05 j 12:51	0° $\textcircled{\Delta}$		evening max el	1273 Aug 08 j 10:48	8° $\underline{\Delta}$ 45'40	46°05'53
	1271 Mar 29 j 21:13	0° Υ			1273 Sep 02 j 14:57	0° \mathbb{M}	
morning set	1271 Apr 22 j 03:14	28° Υ 35'52		greatest brilliancy	1273 Sep 16 j 08:52	7° \mathbb{M} 22'20	-4.6m
	1271 Apr 23 j 06:37	0° δ		retrograde	1273 Sep 26 j 19:23	9° \mathbb{M} 22'04	
	1271 May 17 j 16:51	0° Π		evening set	1273 Oct 12 j 18:03	4° \mathbb{M} 30'51	
asc. node	1271 May 26 j 16:26	11° Π 01'41		inferior conj	1273 Oct 17 j 13:12	1° \mathbb{M} 40'56	-5°-39'-55
max. Earth dist.	1271 May 28 j 15:41	13° Π 26'44	1.73613 AU	minimum elong	1273 Oct 17 j 23:34	1° \mathbb{M} 25'11	5°37'23
				min. Earth dist.	1273 Oct 18 j 08:41	1° \mathbb{M} 11'20	0.26945 AU
superior conj	1271 May 29 j 00:21	13° Π 53'22	0°05'34		1273 Oct 20 j 08:04	30° \mathbb{R} $\underline{\Delta}$	
minimum elong	1271 May 28 j 23:13	13° Π 49'52	0°05'30	morning rise	1273 Oct 23 j 04:27	28° $\underline{\Delta}$ 21'50	
behind sun begin	1271 May 28 j 01:54	12° Π 44'26		direct	1273 Nov 07 j 05:08	23° $\underline{\Delta}$ 53'18	
behind sun end	1271 May 29 j 20:31	14° Π 55'18		asc. node	1273 Nov 10 j 11:21	24° $\underline{\Delta}$ 06'02	
	1271 Jun 11 j 03:05	0° $\textcircled{\Delta}$		greatest brilliancy	1273 Nov 20 j 17:22	27° $\underline{\Delta}$ 15'06	-4.7m
evening rise	1271 Jul 03 j 23:14	28° $\textcircled{\Delta}$ 04'55			1273 Nov 25 j 20:35	0° \mathbb{M}	
	1271 Jul 05 j 12:38	0° Ω		morning max el	1273 Dec 27 j 23:22	27° \mathbb{M} 20'25	46°57'13
	1271 Jul 29 j 21:39	0° \cap			1273 Dec 30 j 13:35	0° $\textcircled{\Delta}$	
	1271 Aug 23 j 07:10	0° $\underline{\Delta}$			1274 Jan 26 j 23:06	0° $\textcircled{\Delta}$	
desc. node	1271 Sep 15 j 05:51	28° $\underline{\Delta}$ 07'45		desc. node	1274 Feb 21 j 18:23	0° \approx	
	1271 Sep 16 j 18:33	0° \mathbb{M}			1274 Mar 02 j 00:56	9° \approx 47'43	
	1271 Oct 11 j 09:17	0° $\textcircled{\Delta}$			1274 Mar 18 j 23:14	0° $\textcircled{\Delta}$	
	1271 Nov 05 j 05:56	0° $\textcircled{\Delta}$			1274 Apr 12 j 21:44	0° Υ	
	1271 Nov 30 j 15:33	0° \approx			1274 May 07 j 17:01	0° δ	
	1271 Dec 27 j 10:58	0° $\textcircled{\Delta}$			1274 Jun 01 j 09:45	0° Π	
evening max el	1272 Jan 04 j 04:07	8° $\textcircled{\Delta}$ 02'35	47°02'13	asc. node	1274 Jun 23 j 04:20	26° Π 35'04	
asc. node	1272 Jan 06 j 09:06	10° $\textcircled{\Delta}$ 16'29			1274 Jun 25 j 23:16	0° $\textcircled{\Delta}$	
	1272 Jan 28 j 11:43	0° Υ		morning set	1274 Jun 28 j 21:38	3° $\textcircled{\Delta}$ 35'39	
greatest brilliancy	1272 Feb 09 j 23:11	7° Υ 47'14	-4.6m		1274 Jul 20 j 08:48	0° Ω	
retrograde	1272 Feb 23 j 20:00	11° Υ 18'38		max. Earth dist.	1274 Jul 31 j 21:43	14° Ω 15'29	1.72939 AU
evening set	1272 Mar 12 j 10:34	5° Υ 18'18					
inferior conj	1272 Mar 16 j 00:04	3° Υ 04'31	7°57'25	superior conj	1274 Aug 04 j 06:33	18° Ω 25'45	1°18'26
minimum elong	1272 Mar 16 j 07:25	2° Υ 52'52	7°56'32	minimum elong	1274 Aug 04 j 00:15	18° Ω 06'15	1°18'19
min. Earth dist.	1272 Mar 15 j 18:07	3° Υ 13'56	0.28341 AU		1274 Aug 13 j 14:30	0° \cap	
morning rise	1272 Mar 20 j 04:31	0° Υ 28'45			1274 Sep 06 j 17:36	0° $\underline{\Delta}$	
	1272 Mar 21 j 00:07	30° \mathbb{R} $\textcircled{\Delta}$		evening rise	1274 Sep 10 j 01:26	4° $\underline{\Delta}$ 08'33	
direct	1272 Apr 06 j 03:06	24° $\textcircled{\Delta}$ 57'52			1274 Sep 30 j 19:37	0° \mathbb{M}	
greatest brilliancy	1272 Apr 17 j 16:07	27° $\textcircled{\Delta}$ 21'59	-4.5m	desc. node	1274 Oct 12 j 17:41	14° \mathbb{M} 51'01	
	1272 Apr 23 j 06:35	0° Υ			1274 Oct 24 j 21:43	0° $\textcircled{\Delta}$	
desc. node	1272 Apr 26 j 22:20	2° Υ 07'10			1274 Nov 18 j 00:52	0° $\textcircled{\Delta}$	
morning max el	1272 May 25 j 00:11	25° Υ 02'03	45°48'13		1274 Dec 12 j 06:47	0° \approx	
	1272 May 30 j 02:39	0° δ			1275 Jan 05 j 19:37	0° $\textcircled{\Delta}$	
	1272 Jun 27 j 14:49	0° Π			1275 Jan 30 j 23:37	0° Υ	
	1272 Jul 24 j 02:34	0° $\textcircled{\Delta}$		asc. node	1275 Feb 02 j 21:03	3° Υ 22'21	
asc. node	1272 Aug 18 j 02:04	29° $\textcircled{\Delta}$ 27'09			1275 Feb 26 j 12:12	0° δ	
	1272 Aug 18 j 13:02	0° Ω		evening max el	1275 Mar 16 j 08:14	18° δ 29'52	45°53'27
	1272 Sep 12 j 06:37	0° \cap			1275 Mar 28 j 17:47	0° Π	
	1272 Oct 06 j 12:51	0° $\underline{\Delta}$		greatest brilliancy	1275 Apr 19 j 16:20	15° Π 23'35	-4.5m
	1272 Oct 30 j 12:27	0° \mathbb{M}		retrograde	1275 May 04 j 12:16	19° Π 14'58	
morning set	1272 Nov 20 j 02:03	25° \mathbb{M} 51'11		evening set	1275 May 19 j 14:03	14° Π 49'26	
	1272 Nov 23 j 09:07	0° $\textcircled{\Delta}$		desc. node	1275 May 25 j 10:12	11° Π 20'00	
desc. node	1272 Dec 07 j 15:17	17° $\textcircled{\Delta}$ 56'43		inferior conj	1275 May 25 j 22:57	11° Π 00'03	0°-7'-29
	1272 Dec 17 j 05:10	0° $\textcircled{\Delta}$		minimum elong	1275 May 25 j 22:40	11° Π 00'29	0°07'25
				transit middle	1275 May 25 j 22:40	11° Π 00'29	0°07'25
superior conj	1272 Dec 31 j 19:01	18° $\textcircled{\Delta}$ 20'07	0°-53'-29	transit begin	1275 May 25 j 19:04	11° Π 06'08	
minimum elong	1272 Dec 31 j 07:23	17° $\textcircled{\Delta}$ 43'34	0°53'03	transit end	1275 May 26 j 02:17	10° Π 54'50	
max. Earth dist.	1273 Jan 03 j 07:59	21° $\textcircled{\Delta}$ 31'36	1.71199 AU	min. Earth dist.	1275 May 25 j 23:36	10° Π 59'02	0.28946 AU
	1273 Jan 10 j 01:55	0° \approx		morning rise	1275 Jun 01 j 07:24	7° Π 11'16	
	1273 Feb 03 j 00:33	0° $\textcircled{\Delta}$		direct	1275 Jun 16 j 13:35	2° Π 42'22	
evening rise	1273 Feb 10 j 20:45	9° $\textcircled{\Delta}$ 47'22		greatest brilliancy	1275 Jun 30 j 04:39	5° Π 56'44	-4.5m
	1273 Feb 27 j 02:34	0° Υ			1275 Aug 01 j 17:21	0° $\textcircled{\Delta}$	

morning max el	1275 Aug 04 j 11:38	2° ☿ 37'15	45°51'57		1278 Mar 09 j 03:42	0° ♄	
	1275 Aug 30 j 20:49	0° ♄			1278 Apr 03 j 13:23	0° ♄	
asc. node	1275 Sep 15 j 13:51	17° ♄ 41'09			1278 Apr 30 j 04:05	0° ☿	
	1275 Sep 26 j 03:55	0° ♄		evening max el	1278 May 25 j 22:53	26° ☿ 34'23	45°21'32
	1275 Oct 21 j 04:41	0° ♄			1278 May 29 j 14:07	0° ♄	
	1275 Nov 14 j 13:54	0° ♄		desc. node	1278 Jun 21 j 22:17	18° ♄ 36'45	
	1275 Dec 08 j 15:50	0° ♄		greatest brilliancy	1278 Jun 30 j 18:12	23° ♄ 17'05	-4.5m
	1276 Jan 01 j 15:11	0° ☿		retrograde	1278 Jul 13 j 11:04	26° ♄ 06'48	
desc. node	1276 Jan 05 j 03:11	4° ☿ 22'55		evening set	1278 Jul 30 j 14:27	20° ♄ 37'57	
	1276 Jan 25 j 14:26	0° ☿		inferior conj	1278 Aug 03 j 20:17	18° ♄ 03'08	-7°-59'-12
morning set	1276 Feb 06 j 08:41	14° ☿ 41'45		minimum elong	1278 Aug 03 j 12:54	18° ♄ 14'36	7°58'22
	1276 Feb 18 j 15:01	0° ☿		min. Earth dist.	1278 Aug 04 j 03:21	17° ♄ 52'07	0.28691 AU
	1276 Mar 13 j 17:52	0° ☿		morning rise	1278 Aug 07 j 11:06	15° ♄ 49'47	
				direct	1278 Aug 25 j 08:56	9° ♄ 49'57	
superior conj	1276 Mar 17 j 03:54	4° ☿ 14'26	-1°-18'00	greatest brilliancy	1278 Sep 08 j 18:18	13° ♄ 29'17	-4.6m
minimum elong	1276 Mar 17 j 11:52	4° ☿ 39'07	1°17'51		1278 Oct 01 j 23:39	0° ♄	
max. Earth dist.	1276 Mar 20 j 16:35	8° ☿ 36'52	1.72623 AU	asc. node	1278 Oct 13 j 01:36	10° ♄ 26'51	
	1276 Apr 06 j 23:41	0° ♄		morning max el	1278 Oct 14 j 09:35	11° ♄ 46'36	46°32'01
evening rise	1276 Apr 24 j 11:18	21° ♄ 32'13			1278 Oct 31 j 15:52	0° ♄	
asc. node	1276 Apr 27 j 06:40	24° ♄ 59'07			1278 Nov 26 j 20:01	0° ♄	
greatest brilliancy	1276 Apr 28 j 17:16	26° ♄ 45'22	-3.9m		1278 Dec 21 j 19:47	0° ☿	
	1276 May 01 j 08:42	0° ♄			1279 Jan 15 j 08:20	0° ☿	
	1276 May 25 j 20:50	0° ☿		desc. node	1279 Feb 01 j 15:06	21° ☿ 16'42	
	1276 Jun 19 j 12:21	0° ♄			1279 Feb 08 j 16:48	0° ☿	
	1276 Jul 14 j 08:29	0° ♄			1279 Mar 05 j 00:18	0° ☿	
	1276 Aug 08 j 11:50	0° ♄			1279 Mar 29 j 08:21	0° ☿	
desc. node	1276 Aug 16 j 19:52	9° ♄ 50'10		morning set	1279 Apr 19 j 19:59	26° ☿ 26'16	
	1276 Sep 03 j 03:02	0° ♄			1279 Apr 22 j 17:33	0° ♄	
	1276 Sep 29 j 16:23	0° ☿			1279 May 17 j 03:40	0° ♄	
evening max el	1276 Oct 20 j 20:10	22° ☿ 21'35	47°12'18	asc. node	1279 May 25 j 18:34	10° ♄ 35'12	
	1276 Oct 28 j 15:59	0° ☿					
greatest brilliancy	1276 Nov 28 j 08:29	22° ☿ 44'50	-4.7m	superior conj	1279 May 26 j 18:29	11° ♄ 48'37	0°02'24
asc. node	1276 Dec 07 j 23:17	25° ☿ 23'48		minimum elong	1279 May 26 j 17:59	11° ♄ 47'04	0°02'22
retrograde	1276 Dec 10 j 13:23	25° ☿ 31'55		behind sun begin	1279 May 25 j 19:38	10° ♄ 38'26	
evening set	1276 Dec 25 j 12:54	21° ☿ 01'28		behind sun end	1279 May 27 j 16:20	12° ♄ 55'42	
min. Earth dist.	1276 Dec 30 j 06:50	18° ☿ 12'28	0.26704 AU	max. Earth dist.	1279 May 26 j 10:55	11° ♄ 25'21	1.73605 AU
inferior conj	1276 Dec 31 j 03:12	17° ☿ 41'06	5°33'28		1279 Jun 10 j 13:52	0° ☿	
minimum elong	1276 Dec 30 j 17:07	17° ☿ 56'38	5°30'56	evening rise	1279 Jul 01 j 18:18	26° ☿ 02'42	
morning rise	1277 Jan 04 j 21:54	14° ☿ 49'51			1279 Jul 04 j 23:28	0° ♄	
direct	1277 Jan 20 j 13:16	10° ☿ 01'32			1279 Jul 29 j 08:40	0° ♄	
greatest brilliancy	1277 Jan 31 j 08:12	12° ☿ 13'01	-4.6m		1279 Aug 22 j 18:30	0° ♄	
	1277 Feb 26 j 16:41	0° ☿		desc. node	1279 Sep 14 j 07:49	27° ♄ 37'43	
morning max el	1277 Mar 11 j 09:50	11° ☿ 54'12	46°27'16		1279 Sep 16 j 06:24	0° ♄	
	1277 Mar 28 j 22:53	0° ☿			1279 Oct 10 j 21:51	0° ☿	
desc. node	1277 Mar 29 j 12:39	0° ☿ 36'53			1279 Nov 04 j 19:33	0° ☿	
	1277 Apr 25 j 00:45	0° ☿			1279 Nov 30 j 07:02	0° ☿	
	1277 May 21 j 00:22	0° ♄			1279 Dec 27 j 06:54	0° ☿	
	1277 Jun 15 j 10:23	0° ♄		evening max el	1280 Jan 01 j 17:35	5° ☿ 38'39	47°04'04
	1277 Jul 10 j 10:29	0° ☿		asc. node	1280 Jan 05 j 11:13	9° ☿ 24'05	
asc. node	1277 Jul 20 j 16:14	12° ☿ 24'55			1280 Jan 29 j 07:35	0° ☿	
	1277 Aug 04 j 01:43	0° ♄		greatest brilliancy	1280 Feb 07 j 16:10	5° ☿ 31'51	-4.6m
	1277 Aug 28 j 09:14	0° ♄		retrograde	1280 Feb 21 j 11:20	9° ☿ 02'16	
morning set	1277 Sep 05 j 13:28	10° ♄ 09'49		evening set	1280 Mar 10 j 04:16	2° ☿ 58'34	
	1277 Sep 21 j 11:01	0° ♄		inferior conj	1280 Mar 13 j 15:24	0° ☿ 48'34	8°05'53
max. Earth dist.	1277 Oct 11 j 08:48	24° ♄ 56'44	1.71476 AU	minimum elong	1280 Mar 13 j 22:13	0° ☿ 37'47	8°05'08
				min. Earth dist.	1280 Mar 13 j 08:58	0° ☿ 58'46	0.28301 AU
superior conj	1277 Oct 13 j 14:49	27° ♄ 46'08	0°57'50		1280 Mar 14 j 22:09	30° ☿	
minimum elong	1277 Oct 14 j 01:18	28° ♄ 19'02	0°57'27	morning rise	1280 Mar 17 j 16:22	28° ☿ 18'02	
	1277 Oct 15 j 09:29	0° ♄		direct	1280 Apr 03 j 17:10	22° ☿ 42'28	
	1277 Nov 08 j 06:40	0° ☿		greatest brilliancy	1280 Apr 15 j 06:08	25° ☿ 06'17	-4.5m
desc. node	1277 Nov 09 j 05:35	1° ☿ 11'59			1280 Apr 24 j 18:09	0° ☿	
evening rise	1277 Nov 23 j 06:20	18° ☿ 49'27		desc. node	1280 Apr 26 j 00:24	0° ☿ 48'00	
	1277 Dec 02 j 03:54	0° ☿		morning max el	1280 May 22 j 14:56	22° ☿ 48'05	45°49'03
	1277 Dec 26 j 02:16	0° ☿			1280 May 29 j 23:09	0° ♄	
	1278 Jan 19 j 03:29	0° ☿			1280 Jun 27 j 05:55	0° ♄	
	1278 Feb 12 j 10:32	0° ☿			1280 Jul 23 j 15:34	0° ☿	
asc. node	1278 Mar 02 j 08:54	21° ☿ 50'00		asc. node	1280 Aug 17 j 03:59	28° ☿ 57'01	

	1280 Aug 18 j 01:00	0°♈		evening max el	1283 Mar 14 j 00:51	16°♊19'57	45°55'34
	1280 Sep 11 j 18:02	0°♎			1283 Mar 28 j 23:05	0°♊	
	1280 Oct 05 j 23:59	0°♊		greatest brilliancy	1283 Apr 17 j 09:26	13°♊15'50	-4.5m
	1280 Oct 29 j 23:29	0°♋		retrograde	1283 May 02 j 05:14	17°♊06'27	
morning set	1280 Nov 17 j 13:16	23°♋20'47		evening set	1283 May 17 j 07:20	12°♊40'03	
	1280 Nov 22 j 20:08	0°♌		inferior conj	1283 May 23 j 15:21	8°♊51'25	0°12'22
desc. node	1280 Dec 06 j 17:26	17°♌28'55		minimum elong	1283 May 23 j 15:48	8°♊50'42	0°12'14
	1280 Dec 16 j 16:10	0°♍		transit middle	1283 May 23 j 15:48	8°♊50'42	0°12'14
				transit begin	1283 May 23 j 13:08	8°♊54'53	
superior conj	1280 Dec 29 j 04:40	15°♍45'00	0°-50'-17	transit end	1283 May 23 j 18:28	8°♊46'31	
minimum elong	1280 Dec 28 j 17:20	15°♍09'23	0°49'50	min. Earth dist.	1283 May 23 j 15:49	8°♊50'40	0.28936 AU
max. Earth dist.	1280 Dec 31 j 11:14	18°♍36'31	1.71178 AU	desc. node	1283 May 24 j 12:21	8°♊18'31	
	1281 Jan 09 j 12:54	0°♎		morning rise	1283 May 30 j 00:28	5°♊01'46	
	1281 Feb 02 j 11:32	0°♏		direct	1283 Jun 14 j 06:19	0°♊34'06	
evening rise	1281 Feb 08 j 07:54	7°♏18'09		greatest brilliancy	1283 Jun 27 j 18:38	3°♊45'56	-4.5m
	1281 Feb 26 j 13:36	0°♐			1283 Aug 01 j 16:00	0°♑	
	1281 Mar 22 j 20:49	0°♑		morning max el	1283 Aug 02 j 03:49	0°♑28'18	45°50'57
asc. node	1281 Mar 29 j 20:51	8°♑35'04			1283 Aug 30 j 12:24	0°♈	
	1281 Apr 16 j 10:51	0°♒		asc. node	1283 Sep 14 j 15:54	17°♈06'46	
	1281 May 11 j 09:44	0°♑			1283 Sep 25 j 17:10	0°♎	
	1281 Jun 05 j 21:12	0°♈			1283 Oct 20 j 16:53	0°♊	
	1281 Jul 02 j 05:45	0°♎			1283 Nov 14 j 01:34	0°♋	
desc. node	1281 Jul 19 j 10:02	18°♎37'42			1283 Dec 08 j 03:09	0°♌	
	1281 Jul 30 j 10:54	0°♊		desc. node	1284 Jan 01 j 02:15	0°♍	
evening max el	1281 Aug 06 j 00:28	6°♊27'03	46°03'38		1284 Jan 04 j 05:14	3°♍54'44	
	1281 Sep 03 j 19:39	0°♋		morning set	1284 Jan 25 j 01:21	0°♎	
greatest brilliancy	1281 Sep 13 j 20:08	4°♋57'53	-4.6m		1284 Feb 03 j 19:58	12°♎13'14	
retrograde	1281 Sep 24 j 08:31	6°♋58'50			1284 Feb 18 j 01:48	0°♏	
evening set	1281 Oct 10 j 09:59	2°♋02'36			1284 Mar 13 j 04:33	0°♐	
	1281 Oct 13 j 21:38	30°♌♊					
inferior conj	1281 Oct 15 j 02:05	29°♊16'53	-5°-57'-28	superior conj	1284 Mar 14 j 18:08	1°♐56'34	-1°-19'-25
minimum elong	1281 Oct 15 j 12:37	29°♊00'53	5°54'59	minimum elong	1284 Mar 15 j 01:33	2°♐19'34	1°19'18
min. Earth dist.	1281 Oct 15 j 21:58	28°♊46'41	0.27006 AU	max. Earth dist.	1284 Mar 18 j 10:56	6°♐31'55	1.72573 AU
morning rise	1281 Oct 20 j 14:41	26°♊01'39			1284 Apr 06 j 10:20	0°♑	
direct	1281 Nov 04 j 19:08	21°♊28'17		evening rise	1284 Apr 22 j 03:52	19°♑22'47	
asc. node	1281 Nov 09 j 13:25	21°♊55'18		asc. node	1284 Apr 26 j 08:48	24°♑32'53	
greatest brilliancy	1281 Nov 18 j 08:46	24°♊52'22	-4.7m		1284 Apr 30 j 19:23	0°♒	
	1281 Nov 27 j 04:47	0°♋			1284 May 25 j 07:41	0°♑	
morning max el	1281 Dec 25 j 14:27	24°♋59'23	46°57'16		1284 Jun 18 j 23:32	0°♈	
	1281 Dec 30 j 10:47	0°♌			1284 Jul 13 j 20:15	0°♎	
	1282 Jan 26 j 14:57	0°♍		desc. node	1284 Aug 08 j 00:34	0°♊	
	1282 Feb 21 j 08:03	0°♎			1284 Aug 15 j 21:51	9°♊17'19	
desc. node	1282 Mar 01 j 02:52	9°♎14'07			1284 Sep 02 j 17:24	0°♋	
	1282 Mar 18 j 11:43	0°♏			1284 Sep 29 j 10:03	0°♌	
	1282 Apr 12 j 09:29	0°♐		evening max el	1284 Oct 18 j 10:31	19°♌59'14	47°10'46
	1282 May 07 j 04:16	0°♑			1284 Oct 28 j 19:37	0°♍	
	1282 May 31 j 20:38	0°♒		greatest brilliancy	1284 Nov 26 j 00:11	20°♍20'02	-4.7m
asc. node	1282 Jun 22 j 06:25	26°♒08'45		asc. node	1284 Dec 07 j 01:24	23°♍02'15	
	1282 Jun 25 j 09:56	0°♑		retrograde	1284 Dec 08 j 02:12	23°♍03'33	
morning set	1282 Jun 26 j 15:40	1°♑31'07		evening set	1284 Dec 22 j 22:59	18°♍37'59	
	1282 Jul 19 j 19:23	0°♈		min. Earth dist.	1284 Dec 27 j 20:24	15°♍44'02	0.26655 AU
max. Earth dist.	1282 Jul 29 j 17:40	12°♈15'54	1.72983 AU	inferior conj	1284 Dec 28 j 15:50	15°♍14'06	5°14'28
				minimum elong	1284 Dec 28 j 06:01	15°♍29'14	5°11'55
superior conj	1282 Aug 02 j 00:17	16°♈19'10	1°17'10	morning rise	1285 Jan 02 j 13:34	12°♍18'27	
minimum elong	1282 Aug 01 j 17:32	15°♈58'15	1°17'01	direct	1285 Jan 18 j 01:32	7°♍35'26	
	1282 Aug 13 j 01:09	0°♎		greatest brilliancy	1285 Jan 28 j 21:20	9°♍47'25	-4.6m
	1282 Sep 06 j 04:24	0°♊			1285 Feb 26 j 21:58	0°♎	
evening rise	1282 Sep 07 j 16:57	1°♊53'47		morning max el	1285 Mar 08 j 22:09	9°♎29'52	46°28'49
	1282 Sep 30 j 06:36	0°♋		desc. node	1285 Mar 28 j 14:48	29°♎55'19	
desc. node	1282 Oct 11 j 19:45	14°♋22'59			1285 Mar 28 j 16:32	0°♏	
	1282 Oct 24 j 08:56	0°♌			1285 Apr 24 j 14:55	0°♐	
	1282 Nov 17 j 12:22	0°♍			1285 May 20 j 12:56	0°♑	
	1282 Dec 11 j 18:43	0°♎			1285 Jun 14 j 22:03	0°♒	
	1283 Jan 05 j 08:16	0°♏			1285 Jul 09 j 21:38	0°♑	
	1283 Jan 30 j 13:35	0°♐		asc. node	1285 Jul 19 j 18:10	11°♑57'20	
asc. node	1283 Feb 01 j 22:57	2°♐46'43			1285 Aug 03 j 12:35	0°♈	
	1283 Feb 26 j 05:20	0°♑			1285 Aug 27 j 19:58	0°♎	

morning set	1285 Sep 03 j 05:10	7° \mathbb{M} 56'00		evening set	1288 Mar 07 j 21:39	0° Υ 38'42	
	1285 Sep 20 j 21:43	0° $\underline{\mathbf{A}}$			1288 Mar 08 j 22:47	30° \mathbb{R} \mathbb{H}	
max. Earth dist.	1285 Oct 08 j 17:22	22° $\underline{\mathbf{A}}$ 19'20	1.71521 AU	inferior conj	1288 Mar 11 j 06:38	28° \mathbb{H} 32'14	8°13'31
				minimum elong	1288 Mar 11 j 12:50	28° \mathbb{H} 22'26	8°12'55
superior conj	1285 Oct 11 j 03:56	25° $\underline{\mathbf{A}}$ 22'58	1°00'28	min. Earth dist.	1288 Mar 10 j 23:25	28° \mathbb{H} 43'37	0.28260 AU
minimum elong	1285 Oct 11 j 14:23	25° $\underline{\mathbf{A}}$ 55'45	1°00'06	morning rise	1288 Mar 15 j 04:14	26° \mathbb{H} 07'00	
	1285 Oct 14 j 20:15	0° \mathbb{M}		direct	1288 Apr 01 j 07:23	20° \mathbb{H} 26'40	
	1285 Nov 07 j 17:34	0° \mathbb{A}		greatest brilliancy	1288 Apr 12 j 19:55	22° \mathbb{H} 50'16	-4.5m
desc. node	1285 Nov 08 j 07:42	0° \mathbb{A} 44'23		desc. node	1288 Apr 25 j 02:28	29° \mathbb{H} 31'22	
evening rise	1285 Nov 20 j 16:39	16° \mathbb{A} 16'42			1288 Apr 25 j 19:19	0° Υ	
	1285 Dec 01 j 14:55	0° \mathbb{Z}		morning max el	1288 May 20 j 06:30	20° Υ 36'10	45°49'59
	1285 Dec 25 j 13:24	0° \approx			1288 May 29 j 18:57	0° \mathbb{B}	
	1286 Jan 18 j 14:47	0° \mathbb{H}			1288 Jun 26 j 20:45	0° \mathbb{H}	
	1286 Feb 11 j 22:05	0° Υ			1288 Jul 23 j 04:27	0° \mathbb{S}	
asc. node	1286 Mar 01 j 10:59	21° Υ 20'12		asc. node	1288 Aug 16 j 06:04	28° \mathbb{S} 27'24	
	1286 Mar 08 j 15:49	0° \mathbb{B}			1288 Aug 17 j 12:56	0° \mathbb{Q}	
	1286 Apr 03 j 02:42	0° \mathbb{H}			1288 Sep 11 j 05:29	0° \mathbb{M}	
	1286 Apr 29 j 20:04	0° \mathbb{S}			1288 Oct 05 j 11:13	0° $\underline{\mathbf{A}}$	
evening max el	1286 May 23 j 13:14	24° \mathbb{S} 20'35	45°21'17		1288 Oct 29 j 10:38	0° \mathbb{M}	
	1286 May 29 j 14:41	0° \mathbb{Q}		morning set	1288 Nov 15 j 00:26	20° \mathbb{M} 50'01	
desc. node	1286 Jun 21 j 00:18	17° \mathbb{Q} 18'30			1288 Nov 22 j 07:14	0° \mathbb{A}	
greatest brilliancy	1286 Jun 28 j 06:32	21° \mathbb{Q} 02'40	-4.5m	desc. node	1288 Dec 05 j 19:25	17° \mathbb{A} 00'21	
retrograde	1286 Jul 11 j 01:54	23° \mathbb{Q} 55'44			1288 Dec 16 j 03:13	0° \mathbb{Z}	
evening set	1286 Jul 28 j 02:31	18° \mathbb{Q} 31'08					
inferior conj	1286 Aug 01 j 11:50	15° \mathbb{Q} 51'25	-7°-50'-29	superior conj	1288 Dec 26 j 14:04	13° \mathbb{Z} 08'55	0°-46'-56
minimum elong	1286 Aug 01 j 03:56	16° \mathbb{Q} 03'41	7°49'31	minimum elong	1288 Dec 26 j 03:09	12° \mathbb{Z} 34'35	0°46'31
min. Earth dist.	1286 Aug 01 j 18:33	15° \mathbb{Q} 40'58	0.28725 AU	max. Earth dist.	1288 Dec 28 j 17:58	15° \mathbb{Z} 52'06	1.71156 AU
morning rise	1286 Aug 05 j 05:04	13° \mathbb{Q} 34'27			1289 Jan 08 j 23:56	0° \approx	
direct	1286 Aug 23 j 00:14	7° \mathbb{Q} 37'33			1289 Feb 01 j 22:35	0° \mathbb{H}	
greatest brilliancy	1286 Sep 06 j 10:53	11° \mathbb{Q} 17'30	-4.6m	evening rise	1289 Feb 05 j 18:59	4° \mathbb{H} 48'30	
	1286 Oct 02 j 03:06	0° \mathbb{M}			1289 Feb 26 j 00:42	0° Υ	
morning max el	1286 Oct 11 j 23:45	9° \mathbb{M} 27'14	46°30'34		1289 Mar 22 j 08:03	0° \mathbb{B}	
asc. node	1286 Oct 12 j 03:44	9° \mathbb{M} 37'11		asc. node	1289 Mar 28 j 22:59	8° \mathbb{B} 07'04	
	1286 Oct 31 j 09:00	0° $\underline{\mathbf{A}}$			1289 Apr 15 j 22:23	0° \mathbb{H}	
	1286 Nov 26 j 10:12	0° \mathbb{M}			1289 May 10 j 21:50	0° \mathbb{S}	
	1286 Dec 21 j 08:39	0° \mathbb{A}			1289 Jun 05 j 10:24	0° \mathbb{Q}	
	1287 Jan 14 j 20:28	0° \mathbb{Z}			1289 Jul 01 j 21:15	0° \mathbb{M}	
desc. node	1287 Jan 31 j 16:59	20° \mathbb{Z} 46'17		desc. node	1289 Jul 18 j 12:01	17° \mathbb{M} 54'45	
	1287 Feb 08 j 04:26	0° \approx			1289 Jul 30 j 08:20	0° $\underline{\mathbf{A}}$	
	1287 Mar 04 j 11:33	0° \mathbb{H}		evening max el	1289 Aug 03 j 14:48	4° $\underline{\mathbf{A}}$ 09'41	46°01'11
	1287 Mar 28 j 19:17	0° Υ			1289 Sep 05 j 13:37	0° \mathbb{M}	
morning set	1287 Apr 17 j 12:43	24° Υ 17'01		greatest brilliancy	1289 Sep 11 j 07:12	2° \mathbb{M} 32'34	-4.6m
	1287 Apr 22 j 04:16	0° \mathbb{B}		retrograde	1289 Sep 21 j 21:15	4° \mathbb{M} 34'21	
	1287 May 16 j 14:17	0° \mathbb{H}			1289 Oct 07 j 06:40	30° \mathbb{R} $\underline{\mathbf{A}}$	
				evening set	1289 Oct 08 j 01:51	29° $\underline{\mathbf{A}}$ 33'16	
superior conj	1287 May 24 j 12:35	9° \mathbb{H} 44'18	0°00'-48	inferior conj	1289 Oct 12 j 14:48	26° $\underline{\mathbf{A}}$ 51'41	-6°-14'-18
minimum elong	1287 May 24 j 12:44	9° \mathbb{H} 44'47	0°00'48	minimum elong	1289 Oct 13 j 01:25	26° $\underline{\mathbf{A}}$ 35'32	6°11'55
behind sun begin	1287 May 23 j 14:13	8° \mathbb{H} 35'39		min. Earth dist.	1289 Oct 13 j 10:57	26° $\underline{\mathbf{A}}$ 21'04	0.27070 AU
behind sun end	1287 May 25 j 11:15	10° \mathbb{H} 53'54		morning rise	1289 Oct 18 j 00:30	23° $\underline{\mathbf{A}}$ 40'25	
max. Earth dist.	1287 May 24 j 07:03	9° \mathbb{H} 27'18	1.73599 AU	direct	1289 Nov 02 j 09:16	19° $\underline{\mathbf{A}}$ 02'12	
asc. node	1287 May 24 j 20:41	10° \mathbb{H} 09'11		asc. node	1289 Nov 08 j 15:29	19° $\underline{\mathbf{A}}$ 48'28	
	1287 Jun 10 j 00:29	0° \mathbb{S}		greatest brilliancy	1289 Nov 15 j 23:20	22° $\underline{\mathbf{A}}$ 27'20	-4.7m
evening rise	1287 Jun 29 j 13:24	24° \mathbb{S} 00'56			1289 Nov 28 j 04:31	0° \mathbb{M}	
	1287 Jul 04 j 10:12	0° \mathbb{Q}		morning max el	1289 Dec 23 j 05:07	22° \mathbb{M} 36'20	46°57'17
	1287 Jul 28 j 19:37	0° \mathbb{M}			1289 Dec 30 j 07:39	0° \mathbb{A}	
	1287 Aug 22 j 05:49	0° $\underline{\mathbf{A}}$			1290 Jan 26 j 06:50	0° \mathbb{Z}	
desc. node	1287 Sep 13 j 09:54	27° $\underline{\mathbf{A}}$ 08'04			1290 Feb 20 j 21:49	0° \approx	
	1287 Sep 15 j 18:14	0° \mathbb{M}		desc. node	1290 Feb 28 j 05:03	8° \approx 40'50	
	1287 Oct 10 j 10:24	0° \mathbb{A}			1290 Mar 18 j 00:20	0° \mathbb{H}	
	1287 Nov 04 j 09:11	0° \mathbb{Z}			1290 Apr 11 j 21:23	0° Υ	
	1287 Nov 29 j 22:38	0° \approx			1290 May 06 j 15:41	0° \mathbb{B}	
	1287 Dec 27 j 03:21	0° \mathbb{H}			1290 May 31 j 07:43	0° \mathbb{H}	
evening max el	1287 Dec 30 j 07:37	3° \mathbb{H} 16'22	47°05'54	asc. node	1290 Jun 21 j 08:23	25° \mathbb{H} 41'24	
asc. node	1288 Jan 04 j 13:10	8° \mathbb{H} 30'30		morning set	1290 Jun 24 j 09:55	29° \mathbb{H} 26'36	
	1288 Jan 30 j 10:44	0° Υ			1290 Jun 24 j 20:49	0° \mathbb{S}	
greatest brilliancy	1288 Feb 05 j 08:03	3° Υ 14'58	-4.6m		1290 Jul 19 j 06:12	0° \mathbb{Q}	
retrograde	1288 Feb 19 j 03:00	6° Υ 45'44		max. Earth dist.	1290 Jul 27 j 12:35	10° \mathbb{Q} 12'30	1.73024 AU

superior conj	1290 Jul 30 j 18:19	14°♌12'52	1°15'47	direct	1293 Jan 15 j 13:20	5°♎07'23	
minimum elong	1290 Jul 30 j 11:10	13°♌50'45	1°15'38	greatest brilliancy	1293 Jan 26 j 11:44	7°♎21'24	-4.6m
	1290 Aug 12 j 12:02	0°♍			1293 Feb 27 j 02:05	0°♍	
evening rise	1290 Sep 05 j 08:44	29°♍39'11		morning max el	1293 Mar 06 j 10:15	7°♍03'08	46°30'24
	1290 Sep 05 j 15:26	0°♎		desc. node	1293 Mar 27 j 16:51	29°♍12'31	
	1290 Sep 29 j 17:52	0°♎			1293 Mar 28 j 10:20	0°♏	
desc. node	1290 Oct 10 j 21:53	13°♎54'08			1293 Apr 24 j 05:25	0°♏	
	1290 Oct 23 j 20:29	0°♏			1293 May 20 j 01:49	0°♐	
	1290 Nov 17 j 00:15	0°♐			1293 Jun 14 j 10:03	0°♐	
	1290 Dec 11 j 07:05	0°♑			1293 Jul 09 j 09:07	0°♑	
	1291 Jan 04 j 21:21	0°♑		asc. node	1293 Jul 18 j 20:14	11°♑29'06	
	1291 Jan 30 j 04:05	0°♒			1293 Aug 02 j 23:48	0°♒	
asc. node	1291 Feb 01 j 01:03	2°♒10'22			1293 Aug 27 j 07:04	0°♒	
	1291 Feb 25 j 23:11	0°♓		morning set	1293 Aug 31 j 21:08	5°♒41'54	
evening max el	1291 Mar 11 j 17:02	14°♓07'52	45°57'48		1293 Sep 20 j 08:47	0°♓	
	1291 Mar 29 j 07:06	0°♓		max. Earth dist.	1293 Oct 06 j 04:28	19°♓48'48	1.71564 AU
greatest brilliancy	1291 Apr 15 j 03:07	11°♓07'51	-4.5m				
retrograde	1291 Apr 29 j 21:41	14°♓56'57		superior conj	1293 Oct 08 j 17:32	23°♓00'19	1°02'57
evening set	1291 May 15 j 00:49	10°♓29'35		minimum elong	1293 Oct 09 j 03:54	23°♓32'47	1°02'37
inferior conj	1291 May 21 j 07:47	6°♓41'57	0°32'10		1293 Oct 14 j 07:22	0°♓	
minimum elong	1291 May 21 j 08:57	6°♓40'06	0°31'49	desc. node	1293 Nov 07 j 09:41	0°♓15'27	
min. Earth dist.	1291 May 21 j 08:23	6°♓41'01	0.28924 AU		1293 Nov 07 j 04:46	0°♓	
desc. node	1291 May 23 j 14:23	5°♓16'41		evening rise	1293 Nov 18 j 03:28	13°♓44'41	
morning rise	1291 May 27 j 17:21	2°♓51'21			1293 Dec 01 j 02:14	0°♔	
	1291 Jun 02 j 23:42	30°♒♎			1293 Dec 25 j 00:52	0°♑	
direct	1291 Jun 11 j 22:52	28°♒24'57			1294 Jan 18 j 02:26	0°♑	
	1291 Jun 21 j 07:00	0°♓			1294 Feb 11 j 10:04	0°♒	
greatest brilliancy	1291 Jun 25 j 08:08	1°♓33'26	-4.5m	asc. node	1294 Feb 28 j 13:04	20°♒49'08	
morning max el	1291 Jul 30 j 19:17	28°♓16'40	45°50'05		1294 Mar 08 j 04:26	0°♓	
	1291 Aug 01 j 14:07	0°♔			1294 Apr 02 j 16:33	0°♓	
	1291 Aug 30 j 04:03	0°♒			1294 Apr 29 j 12:47	0°♔	
asc. node	1291 Sep 13 j 18:02	16°♒32'01		evening max el	1294 May 21 j 03:50	22°♔06'25	45°21'22
	1291 Sep 25 j 06:37	0°♍			1294 May 29 j 17:03	0°♒	
	1291 Oct 20 j 05:21	0°♓		desc. node	1294 Jun 20 j 02:16	15°♒56'56	
	1291 Nov 13 j 13:31	0°♓		greatest brilliancy	1294 Jun 25 j 17:59	18°♒46'30	-4.5m
	1291 Dec 07 j 14:49	0°♓		retrograde	1294 Jul 08 j 17:23	21°♒44'13	
	1291 Dec 31 j 13:45	0°♔		evening set	1294 Jul 25 j 14:40	16°♒23'36	
desc. node	1292 Jan 03 j 07:13	3°♔25'03		inferior conj	1294 Jul 30 j 03:28	13°♒39'01	-7°-41'-8
	1292 Jan 24 j 12:42	0°♑		minimum elong	1294 Jul 29 j 19:05	13°♒52'01	7°40'01
morning set	1292 Feb 01 j 06:38	9°♑41'22		min. Earth dist.	1294 Jul 30 j 09:33	13°♒29'35	0.28759 AU
	1292 Feb 17 j 13:00	0°♑		morning rise	1294 Aug 02 j 23:14	11°♒18'26	
				direct	1294 Aug 20 j 15:52	5°♒24'27	
superior conj	1292 Mar 12 j 07:53	29°♑35'55	-1°-20'-43	greatest brilliancy	1294 Sep 04 j 04:02	9°♒05'52	-4.6m
minimum elong	1292 Mar 12 j 14:41	29°♑57'03	1°20'38		1294 Oct 02 j 05:23	0°♍	
	1292 Mar 12 j 15:38	0°♒		morning max el	1294 Oct 09 j 15:05	7°♍10'06	46°29'13
max. Earth dist.	1292 Mar 16 j 04:51	4°♒24'19	1.72515 AU	asc. node	1294 Oct 11 j 05:42	8°♍47'06	
	1292 Apr 05 j 21:21	0°♓			1294 Oct 31 j 02:05	0°♓	
evening rise	1292 Apr 19 j 20:04	17°♓11'02			1294 Nov 26 j 00:30	0°♓	
asc. node	1292 Apr 25 j 10:48	24°♓05'06			1294 Dec 20 j 21:41	0°♓	
	1292 Apr 30 j 06:26	0°♓			1295 Jan 14 j 08:47	0°♔	
	1292 May 24 j 18:56	0°♔		desc. node	1295 Jan 30 j 19:11	20°♔16'14	
	1292 Jun 18 j 11:09	0°♒			1295 Feb 07 j 16:15	0°♑	
	1292 Jul 13 j 08:27	0°♍			1295 Mar 03 j 23:01	0°♑	
	1292 Aug 07 j 13:44	0°♓			1295 Mar 28 j 06:30	0°♒	
desc. node	1292 Aug 15 j 00:01	8°♓43'49		morning set	1295 Apr 15 j 05:10	22°♒05'53	
	1292 Sep 02 j 08:16	0°♓			1295 Apr 21 j 15:19	0°♓	
	1292 Sep 29 j 04:29	0°♓			1295 May 16 j 01:13	0°♓	
evening max el	1292 Oct 15 j 23:44	17°♓33'11	47°09'03				
	1292 Oct 29 j 01:32	0°♔		superior conj	1295 May 22 j 06:24	7°♓38'10	0°-4'00
greatest brilliancy	1292 Nov 23 j 15:49	17°♔53'47	-4.7m	minimum elong	1295 May 22 j 07:13	7°♓40'43	0°03'59
retrograde	1292 Dec 05 j 14:23	20°♔33'45		behind sun begin	1295 May 21 j 09:10	6°♓32'57	
asc. node	1292 Dec 06 j 03:19	20°♔33'23		behind sun end	1295 May 23 j 05:17	8°♓48'28	
evening set	1292 Dec 20 j 09:07	16°♔12'27		max. Earth dist.	1295 May 22 j 04:08	7°♓31'11	1.73590 AU
min. Earth dist.	1292 Dec 25 j 10:17	13°♔13'26	0.26614 AU	asc. node	1295 May 23 j 22:36	9°♓41'37	
inferior conj	1292 Dec 26 j 04:22	12°♔45'34	4°54'46		1295 Jun 09 j 11:23	0°♔	
minimum elong	1292 Dec 25 j 18:52	13°♔00'13	4°52'12	evening rise	1295 Jun 27 j 08:22	21°♔58'08	
morning rise	1292 Dec 31 j 05:04	9°♔45'35			1295 Jul 03 j 21:11	0°♒	

	1295 Jul 28 j 06:49	0°♎			1297 Dec 30 j 03:46	0°♏		
	1295 Aug 21 j 17:24	0°♊			1298 Jan 25 j 22:23	0°♐		
desc. node	1295 Sep 12 j 11:59	26°♊37'36			1298 Feb 20 j 11:23	0°♑		
	1295 Sep 15 j 06:22	0°♌		desc. node	1298 Feb 27 j 07:05	8°♑07'34		
	1295 Oct 09 j 23:15	0°♏			1298 Mar 17 j 12:46	0°♋		
	1295 Nov 03 j 23:08	0°♐			1298 Apr 11 j 09:06	0°♌		
	1295 Nov 29 j 14:37	0°♑			1298 May 06 j 02:55	0°♍		
	1295 Dec 27 j 00:35	0°♋			1298 May 30 j 18:39	0°♎		
evening max el	1295 Dec 27 j 22:48	0°♋56'48	47°07'45	asc. node	1298 Jun 20 j 10:30	25°♎14'53		
asc. node	1296 Jan 03 j 15:16	7°♋36'08		morning set	1298 Jun 22 j 04:16	27°♎22'48		
	1296 Feb 01 j 01:45	0°♌			1298 Jun 24 j 07:34	0°♏		
greatest brilliancy	1296 Feb 02 j 23:31	0°♌57'32	-4.6m		1298 Jul 18 j 16:55	0°♐		
retrograde	1296 Feb 16 j 19:12	4°♌29'10		max. Earth dist.	1298 Jul 25 j 05:42	8°♐03'59	1.73067 AU	
	1296 Mar 02 j 18:04	30°♌						
evening set	1296 Mar 05 j 14:57	28°♌19'04		superior conj	1298 Jul 28 j 12:27	12°♐07'18	1°14'19	
inferior conj	1296 Mar 08 j 21:57	26°♌15'47	8°20'25	minimum elong	1298 Jul 28 j 04:57	11°♐44'08	1°14'08	
minimum elong	1296 Mar 09 j 03:32	26°♌06'59	8°19'56		1298 Aug 11 j 22:48	0°♎		
min. Earth dist.	1296 Mar 08 j 13:35	26°♌28'58	0.28220 AU	evening rise	1298 Sep 03 j 00:37	27°♎25'22		
morning rise	1296 Mar 12 j 16:20	23°♌55'42			1298 Sep 05 j 02:21	0°♊		
direct	1296 Mar 29 j 22:13	18°♌10'51			1298 Sep 29 j 04:59	0°♌		
greatest brilliancy	1296 Apr 10 j 09:06	20°♌33'24	-4.5m	desc. node	1298 Oct 09 j 23:50	13°♌25'10		
desc. node	1296 Apr 24 j 04:30	28°♌16'44			1298 Oct 23 j 07:53	0°♏		
	1296 Apr 26 j 13:58	0°♌			1298 Nov 16 j 12:01	0°♐		
morning max el	1296 May 17 j 22:56	18°♌25'54	45°50'46		1298 Dec 10 j 19:21	0°♑		
	1296 May 29 j 14:22	0°♍			1299 Jan 04 j 10:23	0°♋		
	1296 Jun 26 j 11:36	0°♎			1299 Jan 29 j 18:33	0°♌		
	1296 Jul 22 j 17:25	0°♏		asc. node	1299 Jan 31 j 03:11	1°♌34'18		
asc. node	1296 Aug 15 j 08:13	27°♏57'46			1299 Feb 25 j 17:15	0°♍		
	1296 Aug 17 j 00:56	0°♐		evening max el	1299 Mar 09 j 08:35	11°♍54'41	46°00'07	
	1296 Sep 10 j 17:00	0°♎			1299 Mar 29 j 17:35	0°♎		
	1296 Oct 04 j 22:31	0°♊		greatest brilliancy	1299 Apr 12 j 20:51	9°♎00'45	-4.5m	
	1296 Oct 28 j 21:50	0°♌		retrograde	1299 Apr 27 j 13:51	12°♎48'42		
morning set	1296 Nov 12 j 11:52	18°♌19'52		evening set	1299 May 12 j 18:33	8°♎20'05		
	1296 Nov 21 j 18:24	0°♏		inferior conj	1299 May 19 j 00:23	4°♎33'50	0°51'45	
desc. node	1296 Dec 04 j 21:28	16°♏31'42		minimum elong	1299 May 19 j 02:17	4°♎30'51	0°51'13	
	1296 Dec 15 j 14:22	0°♐		min. Earth dist.	1299 May 19 j 01:20	4°♎32'20	0.28911 AU	
				desc. node	1299 May 22 j 16:21	2°♎17'25		
superior conj	1296 Dec 23 j 23:38	10°♐33'04	0°-43'-31	morning rise	1299 May 25 j 10:13	0°♎42'26		
minimum elong	1296 Dec 23 j 13:14	10°♐00'22	0°43'05		1299 May 26 j 18:11	30°♌		
max. Earth dist.	1296 Dec 26 j 02:48	13°♐13'59	1.71132 AU	direct	1299 Jun 09 j 15:09	26°♌17'06		
	1297 Jan 08 j 11:02	0°♑		greatest brilliancy	1299 Jun 22 j 22:16	29°♌22'48	-4.5m	
	1297 Feb 01 j 09:39	0°♋			1299 Jun 24 j 06:56	0°♎		
evening rise	1297 Feb 03 j 06:15	2°♋19'19		morning max el	1299 Jul 28 j 10:11	26°♎04'31	45°49'11	
	1297 Feb 25 j 11:49	0°♌			1299 Aug 01 j 11:07	0°♏		
	1297 Mar 21 j 19:17	0°♍			1299 Aug 29 j 19:15	0°♐		
asc. node	1297 Mar 28 j 00:58	7°♍38'33		asc. node	1299 Sep 12 j 20:00	15°♐57'35		
	1297 Apr 15 j 09:56	0°♎			1299 Sep 24 j 19:47	0°♎		
	1297 May 10 j 10:00	0°♏			1299 Oct 19 j 17:33	0°♊		
	1297 Jun 04 j 23:45	0°♐			1299 Nov 13 j 01:13	0°♌		
	1297 Jul 01 j 13:03	0°♎			1299 Dec 07 j 02:13	0°♏		
desc. node	1297 Jul 17 j 14:12	17°♎11'46			1299 Dec 31 j 00:57	0°♐		
	1297 Jul 30 j 06:36	0°♊		desc. node	1300 Jan 02 j 09:22	2°♐56'44		
evening max el	1297 Aug 01 j 05:27	1°♊53'12	45°58'50		1300 Jan 23 j 23:46	0°♑		
	1297 Sep 08 j 09:27	0°♌		morning set	1300 Jan 29 j 17:05	7°♑09'31		
greatest brilliancy	1297 Sep 08 j 19:08	0°♌08'58	-4.6m		1300 Feb 16 j 23:57	0°♋		
retrograde	1297 Sep 19 j 09:46	2°♌10'42						
	1297 Sep 29 j 21:12	30°♌		superior conj	1300 Mar 09 j 21:34	27°♋15'46	-1°-21'-54	
evening set	1297 Oct 05 j 17:58	27°♊05'04		minimum elong	1300 Mar 10 j 03:42	27°♋34'49	1°21'49	
inferior conj	1297 Oct 10 j 03:47	24°♊27'31	-6°-30'-12		1300 Mar 12 j 02:28	0°♌		
minimum elong	1297 Oct 10 j 14:22	24°♊11'23	6°27'57	max. Earth dist.	1300 Mar 13 j 20:26	2°♌10'11	1.72456 AU	
min. Earth dist.	1297 Oct 11 j 00:09	23°♊56'29	0.27134 AU		1300 Apr 05 j 08:06	0°♍		
morning rise	1297 Oct 15 j 10:21	21°♊20'16		evening rise	1300 Apr 17 j 12:13	14°♍59'52		
direct	1297 Oct 30 j 23:30	16°♊37'15		asc. node	1300 Apr 24 j 12:50	23°♍38'15		
asc. node	1297 Nov 07 j 17:30	17°♊47'19			1300 Apr 29 j 17:14	0°♎		
greatest brilliancy	1297 Nov 13 j 13:37	20°♊02'28	-4.7m		1300 May 24 j 05:53	0°♏		
	1297 Nov 28 j 21:54	0°♌			1300 Jun 17 j 22:27	0°♐		
morning max el	1297 Dec 20 j 19:09	20°♌11'51	46°57'09		1300 Jul 12 j 20:22	0°♎		

	1300 Aug 07 j 02:41	0°♄			1303 Mar 27 j 17:24	0°♑		
desc. node	1300 Aug 14 j 02:01	8°♄10'31		morning set	1303 Apr 12 j 21:21	19°♑54'47		
	1300 Sep 01 j 23:03	0°♍			1303 Apr 21 j 02:03	0°♄		
	1300 Sep 28 j 23:06	0°♊			1303 May 15 j 11:51	0°♈		
evening max el	1300 Oct 13 j 12:26	15°♊06'43	47°07'22					
	1300 Oct 29 j 09:21	0°♈		superior conj	1303 May 20 j 00:04	5°♈32'22	0°-7'-12	
greatest brilliancy	1300 Nov 21 j 06:57	15°♈27'44	-4.7m	minimum elong	1303 May 20 j 01:34	5°♈36'59	0°07'08	
retrograde	1300 Dec 03 j 02:36	18°♈05'08		behind sun begin	1303 May 19 j 05:05	4°♈34'04		
asc. node	1300 Dec 05 j 05:28	17°♈59'37		behind sun end	1303 May 20 j 22:02	6°♈39'53		
evening set	1300 Dec 17 j 19:27	13°♈47'20		max. Earth dist.	1303 May 20 j 02:19	5°♈39'18	1.73580 AU	
min. Earth dist.	1300 Dec 23 j 00:15	10°♈43'44	0.26577 AU	asc. node	1303 May 23 j 00:45	9°♈15'36		
inferior conj	1300 Dec 23 j 16:56	10°♈18'04	4°34'25		1303 Jun 08 j 22:01	0°♉		
minimum elong	1300 Dec 23 j 07:51	10°♈32'03	4°31'53	evening rise	1303 Jun 25 j 03:24	19°♉56'18		
morning rise	1300 Dec 28 j 20:34	7°♈14'02			1303 Jul 03 j 07:54	0°♊		
direct	1301 Jan 13 j 01:01	2°♈40'07			1303 Jul 27 j 17:44	0°♐		
greatest brilliancy	1301 Jan 24 j 02:53	4°♈57'15	-4.6m		1303 Aug 21 j 04:41	0°♄		
	1301 Feb 27 j 04:10	0°♌		desc. node	1303 Sep 11 j 14:00	26°♄07'57		
morning max el	1301 Mar 03 j 22:51	4°♌38'31	46°31'57		1303 Sep 14 j 18:10	0°♍		
desc. node	1301 Mar 26 j 18:51	28°♌31'06			1303 Oct 09 j 11:50	0°♊		
	1301 Mar 28 j 03:23	0°♎			1303 Nov 03 j 12:55	0°♈		
	1301 Apr 23 j 19:25	0°♑			1303 Nov 29 j 06:38	0°♌		
	1301 May 19 j 14:18	0°♄		evening max el	1303 Dec 25 j 14:39	28°♌39'11	47°09'21	
	1301 Jun 13 j 21:40	0°♈			1303 Dec 26 j 22:29	0°♎		
	1301 Jul 08 j 20:14	0°♉		asc. node	1304 Jan 02 j 17:24	6°♎40'58		
asc. node	1301 Jul 17 j 22:24	11°♉02'18		greatest brilliancy	1304 Jan 31 j 15:37	28°♎40'39	-4.6m	
	1301 Aug 02 j 10:39	0°♊			1304 Feb 03 j 16:53	0°♑		
	1301 Aug 26 j 17:47	0°♐		retrograde	1304 Feb 14 j 11:12	2°♑11'43		
morning set	1301 Aug 29 j 13:20	3°♐29'45			1304 Feb 24 j 17:57	30°♎		
	1301 Sep 19 j 19:31	0°♄		evening set	1304 Mar 03 j 07:45	25°♎59'07		
max. Earth dist.	1301 Oct 03 j 17:42	17°♄26'00	1.71613 AU	min. Earth dist.	1304 Mar 06 j 03:17	24°♎13'52	0.28175 AU	
				inferior conj	1304 Mar 06 j 12:58	23°♎58'36	8°26'36	
superior conj	1301 Oct 06 j 07:13	20°♄38'48	1°05'19	minimum elong	1304 Mar 06 j 17:52	23°♎50'53	8°26'14	
minimum elong	1301 Oct 06 j 17:24	21°♄10'45	1°05'00	morning rise	1304 Mar 10 j 04:13	21°♎43'25		
	1301 Oct 13 j 18:11	0°♍		direct	1304 Mar 27 j 13:07	15°♎54'36		
desc. node	1301 Nov 06 j 11:46	29°♍47'39		greatest brilliancy	1304 Apr 07 j 21:00	18°♎14'55	-4.5m	
	1301 Nov 06 j 15:42	0°♊		desc. node	1304 Apr 23 j 06:36	27°♎04'38		
evening rise	1301 Nov 15 j 14:07	11°♊13'02			1304 Apr 27 j 03:46	0°♑		
	1301 Nov 30 j 13:18	0°♈		morning max el	1304 May 15 j 14:52	16°♑14'52	45°51'34	
	1301 Dec 24 j 12:03	0°♌			1304 May 29 j 09:02	0°♄		
	1302 Jan 17 j 13:48	0°♎			1304 Jun 26 j 02:03	0°♈		
	1302 Feb 10 j 21:47	0°♑			1304 Jul 22 j 06:04	0°♉		
asc. node	1302 Feb 27 j 15:04	20°♑18'33		asc. node	1304 Aug 14 j 10:08	27°♉28'06		
	1302 Mar 07 j 16:48	0°♄			1304 Aug 16 j 12:41	0°♊		
	1302 Apr 02 j 06:15	0°♈			1304 Sep 10 j 04:16	0°♐		
	1302 Apr 29 j 05:31	0°♉			1304 Oct 04 j 09:33	0°♄		
evening max el	1302 May 18 j 19:19	19°♉55'25	45°21'35		1304 Oct 28 j 08:47	0°♍		
	1302 May 29 j 20:33	0°♊		morning set	1304 Nov 09 j 23:43	15°♍51'58		
desc. node	1302 Jun 19 j 04:29	14°♊34'16			1304 Nov 21 j 05:18	0°♊		
greatest brilliancy	1302 Jun 23 j 05:28	16°♊31'42	-4.5m	desc. node	1304 Dec 03 j 23:37	16°♊04'10		
retrograde	1302 Jul 06 j 09:21	19°♊34'01			1304 Dec 15 j 01:16	0°♈		
evening set	1302 Jul 23 j 02:57	14°♊17'28						
inferior conj	1302 Jul 27 j 19:09	11°♊28'01	-7°-31'-13	superior conj	1304 Dec 21 j 09:14	7°♈57'59	0°-40'00	
minimum elong	1302 Jul 27 j 10:22	11°♊41'37	7°29'57	minimum elong	1304 Dec 20 j 23:28	7°♈27'14	0°39'35	
min. Earth dist.	1302 Jul 28 j 00:15	11°♊20'07	0.28787 AU	max. Earth dist.	1304 Dec 23 j 11:50	10°♈37'06	1.71115 AU	
morning rise	1302 Jul 31 j 17:33	9°♊03'44			1305 Jan 07 j 21:57	0°♌		
direct	1302 Aug 18 j 08:06	3°♊13'00		evening rise	1305 Jan 31 j 17:06	29°♌49'04		
greatest brilliancy	1302 Sep 01 j 20:37	6°♊55'13	-4.5m		1305 Jan 31 j 20:36	0°♎		
	1302 Oct 02 j 05:47	0°♐			1305 Feb 24 j 22:49	0°♑		
morning max el	1302 Oct 07 j 06:54	4°♐55'45	46°27'39		1305 Mar 21 j 06:26	0°♄		
asc. node	1302 Oct 10 j 07:47	7°♐59'25		asc. node	1305 Mar 27 j 03:01	7°♄10'30		
	1302 Oct 30 j 18:28	0°♄			1305 Apr 14 j 21:24	0°♈		
	1302 Nov 25 j 14:23	0°♍			1305 May 09 j 22:07	0°♉		
	1302 Dec 20 j 10:24	0°♊			1305 Jun 04 j 13:07	0°♊		
	1303 Jan 13 j 20:49	0°♈			1305 Jul 01 j 05:01	0°♐		
desc. node	1303 Jan 29 j 21:15	19°♈46'33		desc. node	1305 Jul 16 j 16:12	16°♐28'01		
	1303 Feb 07 j 03:48	0°♌		evening max el	1305 Jul 29 j 19:25	29°♐35'22	45°56'29	
	1303 Mar 03 j 10:11	0°♎			1305 Jul 30 j 05:42	0°♄		

greatest brilliancy	1305 Sep 06 j 08:11	27° Ω 47'18	-4.6m	superior conj	1308 Mar 07 j 11:29	24° Υ 56'15	-1°-22'-54
retrograde	1305 Sep 16 j 21:58	29° Ω 48'02		minimum elong	1308 Mar 07 j 16:53	25° Υ 13'01	1°22'51
evening set	1305 Oct 03 j 10:12	24° Ω 37'55		max. Earth dist.	1308 Mar 11 j 10:48	29° Υ 52'09	1.72400 AU
inferior conj	1305 Oct 07 j 16:54	22° Ω 04'32	-6°-45'-23		1308 Mar 11 j 13:20	0° Υ	
minimum elong	1305 Oct 08 j 03:23	21° Ω 48'31	6°43'15		1308 Apr 04 j 18:56	0° Υ	
min. Earth dist.	1305 Oct 08 j 13:45	21° Ω 32'42	0.27193 AU	evening rise	1308 Apr 15 j 04:23	12° Υ 48'29	
morning rise	1305 Oct 12 j 20:08	19° Ω 01'28		asc. node	1308 Apr 23 j 14:59	23° Υ 11'21	
direct	1305 Oct 28 j 13:18	14° Ω 13'28			1308 Apr 29 j 04:08	0° Π	
asc. node	1305 Nov 06 j 19:36	15° Ω 51'56			1308 May 23 j 17:00	0° Υ	
greatest brilliancy	1305 Nov 11 j 04:08	17° Ω 38'53	-4.7m		1308 Jun 17 j 09:57	0° Ω	
	1305 Nov 29 j 10:31	0° Π			1308 Jul 12 j 08:31	0° Π	
morning max el	1305 Dec 18 j 08:04	17° Π 45'14	46°57'00		1308 Aug 06 j 15:56	0° Ω	
	1305 Dec 29 j 23:00	0° Υ		desc. node	1308 Aug 13 j 04:01	7° Ω 36'27	
	1306 Jan 25 j 13:31	0° Υ			1308 Sep 01 j 14:15	0° Π	
	1306 Feb 20 j 00:42	0° \approx			1308 Sep 28 j 18:29	0° Υ	
desc. node	1306 Feb 26 j 09:02	7° \approx 34'33		evening max el	1308 Oct 11 j 01:07	12° Υ 39'44	47°05'39
	1306 Mar 17 j 01:05	0° Υ			1308 Oct 29 j 20:19	0° Υ	
	1306 Apr 10 j 20:46	0° Υ		greatest brilliancy	1308 Nov 18 j 21:11	12° Υ 59'49	-4.7m
	1306 May 05 j 14:08	0° Υ		retrograde	1308 Nov 30 j 15:07	15° Υ 35'51	
	1306 May 30 j 05:33	0° Π		asc. node	1308 Dec 04 j 07:33	15° Υ 19'02	
morning set	1306 Jun 19 j 22:18	25° Π 18'05		evening set	1308 Dec 15 j 05:54	11° Υ 20'53	
asc. node	1306 Jun 19 j 12:35	24° Π 48'20		min. Earth dist.	1308 Dec 20 j 13:52	8° Υ 13'22	0.26540 AU
	1306 Jun 23 j 18:19	0° Υ		inferior conj	1308 Dec 21 j 05:22	7° Υ 49'37	4°13'17
	1306 Jul 18 j 03:38	0° Ω		minimum elong	1308 Dec 20 j 20:46	8° Υ 02'48	4°10'49
max. Earth dist.	1306 Jul 22 j 22:51	5° Ω 55'39	1.73111 AU	morning rise	1308 Dec 26 j 11:54	4° Υ 41'56	
				direct	1309 Jan 10 j 12:51	0° Υ 11'49	
superior conj	1306 Jul 26 j 06:25	10° Ω 01'25	1°12'44	greatest brilliancy	1309 Jan 21 j 17:40	2° Υ 32'07	-4.6m
minimum elong	1306 Jul 25 j 22:36	9° Ω 37'16	1°12'32		1309 Feb 27 j 05:01	0° \approx	
	1306 Aug 11 j 09:35	0° Π		morning max el	1309 Mar 01 j 12:19	2° \approx 15'40	46°33'40
evening rise	1306 Aug 31 j 16:34	25° Π 11'48		desc. node	1309 Mar 25 j 20:59	27° \approx 50'24	
	1306 Sep 04 j 13:17	0° Ω			1309 Mar 27 j 20:10	0° Υ	
	1306 Sep 28 j 16:08	0° Π			1309 Apr 23 j 09:21	0° Υ	
desc. node	1306 Oct 09 j 01:56	12° Π 56'43			1309 May 19 j 02:51	0° Υ	
	1306 Oct 22 j 19:16	0° Υ			1309 Jun 13 j 09:27	0° Π	
	1306 Nov 15 j 23:44	0° Υ			1309 Jul 08 j 07:34	0° Υ	
	1306 Dec 10 j 07:32	0° \approx		asc. node	1309 Jul 17 j 00:20	10° Υ 34'06	
	1307 Jan 03 j 23:22	0° Υ			1309 Aug 01 j 21:44	0° Ω	
	1307 Jan 29 j 09:06	0° Υ			1309 Aug 26 j 04:46	0° Π	
asc. node	1307 Jan 30 j 05:07	0° Υ 57'39		morning set	1309 Aug 27 j 05:29	1° Π 16'45	
	1307 Feb 25 j 11:45	0° Υ			1309 Sep 19 j 06:29	0° Ω	
evening max el	1307 Mar 06 j 23:09	9° Υ 38'49	46°02'15	max. Earth dist.	1309 Oct 01 j 07:44	15° Ω 05'01	1.71660 AU
	1307 Mar 30 j 07:57	0° Π					
greatest brilliancy	1307 Apr 10 j 13:50	6° Π 51'59	-4.5m	superior conj	1309 Oct 03 j 20:50	18° Ω 16'27	1°07'35
retrograde	1307 Apr 25 j 05:54	10° Π 39'48		minimum elong	1309 Oct 04 j 06:47	18° Ω 47'37	1°07'17
evening set	1307 May 10 j 12:16	6° Π 09'23			1309 Oct 13 j 05:15	0° Π	
inferior conj	1307 May 16 j 16:53	2° Π 24'55	1°11'29	desc. node	1309 Nov 05 j 13:52	29° Π 19'05	
minimum elong	1307 May 16 j 19:28	2° Π 20'50	1°10'43		1309 Nov 06 j 02:54	0° Υ	
min. Earth dist.	1307 May 16 j 18:23	2° Π 22'33	0.28902 AU	evening rise	1309 Nov 13 j 00:48	8° Υ 40'39	
	1307 May 20 j 14:24	30° Υ			1309 Nov 30 j 00:39	0° Υ	
desc. node	1307 May 21 j 18:31	29° Υ 18'34			1309 Dec 23 j 23:31	0° \approx	
morning rise	1307 May 23 j 02:49	28° Υ 33'01			1310 Jan 17 j 01:27	0° Υ	
direct	1307 Jun 07 j 06:53	24° Υ 08'15			1310 Feb 10 j 09:45	0° Υ	
greatest brilliancy	1307 Jun 20 j 13:28	27° Υ 12'41	-4.5m	asc. node	1310 Feb 26 j 17:09	19° Υ 47'38	
	1307 Jun 26 j 02:00	0° Π			1310 Mar 07 j 05:25	0° Υ	
morning max el	1307 Jul 26 j 00:58	23° Π 51'35	45°48'25		1310 Apr 01 j 20:13	0° Π	
	1307 Aug 01 j 07:35	0° Υ			1310 Apr 28 j 22:44	0° Υ	
	1307 Aug 29 j 10:22	0° Ω		evening max el	1310 May 16 j 11:35	17° Υ 45'50	45°21'43
asc. node	1307 Sep 11 j 22:06	15° Ω 23'30			1310 May 30 j 02:11	0° Ω	
	1307 Sep 24 j 08:57	0° Π		desc. node	1310 Jun 18 j 06:26	13° Ω 07'56	
	1307 Oct 19 j 05:48	0° Ω		greatest brilliancy	1310 Jun 20 j 17:54	14° Ω 17'30	-4.5m
	1307 Nov 12 j 12:58	0° Π		retrograde	1310 Jul 04 j 01:23	17° Ω 23'06	
	1307 Dec 06 j 13:41	0° Υ		evening set	1310 Jul 20 j 15:23	12° Ω 10'49	
	1307 Dec 30 j 12:12	0° Υ		inferior conj	1310 Jul 25 j 10:54	9° Ω 16'20	-7°-20'-34
desc. node	1308 Jan 01 j 11:24	2° Υ 27'53		minimum elong	1310 Jul 25 j 01:48	9° Ω 30'26	7°19'10
	1308 Jan 23 j 10:51	0° \approx		min. Earth dist.	1310 Jul 25 j 14:52	9° Ω 10'11	0.28816 AU
morning set	1308 Jan 27 j 03:49	4° \approx 38'23		morning rise	1310 Jul 29 j 12:02	6° Ω 48'08	
	1308 Feb 16 j 10:54	0° Υ		direct	1310 Aug 16 j 00:48	1° Ω 01'03	

greatest brilliancy	1310 Aug 30 j 12:34	4°Ω42'56	-4.5m			1313 Mar 20 j 17:55	0°⋈		
	1310 Oct 02 j 05:30	0°♍		asc. node		1313 Mar 26 j 05:10	6°♋41'47		
morning max el	1310 Oct 04 j 22:50	2°♍40'52	46°26'01			1313 Apr 14 j 09:11	0°♊		
asc. node	1310 Oct 09 j 09:55	7°♍11'39				1313 May 09 j 10:32	0°♎		
	1310 Oct 30 j 10:55	0°♊				1313 Jun 04 j 02:48	0°♏		
	1310 Nov 25 j 04:27	0°♌				1313 Jun 30 j 21:25	0°♍		
	1310 Dec 19 j 23:20	0°♌		desc. node		1313 Jul 15 j 18:12	15°♍43'20		
	1311 Jan 13 j 09:05	0°♎		evening max el		1313 Jul 27 j 08:25	27°♍15'00	45°54'07	
desc. node	1311 Jan 28 j 23:10	19°♎15'34				1313 Jul 30 j 06:01	0°♊		
	1311 Feb 06 j 15:36	0°♌		greatest brilliancy		1313 Sep 03 j 21:20	25°♊25'30	-4.6m	
	1311 Mar 02 j 21:38	0°♋		retrograde		1313 Sep 14 j 09:58	27°♊25'21		
	1311 Mar 27 j 04:35	0°♍		evening set		1313 Oct 01 j 02:30	22°♊10'29		
morning set	1311 Apr 10 j 13:47	17°♍43'37		inferior conj		1313 Oct 05 j 06:10	19°♊41'20	-6°-59'-34	
	1311 Apr 20 j 13:02	0°♋		minimum elong		1313 Oct 05 j 16:28	19°♊25'34	6°57'35	
	1311 May 14 j 22:43	0°♊		min. Earth dist.		1313 Oct 06 j 03:40	19°♊08'26	0.27261 AU	
				morning rise		1313 Oct 10 j 05:59	16°♊42'37		
superior conj	1311 May 17 j 18:00	3°♊26'42	0°-10'-22	direct		1313 Oct 26 j 02:49	11°♊49'04		
minimum elong	1311 May 17 j 20:10	3°♊33'21	0°10'16	asc. node		1313 Nov 05 j 21:40	14°♊00'16		
behind sun begin	1311 May 17 j 02:37	2°♊39'27		greatest brilliancy		1313 Nov 08 j 20:03	15°♊16'20	-4.7m	
behind sun end	1311 May 18 j 13:43	4°♊27'14				1313 Nov 29 j 20:22	0°♌		
max. Earth dist.	1311 May 18 j 02:13	3°♊51'55	1.73565 AU	morning max el		1313 Dec 15 j 20:41	15°♌16'33	46°56'48	
asc. node	1311 May 22 j 02:48	8°♊48'35				1313 Dec 29 j 18:09	0°♌		
	1311 Jun 08 j 08:52	0°♎				1314 Jan 25 j 04:50	0°♎		
evening rise	1311 Jun 22 j 22:42	17°♎54'34				1314 Feb 19 j 14:15	0°♌		
	1311 Jul 02 j 18:52	0°♏		desc. node		1314 Feb 25 j 11:14	7°♌01'31		
	1311 Jul 27 j 04:59	0°♍				1314 Mar 16 j 13:37	0°♋		
	1311 Aug 20 j 16:19	0°♊				1314 Apr 10 j 08:39	0°♍		
desc. node	1311 Sep 10 j 16:04	25°♊37'21				1314 May 05 j 01:33	0°♋		
	1311 Sep 14 j 06:23	0°♌				1314 May 29 j 16:39	0°♊		
	1311 Oct 09 j 00:51	0°♌		morning set		1314 Jun 17 j 16:35	23°♊13'32		
	1311 Nov 03 j 03:11	0°♎		asc. node		1314 Jun 18 j 14:34	24°♊20'52		
	1311 Nov 28 j 23:18	0°♌				1314 Jun 23 j 05:13	0°♎		
evening max el	1311 Dec 23 j 06:32	26°♌20'29	47°10'49			1314 Jul 17 j 14:29	0°♏		
	1311 Dec 26 j 21:42	0°♋		max. Earth dist.		1314 Jul 20 j 18:13	3°♏53'44	1.73151 AU	
asc. node	1312 Jan 01 j 19:20	5°♋43'11							
greatest brilliancy	1312 Jan 29 j 08:44	26°♋23'52	-4.6m	superior conj		1314 Jul 24 j 00:49	7°♏56'28	1°11'04	
retrograde	1312 Feb 12 j 02:54	29°♋52'47		minimum elong		1314 Jul 23 j 16:43	7°♏31'27	1°10'51	
evening set	1312 Mar 01 j 00:17	23°♋38'25				1314 Aug 10 j 20:29	0°♍		
min. Earth dist.	1312 Mar 03 j 17:02	21°♋57'21	0.28126 AU	evening rise		1314 Aug 29 j 09:05	22°♍59'50		
inferior conj	1312 Mar 04 j 03:55	21°♋40'12	8°32'00			1314 Sep 04 j 00:20	0°♊		
minimum elong	1312 Mar 04 j 08:07	21°♋33'35	8°31'44			1314 Sep 28 j 03:25	0°♌		
morning rise	1312 Mar 07 j 16:11	19°♋29'31		desc. node		1314 Oct 08 j 04:03	12°♌27'44		
direct	1312 Mar 25 j 04:07	13°♋37'18				1314 Oct 22 j 06:53	0°♌		
greatest brilliancy	1312 Apr 05 j 08:34	15°♋54'48	-4.5m			1314 Nov 15 j 11:45	0°♎		
desc. node	1312 Apr 22 j 08:40	25°♋53'41				1314 Dec 09 j 20:05	0°♌		
	1312 Apr 27 j 14:27	0°♍				1315 Jan 03 j 12:45	0°♋		
morning max el	1312 May 13 j 05:59	14°♍00'58	45°52'33	asc. node		1315 Jan 29 j 07:14	0°♍20'24		
	1312 May 29 j 03:30	0°♋				1315 Jan 29 j 00:08	0°♍		
	1312 Jun 25 j 16:33	0°♊				1315 Feb 25 j 07:03	0°♋		
	1312 Jul 21 j 18:52	0°♎		evening max el		1315 Mar 04 j 13:04	7°♋20'32	46°04'40	
asc. node	1312 Aug 13 j 12:16	26°♎58'28				1315 Mar 31 j 03:45	0°♊		
	1312 Aug 16 j 00:38	0°♏		greatest brilliancy		1315 Apr 08 j 05:49	4°♊41'11	-4.5m	
	1312 Sep 09 j 15:49	0°♍		retrograde		1315 Apr 22 j 22:14	8°♊30'22		
	1312 Oct 03 j 20:55	0°♊		evening set		1315 May 08 j 06:02	3°♊57'40		
	1312 Oct 27 j 20:04	0°♌		inferior conj		1315 May 14 j 09:19	0°♊15'20	1°31'08	
morning set	1312 Nov 07 j 11:26	13°♌22'26		minimum elong		1315 May 14 j 12:36	0°♊10'09	1°30'10	
	1312 Nov 20 j 16:34	0°♌		min. Earth dist.		1315 May 14 j 11:16	0°♊12'15	0.28890 AU	
desc. node	1312 Dec 03 j 01:36	15°♌34'59				1315 May 14 j 19:03	30°♌		
	1312 Dec 14 j 12:30	0°♎		morning rise		1315 May 20 j 19:14	26°♌23'21		
				desc. node		1315 May 20 j 20:31	26°♌21'35		
superior conj	1312 Dec 18 j 18:40	5°♎21'20	0°-36'-22	direct		1315 Jun 04 j 22:26	21°♌58'37		
minimum elong	1312 Dec 18 j 09:35	4°♎52'47	0°35'59	greatest brilliancy		1315 Jun 18 j 05:29	25°♌03'10	-4.5m	
max. Earth dist.	1312 Dec 20 j 18:01	7°♎50'15	1.71096 AU			1315 Jun 27 j 07:45	0°♊		
	1313 Jan 07 j 09:11	0°♌		morning max el		1315 Jul 23 j 16:29	21°♊40'17	45°47'55	
evening rise	1313 Jan 29 j 03:45	27°♌17'08				1315 Aug 01 j 03:28	0°♎		
	1313 Jan 31 j 07:52	0°♋				1315 Aug 29 j 01:17	0°♏		
	1313 Feb 24 j 10:09	0°♍		asc. node		1315 Sep 11 j 00:13	14°♏49'45		

	1315 Sep 23 j 22:00	0°♎			1318 Apr 28 j 16:18	0°♏	
	1315 Oct 18 j 17:58	0°♏		evening max el	1318 May 14 j 03:58	15°♏36'39	45°22'00
	1315 Nov 12 j 00:42	0°♎			1318 May 30 j 10:04	0°♏	
	1315 Dec 06 j 01:10	0°♏		desc. node	1318 Jun 17 j 08:26	11°♏38'56	
	1315 Dec 29 j 23:33	0°♏		greatest brilliancy	1318 Jun 18 j 07:32	12°♏04'57	-4.5m
desc. node	1315 Dec 31 j 13:24	1°♏58'37		retrograde	1318 Jul 01 j 17:08	15°♏12'14	
	1316 Jan 22 j 22:05	0°♏		evening set	1318 Jul 18 j 03:50	10°♏04'31	
morning set	1316 Jan 24 j 13:52	2°♏04'33		inferior conj	1318 Jul 23 j 02:34	7°♏04'59	-7°-9'-19
	1316 Feb 15 j 22:00	0°♏		minimum elong	1318 Jul 22 j 17:12	7°♏19'33	7°07'48
				min. Earth dist.	1318 Jul 23 j 05:34	7°♏00'19	0.28838 AU
superior conj	1316 Mar 05 j 00:42	22°♏33'56	-1°-23'-47	morning rise	1318 Jul 27 j 06:25	4°♏32'39	
minimum elong	1316 Mar 05 j 05:19	22°♏48'18	1°23'45		1318 Aug 06 j 01:01	30°♏♏	
max. Earth dist.	1316 Mar 08 j 22:47	27°♏26'15	1.72342 AU	direct	1318 Aug 13 j 17:20	28°♏49'38	
	1316 Mar 11 j 00:19	0°♏			1318 Aug 21 j 15:40	0°♏	
	1316 Apr 04 j 05:53	0°♏		greatest brilliancy	1318 Aug 28 j 03:09	2°♏29'25	-4.5m
evening rise	1316 Apr 12 j 20:00	10°♏35'08			1318 Oct 02 j 03:58	0°♏	
asc. node	1316 Apr 22 j 16:58	22°♏43'42		morning max el	1318 Oct 02 j 14:07	0°♏25'11	46°24'27
	1316 Apr 28 j 15:09	0°♏		asc. node	1318 Oct 08 j 11:54	6°♏24'57	
	1316 May 23 j 04:13	0°♏			1318 Oct 30 j 02:49	0°♏	
	1316 Jun 16 j 21:32	0°♏			1318 Nov 24 j 18:05	0°♏	
	1316 Jul 11 j 20:44	0°♏			1318 Dec 19 j 11:52	0°♏	
	1316 Aug 06 j 05:13	0°♏			1319 Jan 12 j 20:57	0°♏	
desc. node	1316 Aug 12 j 06:11	7°♏02'57		desc. node	1319 Jan 28 j 01:21	18°♏46'32	
	1316 Sep 01 j 05:32	0°♏			1319 Feb 06 j 03:02	0°♏	
	1316 Sep 28 j 14:14	0°♏			1319 Mar 02 j 08:46	0°♏	
evening max el	1316 Oct 08 j 14:24	10°♏15'07	47°03'55		1319 Mar 26 j 15:30	0°♏	
	1316 Oct 30 j 10:36	0°♏		morning set	1319 Apr 08 j 05:50	15°♏31'56	
greatest brilliancy	1316 Nov 16 j 10:20	10°♏31'12	-4.7m		1319 Apr 19 j 23:47	0°♏	
retrograde	1316 Nov 28 j 04:03	13°♏06'54			1319 May 14 j 09:23	0°♏	
asc. node	1316 Dec 03 j 09:29	12°♏32'50					
evening set	1316 Dec 12 j 16:32	8°♏54'16		superior conj	1319 May 15 j 11:26	1°♏20'03	0°-13'-33
min. Earth dist.	1316 Dec 18 j 03:08	5°♏43'26	0.26513 AU	minimum elong	1319 May 15 j 14:15	1°♏28'43	0°13'26
inferior conj	1316 Dec 18 j 17:43	5°♏21'08	3°51'32	behind sun begin	1319 May 15 j 02:01	0°♏51'07	
minimum elong	1316 Dec 18 j 09:40	5°♏33'26	3°49'11	behind sun end	1319 May 16 j 02:30	2°♏06'19	
morning rise	1316 Dec 24 j 03:06	2°♏10'04		max. Earth dist.	1319 May 16 j 00:46	2°♏01'00	1.73548 AU
	1316 Dec 28 j 12:59	30°♏♏		asc. node	1319 May 21 j 04:47	8°♏21'57	
direct	1317 Jan 08 j 01:18	27°♏43'29			1319 Jun 07 j 19:30	0°♏	
	1317 Jan 19 j 01:36	0°♏		evening rise	1319 Jun 20 j 17:27	15°♏51'52	
greatest brilliancy	1317 Jan 19 j 07:55	0°♏06'15	-4.6m		1319 Jul 02 j 05:37	0°♏	
morning max el	1317 Feb 27 j 02:32	29°♏54'20	46°35'07		1319 Jul 26 j 15:59	0°♏	
	1317 Feb 27 j 04:50	0°♏			1319 Aug 20 j 03:44	0°♏	
desc. node	1317 Mar 24 j 23:02	27°♏09'32		desc. node	1319 Sep 09 j 18:09	25°♏07'30	
	1317 Mar 27 j 12:45	0°♏			1319 Sep 13 j 18:22	0°♏	
	1317 Apr 22 j 23:14	0°♏			1319 Oct 08 j 13:39	0°♏	
	1317 May 18 j 15:21	0°♏			1319 Nov 02 j 17:15	0°♏	
	1317 Jun 12 j 21:09	0°♏			1319 Nov 28 j 15:51	0°♏	
	1317 Jul 07 j 18:48	0°♏		evening max el	1319 Dec 20 j 21:48	24°♏01'20	47°12'15
asc. node	1317 Jul 16 j 02:26	10°♏06'38			1319 Dec 26 j 21:23	0°♏	
	1317 Aug 01 j 08:42	0°♏		asc. node	1319 Dec 31 j 21:29	4°♏46'08	
morning set	1317 Aug 24 j 21:49	29°♏04'48		greatest brilliancy	1320 Jan 27 j 02:36	24°♏09'24	-4.6m
	1317 Aug 25 j 15:37	0°♏		retrograde	1320 Feb 09 j 18:14	27°♏35'13	
	1317 Sep 18 j 17:20	0°♏		evening set	1320 Feb 27 j 16:36	21°♏19'47	
max. Earth dist.	1317 Sep 28 j 20:40	12°♏41'11	1.71700 AU	inferior conj	1320 Mar 01 j 18:58	19°♏23'19	8°36'32
				minimum elong	1320 Mar 01 j 22:24	19°♏17'54	8°36'22
superior conj	1317 Oct 01 j 10:57	15°♏56'15	1°09'41	min. Earth dist.	1320 Mar 01 j 07:04	19°♏42'06	0.28076 AU
minimum elong	1317 Oct 01 j 20:34	16°♏26'23	1°09'24	morning rise	1320 Mar 05 j 04:27	17°♏16'42	
	1317 Oct 12 j 16:08	0°♏		direct	1320 Mar 22 j 18:50	11°♏21'34	
desc. node	1317 Nov 04 j 15:51	28°♏50'48		greatest brilliancy	1320 Apr 02 j 20:33	13°♏36'22	-4.5m
	1317 Nov 05 j 13:54	0°♏		desc. node	1320 Apr 21 j 10:40	24°♏45'50	
evening rise	1317 Nov 10 j 11:58	6°♏10'32			1320 Apr 27 j 21:47	0°♏	
	1317 Nov 29 j 11:45	0°♏		morning max el	1320 May 10 j 20:15	11°♏45'52	45°53'22
	1317 Dec 23 j 10:46	0°♏			1320 May 28 j 21:10	0°♏	
	1318 Jan 16 j 12:55	0°♏			1320 Jun 25 j 06:36	0°♏	
	1318 Feb 09 j 21:38	0°♏			1320 Jul 21 j 07:19	0°♏	
asc. node	1318 Feb 25 j 19:15	19°♏16'57		asc. node	1320 Aug 12 j 14:23	26°♏29'41	
	1318 Mar 06 j 18:01	0°♏			1320 Aug 15 j 12:15	0°♏	
	1318 Apr 01 j 10:16	0°♏			1320 Sep 09 j 03:01	0°♏	

	1320 Oct 03 j 07:55	0°♄	evening set	1323 May 06 j 00:03	1°♂47'09	
	1320 Oct 27 j 07:00	0°♌		1323 May 09 j 01:16	30°♌	
morning set	1320 Nov 04 j 23:09	10°♌54'04	inferior conj	1323 May 12 j 01:51	28°♂07'04	1°50'28
	1320 Nov 20 j 03:28	0°♊	minimum elong	1323 May 12 j 05:49	28°♂00'49	1°49'20
desc. node	1320 Dec 02 j 03:38	15°♊07'05	min. Earth dist.	1323 May 12 j 03:54	28°♂03'50	0.28880 AU
	1320 Dec 13 j 23:23	0°♈	morning rise	1323 May 18 j 11:40	24°♂15'27	
			desc. node	1323 May 19 j 22:30	23°♂29'09	
superior conj	1320 Dec 16 j 04:15	2°♈46'17 0°-32'-41	direct	1323 Jun 02 j 14:24	19°♂50'19	
minimum elong	1320 Dec 15 j 19:57	2°♈20'11 0°32'19	greatest brilliancy	1323 Jun 15 j 21:37	22°♂55'11	-4.5m
max. Earth dist.	1320 Dec 17 j 20:35	4°♈53'09 1.71077 AU		1323 Jun 28 j 04:38	0°♂	
	1321 Jan 06 j 20:03	0°♌	morning max el	1323 Jul 21 j 08:56	19°♂32'15	45°47'14
evening rise	1321 Jan 26 j 14:30	24°♌46'39		1323 Jul 31 j 22:27	0°♌	
	1321 Jan 30 j 18:43	0°♋		1323 Aug 28 j 15:49	0°♌	
	1321 Feb 23 j 21:02	0°♑	asc. node	1323 Sep 10 j 02:09	14°♌16'10	
asc. node	1321 Mar 20 j 04:57	0°♌		1323 Sep 23 j 10:49	0°♑	
	1321 Mar 25 j 07:08	6°♌13'53		1323 Oct 18 j 05:58	0°♄	
	1321 Apr 13 j 20:34	0°♂		1323 Nov 11 j 12:15	0°♌	
	1321 May 08 j 22:39	0°♌		1323 Dec 05 j 12:28	0°♊	
	1321 Jun 03 j 16:18	0°♌		1323 Dec 29 j 10:41	0°♈	
desc. node	1321 Jun 30 j 13:51	0°♑	desc. node	1323 Dec 30 j 15:33	1°♈30'29	
evening max el	1321 Jul 14 j 20:23	14°♑59'12	morning set	1324 Jan 21 j 23:52	29°♈31'09	
	1321 Jul 24 j 20:48	24°♑53'55 45°51'53		1324 Jan 22 j 09:05	0°♌	
	1321 Jul 30 j 07:17	0°♄		1324 Feb 15 j 08:53	0°♋	
greatest brilliancy	1321 Sep 01 j 09:58	23°♄03'58 -4.6m				
retrograde	1321 Sep 11 j 22:08	25°♄03'48	superior conj	1324 Mar 02 j 13:51	20°♋11'56	-1°-24'-31
evening set	1321 Sep 28 j 18:39	19°♄43'52	minimum elong	1324 Mar 02 j 17:39	20°♋23'45	1°24'30
inferior conj	1321 Oct 02 j 19:22	17°♄19'05 -7°-12'-50	max. Earth dist.	1324 Mar 06 j 10:38	25°♋00'24	1.72286 AU
minimum elong	1321 Oct 03 j 05:26	17°♄03'42 7°11'02		1324 Mar 10 j 11:06	0°♑	
min. Earth dist.	1321 Oct 03 j 17:30	16°♄45'14 0.27329 AU		1324 Apr 03 j 16:38	0°♌	
morning rise	1321 Oct 07 j 15:43	14°♄25'06	evening rise	1324 Apr 10 j 11:43	8°♌22'38	
direct	1321 Oct 23 j 16:05	9°♄25'27	asc. node	1324 Apr 21 j 19:01	22°♌16'52	
asc. node	1321 Nov 04 j 23:40	12°♄13'47		1324 Apr 28 j 01:57	0°♂	
greatest brilliancy	1321 Nov 06 j 12:31	12°♄55'41 -4.7m		1324 May 22 j 15:12	0°♌	
	1321 Nov 30 j 03:08	0°♌		1324 Jun 16 j 08:54	0°♌	
morning max el	1321 Dec 13 j 09:54	12°♌50'29 46°56'37		1324 Jul 11 j 08:48	0°♑	
	1321 Dec 29 j 12:25	0°♊		1324 Aug 05 j 18:29	0°♄	
	1322 Jan 24 j 19:34	0°♈	desc. node	1324 Aug 11 j 08:10	6°♄29'01	
	1322 Feb 19 j 03:19	0°♌		1324 Aug 31 j 21:01	0°♌	
desc. node	1322 Feb 24 j 13:13	6°♌29'07		1324 Sep 28 j 10:40	0°♊	
	1322 Mar 16 j 01:42	0°♋	evening max el	1324 Oct 06 j 04:40	7°♊52'56	47°02'01
	1322 Apr 09 j 20:04	0°♑		1324 Oct 31 j 05:51	0°♈	
	1322 May 04 j 12:32	0°♌	greatest brilliancy	1324 Nov 13 j 23:29	8°♈02'16	-4.7m
	1322 May 29 j 03:21	0°♂	retrograde	1324 Nov 25 j 17:06	10°♈37'11	
morning set	1322 Jun 15 j 10:48	21°♂09'50	asc. node	1324 Dec 02 j 11:38	9°♈39'54	
asc. node	1322 Jun 17 j 16:41	23°♂54'52	evening set	1324 Dec 10 j 03:17	6°♈26'56	
	1322 Jun 22 j 15:48	0°♌	min. Earth dist.	1324 Dec 15 j 16:05	3°♈13'01	0.26484 AU
	1322 Jul 17 j 01:03	0°♌	inferior conj	1324 Dec 16 j 05:52	2°♈52'00	3°29'15
max. Earth dist.	1322 Jul 18 j 14:38	1°♌55'58 1.73195 AU	minimum elong	1324 Dec 15 j 22:26	3°♈03'20	3°27'01
				1324 Dec 21 j 01:52	30°♌♊	
superior conj	1322 Jul 21 j 19:01	5°♌51'46 1°09'17	morning rise	1324 Dec 21 j 17:57	29°♊37'44	
minimum elong	1322 Jul 21 j 10:42	5°♌26'04 1°09'04	direct	1325 Jan 05 j 13:56	25°♊14'51	
	1322 Aug 10 j 07:09	0°♑	greatest brilliancy	1325 Jan 16 j 20:58	27°♊38'46	-4.7m
evening rise	1322 Aug 27 j 01:28	20°♑48'15		1325 Jan 21 j 20:42	0°♈	
	1322 Sep 03 j 11:08	0°♄	morning max el	1325 Feb 24 j 16:39	27°♈32'53	46°36'34
	1322 Sep 27 j 14:27	0°♌		1325 Feb 27 j 03:32	0°♌	
desc. node	1322 Oct 07 j 05:59	11°♌59'04	desc. node	1325 Mar 24 j 01:02	26°♌29'20	
	1322 Oct 21 j 18:13	0°♊		1325 Mar 27 j 04:55	0°♋	
	1322 Nov 14 j 23:30	0°♈		1325 Apr 22 j 12:52	0°♑	
	1322 Dec 09 j 08:23	0°♌		1325 May 18 j 03:42	0°♌	
	1323 Jan 03 j 01:54	0°♋		1325 Jun 12 j 08:44	0°♂	
asc. node	1323 Jan 28 j 09:20	29°♋43'47		1325 Jul 07 j 05:55	0°♌	
	1323 Jan 28 j 15:01	0°♑	asc. node	1325 Jul 15 j 04:34	9°♌39'37	
	1323 Feb 25 j 02:31	0°♌		1325 Jul 31 j 19:34	0°♌	
evening max el	1323 Mar 02 j 03:43	5°♌05'06 46°07'15	morning set	1325 Aug 22 j 14:27	26°♌54'06	
	1323 Apr 01 j 06:03	0°♂		1325 Aug 25 j 02:23	0°♑	
greatest brilliancy	1323 Apr 05 j 21:19	2°♂31'04 -4.5m		1325 Sep 18 j 04:09	0°♄	
retrograde	1323 Apr 20 j 15:09	6°♂22'26	max. Earth dist.	1325 Sep 26 j 07:38	10°♄11'13	1.71751 AU

superior conj	1325 Sep 29 j 01:15	13°♌36'37	1°11'39	direct	1328 Mar 20 j 08:40	9°♏03'39	
minimum elong	1325 Sep 29 j 10:29	14°♌05'31	1°11'25	greatest brilliancy	1328 Mar 31 j 09:14	11°♏16'51	-4.5m
	1325 Oct 12 j 03:06	0°♍		desc. node	1328 Apr 20 j 12:47	23°♏38'40	
desc. node	1325 Nov 03 j 17:57	28°♍22'36			1328 Apr 28 j 03:27	0°♐	
	1325 Nov 05 j 01:00	0°♑		morning max el	1328 May 08 j 09:48	9°♐27'44	45°54'25
evening rise	1325 Nov 07 j 22:52	3°♑39'13			1328 May 28 j 14:48	0°♑	
	1325 Nov 28 j 22:59	0°♒			1328 Jun 24 j 20:47	0°♒	
	1325 Dec 22 j 22:09	0°♓			1328 Jul 20 j 19:57	0°♓	
	1326 Jan 16 j 00:31	0°♈		asc. node	1328 Aug 11 j 16:17	25°♓59'32	
	1326 Feb 09 j 09:37	0°♐			1328 Aug 15 j 00:06	0°♑	
asc. node	1326 Feb 24 j 21:12	18°♐45'37			1328 Sep 08 j 14:27	0°♒	
	1326 Mar 06 j 06:45	0°♑			1328 Oct 02 j 19:09	0°♒	
	1326 Apr 01 j 00:31	0°♒			1328 Oct 26 j 18:09	0°♓	
	1326 Apr 28 j 10:17	0°♓		morning set	1328 Nov 02 j 11:31	8°♓26'59	
evening max el	1326 May 11 j 20:22	13°♓27'28	45°22'23		1328 Nov 19 j 14:36	0°♑	
	1326 May 30 j 20:41	0°♑		desc. node	1328 Dec 01 j 05:47	14°♑38'43	
greatest brilliancy	1326 Jun 15 j 22:12	9°♑54'07	-4.5m		1328 Dec 13 j 10:33	0°♒	
desc. node	1326 Jun 16 j 10:39	10°♑07'35					
retrograde	1326 Jun 29 j 08:43	13°♑02'18		superior conj	1328 Dec 13 j 14:05	0°♒11'08	0°-28'-57
evening set	1326 Jul 15 j 16:43	7°♑59'10		minimum elong	1328 Dec 13 j 06:37	29°♑47'40	0°28'36
inferior conj	1326 Jul 20 j 18:35	4°♑54'48	-6°-57'-37	max. Earth dist.	1328 Dec 14 j 22:39	1°♒53'36	1.71070 AU
minimum elong	1326 Jul 20 j 08:59	5°♑09'45	6°55'58		1329 Jan 06 j 07:15	0°♓	
min. Earth dist.	1326 Jul 20 j 20:58	4°♑51'05	0.28857 AU	evening rise	1329 Jan 24 j 01:02	22°♓14'18	
morning rise	1326 Jul 25 j 01:06	2°♑18'12			1329 Jan 30 j 05:59	0°♈	
	1326 Jul 29 j 06:55	30°♒♓			1329 Feb 23 j 08:22	0°♐	
direct	1326 Aug 11 j 09:47	26°♓39'23			1329 Mar 19 j 16:26	0°♑	
	1326 Aug 25 j 03:32	0°♑		asc. node	1329 Mar 24 j 09:11	5°♑44'51	
greatest brilliancy	1326 Aug 25 j 17:17	0°♑16'00	-4.5m		1329 Apr 13 j 08:26	0°♒	
morning max el	1326 Sep 30 j 04:35	28°♑07'40	46°22'44		1329 May 08 j 11:14	0°♓	
	1326 Oct 02 j 01:32	0°♒			1329 Jun 03 j 06:19	0°♑	
asc. node	1326 Oct 07 j 13:58	5°♒39'14			1329 Jun 30 j 07:00	0°♒	
	1326 Oct 29 j 18:33	0°♒		desc. node	1329 Jul 13 j 22:22	14°♒12'57	
	1326 Nov 24 j 07:47	0°♓		evening max el	1329 Jul 22 j 09:35	22°♒33'10	45°49'51
	1326 Dec 19 j 00:35	0°♑			1329 Jul 30 j 10:21	0°♒	
	1327 Jan 12 j 09:04	0°♒		greatest brilliancy	1329 Aug 29 j 21:53	20°♒41'29	-4.6m
desc. node	1327 Jan 27 j 03:24	18°♒16'14		retrograde	1329 Sep 09 j 11:05	22°♒42'31	
	1327 Feb 05 j 14:43	0°♓		evening set	1329 Sep 26 j 10:58	17°♒17'23	
	1327 Mar 01 j 20:07	0°♈		inferior conj	1329 Sep 30 j 08:51	14°♒56'54	-7°-25'-13
	1327 Mar 26 j 02:36	0°♐		minimum elong	1329 Sep 30 j 18:35	14°♒42'02	7°23'36
morning set	1327 Apr 05 j 21:40	13°♐18'57		min. Earth dist.	1329 Oct 01 j 07:19	14°♒22'35	0.27397 AU
	1327 Apr 19 j 10:43	0°♑		morning rise	1329 Oct 05 j 01:42	12°♒08'00	
				direct	1329 Oct 21 j 05:58	7°♒01'55	
superior conj	1327 May 13 j 04:54	29°♑13'01	0°-16'-43	greatest brilliancy	1329 Nov 04 j 05:17	10°♒35'27	-4.6m
minimum elong	1327 May 13 j 08:23	29°♑23'41	0°16'35	asc. node	1329 Nov 04 j 01:46	10°♒31'16	
	1327 May 13 j 20:12	0°♒			1329 Nov 30 j 08:00	0°♓	
max. Earth dist.	1327 May 13 j 22:15	0°♒06'19	1.73527 AU	morning max el	1329 Dec 11 j 00:16	10°♓26'54	46°56'24
asc. node	1327 May 20 j 06:55	7°♒55'14			1329 Dec 29 j 06:29	0°♑	
	1327 Jun 07 j 06:20	0°♓			1330 Jan 24 j 10:24	0°♒	
evening rise	1327 Jun 18 j 12:24	13°♓49'14			1330 Feb 18 j 16:39	0°♓	
	1327 Jul 01 j 16:33	0°♑		desc. node	1330 Feb 23 j 15:12	5°♓55'48	
	1327 Jul 26 j 03:10	0°♒			1330 Mar 15 j 14:08	0°♈	
	1327 Aug 19 j 15:20	0°♒			1330 Apr 09 j 07:55	0°♐	
desc. node	1327 Sep 08 j 20:09	24°♒36'58			1330 May 03 j 23:56	0°♑	
	1327 Sep 13 j 06:32	0°♓			1330 May 28 j 14:28	0°♒	
	1327 Oct 08 j 02:41	0°♑		morning set	1330 Jun 13 j 04:53	19°♒04'29	
	1327 Nov 02 j 07:42	0°♒		asc. node	1330 Jun 16 j 18:44	23°♒27'30	
	1327 Nov 28 j 09:05	0°♓			1330 Jun 22 j 02:45	0°♓	
evening max el	1327 Dec 18 j 12:05	21°♓38'15	47°13'21		1330 Jul 16 j 11:58	0°♑	
	1327 Dec 26 j 22:50	0°♈		max. Earth dist.	1330 Jul 16 j 12:41	0°♑02'13	1.73234 AU
asc. node	1327 Dec 30 j 23:32	3°♈46'04					
greatest brilliancy	1328 Jan 24 j 20:40	21°♈53'02	-4.6m	superior conj	1330 Jul 19 j 13:11	3°♑45'57	1°07'26
retrograde	1328 Feb 07 j 09:02	25°♈15'25		minimum elong	1330 Jul 19 j 04:41	3°♑19'42	1°07'10
evening set	1328 Feb 25 j 08:21	18°♈59'31			1330 Aug 09 j 18:09	0°♒	
inferior conj	1328 Feb 28 j 09:47	17°♈04'23	8°40'20	evening rise	1330 Aug 24 j 18:09	18°♒36'38	
minimum elong	1328 Feb 28 j 12:25	17°♈00'14	8°40'14		1330 Sep 02 j 22:18	0°♒	
min. Earth dist.	1328 Feb 27 j 21:17	17°♈24'10	0.28024 AU		1330 Sep 27 j 01:50	0°♓	
morning rise	1328 Mar 02 j 16:44	15°♈01'28		desc. node	1330 Oct 06 j 08:06	11°♓29'56	

	1330 Oct 21 j 05:55	0°♊			1333 Mar 26 j 20:55	0°♋		
	1330 Nov 14 j 11:34	0°♌			1333 Apr 22 j 02:31	0°♍		
	1330 Dec 08 j 20:59	0°♎			1333 May 17 j 16:08	0°♏		
	1331 Jan 02 j 15:25	0°♐			1333 Jun 11 j 20:29	0°♑		
asc. node	1331 Jan 27 j 11:17	29°♐05'32			1333 Jul 06 j 17:14	0°♒		
	1331 Jan 28 j 06:24	0°♑		asc. node	1333 Jul 14 j 06:30	9°♒11'19		
	1331 Feb 24 j 23:01	0°♒			1333 Jul 31 j 06:39	0°♓		
evening max el	1331 Feb 27 j 19:14	2°♒50'38	46°09'37	morning set	1333 Aug 20 j 06:58	24°♓42'27		
	1331 Apr 02 j 21:11	0°♑			1333 Aug 24 j 13:22	0°♐		
greatest brilliancy	1331 Apr 03 j 13:05	0°♑19'43	-4.5m		1333 Sep 17 j 15:08	0°♑		
retrograde	1331 Apr 18 j 08:17	4°♑12'29		max. Earth dist.	1333 Sep 23 j 17:08	7°♑36'25	1.71798 AU	
	1331 May 02 j 23:34	30°♒♐						
evening set	1331 May 03 j 18:05	29°♒34'35		superior conj	1333 Sep 26 j 15:39	11°♑17'00	1°13'29	
inferior conj	1331 May 09 j 18:13	25°♒56'45	2°09'54	minimum elong	1333 Sep 27 j 00:26	11°♑44'30	1°13'16	
minimum elong	1331 May 09 j 22:50	25°♒49'29	2°08'35		1333 Oct 11 j 14:10	0°♒		
min. Earth dist.	1331 May 09 j 20:08	25°♒53'44	0.28870 AU	desc. node	1333 Nov 02 j 20:03	27°♒54'05		
morning rise	1331 May 16 j 03:46	22°♒05'52			1333 Nov 04 j 12:11	0°♊		
desc. node	1331 May 19 j 00:41	20°♒37'45		evening rise	1333 Nov 05 j 09:53	1°♊08'02		
direct	1331 May 31 j 06:38	17°♒40'08			1333 Nov 28 j 10:19	0°♌		
greatest brilliancy	1331 Jun 13 j 12:55	20°♒44'36	-4.5m		1333 Dec 22 j 09:38	0°♍		
	1331 Jun 28 j 20:54	0°♑			1334 Jan 15 j 12:14	0°♋		
morning max el	1331 Jul 19 j 01:55	17°♑24'21	45°46'40		1334 Feb 08 j 21:43	0°♌		
	1331 Jul 31 j 17:24	0°♒		asc. node	1334 Feb 23 j 23:19	18°♑14'29		
	1331 Aug 28 j 06:32	0°♓			1334 Mar 05 j 19:36	0°♏		
asc. node	1331 Sep 09 j 04:16	13°♓42'21			1334 Mar 31 j 14:57	0°♑		
	1331 Sep 22 j 23:50	0°♐			1334 Apr 28 j 04:46	0°♒		
	1331 Oct 17 j 18:11	0°♑		evening max el	1334 May 09 j 11:53	11°♒15'53	45°22'38	
	1331 Nov 11 j 00:03	0°♒			1334 May 31 j 11:12	0°♓		
	1331 Dec 05 j 00:01	0°♊		greatest brilliancy	1334 Jun 13 j 12:35	7°♓42'21	-4.5m	
	1331 Dec 28 j 22:05	0°♌		desc. node	1334 Jun 15 j 12:35	8°♓32'09		
desc. node	1331 Dec 29 j 17:33	1°♌01'04		retrograde	1334 Jun 26 j 23:46	10°♓51'50		
morning set	1332 Jan 19 j 10:13	26°♌58'03		evening set	1334 Jul 13 j 05:33	5°♓52'59		
	1332 Jan 21 j 20:19	0°♍		inferior conj	1334 Jul 18 j 10:31	2°♓44'05	-6°-45'-15	
	1332 Feb 14 j 19:59	0°♋		minimum elong	1334 Jul 18 j 00:45	2°♓59'19	6°43'28	
				min. Earth dist.	1334 Jul 18 j 12:42	2°♓40'41	0.28877 AU	
superior conj	1332 Feb 29 j 03:04	17°♋49'19	-1°-25'-6	morning rise	1334 Jul 22 j 19:45	0°♓03'08		
minimum elong	1332 Feb 29 j 05:59	17°♋58'25	1°25'05		1334 Jul 22 j 21:53	30°♒♓		
max. Earth dist.	1332 Mar 04 j 00:47	22°♋40'53	1.72234 AU	direct	1334 Aug 09 j 01:41	24°♓28'25		
	1332 Mar 09 j 22:07	0°♌		greatest brilliancy	1334 Aug 23 j 08:08	28°♓02'50	-4.5m	
	1332 Apr 03 j 03:39	0°♏			1334 Aug 27 j 02:43	0°♓		
evening rise	1332 Apr 08 j 03:22	6°♏09'05		morning max el	1334 Sep 27 j 18:29	25°♓48'23	46°21'11	
asc. node	1332 Apr 20 j 21:09	21°♏49'26			1334 Oct 01 j 22:32	0°♐		
	1332 Apr 27 j 13:04	0°♑		asc. node	1334 Oct 06 j 16:06	4°♐53'54		
	1332 May 22 j 02:32	0°♒			1334 Oct 29 j 10:08	0°♑		
	1332 Jun 15 j 20:38	0°♓			1334 Nov 23 j 21:24	0°♒		
	1332 Jul 10 j 21:14	0°♐			1334 Dec 18 j 13:12	0°♊		
	1332 Aug 05 j 08:10	0°♑			1335 Jan 11 j 21:05	0°♌		
desc. node	1332 Aug 10 j 10:11	5°♑54'15		desc. node	1335 Jan 26 j 05:21	17°♌45'51		
	1332 Aug 31 j 12:59	0°♒			1335 Feb 05 j 02:19	0°♍		
	1332 Sep 28 j 08:01	0°♊			1335 Mar 01 j 07:25	0°♋		
evening max el	1332 Oct 03 j 19:28	5°♊31'40	47°00'03		1335 Mar 25 j 13:40	0°♌		
	1332 Nov 01 j 08:11	0°♌		morning set	1335 Apr 03 j 13:31	11°♑06'04		
greatest brilliancy	1332 Nov 11 j 13:20	5°♌33'56	-4.7m		1335 Apr 18 j 21:35	0°♏		
retrograde	1332 Nov 23 j 06:06	8°♌06'59						
asc. node	1332 Dec 01 j 13:42	6°♌40'53		superior conj	1335 May 10 j 22:32	27°♏06'40	0°-19'-52	
evening set	1332 Dec 07 j 14:26	3°♌59'08		minimum elong	1335 May 11 j 02:38	27°♏19'17	0°19'41	
min. Earth dist.	1332 Dec 13 j 05:20	0°♌42'03	0.26456 AU	max. Earth dist.	1335 May 11 j 18:47	28°♏08'52	1.73504 AU	
inferior conj	1332 Dec 13 j 18:05	0°♌22'35	3°06'27		1335 May 13 j 06:57	0°♑		
minimum elong	1332 Dec 13 j 11:22	0°♌32'51	3°04'23	asc. node	1335 May 19 j 08:58	7°♑28'31		
	1332 Dec 14 j 08:53	30°♒♊			1335 Jun 06 j 17:06	0°♒		
morning rise	1332 Dec 19 j 08:42	27°♊05'05		evening rise	1335 Jun 16 j 07:29	11°♒47'13		
direct	1333 Jan 03 j 02:38	22°♊46'04			1335 Jul 01 j 03:28	0°♓		
greatest brilliancy	1333 Jan 14 j 09:45	25°♊10'22	-4.7m		1335 Jul 25 j 14:22	0°♐		
	1333 Jan 23 j 14:11	0°♌			1335 Aug 19 j 02:57	0°♑		
morning max el	1333 Feb 22 j 06:15	25°♌09'44	46°38'00	desc. node	1335 Sep 07 j 22:16	24°♑06'43		
	1333 Feb 27 j 01:28	0°♍			1335 Sep 12 j 18:46	0°♒		
desc. node	1333 Mar 23 j 03:11	25°♍49'38			1335 Oct 07 j 15:47	0°♊		

	1335 Nov 01 j 22:14	0°☾		asc. node	1338 Jun 15 j 20:44	23°II00'53	
	1335 Nov 28 j 02:33	0°≈			1338 Jun 21 j 13:25	0°☾	
evening max el	1335 Dec 16 j 01:39	19°≈13'39	47°14'33	max. Earth dist.	1338 Jul 14 j 10:55	28°☾09'59	1.73267 AU
	1335 Dec 27 j 01:29	0°☿			1338 Jul 15 j 22:35	0°♌	
asc. node	1335 Dec 30 j 01:30	2°☿44'51					
greatest brilliancy	1336 Jan 22 j 13:47	19°☿35'41	-4.6m	superior conj	1338 Jul 17 j 07:33	1°♌41'43	1°05'28
retrograde	1336 Feb 04 j 23:41	22°☿56'05		minimum elong	1338 Jul 16 j 22:54	1°♌15'03	1°05'12
evening set	1336 Feb 22 j 23:41	16°☿40'02			1338 Aug 09 j 04:49	0°♍	
min. Earth dist.	1336 Feb 25 j 11:39	15°☿06'18	0.27973 AU	evening rise	1338 Aug 22 j 11:07	16°♍26'58	
inferior conj	1336 Feb 26 j 00:37	14°☿45'49	8°43'12		1338 Sep 02 j 09:07	0°♎	
minimum elong	1336 Feb 26 j 02:26	14°☿42'57	8°43'09		1338 Sep 26 j 12:55	0°♎	
morning rise	1336 Feb 29 j 05:23	12°☿46'09		desc. node	1338 Oct 05 j 10:13	11°♎01'43	
direct	1336 Mar 17 j 22:13	6°☿45'47			1338 Oct 20 j 17:21	0°♏	
greatest brilliancy	1336 Mar 28 j 22:55	8°☿58'43	-4.5m		1338 Nov 13 j 23:26	0°☾	
desc. node	1336 Apr 19 j 14:51	22°☿33'37			1338 Dec 08 j 09:26	0°≈	
	1336 Apr 28 j 07:03	0°♑			1339 Jan 02 j 04:48	0°☿	
morning max el	1336 May 05 j 23:47	7°♑10'56	45°55'38	asc. node	1339 Jan 26 j 13:26	28°☿28'17	
	1336 May 28 j 07:50	0°♒			1339 Jan 27 j 21:44	0°♑	
	1336 Jun 24 j 10:37	0°♑			1339 Feb 24 j 19:54	0°♒	
	1336 Jul 20 j 08:20	0°☾		evening max el	1339 Feb 25 j 11:26	0°♒38'36	46°12'11
asc. node	1336 Aug 10 j 18:28	25°☾30'49		greatest brilliancy	1339 Apr 01 j 05:44	28°♒10'30	-4.5m
	1336 Aug 14 j 11:45	0°♌			1339 Apr 05 j 11:28	0°♑	
	1336 Sep 08 j 01:44	0°♍		retrograde	1339 Apr 16 j 01:22	2°♑03'16	
	1336 Oct 02 j 06:16	0°♎			1339 Apr 26 j 03:21	30°♒♒	
	1336 Oct 26 j 05:12	0°♎		evening set	1339 May 01 j 12:15	27°♒22'53	
morning set	1336 Oct 30 j 23:41	5°♎59'38		inferior conj	1339 May 07 j 10:32	23°♒47'18	2°29'12
	1336 Nov 19 j 01:37	0°♏		minimum elong	1339 May 07 j 15:48	23°♒39'02	2°27'42
desc. node	1336 Nov 30 j 07:47	14°♏10'17		min. Earth dist.	1339 May 07 j 12:11	23°♒44'44	0.28857 AU
				morning rise	1339 May 13 j 19:37	19°♒57'15	
superior conj	1336 Dec 10 j 23:35	27°♏35'23	0°-25'-7	desc. node	1339 May 18 j 02:40	17°♒51'10	
minimum elong	1336 Dec 10 j 17:01	27°♏14'44	0°24'49	direct	1339 May 28 j 23:10	15°♒30'58	
max. Earth dist.	1336 Dec 12 j 02:34	29°♏00'16	1.71062 AU	greatest brilliancy	1339 Jun 11 j 03:04	18°♒33'35	-4.5m
	1336 Dec 12 j 21:33	0°☾			1339 Jun 29 j 08:33	0°♑	
	1337 Jan 05 j 18:16	0°≈		morning max el	1339 Jul 16 j 18:46	15°♑17'16	45°46'07
evening rise	1337 Jan 21 j 11:25	19°≈42'10			1339 Jul 31 j 11:26	0°☾	
	1337 Jan 29 j 17:01	0°☿			1339 Aug 27 j 20:41	0°♌	
	1337 Feb 22 j 19:28	0°♑		asc. node	1339 Sep 08 j 06:22	13°♌09'46	
	1337 Mar 19 j 03:43	0°♒			1339 Sep 22 j 12:24	0°♍	
asc. node	1337 Mar 23 j 11:20	5°♒16'47			1339 Oct 17 j 05:59	0°♎	
	1337 Apr 12 j 20:05	0°♑			1339 Nov 10 j 11:28	0°♎	
	1337 May 07 j 23:38	0°☾			1339 Dec 04 j 11:14	0°♏	
	1337 Jun 02 j 20:11	0°♌			1339 Dec 28 j 09:10	0°☾	
	1337 Jun 30 j 00:10	0°♍		desc. node	1339 Dec 28 j 19:35	0°☾32'41	
desc. node	1337 Jul 13 j 00:24	13°♍27'02		morning set	1340 Jan 16 j 20:08	24°☾24'20	
evening max el	1337 Jul 19 j 23:08	20°♍15'22	45°47'50		1340 Jan 21 j 07:17	0°≈	
	1337 Jul 30 j 14:43	0°♎			1340 Feb 14 j 06:49	0°☿	
greatest brilliancy	1337 Aug 27 j 08:19	18°♎18'28	-4.5m				
retrograde	1337 Sep 07 j 00:21	20°♎21'57		superior conj	1340 Feb 26 j 15:41	15°☿25'33	-1°-25'-31
evening set	1337 Sep 24 j 03:09	14°♎51'36		minimum elong	1340 Feb 26 j 17:41	15°☿31'46	1°25'32
inferior conj	1337 Sep 27 j 22:14	12°♎35'12	-7°-36'-47	max. Earth dist.	1340 Mar 01 j 15:41	20°☿24'23	1.72178 AU
minimum elong	1337 Sep 28 j 07:35	12°♎20'56	7°35'19		1340 Mar 09 j 08:52	0°♑	
min. Earth dist.	1337 Sep 28 j 20:38	12°♎01'03	0.27470 AU		1340 Apr 02 j 14:23	0°♒	
morning rise	1337 Oct 02 j 11:34	9°♎51'32		evening rise	1340 Apr 05 j 18:34	3°♒54'56	
direct	1337 Oct 18 j 20:24	4°♎39'00		asc. node	1340 Apr 19 j 23:08	21°♒22'30	
greatest brilliancy	1337 Nov 01 j 21:43	8°♎15'26	-4.6m		1340 Apr 26 j 23:52	0°♑	
asc. node	1337 Nov 03 j 03:50	8°♎52'53			1340 May 21 j 13:33	0°☾	
	1337 Nov 30 j 11:01	0°♎			1340 Jun 15 j 08:05	0°♌	
morning max el	1337 Dec 08 j 15:26	8°♎05'52	46°56'02		1340 Jul 10 j 09:25	0°♍	
	1337 Dec 29 j 00:01	0°♏			1340 Aug 04 j 21:36	0°♎	
	1338 Jan 24 j 00:54	0°☾		desc. node	1340 Aug 09 j 12:21	5°♎20'44	
	1338 Feb 18 j 05:38	0°≈			1340 Aug 31 j 04:49	0°♎	
desc. node	1338 Feb 22 j 17:25	5°≈24'02			1340 Sep 28 j 05:40	0°♏	
	1338 Mar 15 j 02:13	0°☿		evening max el	1340 Oct 01 j 09:56	3°♏10'55	46°57'59
	1338 Apr 08 j 19:23	0°♑			1340 Nov 02 j 20:13	0°☾	
	1338 May 03 j 11:00	0°♒		greatest brilliancy	1340 Nov 09 j 03:53	3°☾07'54	-4.7m
	1338 May 28 j 01:16	0°♑		retrograde	1340 Nov 20 j 18:34	5°☾38'04	
morning set	1338 Jun 10 j 23:06	17°♑00'34		asc. node	1340 Nov 30 j 15:39	3°☾37'46	

evening set	1340 Dec 05 j 01:53	1° $\overline{\text{C}}$ 32'26	minimum elong	1343 May 08 j 20:42	25° $\overline{\text{C}}$ 14'37	0°22'47
	1340 Dec 07 j 19:25	30° $\overline{\text{R}}$ 27	max. Earth dist.	1343 May 09 j 13:38	26° $\overline{\text{C}}$ 06'38	1.73482 AU
inferior conj	1340 Dec 11 j 06:24	27° $\overline{\text{A}}$ 54'39		1343 May 12 j 17:36	0° $\overline{\text{II}}$	
minimum elong	1340 Dec 11 j 00:25	28° $\overline{\text{A}}$ 03'47	asc. node	1343 May 18 j 10:58	7° $\overline{\text{II}}$ 01'58	
min. Earth dist.	1340 Dec 10 j 19:01	28° $\overline{\text{A}}$ 12'02		1343 Jun 06 j 03:44	0° $\overline{\text{C}}$	
morning rise	1340 Dec 16 j 23:20	24° $\overline{\text{A}}$ 33'50	evening rise	1343 Jun 14 j 02:22	9° $\overline{\text{C}}$ 45'03	
direct	1340 Dec 31 j 15:09	20° $\overline{\text{A}}$ 18'34		1343 Jun 30 j 14:15	0° $\overline{\text{Q}}$	
greatest brilliancy	1341 Jan 11 j 23:23	22° $\overline{\text{A}}$ 43'49		1343 Jul 25 j 01:26	0° $\overline{\text{M}}$	
	1341 Jan 24 j 18:28	0° $\overline{\text{C}}$		1343 Aug 18 j 14:28	0° $\overline{\text{A}}$	
morning max el	1341 Feb 19 j 19:02	22° $\overline{\text{C}}$ 44'59	desc. node	1343 Sep 07 j 00:17	23° $\overline{\text{A}}$ 36'30	
	1341 Feb 26 j 22:21	0° \approx		1343 Sep 12 j 06:55	0° $\overline{\text{M}}$	
desc. node	1341 Mar 22 j 05:13	25° \approx 10'35		1343 Oct 07 j 04:52	0° $\overline{\text{A}}$	
	1341 Mar 26 j 12:27	0° $\overline{\text{H}}$		1343 Nov 01 j 12:52	0° $\overline{\text{C}}$	
	1341 Apr 21 j 15:50	0° $\overline{\text{Y}}$		1343 Nov 27 j 20:17	0° \approx	
	1341 May 17 j 04:16	0° $\overline{\text{C}}$	evening max el	1343 Dec 13 j 15:25	16° \approx 49'58	47°15'48
	1341 Jun 11 j 07:53	0° $\overline{\text{II}}$		1343 Dec 27 j 05:35	0° $\overline{\text{H}}$	
	1341 Jul 06 j 04:14	0° $\overline{\text{C}}$	asc. node	1343 Dec 29 j 03:41	1° $\overline{\text{H}}$ 43'04	
asc. node	1341 Jul 13 j 08:38	8° $\overline{\text{C}}$ 44'33	greatest brilliancy	1344 Jan 20 j 05:51	17° $\overline{\text{H}}$ 17'25	-4.6m
	1341 Jul 30 j 17:24	0° $\overline{\text{Q}}$	retrograde	1344 Feb 02 j 14:41	20° $\overline{\text{H}}$ 37'27	
morning set	1341 Aug 17 j 23:34	22° $\overline{\text{Q}}$ 32'00	evening set	1344 Feb 20 j 14:37	14° $\overline{\text{H}}$ 21'34	
	1341 Aug 24 j 00:03	0° $\overline{\text{M}}$	min. Earth dist.	1344 Feb 23 j 01:50	12° $\overline{\text{H}}$ 49'15	0.27921 AU
	1341 Sep 17 j 01:51	0° $\overline{\text{A}}$	inferior conj	1344 Feb 23 j 15:29	12° $\overline{\text{H}}$ 27'43	8°45'08
max. Earth dist.	1341 Sep 21 j 03:06	5° $\overline{\text{A}}$ 03'58	minimum elong	1344 Feb 23 j 16:28	12° $\overline{\text{H}}$ 26'11	8°45'07
			morning rise	1344 Feb 26 j 18:30	10° $\overline{\text{H}}$ 30'54	
superior conj	1341 Sep 24 j 06:26	8° $\overline{\text{A}}$ 59'32	direct	1344 Mar 15 j 11:52	4° $\overline{\text{H}}$ 28'19	
minimum elong	1341 Sep 24 j 14:44	9° $\overline{\text{A}}$ 25'27	greatest brilliancy	1344 Mar 26 j 12:46	6° $\overline{\text{H}}$ 41'24	-4.5m
	1341 Oct 11 j 00:58	0° $\overline{\text{M}}$	desc. node	1344 Apr 18 j 16:52	21° $\overline{\text{H}}$ 30'32	
desc. node	1341 Nov 01 j 22:01	27° $\overline{\text{M}}$ 26'07		1344 Apr 28 j 08:54	0° $\overline{\text{Y}}$	
evening rise	1341 Nov 02 j 21:20	28° $\overline{\text{M}}$ 39'12	morning max el	1344 May 03 j 14:41	4° $\overline{\text{Y}}$ 56'37	45°56'47
	1341 Nov 03 j 23:06	0° $\overline{\text{A}}$		1344 May 28 j 00:28	0° $\overline{\text{C}}$	
	1341 Nov 27 j 21:21	0° $\overline{\text{C}}$		1344 Jun 24 j 00:18	0° $\overline{\text{II}}$	
	1341 Dec 21 j 20:50	0° \approx		1344 Jul 19 j 20:39	0° $\overline{\text{C}}$	
	1342 Jan 14 j 23:43	0° $\overline{\text{H}}$	asc. node	1344 Aug 09 j 20:33	25° $\overline{\text{C}}$ 01'53	
	1342 Feb 08 j 09:38	0° $\overline{\text{Y}}$		1344 Aug 13 j 23:21	0° $\overline{\text{Q}}$	
asc. node	1342 Feb 23 j 01:24	17° $\overline{\text{Y}}$ 43'47		1344 Sep 07 j 12:58	0° $\overline{\text{M}}$	
	1342 Mar 05 j 08:19	0° $\overline{\text{C}}$		1344 Oct 01 j 17:21	0° $\overline{\text{A}}$	
	1342 Mar 31 j 05:21	0° $\overline{\text{II}}$		1344 Oct 25 j 16:13	0° $\overline{\text{M}}$	
	1342 Apr 27 j 23:33	0° $\overline{\text{C}}$	morning set	1344 Oct 28 j 12:00	3° $\overline{\text{M}}$ 32'52	
evening max el	1342 May 07 j 02:43	9° $\overline{\text{C}}$ 03'10		1344 Nov 18 j 12:38	0° $\overline{\text{A}}$	
	1342 Jun 01 j 06:17	0° $\overline{\text{Q}}$	desc. node	1344 Nov 29 j 09:49	13° $\overline{\text{A}}$ 41'56	
greatest brilliancy	1342 Jun 11 j 02:21	5° $\overline{\text{Q}}$ 30'37				
desc. node	1342 Jun 14 j 14:38	6° $\overline{\text{Q}}$ 54'13	superior conj	1344 Dec 08 j 09:07	24° $\overline{\text{A}}$ 59'32	0°-21'-13
retrograde	1342 Jun 24 j 15:02	8° $\overline{\text{Q}}$ 42'39	minimum elong	1344 Dec 08 j 03:30	24° $\overline{\text{A}}$ 41'53	0°20'58
evening set	1342 Jul 10 j 18:35	3° $\overline{\text{Q}}$ 47'34	max. Earth dist.	1344 Dec 09 j 08:46	26° $\overline{\text{A}}$ 13'58	1.71057 AU
inferior conj	1342 Jul 16 j 02:35	0° $\overline{\text{Q}}$ 34'30		1344 Dec 12 j 08:36	0° $\overline{\text{C}}$	
minimum elong	1342 Jul 15 j 16:42	0° $\overline{\text{Q}}$ 49'55		1345 Jan 05 j 05:20	0° \approx	
min. Earth dist.	1342 Jul 16 j 04:41	0° $\overline{\text{Q}}$ 31'13	evening rise	1345 Jan 18 j 21:55	17° \approx 10'13	
	1342 Jul 17 j 00:43	30° $\overline{\text{R}}$ 27		1345 Jan 29 j 04:05	0° $\overline{\text{H}}$	
morning rise	1342 Jul 20 j 14:34	27° $\overline{\text{C}}$ 49'21		1345 Feb 22 j 06:35	0° $\overline{\text{Y}}$	
direct	1342 Aug 06 j 17:24	22° $\overline{\text{C}}$ 18'24		1345 Mar 18 j 15:00	0° $\overline{\text{C}}$	
greatest brilliancy	1342 Aug 21 j 00:03	25° $\overline{\text{C}}$ 52'03	asc. node	1345 Mar 22 j 13:18	4° $\overline{\text{C}}$ 48'12	
	1342 Aug 28 j 09:55	0° $\overline{\text{Q}}$		1345 Apr 12 j 07:47	0° $\overline{\text{II}}$	
morning max el	1342 Sep 25 j 08:38	23° $\overline{\text{Q}}$ 30'34		1345 May 07 j 12:09	0° $\overline{\text{C}}$	
	1342 Oct 01 j 18:34	0° $\overline{\text{M}}$		1345 Jun 02 j 10:16	0° $\overline{\text{Q}}$	
asc. node	1342 Oct 05 j 18:05	4° $\overline{\text{M}}$ 09'31		1345 Jun 29 j 17:49	0° $\overline{\text{M}}$	
	1342 Oct 29 j 01:17	0° $\overline{\text{A}}$	desc. node	1345 Jul 12 j 02:35	12° $\overline{\text{M}}$ 40'24	
	1342 Nov 23 j 10:41	0° $\overline{\text{M}}$	evening max el	1345 Jul 17 j 13:45	18° $\overline{\text{M}}$ 00'02	45°45'53
	1342 Dec 18 j 01:32	0° $\overline{\text{A}}$		1345 Jul 30 j 21:14	0° $\overline{\text{A}}$	
	1343 Jan 11 j 08:49	0° $\overline{\text{C}}$	greatest brilliancy	1345 Aug 24 j 18:45	15° $\overline{\text{A}}$ 55'47	-4.5m
desc. node	1343 Jan 25 j 07:33	17° $\overline{\text{C}}$ 16'57	retrograde	1345 Sep 04 j 13:58	18° $\overline{\text{A}}$ 01'38	
	1343 Feb 04 j 13:40	0° \approx	evening set	1345 Sep 21 j 19:26	12° $\overline{\text{A}}$ 26'31	
	1343 Feb 28 j 18:30	0° $\overline{\text{H}}$	inferior conj	1345 Sep 25 j 11:49	10° $\overline{\text{A}}$ 13'52	-7°-47'-20
	1343 Mar 25 j 00:32	0° $\overline{\text{Y}}$	minimum elong	1345 Sep 25 j 20:43	10° $\overline{\text{A}}$ 00'17	7°46'03
morning set	1343 Apr 01 j 05:11	8° $\overline{\text{Y}}$ 53'02	min. Earth dist.	1345 Sep 26 j 09:42	9° $\overline{\text{A}}$ 40'28	0.27540 AU
	1343 Apr 18 j 08:18	0° $\overline{\text{C}}$	morning rise	1345 Sep 29 j 21:38	7° $\overline{\text{A}}$ 35'18	
			direct	1345 Oct 16 j 11:21	2° $\overline{\text{A}}$ 16'44	
superior conj	1343 May 08 j 15:59	25° $\overline{\text{C}}$ 00'05	greatest brilliancy	1345 Oct 30 j 13:12	5° $\overline{\text{A}}$ 54'25	-4.6m

asc. node	1345 Nov 02 j 05:51	7°♌18'04			1348 Jul 09 j 21:57	0°♍	
	1345 Nov 30 j 12:38	0°♍			1348 Aug 04 j 11:30	0°♌	
morning max el	1345 Dec 06 j 06:47	5°♍45'10	46°55'26	desc. node	1348 Aug 08 j 14:19	4°♌45'25	
	1345 Dec 28 j 17:18	0°♌			1348 Aug 30 j 21:20	0°♍	
	1346 Jan 23 j 15:22	0°♌			1348 Sep 28 j 04:43	0°♌	
	1346 Feb 17 j 18:42	0°♌		evening max el	1348 Sep 28 j 23:28	0°♌46'30	46°55'42
desc. node	1346 Feb 21 j 19:21	4°♌51'06			1348 Nov 05 j 04:58	0°♌	
	1346 Mar 14 j 14:24	0°♌		greatest brilliancy	1348 Nov 06 j 18:54	0°♌40'38	-4.7m
	1346 Apr 08 j 06:58	0°♌		retrograde	1348 Nov 18 j 06:13	3°♌07'20	
	1346 May 02 j 22:10	0°♌		asc. node	1348 Nov 29 j 17:50	0°♌27'04	
	1346 May 27 j 12:12	0°♌			1348 Nov 30 j 16:59	30°♌	
morning set	1346 Jun 08 j 17:33	14°♌56'55		evening set	1348 Dec 02 j 13:24	29°♌03'28	
asc. node	1346 Jun 14 j 22:52	22°♌34'14		inferior conj	1348 Dec 08 j 18:33	25°♌25'00	2°19'39
	1346 Jun 21 j 00:13	0°♌		minimum elong	1348 Dec 08 j 13:23	25°♌32'55	2°18'01
max. Earth dist.	1346 Jul 12 j 08:06	26°♌14'01	1.73301 AU	min. Earth dist.	1348 Dec 08 j 08:55	25°♌39'45	0.26416 AU
				morning rise	1348 Dec 14 j 13:37	22°♌01'02	
superior conj	1346 Jul 15 j 02:00	29°♌37'14	1°03'26	direct	1348 Dec 29 j 03:04	17°♌49'08	
minimum elong	1346 Jul 14 j 17:17	29°♌10'21	1°03'09	greatest brilliancy	1349 Jan 09 j 13:52	20°♌16'33	-4.7m
	1346 Jul 15 j 09:23	0°♌			1349 Jan 25 j 15:49	0°♌	
	1346 Aug 08 j 15:42	0°♌		morning max el	1349 Feb 17 j 06:51	20°♌16'21	46°40'34
evening rise	1346 Aug 20 j 04:06	14°♌16'45			1349 Feb 26 j 19:01	0°♌	
	1346 Sep 01 j 20:10	0°♌		desc. node	1349 Mar 21 j 07:13	24°♌30'40	
	1346 Sep 26 j 00:14	0°♌			1349 Mar 26 j 04:10	0°♌	
desc. node	1346 Oct 04 j 12:09	10°♌32'17			1349 Apr 21 j 05:27	0°♌	
	1346 Oct 20 j 05:01	0°♌			1349 May 16 j 16:44	0°♌	
	1346 Nov 13 j 11:33	0°♌			1349 Jun 10 j 19:39	0°♌	
	1346 Dec 07 j 22:10	0°♌			1349 Jul 05 j 15:33	0°♌	
	1347 Jan 01 j 18:34	0°♌		asc. node	1349 Jul 12 j 10:44	8°♌16'40	
asc. node	1347 Jan 25 j 15:31	27°♌49'35			1349 Jul 30 j 04:29	0°♌	
	1347 Jan 27 j 13:38	0°♌		morning set	1349 Aug 15 j 16:22	20°♌21'20	
evening max el	1347 Feb 23 j 03:56	28°♌26'16	46°14'42		1349 Aug 23 j 11:03	0°♌	
	1347 Feb 24 j 17:56	0°♌			1349 Sep 16 j 12:54	0°♌	
greatest brilliancy	1347 Mar 29 j 23:43	26°♌02'11	-4.5m	max. Earth dist.	1349 Sep 18 j 16:13	2°♌40'20	1.71903 AU
retrograde	1347 Apr 13 j 18:11	29°♌53'14					
evening set	1347 Apr 29 j 06:37	25°♌10'32		superior conj	1349 Sep 21 j 21:25	6°♌41'41	1°16'44
inferior conj	1347 May 05 j 02:56	21°♌37'18	2°48'09	minimum elong	1349 Sep 22 j 05:10	7°♌05'54	1°16'34
minimum elong	1347 May 05 j 08:47	21°♌28'04	2°46'31		1349 Oct 10 j 12:08	0°♌	
min. Earth dist.	1347 May 05 j 04:20	21°♌35'05	0.28838 AU	evening rise	1349 Oct 31 j 08:47	26°♌09'14	
morning rise	1347 May 11 j 11:18	17°♌48'08		desc. node	1349 Nov 01 j 00:08	26°♌57'21	
desc. node	1347 May 17 j 04:41	15°♌08'02			1349 Nov 03 j 10:24	0°♌	
direct	1347 May 26 j 15:47	13°♌21'28			1349 Nov 27 j 08:48	0°♌	
greatest brilliancy	1347 Jun 08 j 16:16	16°♌20'51	-4.5m		1349 Dec 21 j 08:29	0°♌	
	1347 Jun 29 j 17:22	0°♌			1350 Jan 14 j 11:37	0°♌	
morning max el	1347 Jul 14 j 10:50	13°♌07'42	45°45'33		1350 Feb 07 j 21:59	0°♌	
	1347 Jul 31 j 05:18	0°♌		asc. node	1350 Feb 22 j 03:22	17°♌11'26	
	1347 Aug 27 j 10:58	0°♌			1350 Mar 04 j 21:31	0°♌	
asc. node	1347 Sep 07 j 08:20	12°♌36'03			1350 Mar 30 j 20:22	0°♌	
	1347 Sep 22 j 01:12	0°♌			1350 Apr 27 j 19:20	0°♌	
	1347 Oct 16 j 18:04	0°♌		evening max el	1350 May 04 j 17:20	6°♌48'45	45°23'48
	1347 Nov 09 j 23:11	0°♌			1350 Jun 02 j 09:14	0°♌	
	1347 Dec 03 j 22:45	0°♌		greatest brilliancy	1350 Jun 08 j 15:18	3°♌16'47	-4.5m
desc. node	1347 Dec 27 j 21:43	0°♌03'44		desc. node	1350 Jun 13 j 16:49	5°♌11'42	
	1347 Dec 27 j 20:32	0°♌		retrograde	1350 Jun 22 j 06:47	6°♌32'35	
morning set	1348 Jan 14 j 05:55	21°♌49'16		evening set	1350 Jul 08 j 07:40	1°♌40'52	
	1348 Jan 20 j 18:32	0°♌			1350 Jul 11 j 04:23	30°♌	
	1348 Feb 13 j 17:58	0°♌		inferior conj	1350 Jul 13 j 18:37	28°♌23'55	-6°-18'-46
				minimum elong	1350 Jul 13 j 08:40	28°♌39'25	6°16'48
superior conj	1348 Feb 24 j 04:09	13°♌00'09	-1°-25'-47	min. Earth dist.	1350 Jul 13 j 20:29	28°♌21'00	0.28912 AU
minimum elong	1348 Feb 24 j 05:12	13°♌03'27	1°25'49	morning rise	1350 Jul 18 j 09:22	25°♌34'47	
max. Earth dist.	1348 Feb 28 j 06:50	18°♌07'29	1.72123 AU	direct	1350 Aug 04 j 09:05	20°♌07'24	
	1348 Mar 08 j 19:59	0°♌		greatest brilliancy	1350 Aug 18 j 16:47	23°♌41'42	-4.5m
	1348 Apr 02 j 01:29	0°♌			1350 Aug 29 j 08:46	0°♌	
evening rise	1348 Apr 03 j 09:33	1°♌38'56		morning max el	1350 Sep 22 j 23:21	21°♌13'38	46°18'13
asc. node	1348 Apr 19 j 01:12	20°♌54'43			1350 Oct 01 j 14:17	0°♌	
	1348 Apr 26 j 11:02	0°♌		asc. node	1350 Oct 04 j 20:10	3°♌25'15	
	1348 May 21 j 00:54	0°♌			1350 Oct 28 j 16:30	0°♌	
	1348 Jun 14 j 19:51	0°♌			1350 Nov 23 j 00:10	0°♌	

	1350 Dec 17 j 14:09	0°♊			1353 Jul 31 j 06:26	0°♎	
	1351 Jan 10 j 20:55	0°♋		greatest brilliancy	1353 Aug 22 j 06:06	13°♎33'59	-4.5m
desc. node	1351 Jan 24 j 09:33	16°♋46'19		retrograde	1353 Sep 02 j 03:19	15°♎41'01	
	1351 Feb 04 j 01:23	0°♌		evening set	1353 Sep 19 j 11:35	10°♎01'43	
	1351 Feb 28 j 05:56	0°♍		inferior conj	1353 Sep 23 j 01:22	7°♎52'33	-7°-57'-6
	1351 Mar 24 j 11:44	0°♎		minimum elong	1353 Sep 23 j 09:44	7°♎39'44	7°56'01
morning set	1351 Mar 29 j 20:19	6°♎37'08		min. Earth dist.	1353 Sep 23 j 22:42	7°♎19'54	0.27605 AU
	1351 Apr 17 j 19:20	0°♏		morning rise	1353 Sep 27 j 07:34	5°♎19'01	
					1353 Oct 12 j 00:21	30°♏♐	
superior conj	1351 May 06 j 09:04	22°♏51'27	0°-26'-7	direct	1353 Oct 14 j 02:17	29°♐54'42	
minimum elong	1351 May 06 j 14:25	23°♏07'52	0°25'54		1353 Oct 16 j 04:36	0°♎	
max. Earth dist.	1351 May 07 j 08:37	24°♏03'49	1.73459 AU	greatest brilliancy	1353 Oct 28 j 03:39	3°♎32'06	-4.6m
	1351 May 12 j 04:32	0°♐		asc. node	1353 Nov 01 j 07:57	5°♎46'37	
asc. node	1351 May 17 j 13:07	6°♐34'55			1353 Nov 30 j 12:56	0°♐	
	1351 Jun 05 j 14:43	0°♑		morning max el	1353 Dec 03 j 21:15	3°♐22'36	46°54'56
evening rise	1351 Jun 11 j 21:09	7°♑41'39			1353 Dec 28 j 10:07	0°♊	
	1351 Jun 30 j 01:21	0°♒			1354 Jan 23 j 05:34	0°♋	
	1351 Jul 24 j 12:48	0°♓			1354 Feb 17 j 07:34	0°♌	
	1351 Aug 18 j 02:15	0°♈		desc. node	1354 Feb 20 j 21:23	4°♌18'48	
desc. node	1351 Sep 06 j 02:19	23°♈05'34			1354 Mar 14 j 02:29	0°♍	
	1351 Sep 11 j 19:19	0°♐			1354 Apr 07 j 18:30	0°♎	
	1351 Oct 06 j 18:14	0°♊			1354 May 02 j 09:20	0°♏	
	1351 Nov 01 j 03:52	0°♋			1354 May 26 j 23:06	0°♐	
	1351 Nov 27 j 14:45	0°♌		morning set	1354 Jun 06 j 11:38	12°♐52'14	
evening max el	1351 Dec 11 j 05:43	14°♌26'43	47°16'45	asc. node	1354 Jun 14 j 00:55	22°♐07'27	
	1351 Dec 27 j 12:13	0°♍			1354 Jun 20 j 10:59	0°♑	
asc. node	1351 Dec 28 j 05:43	0°♍38'04		max. Earth dist.	1354 Jul 10 j 03:54	24°♑14'07	1.73333 AU
greatest brilliancy	1352 Jan 17 j 20:57	14°♍56'06	-4.7m				
retrograde	1352 Jan 31 j 05:51	18°♍16'32		superior conj	1354 Jul 12 j 20:11	27°♑32'11	1°01'18
evening set	1352 Feb 18 j 04:45	12°♍01'21		minimum elong	1354 Jul 12 j 11:27	27°♑05'14	1°01'00
min. Earth dist.	1352 Feb 20 j 15:22	10°♍30'13	0.27871 AU		1354 Jul 14 j 20:07	0°♒	
inferior conj	1352 Feb 21 j 05:59	10°♍07'14	8°46'11		1354 Aug 08 j 02:31	0°♓	
minimum elong	1352 Feb 21 j 06:06	10°♍07'03	8°46'11	evening rise	1354 Aug 17 j 21:00	12°♓06'28	
morning rise	1352 Feb 24 j 07:39	8°♍12'46			1354 Sep 01 j 07:11	0°♈	
direct	1352 Mar 13 j 01:35	2°♍08'32			1354 Sep 25 j 11:31	0°♐	
greatest brilliancy	1352 Mar 24 j 01:58	4°♍21'35	-4.6m	desc. node	1354 Oct 03 j 14:17	10°♐03'37	
desc. node	1352 Apr 17 j 18:58	20°♍27'56			1354 Oct 19 j 16:38	0°♊	
	1352 Apr 28 j 09:55	0°♎			1354 Nov 12 j 23:34	0°♋	
morning max el	1352 May 01 j 05:57	2°♎42'07	45°58'00		1354 Dec 07 j 10:44	0°♌	
	1352 May 27 j 17:05	0°♏			1355 Jan 01 j 08:10	0°♍	
	1352 Jun 23 j 14:06	0°♐		asc. node	1355 Jan 24 j 17:27	27°♍10'59	
	1352 Jul 19 j 09:06	0°♑			1355 Jan 27 j 05:28	0°♎	
asc. node	1352 Aug 08 j 22:27	24°♑31'54		evening max el	1355 Feb 20 j 19:37	26°♎12'27	46°17'02
	1352 Aug 13 j 11:07	0°♒			1355 Feb 24 j 16:31	0°♏	
	1352 Sep 07 j 00:21	0°♓		greatest brilliancy	1355 Mar 27 j 18:10	23°♏54'51	-4.5m
	1352 Oct 01 j 04:32	0°♈		retrograde	1355 Apr 11 j 10:28	27°♏43'29	
	1352 Oct 25 j 03:19	0°♐		evening set	1355 Apr 27 j 01:04	22°♏58'21	
morning set	1352 Oct 26 j 00:55	1°♐07'50		inferior conj	1355 May 02 j 19:19	19°♏27'41	3°06'57
	1352 Nov 17 j 23:43	0°♊		minimum elong	1355 May 03 j 01:44	19°♏17'33	3°05'11
desc. node	1352 Nov 28 j 11:58	13°♊13'48		min. Earth dist.	1355 May 02 j 20:45	19°♏25'24	0.28822 AU
				morning rise	1355 May 09 j 02:46	15°♏39'26	
superior conj	1352 Dec 05 j 19:00	22°♊24'40	0°-17'-20	desc. node	1355 May 16 j 06:50	12°♏29'15	
minimum elong	1352 Dec 05 j 14:24	22°♊10'09	0°17'07	direct	1355 May 24 j 08:06	11°♏12'18	
max. Earth dist.	1352 Dec 06 j 18:03	23°♊37'12	1.71056 AU	greatest brilliancy	1355 Jun 06 j 05:47	14°♏08'36	-4.5m
	1352 Dec 11 j 19:42	0°♋			1355 Jun 29 j 23:35	0°♐	
	1353 Jan 04 j 16:29	0°♌		morning max el	1355 Jul 12 j 01:59	10°♐56'15	45°45'00
evening rise	1353 Jan 16 j 08:26	14°♌37'53			1355 Jul 30 j 22:36	0°♑	
	1353 Jan 28 j 15:16	0°♍			1355 Aug 27 j 00:53	0°♒	
	1353 Feb 21 j 17:51	0°♎		asc. node	1355 Sep 06 j 10:28	12°♒03'35	
	1353 Mar 18 j 02:29	0°♏			1355 Sep 21 j 13:43	0°♓	
asc. node	1353 Mar 21 j 15:22	4°♏19'19			1355 Oct 16 j 05:54	0°♈	
	1353 Apr 11 j 19:41	0°♐			1355 Nov 09 j 10:39	0°♐	
	1353 May 07 j 00:53	0°♑			1355 Dec 03 j 10:01	0°♊	
	1353 Jun 02 j 00:40	0°♒		desc. node	1355 Dec 26 j 23:42	29°♊35'07	
	1353 Jun 29 j 12:04	0°♓			1355 Dec 27 j 07:37	0°♋	
desc. node	1353 Jul 11 j 04:32	11°♓52'01		morning set	1356 Jan 11 j 15:58	19°♋15'51	
evening max el	1353 Jul 15 j 04:36	15°♓44'53	45°43'57		1356 Jan 20 j 05:27	0°♌	

	1356 Feb 13 j 04:47	0°♄		inferior conj	1358 Jul 11 j 10:49	26°♄15'06	-6°-4'-48
				minimum elong	1358 Jul 11 j 00:52	26°♄30'34	6°02'44
superior conj	1356 Feb 21 j 16:55	10°♄36'48	-1°-25'-54	min. Earth dist.	1358 Jul 11 j 12:09	26°♄13'02	0.28931 AU
minimum elong	1356 Feb 21 j 17:00	10°♄37'04	1°25'55	morning rise	1358 Jul 16 j 04:22	23°♄22'07	
max. Earth dist.	1356 Feb 25 j 22:15	15°♄52'30	1.72064 AU	direct	1358 Aug 02 j 01:20	17°♄58'08	
	1356 Mar 08 j 06:42	0°♃		greatest brilliancy	1358 Aug 16 j 10:09	21°♄33'44	-4.5m
evening rise	1356 Apr 01 j 00:40	29°♃24'22			1358 Aug 30 j 01:01	0°♌	
	1356 Apr 01 j 12:13	0°♌		morning max el	1358 Sep 20 j 15:13	19°♌00'51	46°16'42
asc. node	1356 Apr 18 j 03:19	20°♌28'10			1358 Oct 01 j 09:04	0°♍	
	1356 Apr 25 j 21:51	0°♍		asc. node	1358 Oct 03 j 22:17	2°♍42'36	
	1356 May 20 j 11:58	0°♍			1358 Oct 28 j 07:11	0°♎	
	1356 Jun 14 j 07:22	0°♎			1358 Nov 22 j 13:12	0°♏	
	1356 Jul 09 j 10:17	0°♏			1358 Dec 17 j 02:20	0°♐	
	1356 Aug 04 j 01:16	0°♐			1359 Jan 10 j 08:35	0°♑	
desc. node	1356 Aug 07 j 16:21	4°♐10'53		desc. node	1359 Jan 23 j 11:32	16°♑16'49	
	1356 Aug 30 j 13:51	0°♒			1359 Feb 03 j 12:43	0°♒	
evening max el	1356 Sep 26 j 11:49	28°♒20'12	46°53'22		1359 Feb 27 j 16:59	0°♓	
	1356 Sep 28 j 04:26	0°♓			1359 Mar 23 j 22:33	0°♑	
greatest brilliancy	1356 Nov 04 j 09:46	28°♓14'00	-4.7m	morning set	1359 Mar 27 j 11:30	4°♑22'28	
	1356 Nov 10 j 01:30	0°♑			1359 Apr 17 j 05:58	0°♒	
retrograde	1356 Nov 15 j 17:43	0°♑37'39					
	1356 Nov 21 j 06:50	30°♒♓		superior conj	1359 May 04 j 02:22	20°♒44'38	0°-29'-12
asc. node	1356 Nov 28 j 19:52	27°♓12'24		minimum elong	1359 May 04 j 08:18	21°♒02'51	0°28'56
evening set	1356 Nov 30 j 01:02	26°♓34'48		max. Earth dist.	1359 May 05 j 05:16	22°♒07'18	1.73432 AU
inferior conj	1356 Dec 06 j 06:39	22°♓56'12	1°55'40		1359 May 11 j 15:04	0°♒	
minimum elong	1356 Dec 06 j 02:19	23°♓02'49	1°54'16	asc. node	1359 May 16 j 15:07	6°♒08'47	
min. Earth dist.	1356 Dec 05 j 22:57	23°♓07'58	0.26402 AU		1359 Jun 05 j 01:15	0°♓	
morning rise	1356 Dec 12 j 03:43	19°♓29'25		evening rise	1359 Jun 09 j 16:16	5°♓40'38	
direct	1356 Dec 26 j 14:34	15°♓20'12			1359 Jun 29 j 12:04	0°♌	
greatest brilliancy	1357 Jan 07 j 05:12	17°♓51'07	-4.7m		1359 Jul 23 j 23:49	0°♍	
	1357 Jan 26 j 07:16	0°♑			1359 Aug 17 j 13:44	0°♎	
morning max el	1357 Feb 14 j 18:55	17°♑49'18	46°42'09	desc. node	1359 Sep 05 j 04:25	22°♎35'43	
	1357 Feb 26 j 14:35	0°♏			1359 Sep 11 j 07:29	0°♏	
desc. node	1357 Mar 20 j 09:22	23°♏52'49			1359 Oct 06 j 07:25	0°♐	
	1357 Mar 25 j 19:11	0°♓			1359 Oct 31 j 18:47	0°♑	
	1357 Apr 20 j 18:28	0°♑			1359 Nov 27 j 09:22	0°♒	
	1357 May 16 j 04:40	0°♒		evening max el	1359 Dec 08 j 20:54	12°♒06'35	47°17'42
	1357 Jun 10 j 06:57	0°♒		asc. node	1359 Dec 27 j 07:41	29°♒32'07	
	1357 Jul 05 j 02:28	0°♓			1359 Dec 27 j 20:53	0°♓	
asc. node	1357 Jul 11 j 12:40	7°♓49'28		greatest brilliancy	1360 Jan 15 j 12:03	12°♓35'37	-4.7m
	1357 Jul 29 j 15:12	0°♌		retrograde	1360 Jan 28 j 21:17	15°♓56'11	
morning set	1357 Aug 13 j 09:10	18°♌11'41		evening set	1360 Feb 15 j 18:27	9°♓42'19	
	1357 Aug 22 j 21:42	0°♍		min. Earth dist.	1360 Feb 18 j 04:32	8°♓12'11	0.27816 AU
	1357 Sep 15 j 23:36	0°♎		inferior conj	1360 Feb 18 j 20:24	7°♓47'17	8°46'25
max. Earth dist.	1357 Sep 16 j 07:27	0°♎24'31	1.71957 AU	minimum elong	1360 Feb 18 j 19:41	7°♓48'25	8°46'25
				morning rise	1360 Feb 21 j 21:07	5°♓54'33	
superior conj	1357 Sep 19 j 12:23	4°♎24'57	1°18'09		1360 Mar 07 j 17:23	30°♒♓	
minimum elong	1357 Sep 19 j 19:34	4°♎47'22	1°18'01	direct	1360 Mar 10 j 15:48	29°♒49'30	
	1357 Oct 09 j 22:56	0°♏			1360 Mar 13 j 15:22	0°♓	
evening rise	1357 Oct 28 j 20:21	23°♏40'51		greatest brilliancy	1360 Mar 21 j 14:15	2°♓01'29	-4.6m
desc. node	1357 Oct 31 j 02:13	26°♏29'38		desc. node	1360 Apr 16 j 21:03	19°♓27'38	
	1357 Nov 02 j 21:21	0°♓			1360 Apr 28 j 09:21	0°♑	
	1357 Nov 26 j 19:54	0°♑		morning max el	1360 Apr 28 j 21:33	0°♑29'20	45°59'18
	1357 Dec 20 j 19:47	0°♒			1360 May 27 j 09:01	0°♒	
	1358 Jan 13 j 23:11	0°♓			1360 Jun 23 j 03:23	0°♒	
	1358 Feb 07 j 09:59	0°♑			1360 Jul 18 j 21:08	0°♓	
asc. node	1358 Feb 21 j 05:30	16°♑40'44		asc. node	1360 Aug 08 j 00:38	24°♓03'51	
	1358 Mar 04 j 10:20	0°♒			1360 Aug 12 j 22:29	0°♌	
	1358 Mar 30 j 11:01	0°♒			1360 Sep 06 j 11:25	0°♍	
	1358 Apr 27 j 15:05	0°♓		greatest brilliancy	1360 Sep 24 j 13:29	22°♓25'06	-3.9m
evening max el	1358 May 02 j 08:30	4°♓37'27	45°24'34		1360 Sep 30 j 15:28	0°♎	
	1358 Jun 03 j 22:19	0°♌		morning set	1360 Oct 23 j 13:48	28°♎43'22	
greatest brilliancy	1358 Jun 06 j 03:47	1°♌04'14	-4.5m		1360 Oct 24 j 14:13	0°♏	
desc. node	1358 Jun 12 j 18:44	3°♌27'05			1360 Nov 17 j 10:39	0°♓	
retrograde	1358 Jun 19 j 23:11	4°♌24'31		desc. node	1360 Nov 27 j 13:57	12°♓45'37	
	1358 Jul 05 j 03:33	30°♒♓					
evening set	1358 Jul 05 j 21:06	29°♓35'49		superior conj	1360 Dec 03 j 04:40	19°♓49'33	0°-13'-22

minimum elong	1360 Dec 03 j 01:06	19° ♁ 38'18	0°13'12	morning rise	1363 May 06 j 17:56	13° ♁ 30'19	
behind sun begin	1360 Dec 02 j 09:15	18° ♁ 48'26		desc. node	1363 May 15 j 08:49	9° ♁ 54'15	
behind sun end	1360 Dec 03 j 16:56	20° ♁ 28'11		direct	1363 May 21 j 23:49	9° ♁ 02'20	
max. Earth dist.	1360 Dec 04 j 01:58	20° ♁ 56'34	1.71053 AU	greatest brilliancy	1363 Jun 03 j 20:00	11° ♁ 56'35	-4.5m
	1360 Dec 11 j 06:39	0° ♁			1363 Jun 30 j 03:58	0° ♁	
	1361 Jan 04 j 03:27	0° ♁		morning max el	1363 Jul 09 j 16:40	8° ♁ 43'15	45°44'42
evening rise	1361 Jan 13 j 18:35	12° ♁ 04'55			1363 Jul 30 j 15:38	0° ♁	
	1361 Jan 28 j 02:16	0° ♁			1363 Aug 26 j 14:44	0° ♁	
	1361 Feb 21 j 04:56	0° ♁		asc. node	1363 Sep 05 j 12:32	11° ♁ 30'54	
	1361 Mar 17 j 13:47	0° ♁			1363 Sep 21 j 02:12	0° ♁	
asc. node	1361 Mar 20 j 17:29	3° ♁ 51'10			1363 Oct 15 j 17:43	0° ♁	
	1361 Apr 11 j 07:27	0° ♁			1363 Nov 08 j 22:09	0° ♁	
	1361 May 06 j 13:29	0° ♁			1363 Dec 02 j 21:20	0° ♁	
	1361 Jun 01 j 14:57	0° ♁		desc. node	1363 Dec 26 j 01:46	29° ♁ 06'24	
	1361 Jun 29 j 06:24	0° ♁			1363 Dec 26 j 18:51	0° ♁	
desc. node	1361 Jul 10 j 06:36	11° ♁ 04'08		morning set	1364 Jan 09 j 01:37	16° ♁ 40'32	
evening max el	1361 Jul 12 j 19:18	13° ♁ 30'28	45°42'04		1364 Jan 19 j 16:36	0° ♁	
	1361 Jul 31 j 18:09	0° ♁			1364 Feb 12 j 15:51	0° ♁	
greatest brilliancy	1361 Aug 19 j 18:22	11° ♁ 14'44	-4.5m				
retrograde	1361 Aug 30 j 16:23	13° ♁ 22'07		superior conj	1364 Feb 19 j 05:03	8° ♁ 10'35	-1°-25'-51
evening set	1361 Sep 17 j 03:50	7° ♁ 39'00		minimum elong	1364 Feb 19 j 04:08	8° ♁ 07'41	1°25'52
inferior conj	1361 Sep 20 j 15:13	5° ♁ 32'58	-8°-5'-56	max. Earth dist.	1364 Feb 23 j 09:58	13° ♁ 25'08	1.72006 AU
minimum elong	1361 Sep 20 j 22:59	5° ♁ 21'03	8°05'00		1364 Mar 07 j 17:43	0° ♁	
min. Earth dist.	1361 Sep 21 j 12:09	5° ♁ 00'53	0.27673 AU	evening rise	1364 Mar 29 j 15:04	27° ♁ 06'42	
morning rise	1361 Sep 24 j 17:52	3° ♁ 04'13			1364 Mar 31 j 23:13	0° ♁	
	1361 Sep 30 j 17:09	30° ♁		asc. node	1364 Apr 17 j 05:18	20° ♁ 00'22	
direct	1361 Oct 11 j 17:08	27° ♁ 34'20			1364 Apr 25 j 08:57	0° ♁	
	1361 Oct 23 j 02:28	0° ♁			1364 May 19 j 23:18	0° ♁	
greatest brilliancy	1361 Oct 25 j 18:17	1° ♁ 10'59	-4.6m		1364 Jun 13 j 19:11	0° ♁	
asc. node	1361 Oct 31 j 09:59	4° ♁ 18'55			1364 Jul 08 j 22:56	0° ♁	
	1361 Nov 30 j 12:05	0° ♁			1364 Aug 03 j 15:23	0° ♁	
morning max el	1361 Dec 01 j 11:01	0° ♁ 58'21	46°54'09	desc. node	1364 Aug 06 j 18:32	3° ♁ 35'53	
	1361 Dec 28 j 02:38	0° ♁			1364 Aug 30 j 06:51	0° ♁	
	1362 Jan 22 j 19:40	0° ♁		evening max el	1364 Sep 23 j 23:58	25° ♁ 53'26	46°51'15
	1362 Feb 16 j 20:23	0° ♁			1364 Sep 28 j 05:21	0° ♁	
desc. node	1362 Feb 19 j 23:34	3° ♁ 47'07		greatest brilliancy	1364 Nov 01 j 23:56	25° ♁ 46'58	-4.7m
	1362 Mar 13 j 14:28	0° ♁		retrograde	1364 Nov 13 j 05:46	28° ♁ 08'51	
	1362 Apr 07 j 05:57	0° ♁		evening set	1364 Nov 27 j 13:08	24° ♁ 06'11	
	1362 May 01 j 20:24	0° ♁		asc. node	1364 Nov 27 j 21:49	23° ♁ 54'36	
	1362 May 26 j 09:57	0° ♁		inferior conj	1364 Dec 03 j 19:00	20° ♁ 27'54	1°31'32
morning set	1362 Jun 04 j 05:51	10° ♁ 48'09		minimum elong	1364 Dec 03 j 15:32	20° ♁ 33'11	1°30'26
asc. node	1362 Jun 13 j 02:54	21° ♁ 40'39		min. Earth dist.	1364 Dec 03 j 13:01	20° ♁ 37'01	0.26396 AU
	1362 Jun 19 j 21:42	0° ♁		morning rise	1364 Dec 09 j 17:56	16° ♁ 58'45	
max. Earth dist.	1362 Jul 07 j 22:47	22° ♁ 11'35	1.73360 AU	direct	1364 Dec 24 j 02:28	12° ♁ 51'32	
				greatest brilliancy	1365 Jan 04 j 20:57	15° ♁ 26'20	-4.7m
superior conj	1362 Jul 10 j 14:46	25° ♁ 28'39	0°59'06		1365 Jan 26 j 18:59	0° ♁	
minimum elong	1362 Jul 10 j 06:02	25° ♁ 01'45	0°58'47	morning max el	1365 Feb 12 j 08:02	15° ♁ 24'02	46°43'22
	1362 Jul 14 j 06:47	0° ♁			1365 Feb 26 j 09:55	0° ♁	
	1362 Aug 07 j 13:14	0° ♁		desc. node	1365 Mar 19 j 11:23	23° ♁ 13'55	
evening rise	1362 Aug 15 j 14:27	9° ♁ 58'21			1365 Mar 25 j 10:23	0° ♁	
	1362 Aug 31 j 18:06	0° ♁			1365 Apr 20 j 07:48	0° ♁	
	1362 Sep 24 j 22:44	0° ♁			1365 May 15 j 16:57	0° ♁	
desc. node	1362 Oct 02 j 16:23	9° ♁ 35'08			1365 Jun 09 j 18:35	0° ♁	
	1362 Oct 19 j 04:13	0° ♁			1365 Jul 04 j 13:42	0° ♁	
	1362 Nov 12 j 11:38	0° ♁		asc. node	1365 Jul 10 j 14:49	7° ♁ 21'56	
	1362 Dec 06 j 23:29	0° ♁			1365 Jul 29 j 02:14	0° ♁	
	1362 Dec 31 j 22:03	0° ♁		morning set	1365 Aug 11 j 01:57	16° ♁ 01'06	
asc. node	1363 Jan 23 j 19:37	26° ♁ 32'04			1365 Aug 22 j 08:41	0° ♁	
	1363 Jan 26 j 21:48	0° ♁		max. Earth dist.	1365 Sep 13 j 23:30	28° ♁ 10'19	1.72005 AU
evening max el	1363 Feb 18 j 10:12	23° ♁ 55'08	46°19'30		1365 Sep 15 j 10:37	0° ♁	
	1363 Feb 24 j 16:24	0° ♁					
greatest brilliancy	1363 Mar 25 j 12:16	21° ♁ 46'13	-4.5m	superior conj	1365 Sep 17 j 03:34	2° ♁ 07'57	1°19'26
retrograde	1363 Apr 09 j 02:26	25° ♁ 33'04		minimum elong	1365 Sep 17 j 10:08	2° ♁ 28'26	1°19'19
evening set	1363 Apr 24 j 19:32	20° ♁ 45'10			1365 Oct 09 j 10:02	0° ♁	
inferior conj	1363 Apr 30 j 11:38	17° ♁ 17'25	3°25'35	evening rise	1365 Oct 26 j 08:21	21° ♁ 13'04	
minimum elong	1363 Apr 30 j 18:35	17° ♁ 06'26	3°23'41	desc. node	1365 Oct 30 j 04:12	26° ♁ 00'50	
min. Earth dist.	1363 Apr 30 j 13:21	17° ♁ 14'42	0.28803 AU		1365 Nov 02 j 08:33	0° ♁	

	1365 Nov 26 j 07:15	0°☾		1368 Apr 28 j 08:05	0°☿	
	1365 Dec 20 j 07:19	0°♊		1368 May 27 j 01:03	0°♋	
	1366 Jan 13 j 11:01	0°♌		1368 Jun 22 j 16:59	0°♍	
	1366 Feb 06 j 22:19	0°☿		1368 Jul 18 j 09:33	0°♎	
asc. node	1366 Feb 20 j 07:33	16°☿08'37		asc. node	1368 Aug 07 j 02:43	23°♎34'20
	1366 Mar 03 j 23:38	0°♏		1368 Aug 12 j 10:16	0°♐	
	1366 Mar 30 j 02:22	0°♑		1368 Sep 05 j 22:51	0°♑	
	1366 Apr 27 j 12:09	0°♒		greatest brilliancy	1368 Sep 28 j 14:07	28°♑05'49 -3.9m
evening max el	1366 Apr 30 j 00:22	2°♒26'15 45°25'26			1368 Sep 30 j 02:44	0°♓
greatest brilliancy	1366 Jun 03 j 16:42	28°♒50'30 -4.5m		morning set	1368 Oct 21 j 02:39	26°♓17'50
	1366 Jun 06 j 11:09	0°♓			1368 Oct 24 j 01:26	0°♐
desc. node	1366 Jun 11 j 20:49	1°♓36'44			1368 Nov 16 j 21:52	0°♑
retrograde	1366 Jun 17 j 15:38	2°♓14'20		desc. node	1368 Nov 26 j 16:02	12°♑16'49
	1366 Jun 28 j 07:16	30°♒♑				
evening set	1366 Jul 03 j 10:29	27°♒28'43		superior conj	1368 Nov 30 j 14:26	17°♑13'52 0°-9'-23
inferior conj	1366 Jul 09 j 02:47	24°♒04'16 -5°-50'-12		minimum elong	1368 Nov 30 j 11:55	17°♑05'57 0°09'17
minimum elong	1366 Jul 08 j 16:55	24°♒19'37 5°48'05		behind sun begin	1368 Nov 29 j 13:52	15°♑56'34
min. Earth dist.	1366 Jul 09 j 03:23	24°♒03'19 0.28945 AU		behind sun end	1368 Dec 01 j 09:58	18°♑15'20
morning rise	1366 Jul 13 j 23:08	21°♒07'27		max. Earth dist.	1368 Dec 01 j 07:28	18°♑07'27 1.71051 AU
direct	1366 Jul 30 j 17:48	15°♒47'05			1368 Dec 10 j 17:55	0°☾
greatest brilliancy	1366 Aug 14 j 02:22	19°♒22'53 -4.5m			1369 Jan 03 j 14:43	0°♊
	1366 Aug 30 j 13:48	0°♓		evening rise	1369 Jan 11 j 04:46	9°♊31'06
morning max el	1366 Sep 18 j 07:23	16°♓47'47 46°15'11			1369 Jan 27 j 13:32	0°♌
	1366 Oct 01 j 03:49	0°♑			1369 Feb 20 j 16:17	0°☿
asc. node	1366 Oct 03 j 00:17	1°♑59'01			1369 Mar 17 j 01:21	0°♋
	1366 Oct 27 j 22:04	0°♒		asc. node	1369 Mar 19 j 19:28	3°♋21'52
	1366 Nov 22 j 02:29	0°♐			1369 Apr 10 j 19:28	0°♑
	1366 Dec 16 j 14:46	0°♑			1369 May 06 j 02:25	0°♒
	1367 Jan 09 j 20:30	0°☾			1369 Jun 01 j 05:44	0°♓
desc. node	1367 Jan 22 j 13:44	15°☾47'17			1369 Jun 29 j 01:40	0°♑
	1367 Feb 03 j 00:17	0°♊		desc. node	1369 Jul 09 j 08:46	10°♑14'20
	1367 Feb 27 j 04:18	0°♌		evening max el	1369 Jul 10 j 09:14	11°♑13'02 45°40'05
	1367 Mar 23 j 09:40	0°☿			1369 Aug 01 j 10:38	0°♒
morning set	1367 Mar 25 j 02:35	2°☿06'27		greatest brilliancy	1369 Aug 17 j 07:25	8°♒55'03 -4.5m
	1367 Apr 16 j 16:57	0°♋		retrograde	1369 Aug 28 j 05:06	11°♒02'09
				evening set	1369 Sep 14 j 19:51	5°♒15'31
superior conj	1367 May 01 j 19:21	18°♋35'30 0°-32'-16		inferior conj	1369 Sep 18 j 05:04	3°♒12'29 -8°-13'-50
minimum elong	1367 May 02 j 01:50	18°♋55'26 0°31'59		minimum elong	1369 Sep 18 j 12:11	3°♒01'31 8°13'04
max. Earth dist.	1367 May 03 j 02:31	20°♋11'23 1.73409 AU		min. Earth dist.	1369 Sep 19 j 01:55	2°♒40'25 0.27739 AU
	1367 May 11 j 02:01	0°♑		morning rise	1369 Sep 22 j 04:15	0°♒48'23
asc. node	1367 May 15 j 17:09	5°♑41'25			1369 Sep 23 j 14:00	30°♒♑
	1367 Jun 04 j 12:15	0°♒		direct	1369 Oct 09 j 07:18	25°♑12'54
evening rise	1367 Jun 07 j 10:59	3°♒37'01		greatest brilliancy	1369 Oct 23 j 09:18	28°♑49'28 -4.6m
	1367 Jun 28 j 23:13	0°♓			1369 Oct 25 j 16:22	0°♒
	1367 Jul 23 j 11:16	0°♑		asc. node	1369 Oct 30 j 12:02	2°♒53'09
	1367 Aug 17 j 01:39	0°♒		morning max el	1369 Nov 29 j 00:01	28°♒31'20 46°53'26
desc. node	1367 Sep 04 j 06:27	22°♒04'17			1369 Nov 30 j 10:37	0°♐
	1367 Sep 10 j 20:06	0°♐			1369 Dec 27 j 19:07	0°♑
	1367 Oct 05 j 21:07	0°♑			1370 Jan 22 j 09:49	0°☾
	1367 Oct 31 j 10:17	0°☾			1370 Feb 16 j 09:17	0°♊
	1367 Nov 27 j 04:50	0°♊		desc. node	1370 Feb 19 j 01:32	3°♊14'19
evening max el	1367 Dec 06 j 12:48	9°♊47'22 47°18'39			1370 Mar 13 j 02:35	0°♌
asc. node	1367 Dec 26 j 09:53	28°♊24'13			1370 Apr 06 j 17:31	0°☿
	1367 Dec 28 j 08:58	0°♌			1370 May 01 j 07:36	0°♋
greatest brilliancy	1368 Jan 13 j 04:10	10°♌15'53 -4.7m			1370 May 25 j 20:55	0°♑
retrograde	1368 Jan 26 j 12:50	13°♌35'12		morning set	1370 Jun 02 j 00:14	8°♑44'09
evening set	1368 Feb 13 j 07:54	7°♌23'37		asc. node	1370 Jun 12 j 05:04	21°♑14'01
min. Earth dist.	1368 Feb 15 j 17:43	5°♌53'53 0.27758 AU			1370 Jun 19 j 08:33	0°♒
inferior conj	1368 Feb 16 j 10:56	5°♌26'53 8°45'42		max. Earth dist.	1370 Jul 05 j 17:49	20°♒09'01 1.73394 AU
minimum elong	1368 Feb 16 j 09:23	5°♌29'19 8°45'41				
morning rise	1368 Feb 19 j 11:07	3°♌35'06		superior conj	1370 Jul 08 j 09:23	23°♒24'46 0°56'49
	1368 Feb 26 j 04:13	30°♒♊		minimum elong	1370 Jul 08 j 00:43	22°♒58'03 0°56'30
direct	1368 Mar 08 j 06:20	27°♒30'20			1370 Jul 13 j 17:39	0°♓
greatest brilliancy	1368 Mar 19 j 01:41	29°♒39'55 -4.6m			1370 Aug 07 j 00:12	0°♑
	1368 Mar 19 j 22:10	0°♌		evening rise	1370 Aug 13 j 07:53	7°♑49'28
desc. node	1368 Apr 15 j 23:04	18°♌28'03			1370 Aug 31 j 05:16	0°♒
morning max el	1368 Apr 26 j 12:44	28°♌14'46 46°00'21			1370 Sep 24 j 10:11	0°♐

desc. node	1370 Oct 01 j 18:19	9°♌05'25		1373 Jun 09 j 05:59	0°♈	
	1370 Oct 18 j 16:01	0°♌		1373 Jul 04 j 00:42	0°♉	
	1370 Nov 11 j 23:54	0°♍		asc. node	1373 Jul 09 j 16:54	6°♊54'55
	1370 Dec 06 j 12:26	0°♎			1373 Jul 28 j 13:01	0°♋
	1370 Dec 31 j 12:12	0°♏		morning set	1373 Aug 08 j 19:15	13°♌52'59
asc. node	1371 Jan 22 j 21:40	25°♏52'06			1373 Aug 21 j 19:26	0°♍
	1371 Jan 26 j 14:32	0°♐		max. Earth dist.	1373 Sep 11 j 15:44	25°♎57'25 1.72059 AU
evening max el	1371 Feb 16 j 00:18	21°♐36'13 46°22'04				
	1371 Feb 24 j 17:34	0°♑		superior conj	1373 Sep 14 j 19:08	29°♎52'49 1°20'34
greatest brilliancy	1371 Mar 23 j 05:36	19°♑36'27 -4.5m		minimum elong	1373 Sep 15 j 01:01	0°♒11'12 1°20'29
retrograde	1371 Apr 06 j 18:40	23°♑23'01			1373 Sep 14 j 21:25	0°♓
evening set	1371 Apr 22 j 14:10	18°♑31'55			1373 Oct 08 j 20:58	0°♌
inferior conj	1371 Apr 28 j 04:05	15°♒07'26 3°43'47		evening rise	1373 Oct 23 j 20:24	18°♌45'52
minimum elong	1371 Apr 28 j 11:32	14°♒55'40 3°41'48		desc. node	1373 Oct 29 j 06:20	25°♌32'50
min. Earth dist.	1371 Apr 28 j 06:07	15°♒04'13 0.28785 AU			1373 Nov 01 j 19:38	0°♌
morning rise	1371 May 04 j 09:07	11°♒21'51			1373 Nov 25 j 18:31	0°♍
desc. node	1371 May 14 j 10:52	7°♒24'16			1373 Dec 19 j 18:49	0°♎
direct	1371 May 19 j 15:14	6°♒52'34			1374 Jan 12 j 22:47	0°♏
greatest brilliancy	1371 Jun 01 j 11:02	9°♒45'49 -4.5m			1374 Feb 06 j 10:34	0°♐
	1371 Jun 30 j 06:34	0°♈		asc. node	1374 Feb 19 j 09:32	15°♐36'38
morning max el	1371 Jul 07 j 07:49	6°♈31'30 45°44'25			1374 Mar 03 j 12:50	0°♑
	1371 Jul 30 j 08:18	0°♉			1374 Mar 29 j 17:41	0°♈
	1371 Aug 26 j 04:31	0°♊			1374 Apr 27 j 09:37	0°♉
asc. node	1371 Sep 04 j 14:31	10°♊57'57		evening max el	1374 Apr 27 j 17:11	0°♊18'12 45°26'25
	1371 Sep 20 j 14:44	0°♋		greatest brilliancy	1374 Jun 01 j 07:00	26°♊39'50 -4.5m
	1371 Oct 15 j 05:39	0°♌		desc. node	1374 Jun 10 j 22:59	29°♊43'56
	1371 Nov 08 j 09:46	0°♍			1374 Jun 13 j 02:49	0°♋
	1371 Dec 02 j 08:45	0°♎		retrograde	1374 Jun 15 j 08:17	0°♌05'42
desc. node	1371 Dec 25 j 03:55	28°♎37'48			1374 Jun 17 j 13:06	30°♌♊
	1371 Dec 26 j 06:06	0°♏		evening set	1374 Jul 01 j 00:21	25°♊23'21
morning set	1372 Jan 06 j 11:05	14°♏04'27		inferior conj	1374 Jul 06 j 19:00	21°♊55'13 -5°-35'-12
	1372 Jan 19 j 03:44	0°♐		minimum elong	1374 Jul 06 j 09:16	22°♊10'22 5°33'03
	1372 Feb 12 j 02:54	0°♑		min. Earth dist.	1374 Jul 06 j 18:52	21°♊55'25 0.28953 AU
				morning rise	1374 Jul 11 j 18:03	18°♊54'34
superior conj	1372 Feb 16 j 17:06	5°♑44'04 -1°-25'-37		direct	1374 Jul 28 j 10:43	13°♊38'06
minimum elong	1372 Feb 16 j 15:11	5°♑38'04 1°25'39		greatest brilliancy	1374 Aug 11 j 17:23	17°♊12'13 -4.5m
max. Earth dist.	1372 Feb 20 j 19:22	10°♑50'30 1.71949 AU			1374 Aug 30 j 22:38	0°♋
	1372 Mar 07 j 04:43	0°♒		morning max el	1374 Sep 15 j 23:27	14°♋36'02 46°13'37
evening rise	1372 Mar 27 j 05:32	24°♒49'16			1374 Sep 30 j 21:38	0°♌
	1372 Mar 31 j 10:12	0°♓		asc. node	1374 Oct 02 j 02:22	1°♌17'28
asc. node	1372 Apr 16 j 07:24	19°♓33'01			1374 Oct 27 j 12:23	0°♍
	1372 Apr 24 j 19:59	0°♈			1374 Nov 21 j 15:22	0°♎
	1372 May 19 j 10:34	0°♉			1374 Dec 16 j 02:55	0°♏
	1372 Jun 13 j 06:55	0°♊			1375 Jan 09 j 08:13	0°♐
	1372 Jul 08 j 11:32	0°♋		desc. node	1375 Jan 21 j 15:43	15°♋17'35
	1372 Aug 03 j 05:33	0°♌			1375 Feb 02 j 11:40	0°♎
desc. node	1372 Aug 05 j 20:29	3°♌00'14			1375 Feb 26 j 15:24	0°♏
	1372 Aug 30 j 00:11	0°♍		morning set	1375 Mar 22 j 17:18	29°♏49'57
evening max el	1372 Sep 21 j 12:39	23°♍28'03 46°48'53			1375 Mar 22 j 20:33	0°♐
	1372 Sep 28 j 07:43	0°♑			1375 Apr 16 j 03:40	0°♒
greatest brilliancy	1372 Oct 30 j 13:07	23°♑18'00 -4.7m				
retrograde	1372 Nov 10 j 18:00	25°♑38'59		superior conj	1375 Apr 29 j 12:09	16°♒26'42 0°-35'-17
evening set	1372 Nov 25 j 01:11	21°♑36'05		minimum elong	1375 Apr 29 j 19:10	16°♒48'18 0°35'00
asc. node	1372 Nov 27 j 00:00	20°♑31'39		max. Earth dist.	1375 May 01 j 00:52	18°♒19'38 1.73379 AU
inferior conj	1372 Dec 01 j 07:01	17°♑58'21 1°06'58			1375 May 10 j 12:39	0°♈
minimum elong	1372 Dec 01 j 04:27	18°♑02'14 1°06'09		asc. node	1375 May 14 j 19:18	5°♈15'20
min. Earth dist.	1372 Dec 01 j 02:34	18°♑05'07 0.26394 AU			1375 Jun 03 j 22:56	0°♉
morning rise	1372 Dec 07 j 07:41	14°♑27'20		evening rise	1375 Jun 05 j 05:45	1°♉34'34
direct	1372 Dec 21 j 14:33	10°♑21'41			1375 Jun 28 j 10:03	0°♊
greatest brilliancy	1373 Jan 02 j 11:53	12°♑59'58 -4.7m			1375 Jul 22 j 22:23	0°♋
	1373 Jan 27 j 03:45	0°♒			1375 Aug 16 j 13:12	0°♌
morning max el	1373 Feb 09 j 21:56	13°♒00'43 46°44'44		desc. node	1375 Sep 03 j 08:29	21°♌34'03
	1373 Feb 26 j 04:39	0°♓			1375 Sep 10 j 08:21	0°♍
desc. node	1373 Mar 18 j 13:26	22°♓35'48			1375 Oct 05 j 10:28	0°♎
	1373 Mar 25 j 01:15	0°♈			1375 Oct 31 j 01:36	0°♏
	1373 Apr 19 j 20:52	0°♉			1375 Nov 27 j 00:31	0°♐
	1373 May 15 j 04:59	0°♊		evening max el	1375 Dec 04 j 04:20	7°♓27'52 47°19'05

asc. node	1375 Dec 25 j 11:53	27° \approx 14'20		1378 Apr 06 j 04:47	0° Υ	
	1375 Dec 29 j 00:54	0° H		1378 Apr 30 j 18:33	0° B	
greatest brilliancy	1376 Jan 10 j 21:01	7° H 56'53	-4.7m	1378 May 25 j 07:38	0° Π	
retrograde	1376 Jan 24 j 03:44	11° H 13'21		1378 May 30 j 18:14	6° Π 39'42	
evening set	1376 Feb 10 j 20:34	5° H 05'10		asc. node	1378 Jun 11 j 07:05	20° Π 47'43
min. Earth dist.	1376 Feb 13 j 07:01	3° H 34'24	0.27700 AU	1378 Jun 18 j 19:08	0° S	
inferior conj	1376 Feb 14 j 01:08	3° H 05'56	8°44'02	max. Earth dist.	1378 Jul 03 j 13:58	18° S 10'48 1.73423 AU
minimum elong	1376 Feb 13 j 22:44	3° H 09'43	8°43'58			
morning rise	1376 Feb 17 j 01:10	1° H 14'20		superior conj	1378 Jul 06 j 03:47	21° S 21'08 0°54'27
	1376 Feb 19 j 03:44	30° R \approx		minimum elong	1378 Jul 05 j 19:12	20° S 54'43 0°54'08
direct	1376 Mar 05 j 20:22	25° \approx 10'41			1378 Jul 13 j 04:12	0° Q
greatest brilliancy	1376 Mar 16 j 13:10	27° \approx 18'00	-4.6m		1378 Aug 06 j 10:51	0° P
	1376 Mar 22 j 10:32	0° H		evening rise	1378 Aug 11 j 01:23	5° P 42'01
desc. node	1376 Apr 15 j 01:10	17° H 30'19			1378 Aug 30 j 16:08	0° A
morning max el	1376 Apr 24 j 02:47	25° H 57'47	46°01'36		1378 Sep 23 j 21:21	0° M
	1376 Apr 28 j 05:43	0° Υ		desc. node	1378 Sep 30 j 20:28	8° M 37'13
	1376 May 26 j 16:30	0° B			1378 Oct 18 j 03:33	0° J
	1376 Jun 22 j 06:06	0° Π			1378 Nov 11 j 11:53	0° Z
	1376 Jul 17 j 21:31	0° S			1378 Dec 06 j 01:06	0° \approx
asc. node	1376 Aug 06 j 04:38	23° S 05'34			1378 Dec 31 j 02:06	0° H
	1376 Aug 11 j 21:37	0° Q		asc. node	1379 Jan 21 j 23:39	25° H 12'37
	1376 Sep 05 j 09:51	0° P			1379 Jan 26 j 07:11	0° Υ
	1376 Sep 29 j 13:34	0° A		evening max el	1379 Feb 13 j 14:17	19° Υ 17'56 46°24'31
greatest brilliancy	1376 Oct 01 j 19:18	2° A 47'46	-3.9m		1379 Feb 24 j 19:43	0° B
morning set	1376 Oct 18 j 16:05	23° A 55'27		greatest brilliancy	1379 Mar 20 j 21:35	17° B 25'23 -4.5m
	1376 Oct 23 j 12:13	0° M		retrograde	1379 Apr 04 j 11:01	21° B 13'13
	1376 Nov 16 j 08:41	0° J		evening set	1379 Apr 20 j 08:43	16° B 18'28
desc. node	1376 Nov 25 j 18:09	11° J 49'30		inferior conj	1379 Apr 25 j 20:22	12° B 57'29 4°01'44
				minimum elong	1379 Apr 26 j 04:16	12° B 45'00 3°59'40
superior conj	1376 Nov 28 j 00:45	14° J 41'18	0°-5'-27	min. Earth dist.	1379 Apr 25 j 22:36	12° B 53'57 0.28771 AU
minimum elong	1376 Nov 27 j 23:18	14° J 36'43	0°05'24	morning rise	1379 May 02 j 00:00	9° B 13'51
behind sun begin	1376 Nov 26 j 22:09	13° J 17'36		desc. node	1379 May 13 j 13:00	4° B 59'04
behind sun end	1376 Nov 29 j 00:27	15° J 55'50		direct	1379 May 17 j 06:32	4° B 42'36
max. Earth dist.	1376 Nov 28 j 11:48	15° J 16'05	1.71055 AU	greatest brilliancy	1379 May 30 j 02:37	7° B 35'55 -4.5m
	1376 Dec 10 j 04:46	0° Z			1379 Jun 30 j 07:37	0° Π
	1377 Jan 03 j 01:36	0° \approx		morning max el	1379 Jul 04 j 23:50	4° Π 22'12 45°44'15
evening rise	1377 Jan 08 j 15:01	6° \approx 58'30			1379 Jul 30 j 00:29	0° S
	1377 Jan 27 j 00:29	0° H			1379 Aug 25 j 17:57	0° Q
	1377 Feb 20 j 03:21	0° Υ		asc. node	1379 Sep 03 j 16:40	10° Q 26'18
	1377 Mar 16 j 12:40	0° B			1379 Sep 20 j 02:57	0° P
asc. node	1377 Mar 18 j 21:33	2° B 53'36			1379 Oct 14 j 17:17	0° A
	1377 Apr 10 j 07:16	0° Π			1379 Nov 07 j 21:06	0° M
	1377 May 05 j 15:08	0° S			1379 Dec 01 j 19:54	0° J
	1377 May 31 j 20:21	0° Q		desc. node	1379 Dec 24 j 05:52	28° J 09'18
	1377 Jun 28 j 21:04	0° P			1379 Dec 25 j 17:07	0° Z
evening max el	1377 Jul 07 j 22:31	8° P 55'18	45°38'20	morning set	1380 Jan 03 j 20:50	11° Z 29'54
desc. node	1377 Jul 08 j 10:42	9° P 24'22			1380 Jan 18 j 14:38	0° \approx
	1377 Aug 02 j 07:51	0° A			1380 Feb 11 j 13:42	0° H
greatest brilliancy	1377 Aug 14 j 20:14	6° A 36'49	-4.5m			
retrograde	1377 Aug 25 j 17:59	8° A 44'26		superior conj	1380 Feb 14 j 05:17	3° H 18'34 -1°-25'-15
evening set	1377 Sep 12 j 11:48	2° A 54'21		minimum elong	1380 Feb 14 j 02:22	3° H 09'28 1°25'15
inferior conj	1377 Sep 15 j 19:09	0° A 54'07	-8°-20'-45	max. Earth dist.	1380 Feb 18 j 04:29	8° H 15'40 1.71895 AU
minimum elong	1377 Sep 16 j 01:34	0° A 44'13	8°20'09		1380 Mar 06 j 15:29	0° Υ
min. Earth dist.	1377 Sep 16 j 16:05	0° A 21'54	0.27803 AU	evening rise	1380 Mar 24 j 20:05	22° Υ 32'45
	1377 Sep 17 j 06:22	30° R P			1380 Mar 30 j 20:58	0° B
morning rise	1377 Sep 19 j 15:02	28° P 34'37		asc. node	1380 Apr 15 j 09:31	19° B 06'20
direct	1377 Oct 06 j 21:26	22° P 53'20			1380 Apr 24 j 06:53	0° Π
greatest brilliancy	1377 Oct 21 j 01:26	26° P 31'14	-4.6m		1380 May 18 j 21:44	0° S
	1377 Oct 27 j 06:19	0° A			1380 Jun 12 j 18:37	0° Q
asc. node	1377 Oct 29 j 14:09	1° A 31'49			1380 Jul 08 j 00:08	0° P
morning max el	1377 Nov 26 j 13:18	26° A 06'33	46°52'50		1380 Aug 02 j 19:46	0° A
	1377 Nov 30 j 07:44	0° M		desc. node	1380 Aug 04 j 22:33	2° A 24'56
	1377 Dec 27 j 10:50	0° J			1380 Aug 29 j 17:44	0° M
	1378 Jan 21 j 23:24	0° Z		evening max el	1380 Sep 19 j 02:17	21° M 05'44 46°46'38
	1378 Feb 15 j 21:43	0° \approx			1380 Sep 28 j 11:26	0° J
desc. node	1378 Feb 18 j 03:33	2° \approx 43'00		greatest brilliancy	1380 Oct 28 j 01:40	20° J 49'11 -4.7m
	1378 Mar 12 j 14:19	0° H		retrograde	1380 Nov 08 j 06:39	23° J 09'46

evening set	1380 Nov 22 j 13:33	19° ♁ 06'24			1383 May 09 j 23:28	0° ♁	
asc. node	1380 Nov 26 j 02:02	17° ♁ 07'08		asc. node	1383 May 13 j 21:18	4° ♁ 48'18	
inferior conj	1380 Nov 28 j 19:02	15° ♁ 29'16	0°42'20	evening rise	1383 Jun 03 j 00:27	29° ♁ 31'20	
minimum elong	1380 Nov 28 j 17:25	15° ♁ 31'44	0°41'48		1383 Jun 03 j 09:48	0° ♁	
min. Earth dist.	1380 Nov 28 j 15:52	15° ♁ 34'04	0.26395 AU		1383 Jun 27 j 21:05	0° ♁	
morning rise	1380 Dec 04 j 21:15	11° ♁ 56'38			1383 Jul 22 j 09:44	0° ♁	
direct	1380 Dec 19 j 03:15	7° ♁ 52'24			1383 Aug 16 j 01:04	0° ♁	
greatest brilliancy	1380 Dec 31 j 02:05	10° ♁ 33'03	-4.7m	desc. node	1383 Sep 02 j 10:36	21° ♁ 02'58	
	1381 Jan 27 j 09:58	0° ♁			1383 Sep 09 j 21:00	0° ♁	
morning max el	1381 Feb 07 j 12:29	10° ♁ 39'19	46°46'02		1383 Oct 05 j 00:18	0° ♁	
	1381 Feb 25 j 22:49	0° ♁			1383 Oct 30 j 17:29	0° ♁	
desc. node	1381 Mar 17 j 15:33	21° ♁ 58'30			1383 Nov 26 j 21:10	0° ♁	
	1381 Mar 24 j 15:50	0° ♁		evening max el	1383 Dec 01 j 19:01	5° ♁ 05'13	47°19'34
	1381 Apr 19 j 09:45	0° ♁		asc. node	1383 Dec 24 j 13:52	26° ♁ 01'36	
	1381 May 14 j 16:54	0° ♁			1383 Dec 29 j 22:52	0° ♁	
	1381 Jun 08 j 17:19	0° ♁		greatest brilliancy	1384 Jan 08 j 14:13	5° ♁ 37'17	-4.7m
	1381 Jul 03 j 11:42	0° ♁		retrograde	1384 Jan 21 j 18:04	8° ♁ 50'25	
asc. node	1381 Jul 08 j 18:52	6° ♁ 27'28		evening set	1384 Feb 08 j 08:50	2° ♁ 46'18	
	1381 Jul 27 j 23:52	0° ♁		min. Earth dist.	1384 Feb 10 j 20:37	1° ♁ 13'27	0.27640 AU
morning set	1381 Aug 06 j 12:21	11° ♁ 44'11		inferior conj	1384 Feb 11 j 15:19	0° ♁ 44'04	8°41'36
	1381 Aug 21 j 06:14	0° ♁		minimum elong	1384 Feb 11 j 12:04	0° ♁ 49'11	8°41'26
max. Earth dist.	1381 Sep 09 j 05:29	23° ♁ 36'48	1.72108 AU		1384 Feb 12 j 19:25	30° ♁	
				morning rise	1384 Feb 14 j 15:33	28° ♁ 52'01	
superior conj	1381 Sep 12 j 10:35	27° ♁ 37'24	1°21'34	direct	1384 Mar 03 j 09:50	22° ♁ 49'58	
minimum elong	1381 Sep 12 j 15:47	27° ♁ 53'37	1°21'30	greatest brilliancy	1384 Mar 14 j 01:30	24° ♁ 55'52	-4.6m
	1381 Sep 14 j 08:16	0° ♁			1384 Mar 24 j 01:17	0° ♁	
	1381 Oct 08 j 07:54	0° ♁		desc. node	1384 Apr 14 j 03:15	16° ♁ 32'57	
evening rise	1381 Oct 21 j 08:23	16° ♁ 18'30		morning max el	1384 Apr 21 j 16:10	23° ♁ 38'03	46°02'55
desc. node	1381 Oct 28 j 08:23	25° ♁ 04'38			1384 Apr 28 j 02:56	0° ♁	
	1381 Nov 01 j 06:43	0° ♁			1384 May 26 j 08:03	0° ♁	
	1381 Nov 25 j 05:49	0° ♁			1384 Jun 21 j 19:25	0° ♁	
	1381 Dec 19 j 06:20	0° ♁			1384 Jul 17 j 09:43	0° ♁	
	1382 Jan 12 j 10:38	0° ♁		asc. node	1384 Aug 05 j 06:50	22° ♁ 36'54	
	1382 Feb 05 j 22:55	0° ♁			1384 Aug 11 j 09:13	0° ♁	
asc. node	1382 Feb 18 j 11:41	15° ♁ 04'51			1384 Sep 04 j 21:10	0° ♁	
	1382 Mar 03 j 02:09	0° ♁			1384 Sep 29 j 00:46	0° ♁	
	1382 Mar 29 j 09:15	0° ♁		greatest brilliancy	1384 Oct 04 j 12:52	6° ♁ 52'45	-3.9m
evening max el	1382 Apr 25 j 09:56	28° ♁ 09'52	45°27'21	morning set	1384 Oct 16 j 05:16	21° ♁ 31'06	
	1382 Apr 27 j 08:00	0° ♁			1384 Oct 22 j 23:24	0° ♁	
greatest brilliancy	1382 May 29 j 22:04	24° ♁ 29'51	-4.5m		1384 Nov 15 j 19:54	0° ♁	
desc. node	1382 Jun 10 j 00:53	27° ♁ 46'27		desc. node	1384 Nov 24 j 20:07	11° ♁ 20'23	
retrograde	1382 Jun 13 j 00:24	27° ♁ 56'32					
evening set	1382 Jun 28 j 14:20	23° ♁ 17'25		superior conj	1384 Nov 25 j 10:45	12° ♁ 06'26	0°-1'-28
inferior conj	1382 Jul 04 j 11:10	19° ♁ 45'46	-5°-19'-48	minimum elong	1384 Nov 25 j 10:22	12° ♁ 05'14	0°01'27
minimum elong	1382 Jul 04 j 01:37	20° ♁ 00'40	5°17'36	behind sun begin	1384 Nov 24 j 08:08	10° ♁ 42'41	
min. Earth dist.	1382 Jul 04 j 10:35	19° ♁ 46'42	0.28962 AU	behind sun end	1384 Nov 26 j 12:37	13° ♁ 27'48	
morning rise	1382 Jul 09 j 12:50	16° ♁ 41'08		max. Earth dist.	1384 Nov 25 j 14:01	12° ♁ 16'42	1.71061 AU
direct	1382 Jul 26 j 03:29	11° ♁ 28'41			1384 Dec 09 j 16:00	0° ♁	
greatest brilliancy	1382 Aug 09 j 07:33	14° ♁ 59'49	-4.5m		1385 Jan 02 j 12:51	0° ♁	
	1382 Aug 31 j 05:17	0° ♁		evening rise	1385 Jan 06 j 00:53	4° ♁ 23'36	
morning max el	1382 Sep 13 j 14:49	12° ♁ 21'54	46°12'00		1385 Jan 26 j 11:47	0° ♁	
	1382 Sep 30 j 15:19	0° ♁			1385 Feb 19 j 14:47	0° ♁	
asc. node	1382 Oct 01 j 04:28	0° ♁ 35'42			1385 Mar 16 j 00:22	0° ♁	
	1382 Oct 27 j 02:46	0° ♁		asc. node	1385 Mar 17 j 23:39	2° ♁ 24'14	
	1382 Nov 21 j 04:21	0° ♁			1385 Apr 09 j 19:28	0° ♁	
	1382 Dec 15 j 15:09	0° ♁			1385 May 05 j 04:18	0° ♁	
	1383 Jan 08 j 20:01	0° ♁			1385 May 31 j 11:32	0° ♁	
desc. node	1383 Jan 20 j 17:44	14° ♁ 47'46			1385 Jun 28 j 17:27	0° ♁	
	1383 Feb 01 j 23:10	0° ♁		evening max el	1385 Jul 05 j 11:36	6° ♁ 36'17	45°36'44
	1383 Feb 26 j 02:39	0° ♁		desc. node	1385 Jul 07 j 12:49	8° ♁ 32'54	
morning set	1383 Mar 20 j 07:53	27° ♁ 32'26			1385 Aug 03 j 13:41	0° ♁	
	1383 Mar 22 j 07:36	0° ♁		greatest brilliancy	1385 Aug 12 j 07:40	4° ♁ 16'24	-4.5m
	1383 Apr 15 j 14:33	0° ♁		retrograde	1385 Aug 23 j 07:11	6° ♁ 26'13	
				evening set	1385 Sep 10 j 03:27	0° ♁ 32'41	
superior conj	1383 Apr 27 j 04:55	14° ♁ 17'12	0°-38'-17		1385 Sep 11 j 01:24	30° ♁	
minimum elong	1383 Apr 27 j 12:26	14° ♁ 40'19	0°37'58	inferior conj	1385 Sep 13 j 09:15	28° ♁ 34'53	-8°-26'-45
max. Earth dist.	1383 Apr 28 j 22:56	16° ♁ 26'28	1.73344 AU	minimum elong	1385 Sep 13 j 14:56	28° ♁ 26'09	8°26'17

min. Earth dist.	1385 Sep 14 j 06:02	28° \cap 02'56	0.27872 AU		1388 Mar 30 j 08:04	0° C	
morning rise	1385 Sep 17 j 02:06	26° \cap 19'55		asc. node	1388 Apr 14 j 11:27	18° C 38'02	
direct	1385 Oct 04 j 11:48	20° \cap 32'47			1388 Apr 23 j 18:05	0° II	
greatest brilliancy	1385 Oct 18 j 18:26	24° \cap 13'18	-4.6m		1388 May 18 j 09:13	0° S	
	1385 Oct 28 j 09:31	0° A			1388 Jun 12 j 06:39	0° Ω	
asc. node	1385 Oct 28 j 16:11	0° A 11'45			1388 Jul 07 j 13:07	0° \cap	
morning max el	1385 Nov 24 j 03:24	23° A 42'34	46°52'04		1388 Aug 02 j 10:27	0° A	
	1385 Nov 30 j 04:43	0° M		desc. node	1388 Aug 04 j 00:41	1° A 48'47	
	1385 Dec 27 j 02:50	0° X			1388 Aug 29 j 11:58	0° M	
	1386 Jan 21 j 13:21	0° C		evening max el	1388 Sep 16 j 16:49	18° M 45'15	46°44'21
	1386 Feb 15 j 10:33	0° \approx			1388 Sep 28 j 17:12	0° X	
desc. node	1386 Feb 17 j 05:45	2° \approx 10'59		greatest brilliancy	1388 Oct 25 j 14:25	18° X 20'39	-4.6m
	1386 Mar 12 j 02:26	0° X		retrograde	1388 Nov 05 j 19:21	20° X 40'21	
	1386 Apr 05 j 16:25	0° Y		evening set	1388 Nov 20 j 02:18	16° X 36'37	
	1386 Apr 30 j 05:51	0° C		asc. node	1388 Nov 25 j 03:59	13° X 41'20	
	1386 May 24 j 18:42	0° II		inferior conj	1388 Nov 26 j 07:09	13° X 00'08	0°17'42
morning set	1386 May 28 j 12:13	4° II 33'58		minimum elong	1388 Nov 26 j 06:29	13° X 01'10	0°17'28
asc. node	1386 Jun 10 j 09:05	20° II 20'14		min. Earth dist.	1388 Nov 26 j 05:11	13° X 03'07	0.26399 AU
	1386 Jun 18 j 06:05	0° S		morning rise	1388 Dec 02 j 10:41	9° X 26'02	
max. Earth dist.	1386 Jul 01 j 11:23	16° S 15'23	1.73450 AU	direct	1388 Dec 16 j 16:17	5° X 23'19	
				greatest brilliancy	1388 Dec 28 j 15:42	8° X 05'09	-4.7m
superior conj	1386 Jul 03 j 22:17	19° S 16'39	0°52'01		1389 Jan 27 j 14:23	0° C	
minimum elong	1386 Jul 03 j 13:50	18° S 50'40	0°51'41	morning max el	1389 Feb 05 j 02:33	8° C 16'05	46°47'02
	1386 Jul 12 j 15:07	0° Ω			1389 Feb 25 j 16:49	0° \approx	
	1386 Aug 05 j 21:53	0° \cap		desc. node	1389 Mar 16 j 17:33	21° \approx 20'31	
evening rise	1386 Aug 08 j 19:13	3° \cap 34'30			1389 Mar 24 j 06:30	0° X	
	1386 Aug 30 j 03:22	0° A			1389 Apr 18 j 22:48	0° Y	
	1386 Sep 23 j 08:53	0° M			1389 May 14 j 05:00	0° C	
desc. node	1386 Sep 29 j 22:32	8° M 07'39			1389 Jun 08 j 04:49	0° II	
	1386 Oct 17 j 15:28	0° X			1389 Jul 02 j 22:50	0° S	
	1386 Nov 11 j 00:19	0° C		asc. node	1389 Jul 07 j 21:00	6° S 00'12	
	1386 Dec 05 j 14:18	0° \approx			1389 Jul 27 j 10:50	0° Ω	
	1386 Dec 30 j 16:39	0° X		morning set	1389 Aug 04 j 05:28	9° Ω 35'09	
asc. node	1387 Jan 21 j 01:48	24° X 31'42			1389 Aug 20 j 17:09	0° \cap	
	1387 Jan 26 j 00:44	0° Y		max. Earth dist.	1389 Sep 06 j 17:36	21° \cap 10'48	1.72160 AU
evening max el	1387 Feb 11 j 05:06	17° Y 00'10	46°27'12				
	1387 Feb 25 j 00:09	0° C		superior conj	1389 Sep 10 j 02:20	25° \cap 22'34	1°22'27
greatest brilliancy	1387 Mar 18 j 13:11	15° C 12'26	-4.6m	minimum elong	1389 Sep 10 j 06:50	25° \cap 36'34	1°22'24
retrograde	1387 Apr 02 j 03:46	19° C 01'59			1389 Sep 13 j 19:14	0° A	
evening set	1387 Apr 18 j 03:19	14° C 03'22			1389 Oct 07 j 18:58	0° M	
inferior conj	1387 Apr 23 j 12:35	10° C 45'59	4°19'27	evening rise	1389 Oct 18 j 20:43	13° M 51'52	
minimum elong	1387 Apr 23 j 20:54	10° C 32'52	4°17'19	desc. node	1389 Oct 27 j 10:22	24° M 35'46	
min. Earth dist.	1387 Apr 23 j 14:39	10° C 42'44	0.28754 AU		1389 Oct 31 j 17:56	0° X	
morning rise	1387 Apr 29 j 14:40	7° C 04'47			1389 Nov 24 j 17:11	0° C	
desc. node	1387 May 12 j 14:59	2° C 37'30			1389 Dec 18 j 17:55	0° \approx	
direct	1387 May 14 j 22:14	2° C 31'14			1390 Jan 11 j 22:31	0° X	
greatest brilliancy	1387 May 27 j 17:47	5° C 24'24	-4.5m		1390 Feb 05 j 11:20	0° Y	
	1387 Jun 30 j 07:55	0° II		asc. node	1390 Feb 17 j 13:42	14° Y 32'25	
morning max el	1387 Jul 02 j 16:37	2° II 13'45	45°44'06		1390 Mar 02 j 15:40	0° C	
	1387 Jul 29 j 16:45	0° S			1390 Mar 29 j 01:12	0° II	
	1387 Aug 25 j 07:36	0° Ω		evening max el	1390 Apr 23 j 02:11	25° II 59'51	45°28'21
asc. node	1387 Sep 02 j 18:42	9° Ω 53'32			1390 Apr 27 j 07:31	0° S	
	1387 Sep 19 j 15:26	0° \cap		greatest brilliancy	1390 May 27 j 13:52	22° S 20'28	-4.5m
	1387 Oct 14 j 05:10	0° A		desc. node	1390 Jun 09 j 02:59	25° S 44'40	
	1387 Nov 07 j 08:41	0° M		retrograde	1390 Jun 10 j 16:08	25° S 47'25	
	1387 Dec 01 j 07:20	0° X		evening set	1390 Jun 26 j 04:35	21° S 11'20	
desc. node	1387 Dec 23 j 07:57	27° X 40'17		inferior conj	1390 Jul 02 j 03:29	17° S 36'33	-5°-3'-59
	1387 Dec 25 j 04:26	0° C		minimum elong	1390 Jul 01 j 18:10	17° S 51'07	5°01'46
morning set	1388 Jan 01 j 06:30	8° C 54'04		min. Earth dist.	1390 Jul 02 j 02:46	17° S 37'40	0.28968 AU
	1388 Jan 18 j 01:53	0° \approx		morning rise	1390 Jul 07 j 07:39	14° S 27'55	
	1388 Feb 11 j 00:53	0° X		direct	1390 Jul 23 j 19:56	9° S 19'32	
				greatest brilliancy	1390 Aug 06 j 21:45	12° S 47'33	-4.5m
superior conj	1388 Feb 11 j 16:55	0° X 50'04	-1°-24'-41		1390 Aug 31 j 09:50	0° Ω	
minimum elong	1388 Feb 11 j 12:59	0° X 37'47	1°24'40	morning max el	1390 Sep 11 j 05:14	10° Ω 05'39	46°10'24
max. Earth dist.	1388 Feb 15 j 13:42	5° X 39'51	1.71843 AU	asc. node	1390 Sep 30 j 06:28	29° Ω 54'15	
	1388 Mar 06 j 02:36	0° Y			1390 Sep 30 j 08:34	0° \cap	
evening rise	1388 Mar 22 j 10:05	20° Y 13'25			1390 Oct 26 j 16:58	0° A	

	1390 Nov 20 j 17:13	0°♌			1393 Apr 09 j 07:21	0°♐		
	1390 Dec 15 j 03:19	0°♏			1393 May 04 j 17:11	0°♑		
	1391 Jan 08 j 07:43	0°♐			1393 May 31 j 02:33	0°♒		
desc. node	1391 Jan 19 j 19:54	14°♑18'42			1393 Jun 28 j 14:09	0°♓		
	1391 Feb 01 j 10:33	0°♒		evening max el	1393 Jul 03 j 01:21	4°♓19'56	45°35'11	
	1391 Feb 25 j 13:46	0°♓		desc. node	1393 Jul 06 j 14:56	7°♓41'27		
morning set	1391 Mar 17 j 22:32	25°♓15'25			1393 Aug 05 j 08:09	0°♈		
	1391 Mar 21 j 18:31	0°♈		greatest brilliancy	1393 Aug 09 j 18:19	1°♈56'22	-4.5m	
	1391 Apr 15 j 01:21	0°♉		retrograde	1393 Aug 20 j 21:10	4°♈09'23		
					1393 Sep 04 j 14:42	30°♉		
superior conj	1391 Apr 24 j 21:41	12°♉07'53	0°-41'-13	evening set	1393 Sep 07 j 18:56	28°♉12'44		
minimum elong	1391 Apr 25 j 05:38	12°♉32'23	0°40'53	inferior conj	1393 Sep 10 j 23:27	26°♉16'55	-8°-31'-51	
max. Earth dist.	1391 Apr 26 j 19:42	14°♉29'31	1.73310 AU	minimum elong	1393 Sep 11 j 04:23	26°♉09'21	8°31'30	
	1391 May 09 j 10:14	0°♐		min. Earth dist.	1393 Sep 11 j 19:43	25°♉45'50	0.27940 AU	
asc. node	1391 May 12 j 23:20	4°♐21'31		morning rise	1393 Sep 14 j 13:33	24°♉06'12		
evening rise	1391 May 31 j 18:59	27°♐27'47		direct	1393 Oct 02 j 02:41	18°♉13'41		
	1391 Jun 02 j 20:36	0°♑		greatest brilliancy	1393 Oct 16 j 11:26	21°♉56'55	-4.6m	
	1391 Jun 27 j 08:03	0°♒		asc. node	1393 Oct 27 j 18:12	28°♉55'19		
	1391 Jul 21 j 21:01	0°♓			1393 Oct 29 j 04:52	0°♈		
	1391 Aug 15 j 12:52	0°♈		morning max el	1393 Nov 21 j 18:22	21°♈22'06	46°51'11	
desc. node	1391 Sep 01 j 12:36	20°♈31'53			1393 Nov 30 j 00:35	0°♌		
	1391 Sep 09 j 09:35	0°♌			1393 Dec 26 j 18:13	0°♏		
	1391 Oct 04 j 14:07	0°♏			1394 Jan 21 j 02:50	0°♐		
	1391 Oct 30 j 09:29	0°♐			1394 Feb 14 j 22:58	0°♑		
	1391 Nov 26 j 18:21	0°♑		desc. node	1394 Feb 16 j 07:40	1°♑39'17		
evening max el	1391 Nov 29 j 08:58	2°♑41'04	47°19'58		1394 Mar 11 j 14:10	0°♒		
asc. node	1391 Dec 23 j 16:04	24°♑47'47			1394 Apr 05 j 03:39	0°♓		
	1391 Dec 31 j 04:43	0°♓			1394 Apr 29 j 16:44	0°♈		
greatest brilliancy	1392 Jan 06 j 07:25	3°♓18'09	-4.7m		1394 May 24 j 05:22	0°♉		
retrograde	1392 Jan 19 j 08:13	6°♓28'21		morning set	1394 May 26 j 06:26	2°♉30'13		
evening set	1392 Feb 05 j 20:49	0°♓28'49		asc. node	1394 Jun 09 j 11:15	19°♉54'30		
	1392 Feb 06 j 15:39	30°♒			1394 Jun 17 j 16:37	0°♑		
min. Earth dist.	1392 Feb 08 j 10:39	28°♒52'59	0.27578 AU	max. Earth dist.	1394 Jun 29 j 10:24	14°♑26'04	1.73477 AU	
inferior conj	1392 Feb 09 j 05:36	28°♒23'12	8°38'09					
minimum elong	1392 Feb 09 j 01:32	28°♒29'36	8°37'53	superior conj	1394 Jul 01 j 16:55	17°♑13'48	0°49'31	
morning rise	1392 Feb 12 j 06:29	26°♒30'06		minimum elong	1394 Jul 01 j 08:39	16°♑48'23	0°49'11	
direct	1392 Feb 29 j 22:56	20°♒30'06			1394 Jul 12 j 01:40	0°♒		
greatest brilliancy	1392 Mar 11 j 14:53	22°♒35'48	-4.6m		1394 Aug 05 j 08:34	0°♓		
	1392 Mar 25 j 03:54	0°♓		evening rise	1394 Aug 06 j 13:12	1°♓28'35		
desc. node	1392 Apr 13 j 05:15	15°♓37'39			1394 Aug 29 j 14:16	0°♈		
morning max el	1392 Apr 19 j 05:25	21°♓18'47	46°04'16		1394 Sep 22 j 20:05	0°♌		
	1392 Apr 27 j 23:04	0°♈		desc. node	1394 Sep 29 j 00:30	7°♌38'48		
	1392 May 25 j 23:05	0°♉			1394 Oct 17 j 03:03	0°♏		
	1392 Jun 21 j 08:25	0°♐			1394 Nov 10 j 12:25	0°♐		
	1392 Jul 16 j 21:40	0°♑			1394 Dec 05 j 03:12	0°♒		
asc. node	1392 Aug 04 j 08:52	22°♑08'23			1394 Dec 30 j 06:58	0°♓		
	1392 Aug 10 j 20:35	0°♒		asc. node	1395 Jan 20 j 03:49	23°♓51'03		
	1392 Sep 04 j 08:13	0°♓			1395 Jan 25 j 18:17	0°♈		
	1392 Sep 28 j 11:41	0°♈		evening max el	1395 Feb 08 j 20:51	14°♈45'42	46°29'47	
greatest brilliancy	1392 Oct 06 j 11:54	10°♈00'49	-3.9m		1395 Feb 25 j 06:07	0°♉		
morning set	1392 Oct 13 j 18:40	19°♈08'19		greatest brilliancy	1395 Mar 16 j 05:41	13°♉01'36	-4.6m	
	1392 Oct 22 j 10:19	0°♌		retrograde	1395 Mar 30 j 20:47	16°♉51'29		
	1392 Nov 15 j 06:51	0°♏		evening set	1395 Apr 15 j 22:00	11°♉49'07		
				inferior conj	1395 Apr 21 j 04:44	8°♉35'17	4°36'49	
superior conj	1392 Nov 22 j 20:56	9°♏32'58	0°02'33	minimum elong	1395 Apr 21 j 13:26	8°♉21'36	4°34'38	
minimum elong	1392 Nov 22 j 21:36	9°♏35'06	0°02'31	min. Earth dist.	1395 Apr 21 j 06:20	8°♉32'46	0.28733 AU	
behind sun begin	1392 Nov 21 j 19:33	8°♏13'06		morning rise	1395 Apr 27 j 05:07	4°♉56'49		
behind sun end	1392 Nov 23 j 23:40	10°♏57'05		desc. node	1395 May 11 j 17:03	0°♉21'52		
max. Earth dist.	1392 Nov 22 j 18:12	9°♏24'21	1.71075 AU	direct	1395 May 12 j 14:19	0°♉20'56		
desc. node	1392 Nov 23 j 22:13	10°♏52'32		greatest brilliancy	1395 May 25 j 07:53	3°♉12'49	-4.5m	
	1392 Dec 09 j 03:00	0°♐			1395 Jun 30 j 06:34	0°♐		
	1393 Jan 01 j 23:53	0°♑		morning max el	1395 Jun 30 j 09:33	0°♐07'05	45°43'59	
evening rise	1393 Jan 03 j 10:55	1°♑49'55			1395 Jul 29 j 08:16	0°♑		
	1393 Jan 25 j 22:51	0°♓			1395 Aug 24 j 20:43	0°♒		
	1393 Feb 19 j 01:57	0°♈		asc. node	1395 Sep 01 j 20:41	9°♒21'59		
	1393 Mar 15 j 11:46	0°♉			1395 Sep 19 j 03:30	0°♓		
asc. node	1393 Mar 17 j 01:38	1°♉55'30			1395 Oct 13 j 16:44	0°♈		

	1395 Nov 06 j 19:58	0°♌			1398 Apr 27 j 08:02	0°♏		
	1395 Nov 30 j 18:26	0°♊		greatest brilliancy	1398 May 25 j 05:18	20°♏10'50	-4.5m	
desc. node	1395 Dec 22 j 10:06	27°♊12'32		retrograde	1398 Jun 08 j 07:42	23°♏38'45		
	1395 Dec 24 j 15:25	0°♊		desc. node	1398 Jun 08 j 05:10	23°♏38'44		
morning set	1395 Dec 29 j 16:05	6°♊19'02		evening set	1398 Jun 23 j 18:54	19°♏05'15		
	1396 Jan 17 j 12:46	0°♊		inferior conj	1398 Jun 29 j 19:45	15°♏27'46	-4°-47'-36	
				minimum elong	1398 Jun 29 j 10:43	15°♏41'53	4°45'25	
superior conj	1396 Feb 09 j 04:15	28°♊21'39	-1°-23'-57	min. Earth dist.	1398 Jun 29 j 19:12	15°♏28'37	0.28971 AU	
minimum elong	1396 Feb 08 j 23:20	28°♊06'17	1°23'55	morning rise	1398 Jul 05 j 02:23	12°♏15'17		
	1396 Feb 10 j 11:43	0°♋		direct	1398 Jul 21 j 11:54	7°♏10'38		
max. Earth dist.	1396 Feb 13 j 01:28	3°♋12'53	1.71795 AU	greatest brilliancy	1398 Aug 04 j 12:53	10°♏36'52	-4.5m	
	1396 Mar 05 j 13:24	0°♋			1398 Aug 31 j 12:26	0°♏		
evening rise	1396 Mar 19 j 23:56	17°♋54'24		morning max el	1398 Sep 08 j 19:12	7°♏48'54	46°09'02	
	1396 Mar 29 j 18:53	0°♌		asc. node	1398 Sep 29 j 08:34	29°♏14'14		
asc. node	1396 Apr 13 j 13:35	18°♌11'10			1398 Sep 30 j 01:16	0°♐		
	1396 Apr 23 j 05:00	0°♌			1398 Oct 26 j 06:50	0°♐		
	1396 May 17 j 20:24	0°♏			1398 Nov 20 j 05:51	0°♌		
	1396 Jun 11 j 18:22	0°♏			1398 Dec 14 j 15:20	0°♊		
	1396 Jul 07 j 01:48	0°♐			1399 Jan 07 j 19:21	0°♊		
	1396 Aug 02 j 00:55	0°♐		desc. node	1399 Jan 18 j 21:53	13°♊49'10		
desc. node	1396 Aug 03 j 02:39	1°♐12'59			1399 Jan 31 j 21:54	0°♊		
	1396 Aug 29 j 06:17	0°♌			1399 Feb 25 j 00:52	0°♋		
evening max el	1396 Sep 14 j 07:14	16°♌25'23	46°41'46	morning set	1399 Mar 15 j 12:35	22°♋56'24		
	1396 Sep 29 j 00:53	0°♊			1399 Mar 21 j 05:24	0°♋		
greatest brilliancy	1396 Oct 23 j 03:52	15°♊53'29	-4.6m		1399 Apr 14 j 12:07	0°♋		
retrograde	1396 Nov 03 j 07:27	18°♊11'04						
evening set	1396 Nov 17 j 15:12	14°♊06'58		superior conj	1399 Apr 22 j 14:05	9°♋57'36	0°-44'-6	
inferior conj	1396 Nov 23 j 19:10	10°♊31'24	0°-7'-9	minimum elong	1399 Apr 22 j 22:28	10°♋23'22	0°43'46	
minimum elong	1396 Nov 23 j 19:27	10°♊30'59	0°07'04	max. Earth dist.	1399 Apr 24 j 14:54	12°♋27'52	1.73273 AU	
transit middle	1396 Nov 23 j 19:27	10°♊30'59	0°07'04		1399 May 08 j 20:58	0°♌		
transit begin	1396 Nov 23 j 15:45	10°♊36'36		asc. node	1399 May 12 j 01:29	3°♌55'08		
transit end	1396 Nov 23 j 23:09	10°♊25'21		evening rise	1399 May 29 j 13:21	25°♌23'48		
min. Earth dist.	1396 Nov 23 j 18:39	10°♊32'12	0.26405 AU		1399 Jun 02 j 07:24	0°♏		
asc. node	1396 Nov 24 j 06:11	10°♊14'39			1399 Jun 26 j 19:02	0°♏		
morning rise	1396 Nov 29 j 23:43	6°♊55'49			1399 Jul 21 j 08:18	0°♐		
direct	1396 Dec 14 j 05:02	2°♊54'38			1399 Aug 15 j 00:40	0°♐		
greatest brilliancy	1396 Dec 26 j 05:20	5°♊37'30	-4.7m	desc. node	1399 Aug 31 j 14:39	20°♐01'01		
	1397 Jan 27 j 16:54	0°♊			1399 Sep 08 j 22:10	0°♌		
morning max el	1397 Feb 02 j 15:30	5°♊50'32	46°48'03		1399 Oct 04 j 03:59	0°♊		
	1397 Feb 25 j 10:08	0°♊			1399 Oct 30 j 01:38	0°♊		
desc. node	1397 Mar 15 j 19:38	20°♊43'53			1399 Nov 26 j 16:15	0°♊		
	1397 Mar 23 j 20:44	0°♋		evening max el	1399 Nov 26 j 22:12	0°♊15'10	47°20'09	
	1397 Apr 18 j 11:29	0°♋		asc. node	1399 Dec 22 j 18:02	23°♊31'04		
	1397 May 13 j 16:47	0°♌			1400 Jan 02 j 00:38	0°♋		
	1397 Jun 07 j 16:02	0°♌		greatest brilliancy	1400 Jan 03 j 23:27	0°♋56'48	-4.7m	
	1397 Jul 02 j 09:43	0°♏		retrograde	1400 Jan 16 j 22:07	4°♋05'28		
asc. node	1397 Jul 06 j 23:04	5°♏33'27			1400 Jan 31 j 04:04	30°♋		
	1397 Jul 26 j 21:32	0°♏		evening set	1400 Feb 03 j 08:08	28°♊10'41		
morning set	1397 Aug 01 j 22:55	7°♏27'57		min. Earth dist.	1400 Feb 06 j 00:26	26°♊31'23	0.27522 AU	
	1397 Aug 20 j 03:49	0°♐		inferior conj	1400 Feb 06 j 19:40	26°♊01'14	8°33'34	
max. Earth dist.	1397 Sep 04 j 06:36	18°♐48'29	1.72214 AU	minimum elong	1400 Feb 06 j 14:47	26°♊08'54	8°33'13	
				morning rise	1400 Feb 09 j 21:39	24°♊06'35		
superior conj	1397 Sep 07 j 18:30	23°♐09'57	1°23'10	direct	1400 Feb 27 j 11:48	18°♊08'49		
minimum elong	1397 Sep 07 j 22:15	23°♐21'40	1°23'08	greatest brilliancy	1400 Mar 09 j 05:03	20°♊15'35	-4.6m	
	1397 Sep 13 j 05:57	0°♐			1400 Mar 25 j 23:47	0°♋		
	1397 Oct 07 j 05:49	0°♌		desc. node	1400 Apr 12 j 07:23	14°♋43'12		
evening rise	1397 Oct 16 j 09:17	11°♌26'43		morning max el	1400 Apr 16 j 19:00	18°♋59'35	46°05'43	
desc. node	1397 Oct 26 j 12:31	24°♌08'06			1400 Apr 27 j 18:49	0°♋		
	1397 Oct 31 j 04:57	0°♊			1400 May 25 j 14:05	0°♋		
	1397 Nov 24 j 04:25	0°♊			1400 Jun 20 j 21:26	0°♌		
	1397 Dec 18 j 05:24	0°♊			1400 Jul 16 j 09:40	0°♏		
	1398 Jan 11 j 10:18	0°♋		asc. node	1400 Aug 03 j 10:49	21°♏39'23		
	1398 Feb 04 j 23:41	0°♋			1400 Aug 10 j 08:02	0°♏		
asc. node	1398 Feb 16 j 15:42	14°♋00'11			1400 Sep 03 j 19:22	0°♐		
	1398 Mar 02 j 05:09	0°♌			1400 Sep 27 j 22:42	0°♐		
	1398 Mar 28 j 17:18	0°♌		greatest brilliancy	1400 Oct 08 j 12:08	13°♐12'29	-3.9m	
evening max el	1398 Apr 20 j 17:27	23°♌47'38	45°29'24	morning set	1400 Oct 11 j 08:29	16°♐46'40		

	1400 Oct 21 j 21:18	0°♍		retrograde	1403 Mar 28 j 13:45	14°♎40'22	
	1400 Nov 14 j 17:51	0°♊		evening set	1403 Apr 13 j 16:53	9°♎34'24	
superior conj	1400 Nov 20 j 07:32	7°♊00'39	0°06'29	inferior conj	1403 Apr 18 j 20:59	6°♎24'02	4°53'43
minimum elong	1400 Nov 20 j 09:14	7°♊06'01	0°06'23	minimum elong	1403 Apr 19 j 06:00	6°♎09'50	4°51'30
behind sun begin	1400 Nov 19 j 08:50	5°♊49'13		min. Earth dist.	1403 Apr 18 j 21:59	6°♎22'28	0.28715 AU
behind sun end	1400 Nov 21 j 09:38	8°♊22'48		morning rise	1403 Apr 24 j 19:28	2°♎48'21	
max. Earth dist.	1400 Nov 20 j 02:24	6°♊44'31	1.71087 AU	direct	1403 May 10 j 06:47	28°♏10'10	
desc. node	1400 Nov 23 j 00:20	10°♊24'36		desc. node	1403 May 10 j 19:12	28°♏10'29	
	1400 Dec 08 j 14:02	0°♎			1403 May 20 j 07:31	0°♎	
evening rise	1400 Dec 31 j 21:15	29°♎17'01		greatest brilliancy	1403 May 22 j 21:22	0°♎59'35	-4.5m
	1401 Jan 01 j 10:57	0°♎		morning max el	1403 Jun 28 j 02:05	27°♎58'25	45°43'46
	1401 Jan 25 j 10:00	0°♏			1403 Jun 30 j 04:45	0°♏	
	1401 Feb 18 j 13:16	0°♏			1403 Jul 28 j 23:57	0°♏	
	1401 Mar 14 j 23:22	0°♏			1403 Aug 24 j 10:07	0°♏	
asc. node	1401 Mar 16 j 03:43	1°♏26'24		asc. node	1403 Aug 31 j 22:51	8°♏50'04	
	1401 Apr 08 j 19:31	0°♏			1403 Sep 18 j 15:51	0°♏	
	1401 May 04 j 06:25	0°♏			1403 Oct 13 j 04:34	0°♏	
	1401 May 30 j 18:04	0°♏			1403 Nov 06 j 07:32	0°♏	
	1401 Jun 28 j 11:57	0°♏			1403 Nov 30 j 05:50	0°♏	
evening max el	1401 Jun 30 j 15:45	2°♏04'35	45°33'45	desc. node	1403 Dec 21 j 12:02	26°♏43'03	
desc. node	1401 Jul 05 j 16:53	6°♏47'51			1403 Dec 24 j 02:43	0°♏	
greatest brilliancy	1401 Aug 07 j 04:31	29°♏35'16	-4.5m	morning set	1403 Dec 27 j 01:49	3°♏43'22	
	1401 Aug 08 j 07:32	0°♏			1404 Jan 16 j 23:58	0°♏	
retrograde	1401 Aug 18 j 11:23	1°♏51'40					
	1401 Aug 28 j 04:18	30°♏		superior conj	1404 Feb 06 j 15:48	25°♏52'55	-1°-23'-3
evening set	1401 Sep 05 j 10:02	25°♏52'27		minimum elong	1404 Feb 06 j 09:57	25°♏34'38	1°23'00
inferior conj	1401 Sep 08 j 13:33	23°♏58'04	-8°-36'-6		1404 Feb 09 j 22:50	0°♏	
minimum elong	1401 Sep 08 j 17:43	23°♏51'42	8°35'52	max. Earth dist.	1404 Feb 10 j 15:25	0°♏51'53	1.71740 AU
min. Earth dist.	1401 Sep 09 j 08:55	23°♏28'22	0.28004 AU		1404 Mar 05 j 00:26	0°♏	
morning rise	1401 Sep 12 j 01:08	21°♏51'11		evening rise	1404 Mar 17 j 14:00	15°♏35'16	
direct	1401 Sep 29 j 17:55	15°♏53'53			1404 Mar 29 j 05:56	0°♏	
greatest brilliancy	1401 Oct 14 j 03:42	19°♏38'54	-4.6m	asc. node	1404 Apr 12 j 15:42	17°♏43'32	
asc. node	1401 Oct 26 j 20:21	27°♏40'41			1404 Apr 22 j 16:11	0°♏	
	1401 Oct 29 j 19:37	0°♏			1404 May 17 j 07:55	0°♏	
morning max el	1401 Nov 19 j 09:47	19°♏02'20	46°50'28		1404 Jun 11 j 06:28	0°♏	
	1401 Nov 29 j 20:06	0°♏			1404 Jul 06 j 14:56	0°♏	
	1401 Dec 26 j 09:31	0°♏			1404 Aug 01 j 15:56	0°♏	
	1402 Jan 20 j 16:19	0°♏		desc. node	1404 Aug 02 j 04:44	0°♏36'10	
	1402 Feb 14 j 11:27	0°♏			1404 Aug 29 j 01:29	0°♏	
desc. node	1402 Feb 15 j 09:45	1°♏07'48		evening max el	1404 Sep 11 j 20:43	14°♏02'14	46°39'10
	1402 Mar 11 j 02:01	0°♏			1404 Sep 29 j 11:50	0°♏	
	1402 Apr 04 j 15:06	0°♏		greatest brilliancy	1404 Oct 20 j 18:08	13°♏26'22	-4.6m
	1402 Apr 29 j 03:53	0°♏		retrograde	1404 Oct 31 j 19:01	15°♏40'59	
	1402 May 23 j 16:18	0°♏		evening set	1404 Nov 15 j 04:20	11°♏36'09	
morning set	1402 May 24 j 00:25	0°♏24'51		inferior conj	1404 Nov 21 j 07:14	8°♏01'53	0°-31'-52
asc. node	1402 Jun 08 j 13:16	19°♏27'22		minimum elong	1404 Nov 21 j 08:28	8°♏00'01	0°31'28
	1402 Jun 17 j 03:27	0°♏		min. Earth dist.	1404 Nov 21 j 08:28	8°♏00'00	0.26416 AU
max. Earth dist.	1402 Jun 27 j 09:17	12°♏35'26	1.73500 AU	asc. node	1404 Nov 23 j 08:12	6°♏47'44	
				morning rise	1404 Nov 27 j 12:31	4°♏24'56	
superior conj	1402 Jun 29 j 11:15	15°♏09'11	0°46'56	direct	1404 Dec 11 j 17:20	0°♏24'54	
minimum elong	1402 Jun 29 j 03:14	14°♏44'30	0°46'37	greatest brilliancy	1404 Dec 23 j 19:50	3°♏09'40	-4.7m
	1402 Jul 11 j 12:31	0°♏			1405 Jan 27 j 18:28	0°♏	
evening rise	1402 Aug 04 j 07:03	29°♏21'23		morning max el	1405 Jan 31 j 03:40	3°♏21'45	46°49'12
	1402 Aug 04 j 19:32	0°♏			1405 Feb 25 j 03:26	0°♏	
	1402 Aug 29 j 01:29	0°♏		desc. node	1405 Mar 14 j 21:44	20°♏06'49	
	1402 Sep 22 j 07:37	0°♏			1405 Mar 23 j 11:04	0°♏	
desc. node	1402 Sep 28 j 02:39	7°♏09'29			1405 Apr 18 j 00:20	0°♏	
	1402 Oct 16 j 14:59	0°♏			1405 May 13 j 04:45	0°♏	
	1402 Nov 10 j 00:52	0°♏			1405 Jun 07 j 03:28	0°♏	
	1402 Dec 04 j 16:26	0°♏			1405 Jul 01 j 20:51	0°♏	
	1402 Dec 29 j 21:39	0°♏		asc. node	1405 Jul 06 j 01:03	5°♏05'36	
asc. node	1403 Jan 19 j 05:50	23°♏09'34			1405 Jul 26 j 08:32	0°♏	
	1403 Jan 25 j 12:23	0°♏		morning set	1405 Jul 30 j 16:21	5°♏19'50	
evening max el	1403 Feb 06 j 13:01	12°♏31'48	46°32'19		1405 Aug 19 j 14:47	0°♏	
	1403 Feb 25 j 14:40	0°♏		max. Earth dist.	1405 Sep 01 j 20:41	16°♏28'34	1.72270 AU
greatest brilliancy	1403 Mar 13 j 23:07	10°♏51'33	-4.6m				

superior conj	1405 Sep 05 j 10:40	20° $\mathring{\text{M}}$ 56'28	1°23'45	direct	1408 Feb 25 j 00:44	15° \approx 46'19	
minimum elong	1405 Sep 05 j 13:40	21° $\mathring{\text{M}}$ 05'51	1°23'44	greatest brilliancy	1408 Mar 06 j 18:41	17° \approx 54'01	-4.6m
	1405 Sep 12 j 16:58	0° $\underline{\text{A}}$			1408 Mar 26 j 14:54	0° H	
	1405 Oct 06 j 16:57	0° $\mathring{\text{M}}$		desc. node	1408 Apr 11 j 09:26	13° H 49'12	
evening rise	1405 Oct 13 j 21:52	9° $\mathring{\text{M}}$ 00'49		morning max el	1408 Apr 14 j 09:29	16° H 41'58	46°07'17
desc. node	1405 Oct 25 j 14:33	23° $\mathring{\text{M}}$ 39'06			1408 Apr 27 j 14:09	0° Y	
	1405 Oct 30 j 16:17	0° A			1408 May 25 j 05:00	0° B	
	1405 Nov 23 j 15:58	0° Z			1408 Jun 20 j 10:26	0° II	
	1405 Dec 17 j 17:12	0° \approx			1408 Jul 15 j 21:39	0° S	
	1406 Jan 10 j 22:27	0° H		asc. node	1408 Aug 02 j 13:01	21° S 11'11	
	1406 Feb 04 j 12:25	0° Y			1408 Aug 09 j 19:27	0° Ω	
asc. node	1406 Feb 15 j 17:51	13° Y 27'22			1408 Sep 03 j 06:31	0° $\mathring{\text{M}}$	
	1406 Mar 01 j 19:03	0° B			1408 Sep 27 j 09:46	0° $\underline{\text{A}}$	
	1406 Mar 28 j 09:54	0° II		morning set	1408 Oct 08 j 22:26	14° $\underline{\text{A}}$ 25'18	
evening max el	1406 Apr 18 j 08:07	21° II 33'36	45°30'41		1408 Oct 21 j 08:24	0° $\mathring{\text{M}}$	
	1406 Apr 27 j 10:01	0° S			1408 Nov 14 j 04:59	0° A	
greatest brilliancy	1406 May 22 j 19:47	17° S 59'56	-4.5m				
retrograde	1406 Jun 05 j 23:47	21° S 30'32		superior conj	1408 Nov 17 j 17:54	4° A 27'09	0°10'24
desc. node	1406 Jun 07 j 07:03	21° S 28'33		minimum elong	1408 Nov 17 j 20:37	4° A 35'43	0°10'16
evening set	1406 Jun 21 j 09:36	16° S 58'58		behind sun begin	1408 Nov 17 j 00:01	3° A 30'53	
inferior conj	1406 Jun 27 j 12:16	13° S 19'11	-4°-31'-1	behind sun end	1408 Nov 18 j 17:13	5° A 40'32	
minimum elong	1406 Jun 27 j 03:33	13° S 32'47	4°28'51	max. Earth dist.	1408 Nov 17 j 11:31	4° A 07'06	1.71104 AU
min. Earth dist.	1406 Jun 27 j 11:51	13° S 19'49	0.28979 AU	desc. node	1408 Nov 22 j 02:19	9° A 55'45	
morning rise	1406 Jul 02 j 21:18	10° S 03'09			1408 Dec 08 j 01:12	0° Z	
direct	1406 Jul 19 j 03:53	5° S 01'47		evening rise	1408 Dec 29 j 07:08	26° Z 42'16	
greatest brilliancy	1406 Aug 02 j 05:22	8° S 27'47	-4.5m		1408 Dec 31 j 22:09	0° \approx	
	1406 Aug 31 j 13:53	0° Ω			1409 Jan 24 j 21:17	0° H	
morning max el	1406 Sep 06 j 09:57	5° Ω 33'28	46°07'34		1409 Feb 18 j 00:41	0° Y	
asc. node	1406 Sep 28 j 10:40	28° Ω 33'45			1409 Mar 14 j 11:05	0° B	
	1406 Sep 29 j 17:57	0° $\mathring{\text{M}}$		asc. node	1409 Mar 15 j 05:50	0° B 57'07	
	1406 Oct 25 j 20:52	0° $\underline{\text{A}}$			1409 Apr 08 j 07:46	0° II	
	1406 Nov 19 j 18:43	0° $\mathring{\text{M}}$			1409 May 03 j 19:46	0° S	
	1406 Dec 14 j 03:34	0° A			1409 May 30 j 09:47	0° Ω	
	1407 Jan 07 j 07:12	0° Z			1409 Jun 28 j 10:25	0° $\mathring{\text{M}}$	
desc. node	1407 Jan 17 j 23:56	13° Z 19'10		evening max el	1409 Jun 28 j 07:12	29° Ω 52'18	45°32'31
	1407 Jan 31 j 09:26	0° \approx		desc. node	1409 Jul 04 j 19:01	5° $\mathring{\text{M}}$ 54'10	
	1407 Feb 24 j 12:10	0° H		greatest brilliancy	1409 Aug 04 j 15:31	27° $\mathring{\text{M}}$ 16'28	-4.5m
morning set	1407 Mar 13 j 02:27	20° H 36'01		retrograde	1409 Aug 16 j 01:52	29° $\mathring{\text{M}}$ 35'32	
	1407 Mar 20 j 16:31	0° Y		evening set	1409 Sep 03 j 01:11	23° $\mathring{\text{M}}$ 34'40	
	1407 Apr 13 j 23:05	0° B		inferior conj	1409 Sep 06 j 04:03	21° $\mathring{\text{M}}$ 41'00	-8°-39'-24
				minimum elong	1409 Sep 06 j 07:24	21° $\mathring{\text{M}}$ 35'52	8°39'16
superior conj	1407 Apr 20 j 06:37	7° B 47'01	0°-46'-55	min. Earth dist.	1409 Sep 06 j 22:11	21° $\mathring{\text{M}}$ 13'08	0.28066 AU
minimum elong	1407 Apr 20 j 15:23	8° B 13'59	0°46'35	morning rise	1409 Sep 09 j 13:24	19° $\mathring{\text{M}}$ 37'21	
max. Earth dist.	1407 Apr 22 j 08:43	10° B 21'18	1.73231 AU	direct	1409 Sep 27 j 09:44	13° $\mathring{\text{M}}$ 36'10	
	1407 May 08 j 07:52	0° II		greatest brilliancy	1409 Oct 11 j 19:00	17° $\mathring{\text{M}}$ 20'56	-4.6m
asc. node	1407 May 11 j 03:29	3° II 27'47		asc. node	1409 Oct 25 j 22:21	26° $\mathring{\text{M}}$ 28'51	
evening rise	1407 May 27 j 07:57	23° II 20'12			1409 Oct 30 j 06:17	0° $\underline{\text{A}}$	
	1407 Jun 01 j 18:20	0° S		morning max el	1409 Nov 17 j 01:10	16° $\underline{\text{A}}$ 43'03	46°49'15
	1407 Jun 26 j 06:07	0° Ω			1409 Nov 29 j 14:59	0° $\mathring{\text{M}}$	
	1407 Jul 20 j 19:45	0° $\mathring{\text{M}}$			1409 Dec 26 j 00:37	0° A	
	1407 Aug 14 j 12:41	0° $\underline{\text{A}}$			1410 Jan 20 j 05:45	0° Z	
desc. node	1407 Aug 30 j 16:46	19° $\underline{\text{A}}$ 29'38			1410 Feb 13 j 23:55	0° \approx	
	1407 Sep 08 j 11:03	0° $\mathring{\text{M}}$		desc. node	1410 Feb 14 j 11:55	0° \approx 36'31	
	1407 Oct 03 j 18:13	0° A			1410 Mar 10 j 13:52	0° H	
	1407 Oct 29 j 18:22	0° Z			1410 Apr 04 j 02:30	0° Y	
evening max el	1407 Nov 24 j 11:44	27° Z 49'22	47°20'22		1410 Apr 28 j 14:58	0° B	
	1407 Nov 26 j 15:21	0° \approx		morning set	1410 May 21 j 18:20	28° B 19'30	
asc. node	1407 Dec 21 j 20:04	22° \approx 11'15			1410 May 23 j 03:09	0° II	
greatest brilliancy	1408 Jan 01 j 14:30	28° \approx 33'15	-4.7m	asc. node	1410 Jun 07 j 15:17	19° II 00'32	
	1408 Jan 05 j 04:20	0° H			1410 Jun 16 j 14:11	0° S	
retrograde	1408 Jan 14 j 12:23	1° H 41'37		max. Earth dist.	1410 Jun 25 j 07:14	10° S 42'19	1.73515 AU
	1408 Jan 23 j 12:57	30° R \approx					
evening set	1408 Jan 31 j 18:59	25° \approx 51'41		superior conj	1410 Jun 27 j 05:43	13° S 05'17	0°44'18
min. Earth dist.	1408 Feb 03 j 13:45	24° \approx 09'00	0.27465 AU	minimum elong	1410 Jun 26 j 21:59	12° S 41'29	0°43'58
inferior conj	1408 Feb 04 j 09:33	23° \approx 38'03	8°28'08		1410 Jul 10 j 23:14	0° Ω	
minimum elong	1408 Feb 04 j 03:53	23° \approx 46'55	8°27'39	evening rise	1410 Aug 02 j 01:11	27° Ω 15'40	
morning rise	1408 Feb 07 j 13:00	21° \approx 41'31			1410 Aug 04 j 06:21	0° $\mathring{\text{M}}$	

	1410 Aug 28 j 12:30	0°♄	morning max el	1413 Jan 28 j 15:42	0°♄53'47	46°50'05
	1410 Sep 21 j 18:56	0°♍		1413 Feb 24 j 20:00	0°♍	
desc. node	1410 Sep 27 j 04:42	6°♍40'36	desc. node	1413 Mar 13 j 23:44	19°♍30'39	
	1410 Oct 16 j 02:44	0°♎		1413 Mar 23 j 00:59	0°♎	
	1410 Nov 09 j 13:12	0°♏		1413 Apr 17 j 12:52	0°♏	
	1410 Dec 04 j 05:40	0°♐		1413 May 12 j 16:28	0°♐	
	1410 Dec 29 j 12:30	0°♑		1413 Jun 06 j 14:39	0°♑	
asc. node	1411 Jan 18 j 08:00	22°♑27'52		1413 Jul 01 j 07:43	0°♒	
	1411 Jan 25 j 07:01	0°♒	asc. node	1413 Jul 05 j 03:13	4°♒39'12	
evening max el	1411 Feb 04 j 04:52	10°♒16'35	46°34'43	1413 Jul 25 j 19:14	0°♓	
	1411 Feb 26 j 02:31	0°♓	morning set	1413 Jul 28 j 09:29	3°♓11'45	
greatest brilliancy	1411 Mar 11 j 17:29	8°♓42'00	-4.6m	1413 Aug 19 j 01:27	0°♑	
retrograde	1411 Mar 26 j 06:04	12°♓28'07		max. Earth dist.	1413 Aug 30 j 12:41	14°♑15'41 1.72325 AU
evening set	1411 Apr 11 j 11:34	7°♓18'47				
inferior conj	1411 Apr 16 j 12:56	4°♓11'59	5°10'22	superior conj	1413 Sep 03 j 02:47	18°♑43'49 1°24'12
minimum elong	1411 Apr 16 j 22:12	3°♓57'21	5°08'10	minimum elong	1413 Sep 03 j 05:03	18°♑50'53 1°24'12
min. Earth dist.	1411 Apr 16 j 13:28	4°♓11'08	0.28690 AU		1413 Sep 12 j 03:42	0°♄
morning rise	1411 Apr 22 j 09:15	0°♓39'12			1413 Oct 06 j 03:48	0°♍
	1411 Apr 23 j 13:59	30°♒♑		evening rise	1413 Oct 11 j 10:43	6°♍36'53
direct	1411 May 07 j 22:49	25°♑58'48		desc. node	1413 Oct 24 j 16:32	23°♍10'59
desc. node	1411 May 09 j 21:08	26°♑03'08			1413 Oct 30 j 03:17	0°♎
greatest brilliancy	1411 May 20 j 10:01	28°♑44'59	-4.5m		1413 Nov 23 j 03:08	0°♏
	1411 May 23 j 04:01	0°♓			1413 Dec 17 j 04:35	0°♐
morning max el	1411 Jun 25 j 17:31	25°♓47'22	45°43'42		1414 Jan 10 j 10:10	0°♑
	1411 Jun 30 j 01:58	0°♒			1414 Feb 04 j 00:46	0°♒
	1411 Jul 28 j 15:11	0°♓		asc. node	1414 Feb 14 j 19:53	12°♑55'16
	1411 Aug 23 j 23:11	0°♓			1414 Mar 01 j 08:41	0°♓
asc. node	1411 Aug 31 j 00:52	8°♓18'34			1414 Mar 28 j 02:32	0°♒
	1411 Sep 18 j 03:53	0°♑	evening max el	1414 Apr 15 j 22:51	19°♒20'17	45°31'57
	1411 Oct 12 j 16:05	0°♄		1414 Apr 27 j 13:21	0°♓	
	1411 Nov 05 j 18:45	0°♍	greatest brilliancy	1414 May 20 j 09:19	15°♓47'59	-4.5m
	1411 Nov 29 j 16:55	0°♎	retrograde	1414 Jun 03 j 16:04	19°♓22'15	
desc. node	1411 Dec 20 j 14:09	26°♎15'08	desc. node	1414 Jun 06 j 09:11	19°♓13'33	
	1411 Dec 23 j 13:43	0°♏	evening set	1414 Jun 19 j 00:11	14°♓52'16	
morning set	1411 Dec 24 j 11:39	1°♏08'57	inferior conj	1414 Jun 25 j 04:30	11°♓10'28	-4°-13'-54
	1412 Jan 16 j 10:56	0°♐	minimum elong	1414 Jun 24 j 20:11	11°♓23'28	4°11'47
			min. Earth dist.	1414 Jun 25 j 04:08	11°♓11'03	0.28985 AU
superior conj	1412 Feb 04 j 02:57	23°♐23'32	-1°-21'-59	morning rise	1414 Jun 30 j 15:57	7°♓51'08
minimum elong	1412 Feb 03 j 20:12	23°♐02'24	1°21'54	direct	1414 Jul 16 j 19:39	2°♓52'46
max. Earth dist.	1412 Feb 08 j 03:27	28°♐25'20	1.71691 AU	greatest brilliancy	1414 Jul 30 j 22:12	6°♓19'36 -4.5m
	1412 Feb 09 j 09:44	0°♑			1414 Aug 31 j 13:48	0°♓
	1412 Mar 04 j 11:19	0°♒	morning max el	1414 Sep 04 j 01:19	3°♓20'31	46°06'12
evening rise	1412 Mar 15 j 03:16	13°♑14'03	asc. node	1414 Sep 27 j 12:41	27°♓54'28	
	1412 Mar 28 j 16:49	0°♓		1414 Sep 29 j 10:00	0°♑	
asc. node	1412 Apr 11 j 17:39	17°♓15'53		1414 Oct 25 j 10:26	0°♄	
	1412 Apr 22 j 03:12	0°♒		1414 Nov 19 j 07:09	0°♍	
	1412 May 16 j 19:15	0°♓		1414 Dec 13 j 15:23	0°♎	
	1412 Jun 10 j 18:24	0°♓		1415 Jan 06 j 18:37	0°♏	
	1412 Jul 06 j 03:54	0°♑	desc. node	1415 Jan 17 j 02:05	12°♏50'49	
desc. node	1412 Aug 01 j 06:51	29°♑59'59		1415 Jan 30 j 20:33	0°♐	
	1412 Aug 01 j 06:51	0°♄		1415 Feb 23 j 23:02	0°♑	
	1412 Aug 28 j 20:51	0°♍	morning set	1415 Mar 10 j 16:23	18°♑17'00	
evening max el	1412 Sep 09 j 09:26	11°♍38'30	46°36'45		1415 Mar 20 j 03:13	0°♒
	1412 Sep 30 j 01:38	0°♎			1415 Apr 13 j 09:42	0°♓
greatest brilliancy	1412 Oct 18 j 08:51	11°♎01'35	-4.6m			
retrograde	1412 Oct 29 j 06:32	13°♎13'14		superior conj	1415 Apr 17 j 23:01	5°♓37'00 0°-49'-41
evening set	1412 Nov 12 j 17:51	9°♎07'04		minimum elong	1415 Apr 18 j 08:06	6°♓05'00 0°49'20
inferior conj	1412 Nov 18 j 19:33	5°♎34'39	0°-56'-15	max. Earth dist.	1415 Apr 20 j 02:26	8°♓15'24 1.73197 AU
minimum elong	1412 Nov 18 j 21:43	5°♎31'22	0°55'34		1415 May 07 j 18:29	0°♒
min. Earth dist.	1412 Nov 18 j 22:42	5°♎29'51	0.26430 AU	asc. node	1415 May 10 j 05:32	3°♒01'31
asc. node	1412 Nov 22 j 10:10	3°♎24'42		evening rise	1415 May 25 j 02:16	21°♒16'32
morning rise	1412 Nov 25 j 01:21	1°♎56'40			1415 Jun 01 j 05:00	0°♓
	1412 Nov 29 j 04:54	30°♒♍			1415 Jun 25 j 16:59	0°♓
direct	1412 Dec 09 j 05:23	27°♍57'13			1415 Jul 20 j 06:58	0°♑
	1412 Dec 19 j 14:55	0°♎			1415 Aug 14 j 00:28	0°♄
greatest brilliancy	1412 Dec 21 j 11:12	0°♎44'53	-4.7m	desc. node	1415 Aug 29 j 18:46	18°♄58'39
	1413 Jan 27 j 18:15	0°♏			1415 Sep 07 j 23:45	0°♍

	1415 Oct 03 j 08:19	0°♊			1418 Apr 28 j 01:53	0°♋		
	1415 Oct 29 j 11:05	0°♌		morning set	1418 May 19 j 12:29	26°♌15'18		
evening max el	1415 Nov 22 j 02:14	25°♌27'01	47°20'35		1418 May 22 j 13:51	0°♍		
	1415 Nov 26 j 15:06	0°♎		asc. node	1418 Jun 06 j 17:26	18°♍34'28		
asc. node	1415 Dec 20 j 22:16	20°♎50'14			1418 Jun 16 j 00:48	0°♏		
greatest brilliancy	1415 Dec 30 j 05:15	26°♎10'16	-4.7m	max. Earth dist.	1418 Jun 23 j 04:35	8°♏47'43	1.73534 AU	
retrograde	1416 Jan 12 j 03:15	29°♎18'40						
evening set	1416 Jan 29 j 05:38	23°♎33'53		superior conj	1418 Jun 25 j 00:20	11°♏02'15	0°41'37	
min. Earth dist.	1416 Feb 01 j 02:46	21°♎47'54	0.27403 AU	minimum elong	1418 Jun 24 j 16:55	10°♏39'25	0°41'17	
inferior conj	1416 Feb 01 j 23:24	21°♎15'45	8°21'47		1418 Jul 10 j 09:54	0°♐		
minimum elong	1416 Feb 01 j 17:00	21°♎25'43	8°21'08	evening rise	1418 Jul 30 j 19:23	25°♐10'11		
morning rise	1416 Feb 05 j 04:39	19°♎16'51			1418 Aug 03 j 17:11	0°♑		
direct	1416 Feb 22 j 14:06	13°♎24'56			1418 Aug 27 j 23:35	0°♒		
greatest brilliancy	1416 Mar 04 j 07:10	15°♎32'24	-4.6m		1418 Sep 21 j 06:21	0°♓		
	1416 Mar 27 j 01:36	0°♈		desc. node	1418 Sep 26 j 06:40	6°♓11'11		
desc. node	1416 Apr 10 j 11:27	12°♈57'29			1418 Oct 15 j 14:34	0°♉		
morning max el	1416 Apr 12 j 00:29	14°♈26'52	46°08'45		1418 Nov 09 j 01:39	0°♊		
	1416 Apr 27 j 08:32	0°♋			1418 Dec 03 j 19:02	0°♌		
	1416 May 24 j 19:23	0°♍			1418 Dec 29 j 03:31	0°♈		
	1416 Jun 19 j 23:04	0°♍		asc. node	1419 Jan 17 j 09:59	21°♈45'17		
	1416 Jul 15 j 09:23	0°♏			1419 Jan 25 j 02:07	0°♋		
asc. node	1416 Aug 01 j 15:02	20°♏42'58		evening max el	1419 Feb 01 j 19:58	7°♋59'21	46°37'09	
	1416 Aug 09 j 06:40	0°♐			1419 Feb 26 j 18:21	0°♌		
	1416 Sep 02 j 17:28	0°♑		greatest brilliancy	1419 Mar 09 j 12:18	6°♌33'01	-4.6m	
	1416 Sep 26 j 20:38	0°♒		retrograde	1419 Mar 23 j 22:07	10°♌16'09		
morning set	1416 Oct 06 j 12:17	12°♒04'24		evening set	1419 Apr 09 j 06:27	5°♌03'22		
	1416 Oct 20 j 19:15	0°♓		inferior conj	1419 Apr 14 j 05:03	2°♌00'20	5°26'37	
	1416 Nov 13 j 15:53	0°♉		minimum elong	1419 Apr 14 j 14:31	1°♌45'22	5°24'25	
				min. Earth dist.	1419 Apr 17 j 05:24	1°♌59'47	0.28662 AU	
superior conj	1416 Nov 15 j 04:16	1°♉54'27	0°14'18		1419 Apr 17 j 10:08	30°♌♋		
minimum elong	1416 Nov 15 j 07:58	2°♉06'06	0°14'08	morning rise	1419 Apr 19 j 22:59	28°♋30'33		
behind sun begin	1416 Nov 14 j 18:46	1°♉24'32		direct	1419 May 05 j 14:28	23°♋47'49		
behind sun end	1416 Nov 15 j 21:11	2°♉47'41		desc. node	1419 May 08 j 23:15	24°♋00'48		
max. Earth dist.	1416 Nov 14 j 20:40	1°♉30'31	1.71120 AU	greatest brilliancy	1419 May 17 j 23:01	26°♋30'59	-4.5m	
desc. node	1416 Nov 21 j 04:25	9°♉27'57			1419 May 24 j 21:19	0°♌		
	1416 Dec 07 j 12:09	0°♊		morning max el	1419 Jun 23 j 08:22	23°♌35'00	45°43'45	
evening rise	1416 Dec 26 j 17:02	24°♊08'10			1419 Jun 29 j 22:24	0°♍		
	1416 Dec 31 j 09:09	0°♋			1419 Jul 28 j 06:11	0°♏		
	1417 Jan 24 j 08:21	0°♌			1419 Aug 23 j 12:12	0°♐		
	1417 Feb 17 j 11:53	0°♋		asc. node	1419 Aug 30 j 02:52	7°♐46'59		
	1417 Mar 13 j 22:32	0°♍			1419 Sep 17 j 16:00	0°♑		
asc. node	1417 Mar 14 j 07:48	0°♍28'12			1419 Oct 12 j 03:44	0°♒		
	1417 Apr 07 j 19:47	0°♍			1419 Nov 05 j 06:10	0°♓		
	1417 May 03 j 08:57	0°♏			1419 Nov 29 j 04:11	0°♉		
	1417 May 30 j 01:33	0°♐		desc. node	1419 Dec 19 j 16:16	25°♉46'34		
evening max el	1417 Jun 25 j 22:38	27°♐40'15	45°31'04	morning set	1419 Dec 21 j 21:13	28°♉33'03		
	1417 Jun 28 j 09:47	0°♑			1419 Dec 23 j 00:53	0°♊		
desc. node	1417 Jul 03 j 21:07	4°♑59'30			1420 Jan 15 j 22:02	0°♋		
greatest brilliancy	1417 Aug 02 j 03:33	24°♑58'43	-4.5m					
retrograde	1417 Aug 13 j 15:47	27°♑19'00		superior conj	1420 Feb 01 j 13:56	20°♋53'12	-1°-20'-45	
evening set	1417 Aug 31 j 15:50	21°♑17'19		minimum elong	1420 Feb 01 j 06:18	20°♋29'19	1°20'38	
inferior conj	1417 Sep 03 j 18:24	19°♑23'47	-8°-41'-56	max. Earth dist.	1420 Feb 05 j 13:19	25°♋51'34	1.71638 AU	
minimum elong	1417 Sep 03 j 20:54	19°♑19'56	8°41'52		1420 Feb 08 j 20:47	0°♌		
min. Earth dist.	1417 Sep 04 j 11:37	18°♑57'16	0.28126 AU		1420 Mar 03 j 22:18	0°♋		
morning rise	1417 Sep 07 j 01:48	17°♑22'47		evening rise	1420 Mar 12 j 16:30	10°♋52'11		
direct	1417 Sep 25 j 01:11	11°♑18'21			1420 Mar 28 j 03:50	0°♌		
greatest brilliancy	1417 Oct 09 j 09:13	15°♑01'28	-4.6m	asc. node	1420 Apr 10 j 19:45	16°♌48'17		
asc. node	1417 Oct 25 j 00:24	25°♑19'05			1420 Apr 21 j 14:22	0°♍		
	1417 Oct 30 j 14:08	0°♒			1420 May 16 j 06:44	0°♏		
morning max el	1417 Nov 14 j 15:33	14°♒21'27	46°48'06		1420 Jun 10 j 06:29	0°♐		
	1417 Nov 29 j 09:19	0°♓			1420 Jul 05 j 17:04	0°♑		
	1417 Dec 25 j 15:25	0°♉		desc. node	1420 Jul 31 j 08:49	29°♑22'47		
	1418 Jan 19 j 18:57	0°♊			1420 Jul 31 j 22:07	0°♒		
desc. node	1418 Feb 13 j 13:50	0°♋04'57			1420 Aug 28 j 17:01	0°♓		
	1418 Feb 13 j 12:12	0°♌		evening max el	1420 Sep 06 j 21:24	9°♓12'26	46°34'03	
	1418 Mar 10 j 01:33	0°♍			1420 Sep 30 j 20:40	0°♉		
	1418 Apr 03 j 13:45	0°♋		greatest brilliancy	1420 Oct 15 j 22:50	8°♉34'36	-4.6m	

retrograde	1420 Oct 26 j 17:56	10°♂44'05		superior conj	1423 Apr 15 j 14:58	3°♂24'18	0°-52'-25
evening set	1420 Nov 10 j 07:18	6°♂35'49		minimum elong	1423 Apr 16 j 00:20	3°♂53'11	0°52'03
inferior conj	1420 Nov 16 j 07:39	3°♂05'42	-1°-20'-47	max. Earth dist.	1423 Apr 17 j 21:10	6°♂11'22	1.73157 AU
minimum elong	1420 Nov 16 j 10:43	3°♂01'01	1°19'48		1423 May 07 j 05:27	0°♂	
min. Earth dist.	1420 Nov 16 j 12:48	2°♂57'51	0.26454 AU	asc. node	1423 May 09 j 07:39	2°♂34'15	
asc. node	1420 Nov 21 j 12:22	0°♂01'34		evening rise	1423 May 22 j 20:27	19°♂11'23	
	1420 Nov 21 j 13:30	30°♂			1423 May 31 j 16:02	0°♂	
morning rise	1420 Nov 22 j 13:46	29°♂27'08			1423 Jun 25 j 04:13	0°♂	
direct	1420 Dec 06 j 17:08	25°♂27'23			1423 Jul 19 j 18:33	0°♂	
greatest brilliancy	1420 Dec 19 j 03:11	28°♂19'11	-4.7m		1423 Aug 13 j 12:39	0°♂	
	1420 Dec 22 j 14:18	0°♂		desc. node	1423 Aug 28 j 20:49	18°♂26'51	
morning max el	1421 Jan 26 j 04:28	28°♂26'16	46°51'11		1423 Sep 07 j 12:48	0°♂	
	1421 Jan 27 j 17:31	0°♂			1423 Oct 02 j 22:49	0°♂	
	1421 Feb 24 j 12:38	0°♂			1423 Oct 29 j 04:23	0°♂	
desc. node	1421 Mar 13 j 01:48	18°♂54'02		evening max el	1423 Nov 19 j 17:33	23°♂05'56	47°20'27
	1421 Mar 22 j 15:02	0°♂			1423 Nov 26 j 16:21	0°♂	
	1421 Apr 17 j 01:34	0°♂		asc. node	1423 Dec 20 j 00:11	19°♂24'43	
	1421 May 12 j 04:21	0°♂		greatest brilliancy	1423 Dec 27 j 19:55	23°♂45'46	-4.7m
	1421 Jun 06 j 02:03	0°♂		retrograde	1424 Jan 09 j 17:58	26°♂53'36	
	1421 Jun 30 j 18:48	0°♂		evening set	1424 Jan 26 j 15:51	21°♂14'28	
asc. node	1421 Jul 04 j 05:13	4°♂11'35		min. Earth dist.	1424 Jan 29 j 15:34	19°♂24'46	0.27345 AU
	1421 Jul 25 j 06:10	0°♂		inferior conj	1424 Jan 30 j 13:01	18°♂51'21	8°14'19
morning set	1421 Jul 26 j 03:08	1°♂04'35		minimum elong	1424 Jan 30 j 05:58	19°♂02'21	8°13'32
	1421 Aug 18 j 12:20	0°♂		morning rise	1424 Feb 02 j 20:24	16°♂49'34	
max. Earth dist.	1421 Aug 28 j 07:13	12°♂10'00	1.72379 AU	direct	1424 Feb 20 j 03:45	11°♂01'35	
				greatest brilliancy	1424 Mar 01 j 19:03	13°♂08'02	-4.6m
superior conj	1421 Aug 31 j 19:24	16°♂32'04	1°24'32		1424 Mar 27 j 10:13	0°♂	
minimum elong	1421 Aug 31 j 20:55	16°♂36'48	1°24'31	morning max el	1424 Apr 09 j 15:23	12°♂09'48	46°10'12
	1421 Sep 11 j 14:38	0°♂		desc. node	1424 Apr 09 j 13:34	12°♂05'24	
	1421 Oct 05 j 14:54	0°♂			1424 Apr 27 j 03:01	0°♂	
evening rise	1421 Oct 09 j 00:02	4°♂13'37			1424 May 24 j 10:03	0°♂	
desc. node	1421 Oct 23 j 18:42	22°♂42'28			1424 Jun 19 j 12:00	0°♂	
	1421 Oct 29 j 14:37	0°♂			1424 Jul 14 j 21:23	0°♂	
	1421 Nov 22 j 14:42	0°♂		asc. node	1424 Jul 31 j 16:59	20°♂13'42	
	1421 Dec 16 j 16:24	0°♂			1424 Aug 08 j 18:10	0°♂	
	1422 Jan 09 j 22:22	0°♂			1424 Sep 02 j 04:43	0°♂	
	1422 Feb 03 j 13:38	0°♂			1424 Sep 26 j 07:47	0°♂	
asc. node	1422 Feb 13 j 21:52	12°♂21'42		morning set	1424 Oct 04 j 02:41	9°♂44'25	
	1422 Feb 28 j 22:53	0°♂			1424 Oct 20 j 06:23	0°♂	
	1422 Mar 27 j 19:54	0°♂		max. Earth dist.	1424 Nov 12 j 04:42	28°♂49'46	1.71134 AU
evening max el	1422 Apr 13 j 14:26	17°♂08'10	45°33'28				
	1422 Apr 27 j 18:56	0°♂		superior conj	1424 Nov 12 j 15:23	29°♂23'22	0°18'07
greatest brilliancy	1422 May 17 j 22:57	13°♂35'38	-4.5m	minimum elong	1424 Nov 12 j 20:00	29°♂37'55	0°17'53
retrograde	1422 Jun 01 j 08:53	17°♂13'34			1424 Nov 13 j 03:01	0°♂	
desc. node	1422 Jun 05 j 11:18	16°♂53'34		desc. node	1424 Nov 20 j 06:31	8°♂59'28	
evening set	1422 Jun 16 j 15:09	12°♂44'57			1424 Dec 06 j 23:19	0°♂	
inferior conj	1422 Jun 22 j 20:54	9°♂01'15	-3°-56'-25	evening rise	1424 Dec 24 j 03:18	21°♂34'28	
minimum elong	1422 Jun 22 j 13:00	9°♂13'34	3°54'22		1424 Dec 30 j 20:24	0°♂	
min. Earth dist.	1422 Jun 22 j 20:16	9°♂02'14	0.28987 AU		1425 Jan 23 j 19:43	0°♂	
morning rise	1422 Jun 28 j 10:41	5°♂38'53			1425 Feb 16 j 23:25	0°♂	
direct	1422 Jul 14 j 12:01	0°♂43'23		asc. node	1425 Mar 13 j 09:54	29°♂58'29	
greatest brilliancy	1422 Jul 28 j 14:48	4°♂10'45	-4.5m		1425 Mar 13 j 10:23	0°♂	
	1422 Aug 31 j 12:55	0°♂			1425 Apr 07 j 08:15	0°♂	
morning max el	1422 Sep 01 j 17:47	1°♂09'53	46°04'56		1425 May 02 j 22:39	0°♂	
asc. node	1422 Sep 26 j 14:45	27°♂15'04			1425 May 29 j 17:59	0°♂	
	1422 Sep 29 j 02:00	0°♂		evening max el	1425 Jun 23 j 13:35	25°♂26'09	45°29'48
	1422 Oct 25 j 00:08	0°♂			1425 Jun 28 j 10:40	0°♂	
	1422 Nov 18 j 19:50	0°♂		desc. node	1425 Jul 02 j 23:03	4°♂02'30	
	1422 Dec 13 j 03:32	0°♂		greatest brilliancy	1425 Jul 30 j 16:22	22°♂41'26	-4.5m
	1423 Jan 06 j 06:26	0°♂		retrograde	1425 Aug 11 j 05:23	25°♂02'27	
desc. node	1423 Jan 16 j 04:02	12°♂20'27		evening set	1425 Aug 29 j 06:21	19°♂00'35	
	1423 Jan 30 j 08:05	0°♂		inferior conj	1425 Sep 01 j 09:00	17°♂06'41	-8°-43'-36
	1423 Feb 23 j 10:22	0°♂		minimum elong	1425 Sep 01 j 10:39	17°♂04'08	8°43'35
morning set	1423 Mar 08 j 05:43	15°♂54'35		min. Earth dist.	1425 Sep 02 j 01:36	16°♂41'02	0.28182 AU
	1423 Mar 19 j 14:22	0°♂		morning rise	1425 Sep 04 j 14:47	15°♂07'45	
	1423 Apr 12 j 20:44	0°♂		direct	1425 Sep 22 j 16:20	9°♂00'34	
				greatest brilliancy	1425 Oct 06 j 23:49	12°♂42'11	-4.6m

asc. node	1425 Oct 24 j 02:31	24° \mathbb{M} 10'55		1428 Apr 21 j 01:30	0° \mathbb{I}	
	1425 Oct 30 j 19:55	0° \mathbb{A}		1428 May 15 j 18:14	0° \mathbb{S}	
morning max el	1425 Nov 12 j 05:16	11° \mathbb{A} 57'40	46°47'04	1428 Jun 09 j 18:37	0° \mathbb{Q}	
	1425 Nov 29 j 03:23	0° \mathbb{M}		1428 Jul 05 j 06:20	0° \mathbb{M}	
	1425 Dec 25 j 06:11	0° \mathbb{J}		desc. node	1428 Jul 30 j 10:55	28° \mathbb{M} 45'36
	1426 Jan 19 j 08:11	0° \mathbb{Z}		1428 Jul 31 j 13:36	0° \mathbb{A}	
desc. node	1426 Feb 12 j 15:56	29° \mathbb{Z} 33'35		1428 Aug 28 j 13:49	0° \mathbb{M}	
	1426 Feb 13 j 00:35	0° \mathbb{A}		evening max el	1428 Sep 04 j 09:37	6° \mathbb{M} 47'25 46°31'36
	1426 Mar 09 j 13:23	0° \mathbb{H}		1428 Oct 01 j 22:08	0° \mathbb{J}	
	1426 Apr 03 j 01:11	0° \mathbb{Y}		greatest brilliancy	1428 Oct 13 j 11:50	6° \mathbb{J} 07'12 -4.6m
	1426 Apr 27 j 13:02	0° \mathbb{B}		retrograde	1428 Oct 24 j 05:49	8° \mathbb{J} 15'50
morning set	1426 May 17 j 06:20	24° \mathbb{B} 09'21		evening set	1428 Nov 07 j 21:01	4° \mathbb{J} 04'53
	1426 May 22 j 00:49	0° \mathbb{I}		inferior conj	1428 Nov 13 j 19:47	0° \mathbb{J} 37'21 -1°-44'-59
asc. node	1426 Jun 05 j 19:26	18° \mathbb{I} 07'09		minimum elong	1428 Nov 13 j 23:46	0° \mathbb{J} 31'18 1°43'43
	1426 Jun 15 j 11:39	0° \mathbb{S}		min. Earth dist.	1428 Nov 14 j 02:39	0° \mathbb{J} 26'55 0.26482 AU
max. Earth dist.	1426 Jun 21 j 00:15	6° \mathbb{S} 47'19	1.73549 AU		1428 Nov 14 j 20:24	30° \mathbb{R} \mathbb{M}
				morning rise	1428 Nov 20 j 02:03	26° \mathbb{M} 58'46
superior conj	1426 Jun 22 j 18:44	8° \mathbb{S} 57'55	0°38'51	asc. node	1428 Nov 20 j 14:20	26° \mathbb{M} 42'42
minimum elong	1426 Jun 22 j 11:40	8° \mathbb{S} 36'12	0°38'33	direct	1428 Dec 04 j 05:28	22° \mathbb{M} 58'06
	1426 Jul 09 j 20:46	0° \mathbb{Q}		greatest brilliancy	1428 Dec 16 j 19:06	25° \mathbb{M} 54'09 -4.7m
evening rise	1426 Jul 28 j 13:31	23° \mathbb{Q} 04'06			1428 Dec 24 j 09:01	0° \mathbb{J}
	1426 Aug 03 j 04:11	0° \mathbb{M}		morning max el	1429 Jan 23 j 18:23	26° \mathbb{J} 02'08 46°52'12
	1426 Aug 27 j 10:49	0° \mathbb{A}			1429 Jan 27 j 15:39	0° \mathbb{Z}
	1426 Sep 20 j 17:55	0° \mathbb{M}			1429 Feb 24 j 04:47	0° \mathbb{A}
desc. node	1426 Sep 25 j 08:49	5° \mathbb{M} 41'53		desc. node	1429 Mar 12 j 03:54	18° \mathbb{A} 18'19
	1426 Oct 15 j 02:35	0° \mathbb{J}			1429 Mar 22 j 04:46	0° \mathbb{H}
	1426 Nov 08 j 14:16	0° \mathbb{Z}			1429 Apr 16 j 14:00	0° \mathbb{Y}
	1426 Dec 03 j 08:34	0° \mathbb{A}			1429 May 11 j 16:00	0° \mathbb{B}
	1426 Dec 28 j 18:46	0° \mathbb{H}			1429 Jun 05 j 13:13	0° \mathbb{I}
asc. node	1427 Jan 16 j 12:01	21° \mathbb{H} 02'18			1429 Jun 30 j 05:43	0° \mathbb{S}
	1427 Jan 24 j 21:44	0° \mathbb{Y}		asc. node	1429 Jul 03 j 07:14	3° \mathbb{S} 44'28
evening max el	1427 Jan 30 j 10:11	5° \mathbb{Y} 39'42	46°39'30	morning set	1429 Jul 23 j 20:41	28° \mathbb{S} 57'36
	1427 Feb 27 j 15:45	0° \mathbb{B}			1429 Jul 24 j 16:57	0° \mathbb{Q}
greatest brilliancy	1427 Mar 07 j 06:07	4° \mathbb{B} 22'30	-4.6m		1429 Aug 17 j 23:05	0° \mathbb{M}
retrograde	1427 Mar 21 j 13:57	8° \mathbb{B} 04'08		max. Earth dist.	1429 Aug 26 j 00:58	10° \mathbb{M} 02'21 1.72432 AU
evening set	1427 Apr 07 j 01:21	2° \mathbb{B} 47'35				
inferior conj	1427 Apr 11 j 21:12	29° \mathbb{Y} 48'34	5°42'15	superior conj	1429 Aug 29 j 11:51	14° \mathbb{M} 20'14 1°24'43
minimum elong	1427 Apr 12 j 06:49	29° \mathbb{Y} 33'20	5°40'06	minimum elong	1429 Aug 29 j 12:37	14° \mathbb{M} 22'36 1°24'43
	1427 Apr 11 j 13:59	30° \mathbb{R} \mathbb{Y}			1429 Sep 11 j 01:27	0° \mathbb{A}
min. Earth dist.	1427 Apr 11 j 21:37	29° \mathbb{Y} 47'54	0.28640 AU		1429 Oct 05 j 01:52	0° \mathbb{M}
morning rise	1427 Apr 17 j 12:36	26° \mathbb{Y} 21'59		evening rise	1429 Oct 06 j 13:13	1° \mathbb{M} 50'31
direct	1427 May 03 j 05:40	21° \mathbb{Y} 36'25		desc. node	1429 Oct 22 j 20:43	22° \mathbb{M} 14'08
desc. node	1427 May 08 j 01:21	22° \mathbb{Y} 02'39			1429 Oct 29 j 01:45	0° \mathbb{J}
greatest brilliancy	1427 May 15 j 13:09	24° \mathbb{Y} 17'52	-4.5m		1429 Nov 22 j 02:03	0° \mathbb{Z}
	1427 May 26 j 02:04	0° \mathbb{B}			1429 Dec 16 j 04:01	0° \mathbb{A}
morning max el	1427 Jun 20 j 23:14	21° \mathbb{B} 22'04	45°43'49		1429 Dec 16 j 04:01	0° \mathbb{A}
	1427 Jun 29 j 18:22	0° \mathbb{I}			1430 Jan 09 j 10:22	0° \mathbb{H}
	1427 Jul 27 j 21:09	0° \mathbb{S}		asc. node	1430 Feb 03 j 02:20	0° \mathbb{Y}
	1427 Aug 23 j 01:13	0° \mathbb{Q}			1430 Feb 13 j 00:00	11° \mathbb{Y} 49'09
asc. node	1427 Aug 29 j 05:02	7° \mathbb{Q} 15'47			1430 Feb 28 j 12:57	0° \mathbb{B}
	1427 Sep 17 j 04:06	0° \mathbb{M}		evening max el	1430 Mar 27 j 13:20	0° \mathbb{I}
	1427 Oct 11 j 15:21	0° \mathbb{A}			1430 Apr 11 j 06:49	14° \mathbb{I} 58'51 45°35'03
	1427 Nov 04 j 17:32	0° \mathbb{M}			1430 Apr 28 j 02:20	0° \mathbb{S}
	1427 Nov 28 j 15:26	0° \mathbb{J}		greatest brilliancy	1430 May 15 j 13:20	11° \mathbb{S} 25'13 -4.5m
desc. node	1427 Dec 18 j 18:12	25° \mathbb{J} 17'30		retrograde	1430 May 30 j 01:49	15° \mathbb{S} 05'39
morning set	1427 Dec 19 j 06:54	25° \mathbb{J} 57'26		desc. node	1430 Jun 04 j 13:12	14° \mathbb{S} 29'51
	1427 Dec 22 j 12:03	0° \mathbb{Z}		evening set	1430 Jun 14 j 06:19	10° \mathbb{S} 38'27
	1428 Jan 15 j 09:07	0° \mathbb{A}		inferior conj	1430 Jun 20 j 13:15	6° \mathbb{S} 52'51 -3°-38'-39
				minimum elong	1430 Jun 20 j 05:50	7° \mathbb{S} 04'26 3°36'41
superior conj	1428 Jan 30 j 01:01	18° \mathbb{A} 23'10	-1°-19'-20	min. Earth dist.	1430 Jun 20 j 12:11	6° \mathbb{S} 54'31 0.28990 AU
minimum elong	1428 Jan 29 j 16:35	17° \mathbb{A} 56'46	1°19'12	morning rise	1430 Jun 26 j 05:17	3° \mathbb{S} 27'33
max. Earth dist.	1428 Feb 02 j 20:21	23° \mathbb{A} 09'01	1.71586 AU	direct	1430 Jul 03 j 18:01	30° \mathbb{R} \mathbb{I}
	1428 Feb 08 j 07:46	0° \mathbb{H}			1430 Jul 12 j 04:50	28° \mathbb{I} 34'58
	1428 Mar 03 j 09:14	0° \mathbb{Y}			1430 Jul 21 j 00:22	0° \mathbb{S}
evening rise	1428 Mar 10 j 05:47	8° \mathbb{Y} 30'40		greatest brilliancy	1430 Jul 26 j 06:21	2° \mathbb{S} 01'30 -4.5m
	1428 Mar 27 j 14:48	0° \mathbb{B}		morning max el	1430 Aug 30 j 10:28	29° \mathbb{S} 00'33 46°03'29
asc. node	1428 Apr 09 j 21:52	16° \mathbb{B} 20'51			1430 Aug 31 j 10:50	0° \mathbb{Q}
				asc. node	1430 Sep 25 j 16:51	26° \mathbb{Q} 36'39

	1430 Sep 28 j 17:35	0° \mathbb{M}		evening max el	1433 Jun 21 j 03:50	23° Ω 11'33	45°28'37
	1430 Oct 24 j 13:33	0° $\underline{\Omega}$			1433 Jun 28 j 12:21	0° \mathbb{M}	
	1430 Nov 18 j 08:15	0° \mathbb{M}		desc. node	1433 Jul 02 j 01:13	3° \mathbb{M} 05'55	
	1430 Dec 12 j 15:23	0° \mathbb{X}		greatest brilliancy	1433 Jul 28 j 05:10	20° \mathbb{M} 25'36	-4.5m
	1431 Jan 05 j 17:54	0° $\overline{\Omega}$		retrograde	1433 Aug 08 j 18:54	22° \mathbb{M} 47'48	
desc. node	1431 Jan 15 j 06:08	11° $\overline{\Omega}$ 51'37		evening set	1433 Aug 26 j 20:30	16° \mathbb{M} 46'16	
	1431 Jan 29 j 19:17	0° \approx		inferior conj	1433 Aug 29 j 23:45	14° \mathbb{M} 51'26	-8°-44'-16
	1431 Feb 22 j 21:21	0° \mathbb{X}		minimum elong	1433 Aug 30 j 00:32	14° \mathbb{M} 50'13	8°44'17
morning set	1431 Mar 05 j 18:56	13° \mathbb{X} 32'45		min. Earth dist.	1433 Aug 30 j 15:55	14° \mathbb{M} 26'25	0.28239 AU
	1431 Mar 19 j 01:12	0° \mathbb{Y}		morning rise	1433 Sep 02 j 04:22	12° \mathbb{M} 54'01	
	1431 Apr 12 j 07:27	0° $\overline{\Omega}$		direct	1433 Sep 20 j 07:14	6° \mathbb{M} 44'26	
				greatest brilliancy	1433 Oct 04 j 15:20	10° \mathbb{M} 25'39	-4.6m
superior conj	1431 Apr 13 j 06:53	1° \mathbb{X} 12'19	0°-55'-3	asc. node	1433 Oct 23 j 04:31	23° \mathbb{M} 05'30	
minimum elong	1431 Apr 13 j 16:30	1° \mathbb{X} 41'58	0°54'43		1433 Oct 30 j 23:20	0° $\underline{\Omega}$	
max. Earth dist.	1431 Apr 15 j 17:03	4° \mathbb{X} 11'42	1.73116 AU	morning max el	1433 Nov 09 j 18:36	9° $\underline{\Omega}$ 33'53	46°45'50
	1431 May 06 j 16:07	0° \mathbb{I}			1433 Nov 28 j 20:45	0° \mathbb{M}	
asc. node	1431 May 08 j 09:38	2° \mathbb{I} 07'37			1433 Dec 24 j 20:35	0° \mathbb{X}	
evening rise	1431 May 20 j 14:41	17° \mathbb{I} 07'22			1434 Jan 18 j 21:10	0° $\overline{\Omega}$	
	1431 May 31 j 02:45	0° $\overline{\Omega}$		desc. node	1434 Feb 11 j 18:05	29° $\overline{\Omega}$ 03'01	
	1431 Jun 24 j 15:07	0° Ω			1434 Feb 12 j 12:44	0° \approx	
	1431 Jul 19 j 05:51	0° \mathbb{M}			1434 Mar 09 j 00:57	0° \mathbb{X}	
	1431 Aug 13 j 00:34	0° $\underline{\Omega}$			1434 Apr 02 j 12:20	0° \mathbb{Y}	
desc. node	1431 Aug 27 j 22:56	17° $\underline{\Omega}$ 55'58			1434 Apr 26 j 23:52	0° \mathbb{X}	
	1431 Sep 07 j 01:41	0° \mathbb{M}		morning set	1434 May 15 j 00:04	22° \mathbb{X} 03'55	
	1431 Oct 02 j 13:15	0° \mathbb{X}			1434 May 21 j 11:28	0° \mathbb{I}	
	1431 Oct 28 j 21:50	0° $\overline{\Omega}$		asc. node	1434 Jun 04 j 21:27	17° \mathbb{I} 40'48	
evening max el	1431 Nov 17 j 09:15	20° $\overline{\Omega}$ 46'28	47°20'19		1434 Jun 14 j 22:14	0° $\overline{\Omega}$	
	1431 Nov 26 j 18:40	0° \approx		max. Earth dist.	1434 Jun 18 j 19:36	4° $\overline{\Omega}$ 46'49	1.73563 AU
asc. node	1431 Dec 19 j 02:15	17° \approx 57'18					
greatest brilliancy	1431 Dec 25 j 11:28	21° \approx 23'08	-4.7m	superior conj	1434 Jun 20 j 13:15	6° $\overline{\Omega}$ 54'48	0°36'03
retrograde	1432 Jan 07 j 08:28	24° \approx 29'02		minimum elong	1434 Jun 20 j 06:35	6° $\overline{\Omega}$ 34'18	0°35'45
evening set	1432 Jan 24 j 01:58	18° \approx 56'08			1434 Jul 09 j 07:23	0° Ω	
min. Earth dist.	1432 Jan 27 j 04:30	17° \approx 02'12	0.27282 AU	evening rise	1434 Jul 26 j 07:58	20° Ω 59'53	
inferior conj	1432 Jan 28 j 02:37	16° \approx 27'45	8°06'01		1434 Aug 02 j 14:55	0° \mathbb{M}	
minimum elong	1432 Jan 27 j 18:55	16° \approx 39'44	8°05'04		1434 Aug 26 j 21:46	0° $\underline{\Omega}$	
morning rise	1432 Jan 31 j 12:15	14° \approx 22'40			1434 Sep 20 j 05:12	0° \mathbb{M}	
direct	1432 Feb 17 j 17:21	8° \approx 39'16		desc. node	1434 Sep 24 j 10:52	5° \mathbb{M} 13'09	
greatest brilliancy	1432 Feb 28 j 06:35	10° \approx 44'05	-4.6m		1434 Oct 14 j 14:20	0° \mathbb{X}	
	1432 Mar 27 j 15:56	0° \mathbb{X}			1434 Nov 08 j 02:41	0° $\overline{\Omega}$	
morning max el	1432 Apr 07 j 05:37	9° \mathbb{X} 52'06	46°11'34		1434 Dec 02 j 22:00	0° \approx	
desc. node	1432 Apr 08 j 15:38	11° \mathbb{X} 15'16			1434 Dec 28 j 10:06	0° \mathbb{X}	
	1432 Apr 26 j 20:39	0° \mathbb{Y}		asc. node	1435 Jan 15 j 14:11	20° \mathbb{X} 19'24	
	1432 May 24 j 00:09	0° $\overline{\Omega}$			1435 Jan 24 j 17:53	0° \mathbb{Y}	
	1432 Jun 19 j 00:29	0° \mathbb{I}		evening max el	1435 Jan 28 j 00:03	3° \mathbb{Y} 19'18	46°41'56
	1432 Jul 14 j 08:58	0° $\overline{\Omega}$			1435 Feb 28 j 21:21	0° \mathbb{X}	
asc. node	1432 Jul 30 j 19:12	19° $\overline{\Omega}$ 46'22		greatest brilliancy	1435 Mar 04 j 23:03	2° \mathbb{X} 10'44	-4.6m
	1432 Aug 08 j 05:17	0° Ω		retrograde	1435 Mar 19 j 05:49	5° \mathbb{X} 52'11	
	1432 Sep 01 j 15:36	0° \mathbb{M}		evening set	1435 Apr 04 j 20:08	0° \mathbb{X} 31'29	
	1432 Sep 25 j 18:36	0° $\underline{\Omega}$			1435 Apr 05 j 17:17	30° \mathbb{R} \mathbb{Y}	
morning set	1432 Oct 01 j 17:01	7° $\underline{\Omega}$ 25'15		inferior conj	1435 Apr 09 j 13:14	27° \mathbb{Y} 36'46	5°57'24
	1432 Oct 19 j 17:14	0° \mathbb{M}		minimum elong	1435 Apr 09 j 22:57	27° \mathbb{Y} 21'25	5°55'19
max. Earth dist.	1432 Nov 09 j 08:38	25° \mathbb{M} 56'56	1.71155 AU	min. Earth dist.	1435 Apr 09 j 13:40	27° \mathbb{Y} 36'05	0.28615 AU
				morning rise	1435 Apr 15 j 01:59	24° \mathbb{Y} 13'50	
superior conj	1432 Nov 10 j 02:18	26° \mathbb{M} 52'31	0°21'55	direct	1435 Apr 30 j 20:33	19° \mathbb{Y} 24'51	
minimum elong	1432 Nov 10 j 07:48	27° \mathbb{M} 09'48	0°21'39	desc. node	1435 May 07 j 03:19	20° \mathbb{Y} 08'55	
	1432 Nov 12 j 13:55	0° \mathbb{X}		greatest brilliancy	1435 May 13 j 03:54	22° \mathbb{Y} 05'46	-4.5m
desc. node	1432 Nov 19 j 08:30	8° \mathbb{X} 31'19			1435 May 26 j 22:44	0° \mathbb{X}	
	1432 Dec 06 j 10:16	0° $\overline{\Omega}$		morning max el	1435 Jun 18 j 14:33	19° \mathbb{X} 10'46	45°44'02
evening rise	1432 Dec 21 j 13:02	18° $\overline{\Omega}$ 59'46			1435 Jun 29 j 13:30	0° \mathbb{I}	
	1432 Dec 30 j 07:24	0° \approx			1435 Jul 27 j 11:42	0° $\overline{\Omega}$	
	1433 Jan 23 j 06:48	0° \mathbb{X}			1435 Aug 22 j 13:57	0° Ω	
	1433 Feb 16 j 10:39	0° \mathbb{Y}		asc. node	1435 Aug 28 j 07:00	6° Ω 44'43	
asc. node	1433 Mar 12 j 11:59	29° \mathbb{Y} 29'43			1435 Sep 16 j 15:57	0° \mathbb{M}	
	1433 Mar 12 j 21:57	0° $\overline{\Omega}$			1435 Oct 11 j 02:45	0° $\underline{\Omega}$	
	1433 Apr 06 j 20:27	0° \mathbb{I}			1435 Nov 04 j 04:41	0° \mathbb{M}	
	1433 May 02 j 12:08	0° $\overline{\Omega}$			1435 Nov 28 j 02:28	0° \mathbb{X}	
	1433 May 29 j 10:21	0° Ω		morning set	1435 Dec 16 j 16:49	23° \mathbb{X} 23'06	

desc. node	1435 Dec 17 j 20:20	24° ♁ 49'37	evening set	1438 Jun 11 j 21:45	8° ♁ 31'29	
	1435 Dec 21 j 23:02	0° ♁	inferior conj	1438 Jun 18 j 05:40	4° ♁ 44'05	-3°-20'-37
	1436 Jan 14 j 20:04	0° ♁	minimum elong	1438 Jun 17 j 22:45	4° ♁ 54'53	3°18'45
			min. Earth dist.	1438 Jun 18 j 04:14	4° ♁ 46'18	0.28989 AU
superior conj	1436 Jan 27 j 11:48	15° ♁ 52'29	-1°-17'-45	morning rise	1438 Jun 23 j 23:47	1° ♁ 15'50
minimum elong	1436 Jan 27 j 02:38	15° ♁ 23'44	1°17'35		1438 Jun 26 j 08:41	30° ♁ II
max. Earth dist.	1436 Jan 31 j 01:17	20° ♁ 20'08	1.71542 AU	direct	1438 Jul 09 j 21:51	26° ♁ II26'24
	1436 Feb 07 j 18:40	0° ♁		greatest brilliancy	1438 Jul 23 j 20:52	29° ♁ II50'38
	1436 Mar 02 j 20:07	0° ♁			1438 Jul 24 j 05:00	0° ♁
evening rise	1436 Mar 07 j 18:37	6° ♁ 07'52		morning max el	1438 Aug 28 j 02:24	26° ♁ 49'17
	1436 Mar 27 j 01:43	0° ♁			1438 Aug 31 j 08:05	0° ♁
asc. node	1436 Apr 08 j 23:49	15° ♁ 53'10		asc. node	1438 Sep 24 j 18:52	25° ♁ 58'05
	1436 Apr 20 j 12:35	0° ♁			1438 Sep 28 j 09:01	0° ♁
	1436 May 15 j 05:40	0° ♁			1438 Oct 24 j 02:58	0° ♁
	1436 Jun 09 j 06:42	0° ♁			1438 Nov 17 j 20:43	0° ♁
	1436 Jul 04 j 19:37	0° ♁			1438 Dec 12 j 03:20	0° ♁
desc. node	1436 Jul 29 j 13:02	28° ♁ 08'28			1439 Jan 05 j 05:29	0° ♁
	1436 Jul 31 j 05:12	0° ♁		desc. node	1439 Jan 14 j 08:15	11° ♁ 22'24
	1436 Aug 28 j 11:12	0° ♁			1439 Jan 29 j 06:35	0° ♁
evening max el	1436 Sep 01 j 22:58	4° ♁ 25'48	46°29'12		1439 Feb 22 j 08:26	0° ♁
	1436 Oct 03 j 09:18	0° ♁		morning set	1439 Mar 03 j 08:21	11° ♁ 11'09
greatest brilliancy	1436 Oct 11 j 00:02	3° ♁ 39'56	-4.6m		1439 Mar 18 j 12:08	0° ♁
retrograde	1436 Oct 21 j 18:20	5° ♁ 48'42				
evening set	1436 Nov 05 j 11:06	1° ♁ 34'54		superior conj	1439 Apr 10 j 22:53	29° ♁ 00'04
	1436 Nov 08 j 06:34	30° ♁ II		minimum elong	1439 Apr 11 j 08:40	29° ♁ 30'17
inferior conj	1436 Nov 11 j 08:04	28° ♁ 09'57	-2°-8'-45		1439 Apr 11 j 18:18	0° ♁
minimum elong	1436 Nov 11 j 12:55	28° ♁ 02'36	2°07'15	max. Earth dist.	1439 Apr 13 j 14:22	2° ♁ 15'58
min. Earth dist.	1436 Nov 11 j 16:15	27° ♁ 57'34	0.26511 AU		1439 May 06 j 02:57	0° ♁
morning rise	1436 Nov 17 j 14:17	24° ♁ 31'51		asc. node	1439 May 07 j 11:44	1° ♁ II40'44
asc. node	1436 Nov 19 j 16:21	23° ♁ 28'58		evening rise	1439 May 18 j 08:50	15° ♁ II02'26
direct	1436 Dec 01 j 18:35	20° ♁ 30'02			1439 May 30 j 13:39	0° ♁
greatest brilliancy	1436 Dec 14 j 10:21	23° ♁ 29'16	-4.7m		1439 Jun 24 j 02:15	0° ♁
	1436 Dec 25 j 14:03	0° ♁			1439 Jul 18 j 17:23	0° ♁
morning max el	1437 Jan 21 j 08:58	23° ♁ 40'12	46°52'59		1439 Aug 12 j 12:44	0° ♁
	1437 Jan 27 j 12:47	0° ♁		desc. node	1439 Aug 27 j 00:55	17° ♁ 24'00
	1437 Feb 23 j 20:35	0° ♁			1439 Sep 06 j 14:50	0° ♁
desc. node	1437 Mar 11 j 05:54	17° ♁ 42'37			1439 Oct 02 j 04:03	0° ♁
	1437 Mar 21 j 18:21	0° ♁			1439 Oct 28 j 15:54	0° ♁
	1437 Apr 16 j 02:23	0° ♁		evening max el	1439 Nov 15 j 00:19	18° ♁ 24'34
	1437 May 11 j 03:41	0° ♁			1439 Nov 26 j 22:55	0° ♁
	1437 Jun 05 j 00:26	0° ♁		asc. node	1439 Dec 18 j 04:27	16° ♁ 26'01
	1437 Jun 29 j 16:38	0° ♁		greatest brilliancy	1439 Dec 23 j 03:55	19° ♁ 00'35
asc. node	1437 Jul 02 j 09:24	3° ♁ 17'50		retrograde	1440 Jan 04 j 22:26	22° ♁ 03'15
morning set	1437 Jul 21 j 14:18	26° ♁ 50'59		evening set	1440 Jan 21 j 11:55	16° ♁ 37'01
	1437 Jul 24 j 03:43	0° ♁		min. Earth dist.	1440 Jan 24 j 17:50	14° ♁ 38'01
	1437 Aug 17 j 09:50	0° ♁		inferior conj	1440 Jan 25 j 16:09	14° ♁ 03'14
max. Earth dist.	1437 Aug 23 j 18:11	7° ♁ 53'06	1.72483 AU	minimum elong	1440 Jan 25 j 07:53	14° ♁ 16'08
				morning rise	1440 Jan 29 j 04:13	11° ♁ 54'26
superior conj	1437 Aug 27 j 04:30	12° ♁ 09'04	1°24'46	direct	1440 Feb 15 j 06:29	6° ♁ 16'01
minimum elong	1437 Aug 27 j 04:31	12° ♁ 09'08	1°24'47	greatest brilliancy	1440 Feb 25 j 18:52	8° ♁ 19'53
	1437 Sep 10 j 12:18	0° ♁			1440 Mar 27 j 20:01	0° ♁
evening rise	1437 Oct 04 j 02:42	29° ♁ 28'14		morning max el	1440 Apr 04 j 18:45	7° ♁ 30'56
	1437 Oct 04 j 12:52	0° ♁		desc. node	1440 Apr 07 j 17:38	10° ♁ 25'14
desc. node	1437 Oct 21 j 22:43	21° ♁ 45'34			1440 Apr 26 j 14:05	0° ♁
	1437 Oct 28 j 12:56	0° ♁			1440 May 23 j 14:20	0° ♁
	1437 Nov 21 j 13:26	0° ♁			1440 Jun 18 j 13:08	0° ♁
	1437 Dec 15 j 15:39	0° ♁			1440 Jul 13 j 20:49	0° ♁
	1438 Jan 08 j 22:25	0° ♁		asc. node	1440 Jul 29 j 21:11	19° ♁ 17'27
	1438 Feb 02 j 15:06	0° ♁			1440 Aug 07 j 16:40	0° ♁
asc. node	1438 Feb 12 j 02:02	11° ♁ 16'05			1440 Sep 01 j 02:46	0° ♁
	1438 Feb 28 j 03:14	0° ♁			1440 Sep 25 j 05:42	0° ♁
	1438 Mar 27 j 07:18	0° ♁		morning set	1440 Sep 29 j 07:25	5° ♁ 05'28
evening max el	1438 Apr 08 j 23:45	12° ♁ 50'27	45°36'32		1440 Oct 19 j 04:19	0° ♁
	1438 Apr 28 j 12:47	0° ♁		max. Earth dist.	1440 Nov 06 j 12:31	23° ♁ 03'18
greatest brilliancy	1438 May 13 j 05:13	9° ♁ 16'11	-4.5m			1.71181 AU
retrograde	1438 May 27 j 18:36	12° ♁ 57'07		superior conj	1440 Nov 07 j 13:25	24° ♁ 21'32
desc. node	1438 Jun 03 j 15:21	12° ♁ 00'51		minimum elong	1440 Nov 07 j 19:44	24° ♁ 41'24

	1440 Nov 12 j 01:04	0°♊		greatest brilliancy	1443 May 10 j 18:39	19°♊52'19	-4.5m
desc. node	1440 Nov 18 j 10:37	8°♊02'50			1443 May 27 j 14:41	0°♋	
	1440 Dec 05 j 21:30	0°♌		morning max el	1443 Jun 16 j 06:33	17°♋00'09	45°44'27
evening rise	1440 Dec 18 j 22:51	16°♌24'23			1443 Jun 29 j 08:29	0°♍	
	1440 Dec 29 j 18:43	0°♎			1443 Jul 27 j 02:22	0°♏	
	1441 Jan 22 j 18:13	0°♐			1443 Aug 22 j 02:53	0°♑	
	1441 Feb 15 j 22:14	0°♒		asc. node	1443 Aug 27 j 09:04	6°♑13'11	
asc. node	1441 Mar 11 j 13:58	28°♒59'43			1443 Sep 16 j 04:03	0°♓	
	1441 Mar 12 j 09:49	0°♈			1443 Oct 10 j 14:26	0°♐	
	1441 Apr 06 j 08:58	0°♉			1443 Nov 03 j 16:10	0°♑	
	1441 May 02 j 02:00	0°♊			1443 Nov 27 j 13:50	0°♋	
	1441 May 29 j 03:20	0°♌		morning set	1443 Dec 14 j 02:38	20°♋47'25	
evening max el	1441 Jun 18 j 17:27	20°♌54'35	45°27'27	desc. node	1443 Dec 16 j 22:27	24°♋20'42	
	1441 Jun 28 j 16:00	0°♍			1443 Dec 21 j 10:20	0°♌	
desc. node	1441 Jul 01 j 03:17	2°♍06'50			1444 Jan 14 j 07:17	0°♎	
greatest brilliancy	1441 Jul 25 j 17:19	18°♍08'09	-4.5m				
retrograde	1441 Aug 06 j 08:45	20°♍32'39		superior conj	1444 Jan 24 j 22:16	13°♎19'47	-1°-16'00
evening set	1441 Aug 24 j 10:19	14°♍31'43		minimum elong	1444 Jan 24 j 12:24	12°♎48'51	1°15'47
inferior conj	1441 Aug 27 j 14:35	12°♍35'28	-8°-44'-7	max. Earth dist.	1444 Jan 28 j 08:24	17°♎37'08	1.71501 AU
minimum elong	1441 Aug 27 j 14:30	12°♍35'36	8°44'08		1444 Feb 07 j 05:50	0°♐	
min. Earth dist.	1441 Aug 28 j 06:21	12°♍11'06	0.28296 AU		1444 Mar 02 j 07:16	0°♒	
morning rise	1441 Aug 30 j 18:28	10°♍39'09		evening rise	1444 Mar 05 j 07:19	3°♒43'43	
direct	1441 Sep 17 j 22:06	4°♍27'27			1444 Mar 26 j 12:57	0°♈	
greatest brilliancy	1441 Oct 02 j 08:05	8°♍10'02	-4.6m	asc. node	1444 Apr 08 j 01:57	15°♈25'06	
asc. node	1441 Oct 22 j 06:35	22°♍00'55			1444 Apr 19 j 23:59	0°♉	
	1441 Oct 31 j 01:36	0°♊			1444 May 14 j 17:25	0°♊	
morning max el	1441 Nov 07 j 08:18	7°♊10'18	46°44'40		1444 Jun 08 j 19:05	0°♌	
	1441 Nov 28 j 14:05	0°♍			1444 Jul 04 j 09:13	0°♍	
	1441 Dec 24 j 11:06	0°♋		desc. node	1444 Jul 28 j 15:00	27°♍29'59	
	1442 Jan 18 j 10:21	0°♌			1444 Jul 30 j 21:17	0°♎	
desc. node	1442 Feb 10 j 20:00	28°♌30'54			1444 Aug 28 j 09:41	0°♏	
	1442 Feb 12 j 01:08	0°♐		evening max el	1444 Aug 30 j 12:52	2°♏05'08	46°26'38
	1442 Mar 08 j 12:50	0°♑			1444 Oct 05 j 15:27	0°♋	
	1442 Apr 01 j 23:48	0°♒		greatest brilliancy	1444 Oct 08 j 11:42	1°♋11'23	-4.6m
	1442 Apr 26 j 11:02	0°♈		retrograde	1444 Oct 19 j 06:49	3°♋20'14	
morning set	1442 May 12 j 17:53	19°♋57'42			1444 Nov 01 j 05:31	30°♋	
	1442 May 20 j 22:25	0°♉		evening set	1444 Nov 03 j 01:16	29°♌03'36	
asc. node	1442 Jun 03 j 23:38	17°♉14'02		inferior conj	1444 Nov 08 j 20:11	25°♌41'10	-2°-32'-26
	1442 Jun 14 j 09:06	0°♊		minimum elong	1444 Nov 09 j 01:51	25°♌32'34	2°30'41
max. Earth dist.	1442 Jun 16 j 16:30	2°♊50'10	1.73578 AU	min. Earth dist.	1444 Nov 09 j 05:23	25°♌27'13	0.26547 AU
				morning rise	1444 Nov 15 j 02:04	22°♌03'46	
superior conj	1442 Jun 18 j 07:54	4°♊51'12	0°33'13	asc. node	1444 Nov 18 j 18:33	20°♌17'58	
minimum elong	1442 Jun 18 j 01:38	4°♊31'59	0°32'55	direct	1444 Nov 29 j 07:52	18°♌00'46	
	1442 Jul 08 j 18:18	0°♌		greatest brilliancy	1444 Dec 12 j 00:47	21°♌01'59	-4.7m
evening rise	1442 Jul 24 j 02:36	18°♌55'26			1444 Dec 26 j 11:49	0°♋	
	1442 Aug 02 j 01:59	0°♍		morning max el	1445 Jan 18 j 23:20	21°♋16'36	46°53'41
	1442 Aug 26 j 09:05	0°♎			1445 Jan 27 j 09:36	0°♌	
	1442 Sep 19 j 16:52	0°♏			1445 Feb 23 j 12:25	0°♎	
desc. node	1442 Sep 23 j 12:51	4°♏43'05		desc. node	1445 Mar 10 j 08:00	17°♎06'40	
	1442 Oct 14 j 02:30	0°♋			1445 Mar 21 j 08:03	0°♐	
	1442 Nov 07 j 15:31	0°♌			1445 Apr 15 j 14:56	0°♒	
	1442 Dec 02 j 11:53	0°♍			1445 May 10 j 15:31	0°♈	
	1442 Dec 28 j 02:00	0°♐			1445 Jun 04 j 11:49	0°♉	
asc. node	1443 Jan 14 j 16:10	19°♐34'18			1445 Jun 29 j 03:43	0°♊	
	1443 Jan 24 j 15:09	0°♒		asc. node	1445 Jul 01 j 11:24	2°♊50'06	
evening max el	1443 Jan 25 j 14:05	0°♒58'04	46°44'19	morning set	1445 Jul 19 j 08:04	24°♊44'22	
greatest brilliancy	1443 Mar 02 j 15:08	29°♒56'22	-4.6m		1445 Jul 23 j 14:38	0°♌	
	1443 Mar 02 j 18:09	0°♈			1445 Aug 16 j 20:43	0°♍	
retrograde	1443 Mar 16 j 21:55	3°♈38'36		max. Earth dist.	1445 Aug 21 j 10:23	5°♍40'27	1.72530 AU
	1443 Mar 30 j 09:54	30°♈					
evening set	1443 Apr 02 j 14:47	28°♒13'25		superior conj	1445 Aug 24 j 21:25	9°♍58'31	1°24'42
inferior conj	1443 Apr 07 j 05:04	25°♒23'08	6°12'14	minimum elong	1445 Aug 24 j 20:43	9°♍56'19	1°24'43
minimum elong	1443 Apr 07 j 14:49	25°♒07'44	6°10'13		1445 Sep 09 j 23:15	0°♎	
min. Earth dist.	1443 Apr 07 j 05:16	25°♒22'50	0.28589 AU	evening rise	1445 Oct 01 j 16:26	27°♎06'30	
morning rise	1443 Apr 12 j 15:04	22°♒04'20			1445 Oct 03 j 23:59	0°♏	
direct	1443 Apr 28 j 11:30	17°♒11'26		desc. node	1445 Oct 21 j 00:52	21°♏17'11	
desc. node	1443 May 06 j 05:27	18°♒17'54			1445 Oct 28 j 00:16	0°♋	

	1445 Nov 21 j 01:00	0°☾			1448 Jun 18 j 01:36	0°♊		
	1445 Dec 15 j 03:30	0°♊			1448 Jul 13 j 08:28	0°☾		
	1446 Jan 08 j 10:42	0°♋		asc. node	1448 Jul 28 j 23:10	18°☾49'03		
	1446 Feb 02 j 04:10	0°♌			1448 Aug 07 j 03:53	0°♌		
asc. node	1446 Feb 11 j 04:02	10°♌42'09			1448 Aug 31 j 13:46	0°♍		
	1446 Feb 27 j 17:51	0°♍			1448 Sep 24 j 16:37	0°♎		
	1446 Mar 27 j 01:54	0°♊		morning set	1448 Sep 26 j 21:56	2°♎46'40		
evening max el	1446 Apr 06 j 16:07	10°♊39'59	45°38'05		1448 Oct 18 j 15:13	0°♏		
	1446 Apr 29 j 03:10	0°☾		max. Earth dist.	1448 Nov 03 j 19:00	20°♏18'30	1.71205 AU	
greatest brilliancy	1446 May 10 j 21:55	7°☾07'33	-4.5m					
retrograde	1446 May 25 j 10:48	10°☾47'47		superior conj	1448 Nov 05 j 00:54	21°♏52'30	0°29'16	
desc. node	1446 Jun 02 j 17:27	9°☾26'17		minimum elong	1448 Nov 05 j 07:59	22°♏14'47	0°28'56	
evening set	1446 Jun 09 j 13:14	6°☾23'39			1448 Nov 11 j 11:58	0°♐		
inferior conj	1446 Jun 15 j 21:56	2°☾34'41	-3°-2'-12	desc. node	1448 Nov 17 j 12:41	7°♐34'59		
minimum elong	1446 Jun 15 j 15:35	2°☾44'38	3°00'28		1448 Dec 05 j 08:27	0°☾		
min. Earth dist.	1446 Jun 15 j 20:27	2°☾37'01	0.28984 AU	evening rise	1448 Dec 16 j 09:05	13°☾51'19		
	1446 Jun 20 j 02:43	30°♊			1448 Dec 29 j 05:45	0°♊		
morning rise	1446 Jun 21 j 18:01	29°♊03'26			1449 Jan 22 j 05:21	0°♋		
direct	1446 Jul 07 j 14:28	24°♊17'15			1449 Feb 15 j 09:32	0°♌		
greatest brilliancy	1446 Jul 21 j 10:50	27°♊38'29	-4.5m	asc. node	1449 Mar 10 j 16:04	28°♌30'44		
	1446 Jul 26 j 01:45	0°☾			1449 Mar 11 j 21:29	0°♍		
morning max el	1446 Aug 25 j 17:24	24°☾35'34	46°00'47		1449 Apr 05 j 21:20	0°♊		
	1446 Aug 31 j 04:39	0°♌			1449 May 01 j 15:48	0°☾		
asc. node	1446 Sep 23 j 20:57	25°♌20'05			1449 May 28 j 20:29	0°♌		
	1446 Sep 28 j 00:14	0°♍		evening max el	1449 Jun 16 j 07:06	18°♌38'24	45°26'32	
	1446 Oct 23 j 16:14	0°♎			1449 Jun 28 j 21:15	0°♍		
	1446 Nov 17 j 09:06	0°♏		desc. node	1449 Jun 30 j 05:14	1°♍06'39		
	1446 Dec 11 j 15:12	0°♐		greatest brilliancy	1449 Jul 23 j 04:16	15°♍50'05	-4.5m	
	1447 Jan 04 j 17:02	0°☾		retrograde	1449 Aug 03 j 23:07	18°♍18'14		
desc. node	1447 Jan 13 j 10:12	10°☾52'39		evening set	1449 Aug 21 j 23:41	12°♍18'10		
	1447 Jan 28 j 17:55	0°♊		inferior conj	1449 Aug 25 j 05:19	10°♍20'00	-8°-43'-10	
	1447 Feb 21 j 19:34	0°♋		minimum elong	1449 Aug 25 j 04:24	10°♍21'26	8°43'10	
morning set	1447 Feb 28 j 21:07	8°♋47'17		min. Earth dist.	1449 Aug 25 j 20:24	9°♍56'43	0.28352 AU	
	1447 Mar 17 j 23:07	0°♌		morning rise	1449 Aug 28 j 08:53	8°♍24'17		
				direct	1449 Sep 15 j 13:06	2°♍10'58		
superior conj	1447 Apr 08 j 14:18	26°♌45'59	-1°00'-7	greatest brilliancy	1449 Sep 30 j 01:27	5°♍56'05	-4.6m	
minimum elong	1447 Apr 09 j 00:12	27°♌16'30	0°59'46	asc. node	1449 Oct 21 j 08:43	20°♍58'41		
	1447 Apr 11 j 05:10	0°♍			1449 Oct 31 j 02:14	0°♎		
max. Earth dist.	1447 Apr 11 j 11:01	0°♍18'02	1.73029 AU	morning max el	1449 Nov 04 j 22:56	4°♎49'58	46°43'39	
	1447 May 05 j 13:47	0°♊			1449 Nov 28 j 06:45	0°♏		
asc. node	1447 May 06 j 13:49	1°♊13'52			1449 Dec 24 j 01:07	0°♐		
evening rise	1447 May 16 j 02:29	12°♊55'59			1450 Jan 17 j 23:04	0°☾		
	1447 May 30 j 00:34	0°☾		desc. node	1450 Feb 09 j 22:06	28°☾00'40		
	1447 Jun 23 j 13:24	0°♌			1450 Feb 11 j 13:05	0°♊		
	1447 Jul 18 j 04:56	0°♍			1450 Mar 08 j 00:15	0°♋		
	1447 Aug 12 j 00:55	0°♎			1450 Apr 01 j 10:51	0°♌		
desc. node	1447 Aug 26 j 02:59	16°♎52'24			1450 Apr 25 j 21:49	0°♍		
	1447 Sep 06 j 04:00	0°♏		morning set	1450 May 10 j 11:29	17°♍51'43		
	1447 Oct 01 j 18:52	0°♐			1450 May 20 j 09:03	0°♊		
	1447 Oct 28 j 10:10	0°☾		asc. node	1450 Jun 03 j 01:35	16°♊47'33		
evening max el	1447 Nov 12 j 14:14	16°☾00'20	47°19'22		1450 Jun 13 j 19:40	0°☾		
	1447 Nov 27 j 04:48	0°♊		max. Earth dist.	1450 Jun 14 j 14:08	0°☾56'42	1.73592 AU	
asc. node	1447 Dec 17 j 06:21	14°♊51'24						
greatest brilliancy	1447 Dec 20 j 20:18	16°♊38'13	-4.7m	superior conj	1450 Jun 16 j 02:12	2°☾47'31	0°30'17	
retrograde	1448 Jan 02 j 11:44	19°♊37'38		minimum elong	1450 Jun 15 j 20:24	2°☾29'42	0°30'01	
evening set	1448 Jan 18 j 21:42	14°♊18'02			1450 Jul 08 j 04:54	0°♌		
min. Earth dist.	1448 Jan 22 j 07:28	12°♊13'27	0.27159 AU	evening rise	1450 Jul 21 j 21:02	16°♌51'21		
inferior conj	1448 Jan 23 j 05:37	11°♊38'55	7°46'34		1450 Aug 01 j 12:44	0°♍		
minimum elong	1448 Jan 22 j 20:50	11°♊52'37	7°45'15		1450 Aug 25 j 20:05	0°♎		
morning rise	1448 Jan 26 j 20:21	9°♊26'04			1450 Sep 19 j 04:16	0°♏		
direct	1448 Feb 12 j 19:10	3°♊52'40		desc. node	1450 Sep 22 j 15:00	4°♏14'27		
greatest brilliancy	1448 Feb 23 j 08:25	5°♊56'58	-4.6m		1450 Oct 13 j 14:24	0°♐		
	1448 Mar 27 j 22:26	0°♋			1450 Nov 07 j 04:07	0°☾		
morning max el	1448 Apr 02 j 07:13	5°♋07'57	46°14'33		1450 Dec 02 j 01:32	0°♊		
desc. node	1448 Apr 06 j 19:46	9°♋36'28			1450 Dec 27 j 17:41	0°♋		
	1448 Apr 26 j 07:07	0°♌		asc. node	1451 Jan 13 j 18:13	18°♋50'16		
	1448 May 23 j 04:17	0°♍		evening max el	1451 Jan 23 j 05:02	28°♋40'42	46°46'52	

	1451 Jan 24 j 12:34	0°Υ		morning set	1453 Jul 17 j 01:58	22°☾39'14	
greatest brilliancy	1451 Feb 28 j 07:02	27°Υ43'37	-4.6m		1453 Jul 23 j 01:13	0°Ω	
	1451 Mar 05 j 21:37	0°Ϡ			1453 Aug 16 j 07:19	0°η	
retrograde	1451 Mar 14 j 14:38	1°Ϡ26'55		max. Earth dist.	1453 Aug 19 j 01:03	3°η23'58	1.72584 AU
	1451 Mar 23 j 00:07	30°ϠΥ					
evening set	1451 Mar 31 j 09:37	25°Υ57'11		superior conj	1453 Aug 22 j 14:27	7°η49'14	1°24'31
inferior conj	1451 Apr 04 j 21:03	23°Υ11'15	6°26'23	minimum elong	1453 Aug 22 j 13:02	7°η44'47	1°24'30
minimum elong	1451 Apr 05 j 06:47	22°Υ55'53	6°24'26		1453 Sep 09 j 09:58	0°♄	
min. Earth dist.	1451 Apr 04 j 20:32	23°Υ12'02	0.28565 AU	evening rise	1453 Sep 29 j 06:10	24°♄45'35	
morning rise	1451 Apr 10 j 04:12	19°Υ56'53			1453 Oct 03 j 10:52	0°♍	
direct	1451 Apr 26 j 03:06	14°Υ59'54		desc. node	1453 Oct 20 j 02:52	20°♍49'05	
desc. node	1451 May 05 j 07:30	16°Υ32'37			1453 Oct 27 j 11:20	0°♁	
greatest brilliancy	1451 May 08 j 08:58	17°Υ40'08	-4.5m		1453 Nov 20 j 12:19	0°♂	
	1451 May 28 j 01:53	0°Ϡ			1453 Dec 14 j 15:08	0°≈	
morning max el	1451 Jun 13 j 23:16	14°Ϡ52'34	45°44'39		1454 Jan 07 j 22:49	0°✠	
	1451 Jun 29 j 02:31	0°♁			1454 Feb 01 j 17:05	0°Υ	
	1451 Jul 26 j 16:29	0°☾		asc. node	1454 Feb 10 j 06:10	10°Υ09'08	
	1451 Aug 21 j 15:23	0°Ω			1454 Feb 27 j 08:23	0°Ϡ	
asc. node	1451 Aug 26 j 11:11	5°Ω42'59			1454 Mar 26 j 20:37	0°♁	
	1451 Sep 15 j 15:45	0°η		evening max el	1454 Apr 04 j 07:52	8°♁28'54	45°39'49
	1451 Oct 10 j 01:42	0°♄			1454 Apr 29 j 21:41	0°☾	
	1451 Nov 03 j 03:15	0°♍		greatest brilliancy	1454 May 08 j 14:48	5°☾00'31	-4.5m
	1451 Nov 27 j 00:50	0°♁		retrograde	1454 May 23 j 02:57	8°☾40'26	
morning set	1451 Dec 11 j 12:31	18°♁13'09		desc. node	1454 Jun 01 j 19:20	6°☾49'29	
desc. node	1451 Dec 16 j 00:21	23°♁52'16		evening set	1454 Jun 07 j 05:12	4°☾17'25	
	1451 Dec 20 j 21:17	0°♂		inferior conj	1454 Jun 13 j 14:34	0°☾27'21	-2°-43'-42
	1452 Jan 13 j 18:09	0°≈		minimum elong	1454 Jun 13 j 08:48	0°☾36'23	2°42'07
				min. Earth dist.	1454 Jun 13 j 13:17	0°☾29'22	0.28979 AU
superior conj	1452 Jan 22 j 08:43	10°≈48'05	-1°-14'-5		1454 Jun 14 j 08:01	30°Ϡ♁	
minimum elong	1452 Jan 21 j 22:14	10°≈15'15	1°13'50	morning rise	1454 Jun 19 j 12:26	26°♁53'10	
max. Earth dist.	1452 Jan 25 j 17:28	15°≈01'13	1.71455 AU	direct	1454 Jul 05 j 06:56	22°♁10'03	
	1452 Feb 06 j 16:37	0°✠		greatest brilliancy	1454 Jul 19 j 01:20	25°♁28'28	-4.5m
	1452 Mar 01 j 18:00	0°Υ			1454 Jul 27 j 07:18	0°☾	
evening rise	1452 Mar 02 j 20:10	1°Υ21'18		morning max el	1454 Aug 23 j 07:55	22°☾21'37	45°59'22
	1452 Mar 25 j 23:43	0°Ϡ			1454 Aug 31 j 00:16	0°Ω	
asc. node	1452 Apr 07 j 04:02	14°Ϡ58'18		asc. node	1454 Sep 22 j 23:01	24°Ω42'50	
	1452 Apr 19 j 10:56	0°♁			1454 Sep 27 j 15:04	0°η	
	1452 May 14 j 04:44	0°☾			1454 Oct 23 j 05:18	0°♄	
	1452 Jun 08 j 07:07	0°Ω			1454 Nov 16 j 21:19	0°♍	
	1452 Jul 03 j 22:34	0°η			1454 Dec 11 j 02:56	0°♁	
desc. node	1452 Jul 27 j 17:06	26°η52'28		desc. node	1455 Jan 04 j 04:27	0°♂	
	1452 Jul 30 j 13:17	0°♄			1455 Jan 12 j 12:19	10°♂23'52	
evening max el	1452 Aug 28 j 03:06	29°♄46'22	46°24'04		1455 Jan 28 j 05:05	0°≈	
	1452 Aug 28 j 08:44	0°♍			1455 Feb 21 j 06:35	0°✠	
greatest brilliancy	1452 Oct 06 j 00:13	28°♍45'07	-4.6m	morning set	1455 Feb 26 j 09:41	6°✠23'01	
	1452 Oct 09 j 23:20	0°♁			1455 Mar 17 j 09:59	0°Υ	
retrograde	1452 Oct 16 j 19:06	0°♁52'54					
	1452 Oct 23 j 09:22	30°Ϡ♍		superior conj	1455 Apr 06 j 05:47	24°Υ32'20	-1°-2'-31
evening set	1452 Oct 31 j 15:41	26°♍33'33		minimum elong	1455 Apr 06 j 15:43	25°Υ03'00	1°02'12
inferior conj	1452 Nov 06 j 08:21	23°♍13'44	-2°-55'-41	max. Earth dist.	1455 Apr 09 j 05:51	28°Υ14'50	1.72978 AU
minimum elong	1452 Nov 06 j 14:48	23°♍03'57	2°53'42		1455 Apr 10 j 15:56	0°Ϡ	
min. Earth dist.	1452 Nov 06 j 18:38	22°♍58'09	0.26584 AU		1455 May 05 j 00:30	0°♁	
morning rise	1452 Nov 12 j 13:36	19°♍37'06		asc. node	1455 May 05 j 15:48	0°♁47'02	
asc. node	1452 Nov 17 j 20:28	17°♍13'26		evening rise	1455 May 13 j 20:15	10°♁50'14	
direct	1452 Nov 26 j 21:10	15°♍32'56			1455 May 29 j 11:21	0°☾	
greatest brilliancy	1452 Dec 09 j 14:42	18°♍35'05	-4.7m		1455 Jun 23 j 00:24	0°Ω	
	1452 Dec 27 j 03:33	0°♁			1455 Jul 17 j 16:22	0°η	
morning max el	1453 Jan 16 j 12:59	18°♁52'03	46°54'18		1455 Aug 11 j 13:02	0°♄	
	1453 Jan 27 j 05:24	0°♂		desc. node	1455 Aug 25 j 05:05	16°♄21'01	
	1453 Feb 23 j 03:41	0°≈			1455 Sep 05 j 17:11	0°♍	
desc. node	1453 Mar 09 j 10:03	16°≈31'51			1455 Oct 01 j 09:53	0°♁	
	1453 Mar 20 j 21:18	0°✠			1455 Oct 28 j 05:00	0°♂	
	1453 Apr 15 j 03:03	0°Υ		evening max el	1455 Nov 10 j 03:16	13°♂33'33	47°18'44
	1453 May 10 j 02:55	0°Ϡ			1455 Nov 27 j 13:13	0°≈	
	1453 Jun 03 j 22:47	0°♁		asc. node	1455 Dec 16 j 08:25	13°≈12'52	
	1453 Jun 28 j 14:25	0°☾		greatest brilliancy	1455 Dec 18 j 12:22	14°≈14'40	-4.7m
asc. node	1453 Jun 30 j 13:24	2°☾23'33		retrograde	1455 Dec 31 j 00:49	17°≈11'26	

evening set	1456 Jan 16 j 07:14	11° \approx 58'12		superior conj	1458 Jun 13 j 20:27	0° \approx 42'45	0°27'20
min. Earth dist.	1456 Jan 19 j 21:05	9° \approx 47'56	0.27101 AU	minimum elong	1458 Jun 13 j 15:09	0° \approx 26'26	0°27'05
inferior conj	1456 Jan 20 j 18:56	9° \approx 13'54	7°35'19		1458 Jul 07 j 15:48	0° Ω	
minimum elong	1456 Jan 20 j 09:41	9° \approx 28'19	7°33'49	evening rise	1458 Jul 19 j 15:42	14° Ω 47'10	
morning rise	1456 Jan 24 j 12:28	6° \approx 56'58			1458 Jul 31 j 23:46	0° \cap	
direct	1456 Feb 10 j 07:21	1° \approx 28'24			1458 Aug 25 j 07:21	0° Δ	
greatest brilliancy	1456 Feb 20 j 22:28	3° \approx 34'08	-4.6m		1458 Sep 18 j 15:53	0° \cap	
	1456 Mar 27 j 23:32	0° \times		desc. node	1458 Sep 21 j 17:00	3° \cap 44'46	
morning max el	1456 Mar 30 j 19:53	2° \times 45'09	46°16'10		1458 Oct 13 j 02:33	0° \times	
desc. node	1456 Apr 05 j 21:49	8° \times 48'08			1458 Nov 06 j 17:00	0° Σ	
	1456 Apr 25 j 23:51	0° Υ			1458 Dec 01 j 15:34	0° \approx	
	1456 May 22 j 18:07	0° Σ			1458 Dec 27 j 10:02	0° \times	
	1456 Jun 17 j 14:00	0° Π		asc. node	1459 Jan 12 j 20:21	18° \times 04'22	
	1456 Jul 12 j 20:04	0° \approx		evening max el	1459 Jan 20 j 20:50	26° \times 23'52	46°49'08
asc. node	1456 Jul 28 j 01:22	18° \approx 21'24			1459 Jan 24 j 11:26	0° Υ	
	1456 Aug 06 j 15:03	0° Ω		greatest brilliancy	1459 Feb 25 j 23:45	25° Υ 29'45	-4.6m
	1456 Aug 31 j 00:45	0° \cap		retrograde	1459 Mar 12 j 07:15	29° Υ 12'30	
	1456 Sep 24 j 03:32	0° Δ		evening set	1459 Mar 29 j 04:12	23° Υ 38'29	
morning set	1456 Sep 24 j 12:49	0° Δ 29'02		inferior conj	1459 Apr 02 j 12:42	20° Υ 56'46	6°40'03
	1456 Oct 18 j 02:11	0° \cap		minimum elong	1459 Apr 02 j 22:22	20° Υ 41'32	6°38'13
max. Earth dist.	1456 Nov 01 j 04:09	17° \cap 41'43	1.71239 AU	min. Earth dist.	1459 Apr 02 j 11:15	20° Υ 59'03	0.28536 AU
				morning rise	1459 Apr 07 j 16:51	17° Υ 47'01	
superior conj	1456 Nov 02 j 12:27	19° \cap 23'16	0°32'51	direct	1459 Apr 23 j 18:45	12° Υ 46'04	
minimum elong	1456 Nov 02 j 20:14	19° \cap 47'42	0°32'29	desc. node	1459 May 04 j 09:29	14° Υ 48'55	
	1456 Nov 10 j 23:01	0° \times		greatest brilliancy	1459 May 05 j 21:58	15° Υ 24'21	-4.5m
desc. node	1456 Nov 16 j 14:40	7° \times 06'27			1459 May 28 j 10:52	0° Σ	
	1456 Dec 04 j 19:35	0° Σ		morning max el	1459 Jun 11 j 15:40	12° Σ 42'50	45°44'57
evening rise	1456 Dec 13 j 19:01	11° Σ 16'44			1459 Jun 28 j 20:37	0° Π	
	1456 Dec 28 j 16:58	0° \approx			1459 Jul 26 j 06:53	0° \approx	
	1457 Jan 21 j 16:40	0° \times			1459 Aug 21 j 04:11	0° Ω	
	1457 Feb 14 j 21:02	0° Υ		asc. node	1459 Aug 25 j 13:10	5° Ω 11'21	
asc. node	1457 Mar 09 j 18:07	28° Υ 00'59			1459 Sep 15 j 03:44	0° \cap	
	1457 Mar 11 j 09:21	0° Σ			1459 Oct 09 j 13:17	0° Δ	
	1457 Apr 05 j 09:58	0° Π			1459 Nov 02 j 14:37	0° \cap	
	1457 May 01 j 05:57	0° \approx			1459 Nov 26 j 12:07	0° \times	
	1457 May 28 j 14:10	0° Ω		morning set	1459 Dec 08 j 22:58	15° \times 39'45	
evening max el	1457 Jun 13 j 21:50	16° Ω 24'41	45°25'51	desc. node	1459 Dec 15 j 02:32	23° \times 23'49	
desc. node	1457 Jun 29 j 07:24	0° \cap 05'18			1459 Dec 20 j 08:30	0° Σ	
	1457 Jun 29 j 04:46	0° \cap			1460 Jan 13 j 05:20	0° \approx	
greatest brilliancy	1457 Jul 20 j 14:55	13° \cap 32'07	-4.5m				
retrograde	1457 Aug 01 j 14:16	16° \cap 04'31		superior conj	1460 Jan 19 j 19:06	8° \approx 15'03	-1°-12'00
evening set	1457 Aug 19 j 12:58	10° \cap 05'55		minimum elong	1460 Jan 19 j 08:09	7° \approx 40'42	1°11'43
inferior conj	1457 Aug 22 j 20:20	8° \cap 05'13	-8°-41'-18	max. Earth dist.	1460 Jan 23 j 04:07	12° \approx 29'07	1.71419 AU
minimum elong	1457 Aug 22 j 18:36	8° \cap 07'55	8°41'17		1460 Feb 06 j 03:46	0° \times	
min. Earth dist.	1457 Aug 23 j 10:19	7° \cap 43'40	0.28404 AU	evening rise	1460 Feb 29 j 08:32	28° \times 55'52	
morning rise	1457 Aug 26 j 00:00	6° \cap 09'28			1460 Mar 01 j 05:11	0° Υ	
	1457 Sep 11 j 05:50	30° \cap Ω			1460 Mar 25 j 10:59	0° Σ	
direct	1457 Sep 13 j 04:45	29° Ω 55'24		asc. node	1460 Apr 06 j 05:58	14° Σ 29'33	
	1457 Sep 15 j 04:08	0° \cap			1460 Apr 18 j 22:22	0° Π	
greatest brilliancy	1457 Sep 27 j 18:13	3° \cap 42'03	-4.6m		1460 May 13 j 16:34	0° \approx	
asc. node	1457 Oct 20 j 10:41	19° \cap 57'36			1460 Jun 07 j 19:42	0° Ω	
	1457 Oct 31 j 01:46	0° Δ			1460 Jul 03 j 12:32	0° \cap	
morning max el	1457 Nov 02 j 14:30	2° Δ 32'06	46°42'18	desc. node	1460 Jul 26 j 19:11	26° \cap 13'14	
	1457 Nov 27 j 23:16	0° \cap			1460 Jul 30 j 06:05	0° Δ	
	1457 Dec 23 j 15:15	0° \times		evening max el	1460 Aug 25 j 17:06	27° Δ 25'55	46°21'30
	1458 Jan 17 j 12:03	0° Σ			1460 Aug 28 j 09:21	0° \cap	
desc. node	1458 Feb 09 j 00:14	27° Σ 29'29		greatest brilliancy	1460 Oct 03 j 13:53	26° \cap 19'34	-4.6m
	1458 Feb 11 j 01:21	0° \approx		retrograde	1460 Oct 14 j 07:01	28° \cap 25'11	
	1458 Mar 07 j 12:00	0° \times		evening set	1460 Oct 29 j 06:27	24° \cap 03'07	
	1458 Mar 31 j 22:13	0° Υ		inferior conj	1460 Nov 03 j 20:45	20° \cap 46'14	-3°-18'-20
	1458 Apr 25 j 08:54	0° Σ		minimum elong	1460 Nov 04 j 03:55	20° \cap 35'20	3°16'12
morning set	1458 May 08 j 04:51	15° Σ 44'05		min. Earth dist.	1460 Nov 04 j 08:20	20° \cap 28'37	0.26618 AU
	1458 May 19 j 19:58	0° Π		morning rise	1460 Nov 10 j 01:02	17° \cap 10'28	
asc. node	1458 Jun 02 j 03:38	16° Π 20'28		asc. node	1460 Nov 16 j 22:32	14° \cap 13'57	
max. Earth dist.	1458 Jun 12 j 13:01	29° Π 06'09	1.73601 AU	direct	1460 Nov 24 j 10:10	13° \cap 05'00	
	1458 Jun 13 j 06:32	0° \approx		greatest brilliancy	1460 Dec 07 j 04:49	16° \cap 08'01	-4.7m
					1460 Dec 27 j 15:31	0° \times	

morning max el	1461 Jan 14 j 01:44	16° ♄ 24'29	46°54'51		1463 Aug 11 j 01:27	0° ♄	
	1461 Jan 27 j 00:51	0° ♄		desc. node	1463 Aug 24 j 07:03	15° ♄ 48'23	
	1461 Feb 22 j 19:01	0° \approx			1463 Sep 05 j 06:42	0° ♄	
desc. node	1461 Mar 08 j 12:05	15° \approx 56'11			1463 Oct 01 j 01:19	0° ♄	
	1461 Mar 20 j 10:47	0° ♄			1463 Oct 28 j 00:34	0° ♄	
	1461 Apr 14 j 15:31	0° ♄		evening max el	1463 Nov 07 j 16:11	11° ♄ 06'05	47°18'07
	1461 May 09 j 14:45	0° ♄			1463 Nov 28 j 00:48	0° \approx	
	1461 Jun 03 j 10:10	0° ♄		asc. node	1463 Dec 15 j 10:36	11° \approx 30'11	
	1461 Jun 28 j 01:32	0° ♄		greatest brilliancy	1463 Dec 16 j 03:44	11° \approx 49'37	-4.7m
asc. node	1461 Jun 29 j 15:34	1° ♄ 56'14		retrograde	1463 Dec 28 j 14:19	14° \approx 44'53	
morning set	1461 Jul 14 j 19:35	20° ♄ 32'01		evening set	1464 Jan 13 j 16:44	9° \approx 37'38	
	1461 Jul 22 j 12:12	0° ♄		min. Earth dist.	1464 Jan 17 j 10:35	7° \approx 21'58	0.27041 AU
	1461 Aug 15 j 18:18	0° ♄		inferior conj	1464 Jan 18 j 08:13	6° \approx 48'22	7°23'11
max. Earth dist.	1461 Aug 16 j 16:12	1° ♄ 07'56	1.72636 AU	minimum elong	1464 Jan 17 j 22:34	7° \approx 03'21	7°21'29
				morning rise	1464 Jan 22 j 04:43	4° \approx 27'21	
superior conj	1461 Aug 20 j 07:26	5° ♄ 38'43	1°24'11		1464 Feb 01 j 00:55	30° ♄	
minimum elong	1461 Aug 20 j 05:17	5° ♄ 32'05	1°24'11	direct	1464 Feb 07 j 19:30	29° ♄ 03'31	
	1461 Sep 08 j 21:03	0° ♄			1464 Feb 14 j 19:56	0° \approx	
evening rise	1461 Sep 26 j 20:05	22° ♄ 24'11		greatest brilliancy	1464 Feb 18 j 12:30	1° \approx 11'02	-4.6m
	1461 Oct 02 j 22:07	0° ♄			1464 Mar 27 j 23:27	0° ♄	
desc. node	1461 Oct 19 j 04:52	20° ♄ 19'50		morning max el	1464 Mar 28 j 09:26	0° ♄ 24'22	46°17'54
	1461 Oct 26 j 22:46	0° ♄		desc. node	1464 Apr 04 j 23:49	8° ♄ 00'30	
	1461 Nov 19 j 23:57	0° ♄			1464 Apr 25 j 16:15	0° ♄	
	1461 Dec 14 j 03:03	0° \approx			1464 May 22 j 07:49	0° ♄	
	1462 Jan 07 j 11:11	0° ♄			1464 Jun 17 j 02:24	0° ♄	
	1462 Feb 01 j 06:17	0° ♄			1464 Jul 12 j 07:45	0° ♄	
asc. node	1462 Feb 09 j 08:10	9° ♄ 34'53		asc. node	1464 Jul 27 j 03:20	17° ♄ 52'39	
	1462 Feb 26 j 23:22	0° ♄			1464 Aug 06 j 02:21	0° ♄	
	1462 Mar 26 j 16:18	0° ♄			1464 Aug 30 j 11:51	0° ♄	
evening max el	1462 Apr 01 j 22:45	6° ♄ 14'28	45°41'22	morning set	1464 Sep 22 j 03:39	28° ♄ 10'58	
	1462 May 01 j 00:08	0° ♄			1464 Sep 23 j 14:34	0° ♄	
greatest brilliancy	1462 May 06 j 06:39	2° ♄ 50'25	-4.5m		1464 Oct 17 j 13:12	0° ♄	
retrograde	1462 May 20 j 18:51	6° ♄ 31'19		max. Earth dist.	1464 Oct 29 j 15:39	15° ♄ 12'11	1.71270 AU
desc. node	1462 May 31 j 21:32	4° ♄ 05'53					
evening set	1462 Jun 04 j 21:03	2° ♄ 08'52		superior conj	1464 Oct 30 j 23:57	16° ♄ 53'42	0°36'21
	1462 Jun 08 j 13:31	30° ♄		minimum elong	1464 Oct 31 j 08:21	17° ♄ 20'05	0°35'58
inferior conj	1462 Jun 11 j 06:59	28° ♄ 18'09	-2°-24'-51		1464 Nov 10 j 10:06	0° ♄	
minimum elong	1462 Jun 11 j 01:50	28° ♄ 26'15	2°23'24	desc. node	1464 Nov 15 j 16:48	6° ♄ 38'12	
min. Earth dist.	1462 Jun 11 j 06:12	28° ♄ 19'24	0.28976 AU		1464 Dec 04 j 06:45	0° ♄	
morning rise	1462 Jun 17 j 06:34	24° ♄ 41'15		evening rise	1464 Dec 11 j 04:59	8° ♄ 42'10	
direct	1462 Jul 02 j 22:46	20° ♄ 00'48			1464 Dec 28 j 04:14	0° \approx	
greatest brilliancy	1462 Jul 16 j 16:45	23° ♄ 17'57	-4.5m		1465 Jan 21 j 04:02	0° ♄	
	1462 Jul 28 j 05:31	0° ♄			1465 Feb 14 j 08:34	0° ♄	
morning max el	1462 Aug 20 j 22:18	20° ♄ 06'08	45°58'11	asc. node	1465 Mar 08 j 20:07	27° ♄ 31'05	
	1462 Aug 30 j 19:46	0° ♄			1465 Mar 10 j 21:14	0° ♄	
asc. node	1462 Sep 22 j 01:02	24° ♄ 04'50			1465 Apr 04 j 22:35	0° ♄	
	1462 Sep 27 j 06:04	0° ♄			1465 Apr 30 j 20:09	0° ♄	
	1462 Oct 22 j 18:35	0° ♄			1465 May 28 j 08:12	0° ♄	
	1462 Nov 16 j 09:45	0° ♄		evening max el	1465 Jun 11 j 13:23	14° ♄ 13'10	45°25'00
	1462 Dec 10 j 14:53	0° ♄		desc. node	1465 Jun 28 j 09:27	29° ♄ 02'09	
	1463 Jan 03 j 16:03	0° ♄			1465 Jun 29 j 15:04	0° ♄	
desc. node	1463 Jan 11 j 14:24	9° ♄ 54'23		greatest brilliancy	1465 Jul 18 j 01:42	11° ♄ 14'17	-4.5m
	1463 Jan 27 j 16:27	0° \approx		retrograde	1465 Jul 30 j 05:19	13° ♄ 50'23	
	1463 Feb 20 j 17:44	0° ♄		evening set	1465 Aug 17 j 01:49	7° ♄ 54'02	
morning set	1463 Feb 23 j 22:23	3° ♄ 58'35		inferior conj	1465 Aug 20 j 11:15	5° ♄ 50'09	-8°-38'-37
	1463 Mar 16 j 20:59	0° ♄		minimum elong	1465 Aug 20 j 08:41	5° ♄ 54'06	8°38'33
				min. Earth dist.	1465 Aug 20 j 23:58	5° ♄ 30'32	0.28456 AU
superior conj	1463 Apr 03 j 21:25	22° ♄ 18'37	-1°-4'-49	morning rise	1465 Aug 23 j 15:23	3° ♄ 53'44	
minimum elong	1463 Apr 04 j 07:21	22° ♄ 49'17	1°04'31	direct	1465 Aug 31 j 01:33	30° ♄	
max. Earth dist.	1463 Apr 06 j 23:33	26° ♄ 07'35	1.72932 AU		1465 Sep 10 j 20:45	27° ♄ 39'42	
	1463 Apr 10 j 02:51	0° ♄			1465 Sep 22 j 03:27	0° ♄	
	1463 May 04 j 11:24	0° ♄		greatest brilliancy	1465 Sep 25 j 10:02	1° ♄ 26'34	-4.6m
asc. node	1463 May 04 j 17:54	0° ♄ 19'56		asc. node	1465 Oct 19 j 12:46	18° ♄ 57'55	
evening rise	1463 May 11 j 13:58	8° ♄ 43'42			1465 Oct 31 j 00:24	0° ♄	
	1463 May 28 j 22:23	0° ♄		morning max el	1465 Oct 31 j 06:15	0° ♄ 14'44	46°40'59
	1463 Jun 22 j 11:41	0° ♄			1465 Nov 27 j 15:31	0° ♄	
	1463 Jul 17 j 04:06	0° ♄			1465 Dec 23 j 05:13	0° ♄	

	1466 Jan 17 j 00:51	0°☾			1468 Aug 28 j 10:40	0°♌	
desc. node	1466 Feb 08 j 02:10	26°☾58'10		greatest brilliancy	1468 Oct 01 j 03:49	23°♌55'29	-4.6m
	1466 Feb 10 j 13:27	0°≈		retrograde	1468 Oct 11 j 18:25	25°♌58'41	
	1466 Mar 06 j 23:35	0°☿		evening set	1468 Oct 26 j 21:18	21°♌33'23	
	1466 Mar 31 j 09:24	0°♈		inferior conj	1468 Nov 01 j 09:10	18°♌19'47	-3°-40'-30
	1466 Apr 24 j 19:49	0°♉		minimum elong	1468 Nov 01 j 16:59	18°♌07'52	3°38'13
morning set	1466 May 05 j 22:32	13°♉37'59		min. Earth dist.	1468 Nov 01 j 22:22	17°♌59'40	0.26663 AU
	1466 May 19 j 06:42	0°♊		morning rise	1468 Nov 07 j 12:13	14°♌45'06	
asc. node	1466 Jun 01 j 05:48	15°♊54'22		asc. node	1468 Nov 16 j 00:41	11°♌20'44	
max. Earth dist.	1466 Jun 10 j 13:05	27°♊19'54	1.73607 AU	direct	1468 Nov 21 j 22:43	10°♌37'39	
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superior conj	1466 Jun 11 j 14:59	28°♊39'27	0°24'22		1468 Dec 28 j 00:14	0°♍	
minimum elong	1466 Jun 11 j 10:12	28°♊24'44	0°24'08	morning max el	1469 Jan 11 j 14:07	13°♍56'15	46°55'25
	1466 Jun 12 j 17:12	0°☊			1469 Jan 26 j 19:36	0°☾	
	1466 Jul 07 j 02:31	0°♊			1469 Feb 22 j 09:55	0°≈	
evening rise	1466 Jul 17 j 10:37	12°♊44'20		desc. node	1469 Mar 07 j 14:09	15°≈21'39	
	1466 Jul 31 j 10:38	0°♋			1469 Mar 19 j 23:53	0°☿	
	1466 Aug 24 j 18:31	0°♌			1469 Apr 14 j 03:35	0°♈	
	1466 Sep 18 j 03:28	0°♍			1469 May 09 j 02:11	0°♉	
desc. node	1466 Sep 20 j 19:01	3°♍15'15			1469 Jun 02 j 21:10	0°♊	
	1466 Oct 12 j 14:40	0°♎			1469 Jun 27 j 12:16	0°☊	
	1466 Nov 06 j 05:51	0°☾		asc. node	1469 Jun 28 j 17:33	1°☊29'31	
	1466 Dec 01 j 05:36	0°≈		morning set	1469 Jul 12 j 13:35	18°☊27'12	
	1466 Dec 27 j 02:27	0°☿			1469 Jul 21 j 22:47	0°♊	
asc. node	1467 Jan 11 j 22:19	17°☿17'59		max. Earth dist.	1469 Aug 14 j 09:28	28°♊59'48	1.72687 AU
evening max el	1467 Jan 18 j 12:53	24°☿08'09	46°51'25		1469 Aug 15 j 04:53	0°♋	
	1467 Jan 24 j 11:02	0°♈					
greatest brilliancy	1467 Feb 23 j 17:35	23°♈18'07	-4.6m	superior conj	1469 Aug 18 j 00:58	3°♋31'16	1°23'44
retrograde	1467 Mar 09 j 23:47	26°♈58'45		minimum elong	1469 Aug 17 j 22:10	3°♋22'34	1°23'43
evening set	1467 Mar 26 j 22:54	21°♈20'48			1469 Sep 08 j 07:44	0°♌	
inferior conj	1467 Mar 31 j 04:27	18°♈43'12	6°53'14	evening rise	1469 Sep 24 j 10:39	20°♌06'15	
minimum elong	1467 Mar 31 j 13:58	18°♈28'11	6°51'31		1469 Oct 02 j 08:57	0°♍	
min. Earth dist.	1467 Mar 31 j 02:04	18°♈46'58	0.28503 AU	desc. node	1469 Oct 18 j 07:03	19°♌52'22	
morning rise	1467 Apr 05 j 05:24	15°♈38'06			1469 Oct 26 j 09:50	0°♎	
direct	1467 Apr 21 j 10:31	10°♈33'21			1469 Nov 19 j 11:18	0°☾	
desc. node	1467 May 03 j 11:38	13°♈09'59			1469 Dec 13 j 14:45	0°≈	
greatest brilliancy	1467 May 03 j 10:04	13°♈08'23	-4.5m		1470 Jan 06 j 23:24	0°☿	
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morning max el	1467 Jun 09 j 07:39	10°♉33'02	45°45'21	asc. node	1470 Feb 08 j 10:11	9°♈01'04	
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	1467 Jul 25 j 20:44	0°☊			1470 Mar 26 j 12:14	0°♊	
	1467 Aug 20 j 16:34	0°♊		evening max el	1470 Mar 30 j 13:17	4°♊00'01	45°43'16
asc. node	1467 Aug 24 j 15:13	4°♊41'03			1470 May 02 j 13:00	0°☊	
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	1467 Oct 09 j 00:36	0°♌		retrograde	1470 May 18 j 11:10	4°☊23'42	
	1467 Nov 02 j 01:48	0°♍		desc. node	1470 May 30 j 23:35	1°☊19'51	
	1467 Nov 25 j 23:13	0°♎		evening set	1470 Jun 02 j 13:09	0°☊01'17	
morning set	1467 Dec 06 j 09:04	13°♎05'51			1470 Jun 02 j 14:05	30°♎♊	
desc. node	1467 Dec 14 j 04:36	22°♎55'40		inferior conj	1470 Jun 08 j 23:30	26°♎10'17	-2°-5'-51
	1467 Dec 19 j 19:31	0°☾		minimum elong	1470 Jun 08 j 18:59	26°♎17'22	2°04'34
	1468 Jan 12 j 16:17	0°≈		min. Earth dist.	1470 Jun 08 j 23:08	26°♎10'51	0.28972 AU
				morning rise	1470 Jun 15 j 00:42	22°♎31'02	
superior conj	1468 Jan 17 j 05:07	5°≈41'32	-1°-9'-45	direct	1470 Jun 30 j 14:29	17°♎52'44	
minimum elong	1468 Jan 16 j 17:46	5°≈05'55	1°09'26	greatest brilliancy	1470 Jul 14 j 09:04	21°♎09'55	-4.5m
max. Earth dist.	1468 Jan 20 j 14:11	9°≈55'51	1.71376 AU		1470 Jul 28 j 21:19	0°☊	
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evening rise	1468 Feb 26 j 20:39	26°☿30'24			1470 Aug 30 j 14:14	0°♊	
	1468 Feb 29 j 16:05	0°♈		asc. node	1470 Sep 21 j 03:07	23°♊28'36	
	1468 Mar 24 j 21:57	0°♉			1470 Sep 26 j 20:25	0°♋	
asc. node	1468 Apr 05 j 08:07	14°♉02'25			1470 Oct 22 j 07:20	0°♌	
	1468 Apr 18 j 09:31	0°♊			1470 Nov 15 j 21:43	0°♍	
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	1468 Jun 07 j 07:57	0°♊			1471 Jan 03 j 03:20	0°☾	
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desc. node	1468 Jul 25 j 21:10	25°♋34'37			1471 Jan 27 j 03:33	0°≈	
	1468 Jul 29 j 22:42	0°♌			1471 Feb 20 j 04:41	0°☿	
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


































































































































	1471 Mar 16 j 07:47	0°♄		minimum elong	1473 Aug 17 j 22:57	3°♄41'10	8°35'11
				min. Earth dist.	1473 Aug 18 j 13:46	3°♄18'15	0.28502 AU
superior conj	1471 Apr 01 j 12:30	20°♄03'48	-1°-7'-3	morning rise	1473 Aug 21 j 07:09	1°♄38'22	
minimum elong	1471 Apr 01 j 22:20	20°♄34'14	1°06'45		1473 Aug 24 j 03:17	30°♄0	
max. Earth dist.	1471 Apr 04 j 14:44	23°♄53'12	1.72881 AU	direct	1473 Sep 08 j 12:58	25°♄25'07	
	1471 Apr 09 j 13:32	0°♄		greatest brilliancy	1473 Sep 23 j 00:43	29°♄10'24	-4.6m
asc. node	1471 May 03 j 20:00	29°♄53'39			1473 Sep 24 j 15:59	0°♄	
	1471 May 03 j 22:04	0°♄		asc. node	1473 Oct 18 j 14:54	18°♄00'11	
evening rise	1471 May 09 j 07:21	6°♄36'58		morning max el	1473 Oct 28 j 21:34	27°♄57'00	46°39'35
	1471 May 28 j 09:08	0°♄			1473 Oct 30 j 21:58	0°♄	
	1471 Jun 21 j 22:42	0°♄			1473 Nov 27 j 07:19	0°♄	
	1471 Jul 16 j 15:33	0°♄			1473 Dec 22 j 18:52	0°♄	
	1471 Aug 10 j 13:36	0°♄			1474 Jan 16 j 13:25	0°♄	
desc. node	1471 Aug 23 j 09:08	15°♄16'58		desc. node	1474 Feb 07 j 04:18	26°♄28'06	
	1471 Sep 04 j 19:57	0°♄			1474 Feb 10 j 01:19	0°♄	
	1471 Sep 30 j 16:32	0°♄			1474 Mar 06 j 11:00	0°♄	
	1471 Oct 27 j 20:11	0°♄			1474 Mar 30 j 20:30	0°♄	
evening max el	1471 Nov 05 j 05:59	8°♄42'23	47°17'24		1474 Apr 24 j 06:41	0°♄	
	1471 Nov 28 j 15:32	0°♄		morning set	1474 May 03 j 15:57	11°♄31'01	
greatest brilliancy	1471 Dec 13 j 17:49	9°♄24'09	-4.7m		1474 May 18 j 17:27	0°♄	
asc. node	1471 Dec 14 j 12:30	9°♄44'18		asc. node	1474 May 31 j 07:45	15°♄27'34	
retrograde	1471 Dec 26 j 04:10	12°♄19'16		max. Earth dist.	1474 Jun 08 j 11:29	25°♄28'25	1.73610 AU
evening set	1472 Jan 11 j 02:14	7°♄17'35					
min. Earth dist.	1472 Jan 14 j 23:47	4°♄56'58	0.26991 AU	superior conj	1474 Jun 09 j 09:08	26°♄34'56	0°21'19
inferior conj	1472 Jan 15 j 21:26	4°♄23'26	7°10'03	minimum elong	1474 Jun 09 j 04:54	26°♄21'55	0°21'06
minimum elong	1472 Jan 15 j 11:29	4°♄38'52	7°08'11		1474 Jun 12 j 03:54	0°♄	
morning rise	1472 Jan 19 j 21:05	1°♄58'15			1474 Jul 06 j 13:14	0°♄	
	1472 Jan 23 j 11:51	30°♄0		evening rise	1474 Jul 15 j 05:10	10°♄40'23	
direct	1472 Feb 05 j 08:12	26°♄39'09			1474 Jul 30 j 21:30	0°♄	
greatest brilliancy	1472 Feb 16 j 02:10	28°♄48'01	-4.6m		1474 Aug 24 j 05:40	0°♄	
	1472 Feb 18 j 22:31	0°♄			1474 Sep 17 j 15:03	0°♄	
morning max el	1472 Mar 26 j 00:01	28°♄06'23	46°19'27	desc. node	1474 Sep 19 j 21:09	2°♄46'06	
	1472 Mar 27 j 22:11	0°♄			1474 Oct 12 j 02:49	0°♄	
desc. node	1472 Apr 04 j 01:58	7°♄14'13			1474 Nov 05 j 18:46	0°♄	
	1472 Apr 25 j 08:15	0°♄			1474 Nov 30 j 19:46	0°♄	
	1472 May 21 j 21:17	0°♄			1474 Dec 26 j 19:10	0°♄	
	1472 Jun 16 j 14:33	0°♄		asc. node	1475 Jan 11 j 00:25	16°♄31'19	
	1472 Jul 11 j 19:11	0°♄		evening max el	1475 Jan 16 j 04:27	21°♄51'08	46°53'37
asc. node	1472 Jul 26 j 05:22	17°♄24'55			1475 Jan 24 j 11:44	0°♄	
	1472 Aug 05 j 13:24	0°♄		greatest brilliancy	1475 Feb 21 j 11:48	21°♄06'53	-4.6m
	1472 Aug 29 j 22:43	0°♄		retrograde	1475 Mar 07 j 15:44	24°♄44'44	
morning set	1472 Sep 19 j 18:47	25°♄54'41		evening set	1475 Mar 24 j 17:34	19°♄03'01	
	1472 Sep 23 j 01:21	0°♄		inferior conj	1475 Mar 28 j 20:11	16°♄29'33	7°05'47
	1472 Oct 17 j 00:00	0°♄		minimum elong	1475 Mar 29 j 05:30	16°♄14'49	7°04'11
max. Earth dist.	1472 Oct 27 j 02:43	12°♄42'05	1.71296 AU	min. Earth dist.	1475 Mar 28 j 17:08	16°♄34'21	0.28471 AU
				morning rise	1475 Apr 02 j 17:47	13°♄29'02	
superior conj	1472 Oct 28 j 11:58	14°♄26'35	0°39'44	direct	1475 Apr 19 j 02:02	8°♄20'29	
minimum elong	1472 Oct 28 j 20:55	14°♄54'41	0°39'21	greatest brilliancy	1475 Apr 30 j 22:16	10°♄52'11	-4.5m
	1472 Nov 09 j 20:57	0°♄		desc. node	1475 May 02 j 13:40	11°♄34'11	
desc. node	1472 Nov 14 j 18:51	6°♄10'33			1475 May 28 j 21:08	0°♄	
	1472 Dec 03 j 17:41	0°♄		morning max el	1475 Jun 06 j 22:45	8°♄20'37	45°45'38
evening rise	1472 Dec 08 j 15:24	6°♄09'50			1475 Jun 28 j 07:01	0°♄	
	1472 Dec 27 j 15:15	0°♄			1475 Jul 25 j 10:39	0°♄	
	1473 Jan 20 j 15:10	0°♄			1475 Aug 20 j 05:04	0°♄	
	1473 Feb 13 j 19:56	0°♄		asc. node	1475 Aug 23 j 17:23	4°♄10'39	
asc. node	1473 Mar 07 j 22:15	27°♄01'51			1475 Sep 14 j 03:10	0°♄	
	1473 Mar 10 j 09:02	0°♄			1475 Oct 08 j 12:01	0°♄	
	1473 Apr 04 j 11:13	0°♄			1475 Nov 01 j 13:03	0°♄	
	1473 Apr 30 j 10:27	0°♄			1475 Nov 25 j 10:23	0°♄	
	1473 May 28 j 02:37	0°♄		morning set	1475 Dec 03 j 19:14	10°♄31'46	
evening max el	1473 Jun 09 j 05:31	12°♄03'16	45°24'22	desc. node	1475 Dec 13 j 06:32	22°♄26'42	
desc. node	1473 Jun 27 j 11:24	27°♄57'33			1475 Dec 19 j 06:39	0°♄	
	1473 Jun 30 j 04:42	0°♄			1476 Jan 12 j 03:21	0°♄	
greatest brilliancy	1473 Jul 15 j 13:35	8°♄58'23	-4.5m				
retrograde	1473 Jul 27 j 20:12	11°♄36'58		superior conj	1476 Jan 14 j 15:13	3°♄07'54	-1°-7'-22
evening set	1473 Aug 14 j 14:37	5°♄43'30		minimum elong	1476 Jan 14 j 03:33	2°♄31'18	1°07'01
inferior conj	1473 Aug 18 j 02:18	3°♄36'00	-8°-35'-20	max. Earth dist.	1476 Jan 17 j 21:25	7°♄13'14	1.71334 AU

	1476 Feb 05 j 01:42	0° H		morning max el	1478 Aug 16 j 05:54	15° S 44'01	45°56'02
evening rise	1476 Feb 24 j 08:46	24° H 04'29			1478 Aug 30 j 08:40	0° O	
	1476 Feb 29 j 03:06	0° Y		asc. node	1478 Sep 20 j 05:12	22° O 51'25	
	1476 Mar 24 j 09:02	0° B			1478 Sep 26 j 11:03	0° M	
asc. node	1476 Apr 04 j 10:11	13° B 34'34			1478 Oct 21 j 20:27	0° L	
	1476 Apr 17 j 20:49	0° II			1478 Nov 15 j 10:05	0° M	
	1476 May 12 j 15:49	0° S			1478 Dec 09 j 14:20	0° J	
	1476 Jun 06 j 20:29	0° O			1479 Jan 02 j 14:57	0° S	
	1476 Jul 02 j 16:16	0° M		desc. node	1479 Jan 09 j 18:30	8° S 56'04	
desc. node	1476 Jul 24 j 23:17	24° M 55'01			1479 Jan 26 j 14:57	0° \approx	
	1476 Jul 29 j 16:01	0° L		morning set	1479 Feb 18 j 22:12	29° \approx 04'45	
evening max el	1476 Aug 20 j 18:23	22° L 40'29	46°16'12		1479 Feb 19 j 15:56	0° H	
	1476 Aug 28 j 13:50	0° M			1479 Mar 15 j 18:54	0° Y	
greatest brilliancy	1476 Sep 28 j 17:32	21° M 30'33	-4.6m				
retrograde	1476 Oct 09 j 05:50	23° M 31'58		superior conj	1479 Mar 30 j 03:26	17° Y 47'23	-1°-9'-10
evening set	1476 Oct 24 j 12:16	19° M 02'49		minimum elong	1479 Mar 30 j 13:09	18° Y 17'24	1°08'54
inferior conj	1476 Oct 29 j 21:38	15° M 52'57	-4°-2'-9	max. Earth dist.	1479 Apr 02 j 05:55	21° Y 37'41	1.72832 AU
minimum elong	1476 Oct 30 j 06:03	15° M 40'07	3°59'44		1479 Apr 09 j 00:33	0° B	
min. Earth dist.	1476 Oct 30 j 12:31	15° M 30'16	0.26711 AU	asc. node	1479 May 02 j 21:58	29° B 25'51	
morning rise	1476 Nov 04 j 23:15	12° M 19'49			1479 May 03 j 09:05	0° II	
asc. node	1476 Nov 15 j 02:38	8° M 33'00		evening rise	1479 May 07 j 00:42	4° II 29'02	
direct	1476 Nov 19 j 11:08	8° M 09'40			1479 May 27 j 20:15	0° S	
greatest brilliancy	1476 Dec 02 j 12:13	11° M 18'28	-4.7m		1479 Jun 21 j 10:04	0° O	
	1476 Dec 28 j 06:45	0° J			1479 Jul 16 j 03:22	0° M	
morning max el	1477 Jan 09 j 02:48	11° J 28'03	46°55'55		1479 Aug 10 j 02:10	0° L	
	1477 Jan 26 j 14:06	0° S		desc. node	1479 Aug 22 j 11:14	14° L 44'15	
	1477 Feb 22 j 00:52	0° \approx			1479 Sep 04 j 09:44	0° M	
desc. node	1477 Mar 06 j 16:14	14° \approx 46'38			1479 Sep 30 j 08:31	0° J	
	1477 Mar 19 j 13:09	0° H			1479 Oct 27 j 17:05	0° S	
	1477 Apr 13 j 15:52	0° Y		evening max el	1479 Nov 02 j 20:40	6° S 19'19	47°16'33
	1477 May 08 j 13:49	0° B			1479 Nov 29 j 12:24	0° \approx	
	1477 Jun 02 j 08:23	0° II		greatest brilliancy	1479 Dec 11 j 07:35	6° \approx 56'17	-4.7m
	1477 Jun 26 j 23:15	0° S		asc. node	1479 Dec 13 j 14:36	7° \approx 52'21	
asc. node	1477 Jun 27 j 19:36	1° S 02'12		retrograde	1479 Dec 23 j 18:05	9° \approx 51'09	
morning set	1477 Jul 10 j 07:27	16° S 21'04		evening set	1480 Jan 08 j 11:31	4° \approx 55'08	
	1477 Jul 21 j 09:41	0° O		min. Earth dist.	1480 Jan 12 j 12:31	2° \approx 29'49	0.26936 AU
max. Earth dist.	1477 Aug 12 j 03:56	26° O 54'16	1.72741 AU	inferior conj	1480 Jan 13 j 10:20	1° \approx 56'07	6°55'54
	1477 Aug 14 j 15:49	0° M		minimum elong	1480 Jan 13 j 00:09	2° \approx 11'51	6°53'52
					1480 Jan 16 j 14:31	30° R S	
superior conj	1477 Aug 15 j 18:16	1° M 22'03	1°23'10	morning rise	1480 Jan 17 j 13:10	29° S 26'43	
minimum elong	1477 Aug 15 j 14:48	1° M 11'18	1°23'08	direct	1480 Feb 02 j 21:04	24° S 12'41	
	1477 Sep 07 j 18:47	0° L		greatest brilliancy	1480 Feb 13 j 14:36	26° S 21'51	-4.6m
evening rise	1477 Sep 22 j 01:01	17° L 46'40			1480 Feb 21 j 03:03	0° \approx	
	1477 Oct 01 j 20:10	0° M		morning max el	1480 Mar 23 j 14:39	25° \approx 47'24	46°21'00
desc. node	1477 Oct 17 j 09:01	19° M 23'11			1480 Mar 27 j 20:27	0° H	
	1477 Oct 25 j 21:15	0° J		desc. node	1480 Apr 03 j 03:59	6° H 27'20	
	1477 Nov 18 j 22:58	0° S			1480 Apr 25 j 00:20	0° Y	
	1477 Dec 13 j 02:47	0° \approx			1480 May 21 j 10:57	0° B	
	1478 Jan 06 j 11:58	0° H			1480 Jun 16 j 03:00	0° II	
	1478 Jan 31 j 08:53	0° Y		asc. node	1480 Jul 11 j 06:56	0° S	
asc. node	1478 Feb 07 j 12:20	8° Y 26'26			1480 Jul 25 j 07:32	16° S 56'42	
	1478 Feb 26 j 05:44	0° B			1480 Aug 05 j 00:45	0° O	
	1478 Mar 26 j 09:13	0° II			1480 Aug 29 j 09:52	0° M	
evening max el	1478 Mar 28 j 04:14	1° II 45'39	45°45'17	morning set	1480 Sep 17 j 10:04	23° M 38'04	
greatest brilliancy	1478 May 01 j 11:55	28° II 28'30	-4.5m		1480 Sep 22 j 12:27	0° L	
	1478 May 05 j 00:22	0° S			1480 Oct 16 j 11:08	0° M	
retrograde	1478 May 16 j 03:53	2° S 15'11		max. Earth dist.	1480 Oct 24 j 11:16	10° M 03'06	1.71331 AU
	1478 May 26 j 19:50	30° R II					
desc. node	1478 May 30 j 01:30	28° II 29'24		superior conj	1480 Oct 26 j 00:01	11° M 58'29	0°43'03
evening set	1478 May 31 j 05:24	27° II 52'26		minimum elong	1480 Oct 26 j 09:24	12° M 27'59	0°42'38
inferior conj	1478 Jun 06 j 15:59	24° II 01'22	-1°-46'-36		1480 Nov 09 j 08:11	0° J	
minimum elong	1478 Jun 06 j 12:07	24° II 07'25	1°45'30	desc. node	1480 Nov 13 j 20:50	5° J 41'28	
min. Earth dist.	1478 Jun 06 j 15:46	24° II 01'42	0.28968 AU		1480 Dec 03 j 05:01	0° S	
morning rise	1478 Jun 12 j 18:43	20° II 20'09		evening rise	1480 Dec 06 j 01:22	3° S 34'45	
direct	1478 Jun 28 j 06:29	15° II 43'38			1480 Dec 27 j 02:40	0° \approx	
greatest brilliancy	1478 Jul 12 j 01:29	19° II 01'15	-4.5m		1481 Jan 20 j 02:41	0° H	
	1478 Jul 29 j 09:32	0° S			1481 Feb 13 j 07:39	0° Y	

asc. node	1481 Mar 07 j 00:17	26° Υ 31'19		1483 Sep 13 j 14:56	0° \mathfrak{M}	
	1481 Mar 09 j 21:12	0° \mathfrak{B}		1483 Oct 07 j 23:25	0° \mathfrak{L}	
	1481 Apr 04 j 00:14	0° Π		1483 Nov 01 j 00:16	0° \mathfrak{M}	
	1481 Apr 30 j 01:15	0° \mathfrak{S}		1483 Nov 24 j 21:31	0° \mathfrak{A}	
	1481 May 27 j 21:52	0° Ω		1483 Dec 01 j 05:53	7° \mathfrak{A} 59'20	
evening max el	1481 Jun 06 j 21:24	9° Ω 51'56	45°23'45	desc. node	1483 Dec 12 j 08:42	21° \mathfrak{A} 58'44
desc. node	1481 Jun 26 j 13:34	26° Ω 50'56			1483 Dec 18 j 17:43	0° \mathfrak{C}
	1481 Jun 30 j 23:26	0° \mathfrak{M}			1484 Jan 11 j 14:23	0° \approx
greatest brilliancy	1481 Jul 13 j 02:43	6° \mathfrak{M} 43'23	-4.5m			
retrograde	1481 Jul 25 j 10:48	9° \mathfrak{M} 23'13		superior conj	1484 Jan 12 j 01:28	0° \approx 34'49 -1°-4'-49
evening set	1481 Aug 12 j 03:17	3° \mathfrak{M} 33'20		minimum elong	1484 Jan 11 j 13:37	29° \mathfrak{C} 57'35 1°04'27
inferior conj	1481 Aug 15 j 17:30	1° \mathfrak{M} 21'45	-8°-31'-11	max. Earth dist.	1484 Jan 15 j 02:27	4° \approx 23'50 1.71299 AU
minimum elong	1481 Aug 15 j 13:24	1° \mathfrak{M} 28'06	8°30'57		1484 Feb 04 j 12:43	0° \mathfrak{K}
min. Earth dist.	1481 Aug 16 j 04:00	1° \mathfrak{M} 05'28	0.28543 AU	evening rise	1484 Feb 21 j 20:40	21° \mathfrak{K} 37'45
	1481 Aug 17 j 22:30	30° \mathfrak{R} Ω			1484 Feb 28 j 14:09	0° Υ
morning rise	1481 Aug 18 j 23:22	29° Ω 22'19			1484 Mar 23 j 20:09	0° \mathfrak{B}
direct	1481 Sep 06 j 04:56	23° Ω 10'34		asc. node	1484 Apr 03 j 12:08	13° \mathfrak{B} 06'16
greatest brilliancy	1481 Sep 20 j 14:49	26° Ω 53'13	-4.6m		1484 Apr 17 j 08:07	0° Π
	1481 Sep 26 j 06:18	0° \mathfrak{M}			1484 May 12 j 03:33	0° \mathfrak{S}
asc. node	1481 Oct 17 j 16:51	17° \mathfrak{M} 02'48			1484 Jun 06 j 09:03	0° Ω
morning max el	1481 Oct 26 j 11:49	25° \mathfrak{M} 36'07	46°38'05		1484 Jul 02 j 06:25	0° \mathfrak{M}
	1481 Oct 30 j 18:59	0° \mathfrak{L}		desc. node	1484 Jul 24 j 01:20	24° \mathfrak{M} 15'09
	1481 Nov 26 j 23:07	0° \mathfrak{M}			1484 Jul 29 j 09:37	0° \mathfrak{L}
	1481 Dec 22 j 08:43	0° \mathfrak{A}		evening max el	1484 Aug 18 j 06:34	20° \mathfrak{L} 16'49 46°13'42
	1482 Jan 16 j 02:15	0° \mathfrak{C}			1484 Aug 28 j 18:34	0° \mathfrak{M}
desc. node	1482 Feb 06 j 06:23	25° \mathfrak{C} 56'58		greatest brilliancy	1484 Sep 26 j 06:24	19° \mathfrak{M} 05'24 -4.6m
	1482 Feb 09 j 13:30	0° \approx		retrograde	1484 Oct 06 j 17:43	21° \mathfrak{M} 06'18
	1482 Mar 05 j 22:41	0° \mathfrak{K}		evening set	1484 Oct 22 j 03:27	16° \mathfrak{M} 32'47
	1482 Mar 30 j 07:49	0° Υ		inferior conj	1484 Oct 27 j 10:10	13° \mathfrak{M} 26'53 -4°-23'-10
	1482 Apr 23 j 17:46	0° \mathfrak{B}		minimum elong	1484 Oct 27 j 19:09	13° \mathfrak{M} 13'15 4°20'40
morning set	1482 May 01 j 09:11	9° \mathfrak{B} 22'53		min. Earth dist.	1484 Oct 28 j 02:30	13° \mathfrak{M} 02'03 0.26760 AU
	1482 May 18 j 04:22	0° Π		morning rise	1484 Nov 02 j 10:10	9° \mathfrak{M} 55'57
asc. node	1482 May 30 j 09:49	15° Π 00'32		asc. node	1484 Nov 14 j 04:42	5° \mathfrak{M} 52'04
max. Earth dist.	1482 Jun 06 j 08:52	23° Π 33'19	1.73611 AU	direct	1484 Nov 16 j 23:53	5° \mathfrak{M} 42'25
				greatest brilliancy	1484 Nov 30 j 04:43	8° \mathfrak{M} 55'28 -4.7m
superior conj	1482 Jun 07 j 03:18	24° Π 29'57	0°18'14		1484 Dec 28 j 10:56	0° \mathfrak{A}
minimum elong	1482 Jun 06 j 23:38	24° Π 18'42	0°18'04	morning max el	1485 Jan 06 j 16:23	9° \mathfrak{A} 02'51 46°56'30
	1482 Jun 11 j 14:46	0° \mathfrak{S}			1485 Jan 26 j 07:53	0° \mathfrak{C}
	1482 Jul 06 j 00:09	0° Ω			1485 Feb 21 j 15:24	0° \approx
evening rise	1482 Jul 12 j 23:54	8° Ω 36'25		desc. node	1485 Mar 05 j 18:13	14° \approx 12'16
	1482 Jul 30 j 08:34	0° \mathfrak{M}			1485 Mar 19 j 02:07	0° \mathfrak{K}
	1482 Aug 23 j 17:01	0° \mathfrak{L}			1485 Apr 13 j 03:55	0° Υ
	1482 Sep 17 j 02:47	0° \mathfrak{M}			1485 May 08 j 01:17	0° \mathfrak{B}
desc. node	1482 Sep 18 j 23:09	2° \mathfrak{M} 16'06			1485 Jun 01 j 19:26	0° Π
	1482 Oct 11 j 15:06	0° \mathfrak{A}			1485 Jun 26 j 10:02	0° \mathfrak{S}
	1482 Nov 05 j 07:52	0° \mathfrak{C}		asc. node	1485 Jun 26 j 21:45	0° \mathfrak{S} 35'48
	1482 Nov 30 j 10:12	0° \approx		morning set	1485 Jul 08 j 01:15	14° \mathfrak{S} 15'23
	1482 Dec 26 j 12:26	0° \mathfrak{K}			1485 Jul 20 j 20:22	0° Ω
asc. node	1483 Jan 10 j 02:30	15° \mathfrak{K} 43'08		max. Earth dist.	1485 Aug 10 j 00:07	24° Ω 54'55 1.72792 AU
evening max el	1483 Jan 13 j 19:10	19° \mathfrak{K} 30'54	46°55'34			
	1483 Jan 24 j 14:09	0° Υ		superior conj	1485 Aug 13 j 11:33	29° Ω 13'36 1°22'28
greatest brilliancy	1483 Feb 19 j 06:09	18° Υ 54'24	-4.6m	minimum elong	1485 Aug 13 j 07:27	29° Ω 00'52 1°22'26
retrograde	1483 Mar 05 j 07:09	22° Υ 29'20			1485 Aug 14 j 02:31	0° \mathfrak{M}
evening set	1483 Mar 22 j 12:02	16° Υ 43'59			1485 Sep 07 j 05:36	0° \mathfrak{L}
inferior conj	1483 Mar 26 j 11:46	14° Υ 14'43	7°17'41	evening rise	1485 Sep 19 j 15:38	15° \mathfrak{L} 28'38
minimum elong	1483 Mar 26 j 20:49	14° Υ 00'23	7°16'14		1485 Oct 01 j 07:10	0° \mathfrak{M}
min. Earth dist.	1483 Mar 26 j 08:23	14° Υ 20'05	0.28435 AU	desc. node	1485 Oct 16 j 11:02	18° \mathfrak{M} 54'42
morning rise	1483 Mar 31 j 05:55	11° Υ 18'56			1485 Oct 25 j 08:28	0° \mathfrak{A}
direct	1483 Apr 16 j 16:51	6° Υ 06'26			1485 Nov 18 j 10:26	0° \mathfrak{C}
greatest brilliancy	1483 Apr 28 j 11:11	8° Υ 35'48	-4.5m		1485 Dec 12 j 14:35	0° \approx
desc. node	1483 May 01 j 15:38	10° Υ 00'47			1486 Jan 06 j 00:16	0° \mathfrak{K}
	1483 May 28 j 23:53	0° \mathfrak{B}			1486 Jan 30 j 22:07	0° Υ
morning max el	1483 Jun 04 j 13:05	6° \mathfrak{B} 05'52	45°46'07	asc. node	1486 Feb 06 j 14:19	7° Υ 52'14
	1483 Jun 27 j 23:52	0° Π			1486 Feb 25 j 21:01	0° \mathfrak{B}
	1483 Jul 25 j 00:28	0° \mathfrak{S}		evening max el	1486 Mar 25 j 20:03	29° \mathfrak{B} 34'24 45°47'14
	1483 Aug 19 j 17:31	0° Ω			1486 Mar 26 j 06:33	0° Π
asc. node	1483 Aug 22 j 19:19	3° Ω 39'38		greatest brilliancy	1486 Apr 29 j 02:50	26° Π 18'22 -4.5m

	1486 May 11 j 08:18	0°☿			1488 Oct 15 j 21:53	0°♍	
retrograde	1486 May 13 j 20:56	0°☿07'25		max. Earth dist.	1488 Oct 21 j 18:18	7°♍20'41	1.71365 AU
	1486 May 16 j 08:50	30°♌II					
evening set	1486 May 28 j 21:53	25°II44'18		superior conj	1488 Oct 23 j 12:18	9°♍32'31	0°46'15
desc. node	1486 May 29 j 03:41	25°II36'22		minimum elong	1488 Oct 23 j 22:03	10°♍03'08	0°45'50
inferior conj	1486 Jun 04 j 08:28	21°II53'11	-1°-27'-11		1488 Nov 08 j 19:01	0°♌	
minimum elong	1486 Jun 04 j 05:17	21°II58'10	1°26'17	desc. node	1488 Nov 12 j 22:59	5°♌14'06	
min. Earth dist.	1486 Jun 04 j 08:08	21°II53'43	0.28964 AU		1488 Dec 02 j 15:57	0°♌	
morning rise	1486 Jun 10 j 12:40	18°II10'17		evening rise	1488 Dec 03 j 11:26	1°♌01'09	
direct	1486 Jun 25 j 23:05	13°II35'26			1488 Dec 26 j 13:43	0°≈	
greatest brilliancy	1486 Jul 09 j 17:36	16°II53'08	-4.5m		1489 Jan 19 j 13:52	0°♌	
	1486 Jul 29 j 18:10	0°☿			1489 Feb 12 j 19:03	0°♍	
morning max el	1486 Aug 13 j 22:36	13°☿35'50	45°54'54	asc. node	1489 Mar 06 j 02:16	26°♍01'42	
	1486 Aug 30 j 02:18	0°♌			1489 Mar 09 j 09:01	0°♌	
asc. node	1486 Sep 19 j 07:12	22°♌15'25			1489 Apr 03 j 12:55	0°II	
	1486 Sep 26 j 01:10	0°♍			1489 Apr 29 j 15:44	0°☿	
	1486 Oct 21 j 09:07	0°♌			1489 May 27 j 17:08	0°♌	
	1486 Nov 14 j 22:02	0°♍		evening max el	1489 Jun 04 j 12:25	7°♌39'54	45°23'08
	1486 Dec 09 j 01:52	0°♌		desc. node	1489 Jun 25 j 15:35	25°♌43'35	
desc. node	1487 Jan 02 j 02:13	0°♌		greatest brilliancy	1489 Jul 01 j 23:58	0°♍	
	1487 Jan 08 j 20:33	8°♌27'28		retrograde	1489 Jul 10 j 16:11	4°♍30'06	-4.5m
	1487 Jan 26 j 02:01	0°≈		evening set	1489 Jul 23 j 01:06	7°♍11'06	
morning set	1487 Feb 16 j 10:12	26°≈38'40			1489 Aug 09 j 15:47	1°♍25'05	
	1487 Feb 19 j 02:48	0°♌			1489 Aug 11 j 23:59	30°♌♌	
	1487 Mar 15 j 05:37	0°♍		inferior conj	1489 Aug 13 j 08:50	29°♌09'09	-8°-26'-11
				minimum elong	1489 Aug 13 j 04:00	29°♌16'38	8°25'53
superior conj	1487 Mar 27 j 18:30	15°♍32'30	-1°-11'-10	min. Earth dist.	1489 Aug 13 j 18:43	28°♌53'48	0.28585 AU
minimum elong	1487 Mar 28 j 04:01	16°♍01'58	1°10'56	morning rise	1489 Aug 16 j 16:03	27°♌07'26	
max. Earth dist.	1487 Mar 30 j 23:31	19°♍30'48	1.72784 AU	direct	1489 Sep 03 j 20:32	20°♌57'24	
	1487 Apr 08 j 11:10	0°♌		greatest brilliancy	1489 Sep 18 j 05:55	24°♌38'27	-4.6m
asc. node	1487 May 02 j 00:05	28°♌59'44			1489 Sep 27 j 08:32	0°♍	
	1487 May 02 j 19:42	0°II		asc. node	1489 Oct 16 j 18:57	16°♍07'55	
evening rise	1487 May 04 j 18:09	2°II22'37		morning max el	1489 Oct 24 j 01:17	23°♍14'16	46°36'36
	1487 May 27 j 07:01	0°☿			1489 Oct 30 j 14:58	0°♌	
	1487 Jun 20 j 21:06	0°♌			1489 Nov 26 j 14:22	0°♍	
	1487 Jul 15 j 14:52	0°♍			1489 Dec 21 j 22:07	0°♌	
	1487 Aug 09 j 14:25	0°♌			1490 Jan 15 j 14:39	0°♌	
desc. node	1487 Aug 21 j 13:11	14°♌12'09		desc. node	1490 Feb 05 j 08:20	25°♌26'32	
	1487 Sep 03 j 23:15	0°♍			1490 Feb 09 j 01:17	0°≈	
	1487 Sep 30 j 00:19	0°♌			1490 Mar 05 j 10:01	0°♌	
	1487 Oct 27 j 14:14	0°♌			1490 Mar 29 j 18:50	0°♍	
evening max el	1487 Oct 31 j 11:51	3°♌58'47	47°15'30		1490 Apr 23 j 04:33	0°♌	
	1487 Nov 30 j 16:06	0°≈		morning set	1490 Apr 29 j 02:24	7°♌15'34	
greatest brilliancy	1487 Dec 08 j 21:54	4°≈30'13	-4.7m		1490 May 17 j 14:59	0°II	
asc. node	1487 Dec 12 j 16:44	5°≈57'01		asc. node	1490 May 29 j 11:57	14°II34'44	
retrograde	1487 Dec 21 j 07:54	7°≈23'46		max. Earth dist.	1490 Jun 04 j 05:10	21°II35'58	1.73608 AU
evening set	1488 Jan 05 j 20:55	2°≈33'35					
min. Earth dist.	1488 Jan 10 j 01:19	0°≈03'24	0.26879 AU	superior conj	1490 Jun 04 j 21:38	22°II26'31	0°15'10
	1488 Jan 10 j 03:32	30°♌♌		minimum elong	1490 Jun 04 j 18:34	22°II17'05	0°15'01
inferior conj	1488 Jan 10 j 23:10	29°♌29'41	6°40'54	behind sun begin	1490 Jun 04 j 11:25	21°II55'08	
minimum elong	1488 Jan 10 j 12:50	29°♌45'39	6°38'44	behind sun end	1490 Jun 05 j 01:43	22°II39'03	
morning rise	1488 Jan 15 j 05:13	26°♌55'55			1490 Jun 11 j 01:18	0°☿	
direct	1488 Jan 31 j 10:11	21°♌47'19			1490 Jul 05 j 10:44	0°♌	
greatest brilliancy	1488 Feb 11 j 02:44	23°♌56'08	-4.6m	evening rise	1490 Jul 10 j 18:51	6°♌34'16	
	1488 Feb 22 j 13:05	0°≈			1490 Jul 29 j 19:20	0°♍	
morning max el	1488 Mar 21 j 04:40	23°≈28'02	46°22'39		1490 Aug 23 j 04:06	0°♌	
	1488 Mar 27 j 17:23	0°♌		desc. node	1490 Sep 16 j 14:20	0°♍	
desc. node	1488 Apr 02 j 06:00	5°♌42'25			1490 Sep 18 j 01:11	1°♍46'51	
	1488 Apr 24 j 15:39	0°♍			1490 Oct 11 j 03:14	0°♌	
	1488 May 21 j 00:01	0°♌			1490 Nov 04 j 20:49	0°♌	
	1488 Jun 15 j 14:55	0°II			1490 Nov 30 j 00:34	0°≈	
	1488 Jul 10 j 18:13	0°☿			1490 Dec 26 j 05:47	0°♌	
asc. node	1488 Jul 24 j 09:29	16°☿29'03		asc. node	1491 Jan 09 j 04:29	14°♌54'37	
	1488 Aug 04 j 11:41	0°♌		evening max el	1491 Jan 11 j 08:47	17°♌08'28	46°57'35
	1488 Aug 28 j 20:38	0°♍			1491 Jan 24 j 17:50	0°♍	
morning set	1488 Sep 15 j 01:26	21°♍22'55		greatest brilliancy	1491 Feb 16 j 23:40	16°♍41'13	-4.6m
	1488 Sep 21 j 23:10	0°♌		retrograde	1491 Mar 02 j 22:24	20°♍14'28	

evening set	1491 Mar 20 j 06:21	14° Υ 25'13		evening rise	1493 Sep 06 j 16:28	0° Ω	
inferior conj	1491 Mar 24 j 03:18	12° Υ 00'15	7°28'58		1493 Sep 17 j 06:40	13° Ω 11'49	
minimum elong	1491 Mar 24 j 12:00	11° Υ 46'29	7°27'39		1493 Sep 30 j 18:12	0° \mathbb{M}	
min. Earth dist.	1491 Mar 23 j 23:39	12° Υ 06'02	0.28400 AU	desc. node	1493 Oct 15 j 13:12	18° \mathbb{M} 26'34	
morning rise	1491 Mar 28 j 17:55	9° Υ 09'27			1493 Oct 24 j 19:45	0° \mathcal{A}	
direct	1491 Apr 14 j 07:15	3° Υ 52'27			1493 Nov 17 j 22:01	0° \mathcal{Z}	
greatest brilliancy	1491 Apr 26 j 01:10	6° Υ 20'57	-4.5m		1493 Dec 12 j 02:34	0° \approx	
desc. node	1491 Apr 30 j 17:49	8° Υ 31'16			1494 Jan 05 j 12:50	0° \mathcal{H}	
	1491 May 29 j 00:58	0° \mathcal{B}			1494 Jan 30 j 11:41	0° Υ	
morning max el	1491 Jun 02 j 03:36	3° \mathcal{B} 51'55	45°46'50	asc. node	1494 Feb 05 j 16:21	7° Υ 17'14	
	1491 Jun 27 j 16:08	0° \mathbb{I}			1494 Feb 25 j 12:50	0° \mathcal{B}	
	1491 Jul 24 j 13:54	0° \mathcal{S}		evening max el	1494 Mar 23 j 12:20	27° \mathcal{B} 23'23	45°49'20
	1491 Aug 19 j 05:40	0° Ω			1494 Mar 26 j 05:05	0° \mathbb{I}	
asc. node	1491 Aug 21 j 21:23	3° Ω 09'50		greatest brilliancy	1494 Apr 26 j 18:50	24° \mathbb{I} 08'46	-4.5m
	1491 Sep 13 j 02:27	0° \mathbb{M}		retrograde	1494 May 11 j 13:57	27° \mathbb{I} 58'26	
	1491 Oct 07 j 10:39	0° Ω		evening set	1494 May 26 j 14:27	23° \mathbb{I} 35'02	
	1491 Oct 31 j 11:23	0° \mathbb{M}		desc. node	1494 May 28 j 05:43	22° \mathbb{I} 39'35	
	1491 Nov 24 j 08:34	0° \mathcal{A}		inferior conj	1494 Jun 02 j 00:48	19° \mathbb{I} 43'49	-1°-7'-37
morning set	1491 Nov 28 j 16:20	5° \mathcal{A} 26'24		minimum elong	1494 Jun 01 j 22:19	19° \mathbb{I} 47'41	1°06'54
desc. node	1491 Dec 11 j 10:45	21° \mathcal{A} 30'33		min. Earth dist.	1494 Jun 02 j 00:10	19° \mathbb{I} 44'47	0.28957 AU
	1491 Dec 18 j 04:43	0° \mathcal{Z}		morning rise	1494 Jun 08 j 06:18	15° \mathbb{I} 59'20	
				direct	1494 Jun 23 j 15:52	11° \mathbb{I} 26'15	
superior conj	1492 Jan 09 j 11:16	28° \mathcal{Z} 00'28	-1°-2'-7	greatest brilliancy	1494 Jul 07 j 08:35	14° \mathbb{I} 42'41	-4.5m
minimum elong	1492 Jan 08 j 23:18	27° \mathcal{Z} 22'54	1°01'44		1494 Jul 30 j 00:44	0° \mathcal{S}	
	1492 Jan 11 j 01:20	0° \approx		morning max el	1494 Aug 11 j 15:10	11° \mathcal{S} 26'40	45°53'53
max. Earth dist.	1492 Jan 12 j 05:53	1° \approx 29'38	1.71265 AU		1494 Aug 29 j 19:48	0° Ω	
	1492 Feb 03 j 23:39	0° \mathcal{H}		asc. node	1494 Sep 18 j 09:18	21° Ω 39'19	
evening rise	1492 Feb 19 j 08:13	19° \mathcal{H} 10'14			1494 Sep 25 j 15:20	0° \mathbb{M}	
	1492 Feb 28 j 01:06	0° Υ			1494 Oct 20 j 21:53	0° Ω	
	1492 Mar 23 j 07:12	0° \mathcal{B}			1494 Nov 14 j 10:06	0° \mathbb{M}	
asc. node	1492 Apr 02 j 14:17	12° \mathcal{B} 38'45			1494 Dec 08 j 13:33	0° \mathcal{A}	
	1492 Apr 16 j 19:24	0° \mathbb{I}			1495 Jan 01 j 13:41	0° \mathcal{Z}	
	1492 May 11 j 15:17	0° \mathcal{S}		desc. node	1495 Jan 07 j 22:30	7° \mathcal{Z} 57'56	
	1492 Jun 05 j 21:38	0° Ω			1495 Jan 25 j 13:19	0° \approx	
desc. node	1492 Jul 01 j 20:39	0° \mathbb{M}		morning set	1495 Feb 13 j 21:45	24° \approx 10'09	
	1492 Jul 23 j 03:20	23° \mathbb{M} 35'04			1495 Feb 18 j 13:57	0° \mathcal{H}	
	1492 Jul 29 j 03:29	0° Ω			1495 Mar 14 j 16:38	0° Υ	
evening max el	1492 Aug 15 j 19:12	17° Ω 54'54	46°11'16				
	1492 Aug 29 j 01:10	0° \mathbb{M}		superior conj	1495 Mar 25 j 08:58	13° Υ 14'38	-1°-13'-6
greatest brilliancy	1492 Sep 23 j 17:58	16° \mathbb{M} 39'29	-4.6m	minimum elong	1495 Mar 25 j 18:12	13° Υ 43'16	1°12'52
retrograde	1492 Oct 04 j 06:05	18° \mathbb{M} 41'08		max. Earth dist.	1495 Mar 28 j 17:49	17° Υ 24'57	1.72733 AU
evening set	1492 Oct 19 j 18:43	14° \mathbb{M} 02'54			1495 Apr 07 j 22:07	0° \mathcal{B}	
inferior conj	1492 Oct 24 j 22:42	11° \mathbb{M} 00'54	-4°-43'-31	asc. node	1495 May 01 j 02:08	28° \mathcal{B} 32'23	
minimum elong	1492 Oct 25 j 08:08	10° \mathbb{M} 46'35	4°40'58	evening rise	1495 May 02 j 11:03	0° \mathbb{I} 13'32	
min. Earth dist.	1492 Oct 25 j 16:00	10° \mathbb{M} 34'38	0.26818 AU		1495 May 02 j 06:39	0° \mathbb{I}	
morning rise	1492 Oct 30 j 20:54	7° \mathbb{M} 32'40			1495 May 26 j 18:06	0° \mathcal{S}	
asc. node	1492 Nov 13 j 06:51	3° \mathbb{M} 17'14			1495 Jun 20 j 08:29	0° Ω	
direct	1492 Nov 14 j 13:14	3° \mathbb{M} 15'15			1495 Jul 15 j 02:44	0° \mathbb{M}	
greatest brilliancy	1492 Nov 27 j 20:56	6° \mathbb{M} 32'08	-4.7m		1495 Aug 09 j 03:04	0° Ω	
	1492 Dec 28 j 13:38	0° \mathcal{A}		desc. node	1495 Aug 20 j 15:18	13° Ω 39'20	
morning max el	1493 Jan 04 j 06:53	6° \mathcal{A} 39'40	46°56'53		1495 Sep 03 j 13:12	0° \mathbb{M}	
	1493 Jan 26 j 01:26	0° \mathcal{Z}			1495 Sep 29 j 16:39	0° \mathcal{A}	
	1493 Feb 21 j 05:54	0° \approx			1495 Oct 27 j 12:24	0° \mathcal{Z}	
desc. node	1493 Mar 04 j 20:19	13° \approx 38'06		evening max el	1495 Oct 29 j 02:52	1° \mathcal{Z} 37'21	47°14'25
	1493 Mar 18 j 15:05	0° \mathcal{H}			1495 Dec 02 j 07:57	0° \approx	
	1493 Apr 12 j 15:59	0° Υ		greatest brilliancy	1495 Dec 06 j 12:59	2° \approx 04'49	-4.7m
	1493 May 07 j 12:45	0° \mathcal{B}		asc. node	1495 Dec 11 j 18:38	3° \approx 56'32	
	1493 Jun 01 j 06:32	0° \mathbb{I}		retrograde	1495 Dec 18 j 21:25	4° \approx 55'56	
asc. node	1493 Jun 25 j 23:41	0° \mathcal{S} 08'29		evening set	1496 Jan 03 j 06:38	0° \approx 11'35	
	1493 Jun 25 j 20:54	0° \mathcal{S}			1496 Jan 03 j 14:47	30° \mathcal{R} \mathcal{Z}	
morning set	1493 Jul 05 j 19:12	12° \mathcal{S} 09'57		min. Earth dist.	1496 Jan 07 j 14:31	27° \mathcal{Z} 36'19	0.26826 AU
	1493 Jul 20 j 07:09	0° Ω		inferior conj	1496 Jan 08 j 12:07	27° \mathcal{Z} 02'57	6°25'12
max. Earth dist.	1493 Aug 07 j 20:10	22° Ω 54'56	1.72836 AU	minimum elong	1496 Jan 08 j 01:44	27° \mathcal{Z} 19'01	6°22'54
				morning rise	1496 Jan 12 j 21:20	24° \mathcal{Z} 24'40	
superior conj	1493 Aug 11 j 05:09	27° Ω 05'52	1°21'39	direct	1496 Jan 28 j 23:13	19° \mathcal{Z} 21'41	
minimum elong	1493 Aug 11 j 00:27	26° Ω 51'19	1°21'36	greatest brilliancy	1496 Feb 08 j 15:19	21° \mathcal{Z} 30'07	-4.6m
	1493 Aug 13 j 13:18	0° \mathbb{M}			1496 Feb 23 j 13:45	0° \approx	

morning max el	1496 Mar 18 j 17:49	21°  05'18	46°24'02		1498 Aug 22 j 15:34	0° 	
	1496 Mar 27 j 14:01	0° 			1498 Sep 16 j 02:15	0° 	
desc. node	1496 Apr 01 j 08:09	4°  57'26		desc. node	1498 Sep 17 j 03:19	1° 	16'46
	1496 Apr 24 j 07:11	0° 			1498 Oct 10 j 15:46	0° 	
	1496 May 20 j 13:25	0° 			1498 Nov 04 j 10:14	0° 	
	1496 Jun 15 j 03:12	0° 			1498 Nov 29 j 15:26	0° 	
	1496 Jul 10 j 05:52	0° 			1498 Dec 25 j 23:52	0° 	
asc. node	1496 Jul 23 j 11:31	16°  00'37		asc. node	1499 Jan 08 j 06:35	14° 	04'57
	1496 Aug 03 j 22:59	0° 		evening max el	1499 Jan 08 j 22:28	14° 	45'26 46°59'45
	1496 Aug 28 j 07:45	0° 			1499 Jan 24 j 23:41	0° 	
morning set	1496 Sep 12 j 16:45	19°  06'31		greatest brilliancy	1499 Feb 14 j 16:21	14° 	-4.6m
	1496 Sep 21 j 10:14	0° 		retrograde	1499 Feb 28 j 14:07	17° 	59'40
	1496 Oct 15 j 09:00	0° 		evening set	1499 Mar 18 j 00:45	12° 	06'21
max. Earth dist.	1496 Oct 19 j 00:18	4°  33'58	1.71399 AU	inferior conj	1499 Mar 21 j 19:02	9° 	45'42 7°39'31
				minimum elong	1499 Mar 22 j 03:21	9° 	32'32 7°38'20
superior conj	1496 Oct 21 j 00:53	7°  06'26	0°49'20	min. Earth dist.	1499 Mar 21 j 14:53	9° 	52'14 0.28365 AU
minimum elong	1496 Oct 21 j 10:56	7°  37'59	0°48'55	morning rise	1499 Mar 26 j 06:09	7° 	00'09
	1496 Nov 08 j 06:12	0° 		direct	1499 Apr 11 j 21:51	1° 	38'19
desc. node	1496 Nov 12 j 01:00	4°  45'19		greatest brilliancy	1499 Apr 23 j 15:45	4° 	06'42 -4.5m
evening rise	1496 Nov 30 j 21:47	28°  27'36		desc. node	1499 Apr 29 j 19:49	7° 	04'25
	1496 Dec 02 j 03:12	0° 			1499 May 29 j 01:03	0° 	
	1496 Dec 26 j 01:02	0° 		morning max el	1499 May 30 j 18:54	1° 	39'22 45°47'26
	1497 Jan 19 j 01:19	0° 			1499 Jun 27 j 08:24	0° 	
	1497 Feb 12 j 06:46	0° 			1499 Jul 24 j 03:32	0° 	
asc. node	1497 Mar 05 j 04:23	25°  31'25			1499 Aug 18 j 18:04	0° 	
	1497 Mar 08 j 21:14	0° 		asc. node	1499 Aug 20 j 23:31	2° 	39'25
	1497 Apr 03 j 02:04	0° 			1499 Sep 12 j 14:14	0° 	
	1497 Apr 29 j 06:52	0° 			1499 Oct 06 j 22:08	0° 	
	1497 May 27 j 13:33	0° 			1499 Oct 30 j 22:44	0° 	
evening max el	1497 Jun 02 j 02:41	5°  24'37	45°22'39		1499 Nov 23 j 19:50	0° 	
desc. node	1497 Jun 24 j 17:34	24°  32'59		morning set	1499 Nov 26 j 02:53	2° 	53'09
	1497 Jul 03 j 11:40	0° 		desc. node	1499 Dec 10 j 12:42	21° 	01'18
greatest brilliancy	1497 Jul 08 j 05:08	2°  14'51	-4.5m		1499 Dec 17 j 15:57	0° 	
retrograde	1497 Jul 20 j 15:26	4°  57'58					
	1497 Aug 05 j 21:27	30°  R ₀		superior conj	1500 Jan 06 j 21:00	25° 	25'02 0°-59'-17
evening set	1497 Aug 07 j 04:03	29°  21'54		minimum elong	1500 Jan 06 j 09:01	24° 	47'25 0°58'52
inferior conj	1497 Aug 11 j 00:09	26°  25'23	-8°-20'-30	max. Earth dist.	1500 Jan 09 j 09:44	28° 	35'50 1.71235 AU
minimum elong	1497 Aug 10 j 18:37	27°  20'00	8°20'04		1500 Jan 10 j 12:32	0° 	
min. Earth dist.	1497 Aug 11 j 09:33	26°  24'07	0.28627 AU		1500 Feb 03 j 10:50	0° 	
morning rise	1497 Aug 14 j 08:57	24°  25'08		evening rise	1500 Feb 16 j 19:54	16° 	42'21
direct	1497 Sep 01 j 11:45	18°  24'56			1500 Feb 27 j 12:16	0° 	
greatest brilliancy	1497 Sep 15 j 22:00	22°  23'55	-4.6m		1500 Mar 22 j 18:25	0° 	
	1497 Sep 28 j 04:21	0° 		asc. node	1500 Apr 01 j 16:20	12° 	10'27
asc. node	1497 Oct 15 j 21:04	15°  13'00			1500 Apr 16 j 06:49	0° 	
morning max el	1497 Oct 21 j 14:49	20°  51'25	46°35'13		1500 May 11 j 03:11	0° 	
	1497 Oct 30 j 10:49	0° 			1500 Jun 05 j 10:28	0° 	
	1497 Nov 26 j 05:49	0° 			1500 Jul 01 j 11:15	0° 	
	1497 Dec 21 j 11:45	0° 		desc. node	1500 Jul 22 j 05:27	22° 	54'11
	1498 Jan 15 j 03:19	0° 			1500 Jul 28 j 22:03	0° 	
desc. node	1498 Feb 04 j 10:27	24°  35'52		evening max el	1500 Aug 13 j 08:57	15° 	35'16 46°08'51
	1498 Feb 08 j 13:18	0° 			1500 Aug 29 j 10:35	0° 	
	1498 Mar 04 j 21:36	0° 		greatest brilliancy	1500 Sep 21 j 05:17	14° 	13'10 -4.6m
	1498 Mar 29 j 06:06	0° 		retrograde	1500 Oct 01 j 18:59	16° 	15'41
	1498 Apr 22 j 15:36	0° 		evening set	1500 Oct 17 j 10:14	11° 	32'52
morning set	1498 Apr 26 j 19:35	5°  07'07		inferior conj	1500 Oct 22 j 11:19	8° 	34'43 -5°-3'-12
	1498 May 17 j 01:55	0° 		minimum elong	1500 Oct 22 j 21:08	8° 	19'48 5°00'38
asc. node	1498 May 28 j 13:54	14°  22'16		min. Earth dist.	1500 Oct 23 j 05:12	8° 	07'34 0.26875 AU
max. Earth dist.	1498 Jun 02 j 00:24	19°  34'10	1.73609 AU	morning rise	1500 Oct 28 j 07:30	5° 	09'28
				direct	1500 Nov 12 j 03:04	0° 	48'11
superior conj	1498 Jun 02 j 15:53	20°  21'44	0°12'04	asc. node	1500 Nov 12 j 08:46	0° 	48'15
minimum elong	1498 Jun 02 j 13:26	20°  21'41	0°11'56	greatest brilliancy	1500 Nov 25 j 12:12	4° 	07'27 -4.7m
behind sun begin	1498 Jun 01 j 22:28	19°  28'15			1500 Dec 28 j 15:05	0° 	
behind sun end	1498 Jun 03 j 04:23	21°  28'00'07		morning max el	1501 Jan 01 j 21:42	4° 	16'56 46°57'04
	1498 Jun 10 j 12:12	0° 			1501 Jan 25 j 18:46	0° 	
	1498 Jul 04 j 21:41	0° 			1501 Feb 20 j 20:22	0° 	
evening rise	1498 Jul 08 j 13:42	4°  23'04		desc. node	1501 Mar 03 j 22:23	13° 	03'41
	1498 Jul 29 j 06:29	0° 			1501 Mar 18 j 04:06	0° 	

	1501 Apr 12 j 04:06	0°♄			1503 Dec 05 j 00:01	0°♊		
	1501 May 07 j 00:16	0°♌		asc. node	1503 Dec 10 j 20:47	1°♊50'48		
	1501 May 31 j 17:39	0°♍		retrograde	1503 Dec 16 j 10:13	2°♊27'21		
asc. node	1501 Jun 25 j 01:47	29°♍41'36			1503 Dec 27 j 08:23	30°♋♌		
	1501 Jun 25 j 07:48	0°♎		evening set	1503 Dec 31 j 16:15	27°♌48'47		
morning set	1501 Jul 03 j 13:30	10°♎05'35		min. Earth dist.	1504 Jan 05 j 04:01	25°♌07'59	0.26774 AU	
	1501 Jul 19 j 17:57	0°♏		inferior conj	1504 Jan 06 j 00:52	24°♌35'45	6°08'28	
max. Earth dist.	1501 Aug 05 j 15:22	20°♏52'10	1.72884 AU	minimum elong	1504 Jan 05 j 14:30	24°♌51'47	6°06'04	
				morning rise	1504 Jan 10 j 13:15	21°♌52'48		
superior conj	1501 Aug 08 j 22:55	24°♏58'34	1°20'44	direct	1504 Jan 26 j 11:27	16°♌55'25		
minimum elong	1501 Aug 08 j 17:41	24°♏42'19	1°20'40	greatest brilliancy	1504 Feb 06 j 04:37	19°♌04'29	-4.6m	
	1501 Aug 13 j 00:09	0°♐			1504 Feb 24 j 07:58	0°♊		
	1501 Sep 06 j 03:27	0°♑		morning max el	1504 Mar 16 j 05:55	18°♊40'02	46°25'34	
evening rise	1501 Sep 14 j 21:46	10°♑54'50			1504 Mar 27 j 09:52	0°♋		
	1501 Sep 30 j 05:22	0°♒		desc. node	1504 Mar 31 j 10:10	4°♋13'13		
desc. node	1501 Oct 14 j 15:10	17°♒57'27			1504 Apr 23 j 22:18	0°♌		
	1501 Oct 24 j 07:08	0°♈			1504 May 20 j 02:31	0°♌		
	1501 Nov 17 j 09:43	0°♉			1504 Jun 14 j 15:13	0°♍		
	1501 Dec 11 j 14:40	0°♊			1504 Jul 09 j 17:15	0°♎		
	1502 Jan 05 j 01:31	0°♋		asc. node	1504 Jul 22 j 13:42	15°♎33'26		
	1502 Jan 30 j 01:26	0°♌			1504 Aug 03 j 09:59	0°♏		
asc. node	1502 Feb 04 j 18:28	6°♌42'04			1504 Aug 27 j 18:34	0°♐		
	1502 Feb 25 j 04:56	0°♌		morning set	1504 Sep 10 j 08:32	16°♐52'33		
evening max el	1502 Mar 21 j 04:59	25°♌13'10	45°51'29		1504 Sep 20 j 21:00	0°♑		
	1502 Mar 26 j 04:35	0°♍			1504 Oct 14 j 19:50	0°♒		
greatest brilliancy	1502 Apr 24 j 12:10	22°♍01'11	-4.5m	max. Earth dist.	1504 Oct 16 j 09:08	1°♒57'01	1.71444 AU	
retrograde	1502 May 09 j 06:56	25°♍49'59						
evening set	1502 May 24 j 07:25	21°♍26'28		superior conj	1504 Oct 18 j 13:50	4°♒42'21	0°52'17	
desc. node	1502 May 27 j 07:39	19°♍41'51		minimum elong	1504 Oct 19 j 00:06	5°♒14'35	0°51'53	
inferior conj	1502 May 30 j 17:20	17°♍35'19	0°-48'-2		1504 Nov 07 j 17:09	0°♈		
minimum elong	1502 May 30 j 15:34	17°♍38'05	0°47'31	desc. node	1504 Nov 11 j 03:01	4°♈17'12		
min. Earth dist.	1502 May 30 j 16:33	17°♍36'33	0.28945 AU	evening rise	1504 Nov 28 j 08:04	25°♈54'28		
morning rise	1502 Jun 05 j 23:56	13°♍49'16			1504 Dec 01 j 14:16	0°♉		
direct	1502 Jun 21 j 08:45	9°♍18'10			1504 Dec 25 j 12:13	0°♊		
greatest brilliancy	1502 Jul 04 j 22:29	12°♍31'41	-4.5m		1505 Jan 18 j 12:38	0°♋		
	1502 Jul 30 j 04:59	0°♎			1505 Feb 11 j 18:21	0°♌		
morning max el	1502 Aug 09 j 07:01	9°♎16'23	45°52'44	asc. node	1505 Mar 04 j 06:26	25°♌01'20		
	1502 Aug 29 j 12:48	0°♏			1505 Mar 08 j 09:18	0°♌		
asc. node	1502 Sep 17 j 11:22	21°♏03'42			1505 Apr 02 j 15:06	0°♍		
	1502 Sep 25 j 05:18	0°♐			1505 Apr 28 j 21:58	0°♎		
	1502 Oct 20 j 10:34	0°♑			1505 May 27 j 10:19	0°♏		
	1502 Nov 13 j 22:08	0°♒		evening max el	1505 May 30 j 16:52	3°♏10'07	45°22'25	
	1502 Dec 08 j 01:13	0°♈		desc. node	1505 Jun 23 j 19:45	23°♏21'53		
	1503 Jan 01 j 01:06	0°♉		greatest brilliancy	1505 Jul 05 j 17:22	0°♐00'09	-4.5m	
desc. node	1503 Jan 07 j 00:41	7°♐29'15			1505 Jul 05 j 17:14	0°♐		
	1503 Jan 25 j 00:32	0°♊		retrograde	1505 Jul 18 j 06:29	2°♐46'43		
morning set	1503 Feb 11 j 09:03	21°♊41'06			1505 Jul 30 j 05:47	30°♑♒		
	1503 Feb 18 j 01:01	0°♋		evening set	1505 Aug 04 j 16:24	27°♒08'22		
	1503 Mar 14 j 03:34	0°♌		inferior conj	1505 Aug 08 j 15:41	24°♒43'27	-8°-14'-7	
				minimum elong	1505 Aug 08 j 09:30	24°♒53'03	8°13'33	
superior conj	1503 Mar 22 j 23:19	10°♌56'37	-1°-14'-54	min. Earth dist.	1505 Aug 09 j 00:31	24°♒29'44	0.28663 AU	
minimum elong	1503 Mar 23 j 08:12	11°♌24'09	1°14'42	morning rise	1505 Aug 12 j 02:21	22°♒36'28		
max. Earth dist.	1503 Mar 26 j 12:47	15°♌21'20	1.72680 AU	direct	1505 Aug 30 j 03:04	16°♒30'19		
	1503 Apr 07 j 08:58	0°♌		greatest brilliancy	1505 Sep 13 j 14:46	20°♒12'13	-4.6m	
evening rise	1503 Apr 30 j 03:56	28°♌04'34			1505 Sep 28 j 18:20	0°♐		
asc. node	1503 Apr 30 j 04:08	28°♌05'08		asc. node	1505 Oct 14 j 23:02	14°♐20'24		
	1503 May 01 j 17:31	0°♍		morning max el	1505 Oct 19 j 05:15	18°♐32'36	46°33'49	
	1503 May 26 j 05:04	0°♎			1505 Oct 30 j 05:34	0°♑		
	1503 Jun 19 j 19:42	0°♏			1505 Nov 25 j 20:37	0°♒		
	1503 Jul 14 j 14:25	0°♐			1505 Dec 21 j 00:57	0°♈		
	1503 Aug 08 j 15:34	0°♑			1506 Jan 14 j 15:38	0°♉		
desc. node	1503 Aug 19 j 17:23	13°♑06'59		desc. node	1506 Feb 03 j 12:32	24°♑25'52		
	1503 Sep 03 j 03:05	0°♒			1506 Feb 08 j 01:03	0°♊		
	1503 Sep 29 j 09:09	0°♈			1506 Mar 04 j 08:57	0°♋		
evening max el	1503 Oct 26 j 16:57	29°♈13'35	47°12'59		1506 Mar 28 j 17:09	0°♌		
	1503 Oct 27 j 11:27	0°♉			1506 Apr 22 j 02:25	0°♌		
greatest brilliancy	1503 Dec 04 j 04:54	29°♉39'54	-4.7m	morning set	1506 Apr 24 j 12:18	2°♉57'52		

	1506 May 16 j 12:35	0°II		evening set	1508 Oct 15 j 01:54	9°ML04'00	
asc. node	1506 May 27 j 16:00	13°II41'05		inferior conj	1508 Oct 19 j 23:57	6°ML09'41	-5°-22'-22
				minimum elong	1508 Oct 20 j 10:06	5°ML54'15	5°19'47
superior conj	1506 May 31 j 09:51	18°II16'56	0°08'54	min. Earth dist.	1508 Oct 20 j 18:18	5°ML41'47	0.26929 AU
minimum elong	1506 May 31 j 08:01	18°II11'19	0°08'49	morning rise	1508 Oct 25 j 17:48	2°ML47'32	
behind sun begin	1506 May 30 j 13:05	17°II13'11			1508 Oct 31 j 19:34	30°RΔ	
behind sun end	1506 Jun 01 j 02:57	19°II09'27		direct	1508 Nov 09 j 16:58	28°Δ22'29	
max. Earth dist.	1506 May 30 j 20:32	17°II36'04	1.73607 AU	asc. node	1508 Nov 11 j 10:53	28°Δ26'11	
	1506 Jun 09 j 22:48	0°☾			1508 Nov 18 j 21:23	0°ML	
evening rise	1506 Jul 04 j 08:21	0°Ω		greatest brilliancy	1508 Nov 23 j 02:17	1°ML42'22	-4.7m
	1506 Jul 06 j 08:34	2°Ω28'17			1508 Dec 28 j 14:50	0°♂	
	1506 Jul 28 j 17:20	0°♂		morning max el	1508 Dec 30 j 12:06	1°♂54'24	46°57'18
	1506 Aug 22 j 02:42	0°Δ			1509 Jan 25 j 11:18	0°☾	
	1506 Sep 15 j 13:48	0°ML			1509 Feb 20 j 10:18	0°≈	
desc. node	1506 Sep 16 j 05:18	0°ML47'27		desc. node	1509 Mar 03 j 00:23	12°≈30'22	
	1506 Oct 10 j 03:55	0°♂			1509 Mar 17 j 16:42	0°♂	
	1506 Nov 03 j 23:17	0°☾			1509 Apr 11 j 15:54	0°♀	
	1506 Nov 29 j 06:05	0°≈			1509 May 06 j 11:32	0°♂	
	1506 Dec 25 j 18:02	0°♂			1509 May 31 j 04:34	0°II	
evening max el	1507 Jan 06 j 12:43	12°♂24'26	47°01'35	asc. node	1509 Jun 24 j 03:55	29°II15'20	
asc. node	1507 Jan 07 j 08:41	13°♂15'06			1509 Jun 24 j 18:30	0°☾	
	1507 Jan 25 j 07:42	0°♀		morning set	1509 Jul 01 j 07:24	8°☾00'35	
greatest brilliancy	1507 Feb 12 j 08:06	12°♀10'19	-4.6m		1509 Jul 19 j 04:35	0°Ω	
retrograde	1507 Feb 26 j 05:58	15°♀44'00		max. Earth dist.	1509 Aug 03 j 08:51	18°Ω44'50	1.72928 AU
evening set	1507 Mar 15 j 18:38	9°♀46'33					
inferior conj	1507 Mar 19 j 10:18	7°♀30'05	7°49'24	superior conj	1509 Aug 06 j 16:25	22°Ω51'08	1°19'42
minimum elong	1507 Mar 19 j 18:11	7°♀17'38	7°48'22	minimum elong	1509 Aug 06 j 10:38	22°Ω33'14	1°19'36
min. Earth dist.	1507 Mar 19 j 05:24	7°♀37'49	0.28332 AU		1509 Aug 12 j 10:49	0°♂	
morning rise	1507 Mar 23 j 17:57	4°♀50'00			1509 Sep 05 j 14:14	0°Δ	
	1507 Apr 03 j 23:57	30°R♂		evening rise	1509 Sep 12 j 12:45	8°Δ38'17	
direct	1507 Apr 09 j 12:21	29°♂23'10			1509 Sep 29 j 16:20	0°ML	
	1507 Apr 15 j 04:58	0°♀		desc. node	1509 Oct 13 j 17:12	17°ML29'07	
greatest brilliancy	1507 Apr 21 j 05:35	1°♀51'17	-4.5m		1509 Oct 23 j 18:21	0°♂	
desc. node	1507 Apr 28 j 21:49	5°♀40'17			1509 Nov 16 j 21:13	0°☾	
morning max el	1507 May 28 j 10:42	29°♀28'18	45°48'12		1509 Dec 11 j 02:32	0°≈	
	1507 May 28 j 23:56	0°♂			1510 Jan 04 j 13:57	0°♂	
	1507 Jun 27 j 00:08	0°II			1510 Jan 29 j 14:58	0°♀	
	1507 Jul 23 j 16:45	0°☾		asc. node	1510 Feb 03 j 20:29	6°♀07'24	
	1507 Aug 18 j 06:06	0°Ω			1510 Feb 24 j 20:58	0°♂	
asc. node	1507 Aug 20 j 01:28	2°Ω09'28		evening max el	1510 Mar 18 j 21:01	23°♂02'02	45°53'24
	1507 Sep 12 j 01:41	0°♂			1510 Mar 26 j 04:54	0°II	
	1507 Oct 06 j 09:16	0°Δ		greatest brilliancy	1510 Apr 22 j 05:38	19°II53'57	-4.5m
	1507 Oct 30 j 09:41	0°ML		retrograde	1510 May 06 j 23:11	23°II41'25	
	1507 Nov 23 j 06:42	0°♂		evening set	1510 May 22 j 00:23	19°II17'35	
morning set	1507 Nov 23 j 14:06	0°♂23'14		desc. node	1510 May 26 j 09:51	16°II41'47	
desc. node	1507 Dec 09 j 14:53	20°♂34'03		inferior conj	1510 May 28 j 09:46	15°II26'49	0°-28'-13
	1507 Dec 17 j 02:46	0°☾		minimum elong	1510 May 28 j 08:43	15°II28'27	0°27'56
				min. Earth dist.	1510 May 28 j 09:11	15°II27'43	0.28937 AU
superior conj	1508 Jan 04 j 06:57	22°☾51'31	0°-56'-19	morning rise	1510 Jun 03 j 17:17	11°II39'08	
minimum elong	1508 Jan 03 j 19:05	22°☾14'13	0°55'54	direct	1510 Jun 19 j 01:14	7°II09'57	
max. Earth dist.	1508 Jan 06 j 17:33	25°☾55'38	1.71211 AU	greatest brilliancy	1510 Jul 02 j 12:24	10°II20'26	-4.5m
	1508 Jan 09 j 23:21	0°≈			1510 Jul 30 j 07:35	0°☾	
	1508 Feb 02 j 21:40	0°♂		morning max el	1510 Aug 06 j 22:01	7°☾04'04	45°51'41
evening rise	1508 Feb 14 j 07:32	14°♂15'14			1510 Aug 29 j 05:25	0°Ω	
	1508 Feb 26 j 23:08	0°♀		asc. node	1510 Sep 16 j 13:23	20°Ω28'29	
	1508 Mar 22 j 05:24	0°♂			1510 Sep 24 j 19:02	0°♂	
asc. node	1508 Mar 31 j 18:18	11°♂42'32			1510 Oct 19 j 23:04	0°Δ	
	1508 Apr 15 j 18:03	0°II			1510 Nov 13 j 09:59	0°ML	
	1508 May 10 j 14:55	0°☾			1510 Dec 07 j 12:44	0°♂	
	1508 Jun 04 j 23:09	0°Ω			1510 Dec 31 j 12:23	0°☾	
	1508 Jul 01 j 01:47	0°♂		desc. node	1511 Jan 06 j 02:41	7°☾00'25	
desc. node	1508 Jul 21 j 07:30	22°♂13'28			1511 Jan 24 j 11:37	0°≈	
	1508 Jul 28 j 16:51	0°Δ		morning set	1511 Feb 08 j 20:31	19°≈12'55	
evening max el	1508 Aug 10 j 23:20	13°Δ18'04	46°06'28		1511 Feb 17 j 11:55	0°♂	
	1508 Aug 29 j 22:48	0°ML			1511 Mar 13 j 14:19	0°♀	
greatest brilliancy	1508 Sep 18 j 17:05	11°ML48'32	-4.6m				
retrograde	1508 Sep 29 j 07:44	13°ML51'08		superior conj	1511 Mar 20 j 13:55	8°♀39'50	-1°-16'-34

minimum elong	1511 Mar 20 j 22:23	9°Υ06'04	1°16'24	greatest brilliancy	1513 Sep 11 j 08:00	18°Ω00'27	-4.6m
max. Earth dist.	1511 Mar 24 j 07:50	13°Υ18'27	1.72625 AU		1513 Sep 29 j 05:10	0°Π	
	1511 Apr 06 j 19:40	0°Ϡ		asc. node	1513 Oct 14 j 01:09	13°Π28'08	
evening rise	1511 Apr 27 j 20:52	25°Ϡ56'03		morning max el	1513 Oct 16 j 20:41	16°Π15'28	46°32'22
asc. node	1511 Apr 29 j 06:16	27°Ϡ38'42			1513 Oct 30 j 00:14	0°Ω	
	1511 May 01 j 04:15	0°Π			1513 Nov 25 j 11:34	0°Π	
	1511 May 25 j 15:58	0°Ϡ			1513 Dec 20 j 14:18	0°Ϡ	
	1511 Jun 19 j 06:54	0°Ω			1514 Jan 14 j 04:06	0°Ϡ	
	1511 Jul 14 j 02:09	0°Π		desc. node	1514 Feb 02 j 14:30	23°Ϡ54'53	
	1511 Aug 08 j 04:10	0°Ω			1514 Feb 07 j 12:58	0°≈	
desc. node	1511 Aug 18 j 19:20	12°Ω34'02			1514 Mar 03 j 20:28	0°Ϡ	
	1511 Sep 02 j 17:09	0°Π			1514 Mar 28 j 04:23	0°Υ	
	1511 Sep 29 j 02:00	0°Ϡ			1514 Apr 21 j 13:25	0°Ϡ	
evening max el	1511 Oct 24 j 05:57	26°Ϡ47'10	47°11'34	morning set	1514 Apr 22 j 05:09	0°Ϡ48'21	
	1511 Oct 27 j 11:31	0°Ϡ			1514 May 15 j 23:26	0°Π	
greatest brilliancy	1511 Dec 01 j 20:49	27°Ϡ14'45	-4.7m	asc. node	1514 May 26 j 18:07	13°Π14'22	
asc. node	1511 Dec 09 j 22:54	29°Ϡ39'43					
retrograde	1511 Dec 13 j 22:37	29°Ϡ58'44		superior conj	1514 May 29 j 04:01	16°Π12'12	0°05'46
evening set	1511 Dec 29 j 01:54	25°Ϡ25'21		minimum elong	1514 May 29 j 02:50	16°Π08'31	0°05'43
min. Earth dist.	1512 Jan 02 j 17:48	22°Ϡ38'57	0.26724 AU	behind sun begin	1514 May 28 j 05:34	15°Π03'15	
inferior conj	1512 Jan 03 j 13:34	22°Ϡ08'25	5°50'54	behind sun end	1514 May 30 j 00:05	17°Π13'49	
minimum elong	1512 Jan 03 j 03:17	22°Ϡ24'18	5°48'25	max. Earth dist.	1514 May 28 j 18:41	15°Π43'31	1.73601 AU
morning rise	1512 Jan 08 j 05:05	19°Ϡ20'54			1514 Jun 09 j 09:35	0°Ϡ	
direct	1512 Jan 23 j 23:13	14°Ϡ28'39			1514 Jul 03 j 19:13	0°Ω	
greatest brilliancy	1512 Feb 03 j 18:54	16°Ϡ39'41	-4.6m	evening rise	1514 Jul 04 j 03:45	0°Ω26'14	
	1512 Feb 24 j 21:34	0°≈			1514 Jul 28 j 04:24	0°Π	
morning max el	1512 Mar 13 j 18:01	16°≈14'38	46°27'19		1514 Aug 21 j 14:08	0°Ω	
	1512 Mar 27 j 05:04	0°Ϡ		desc. node	1514 Sep 15 j 07:21	0°Π17'11	
desc. node	1512 Mar 30 j 12:10	3°Ϡ29'42			1514 Sep 15 j 01:44	0°Π	
	1512 Apr 23 j 13:09	0°Υ			1514 Oct 09 j 16:30	0°Ϡ	
	1512 May 19 j 15:29	0°Ϡ			1514 Nov 03 j 12:50	0°Ϡ	
	1512 Jun 14 j 03:11	0°Π			1514 Nov 28 j 21:19	0°≈	
	1512 Jul 09 j 04:39	0°Ϡ			1514 Dec 25 j 13:05	0°Ϡ	
asc. node	1512 Jul 21 j 15:38	15°Ϡ05'16		evening max el	1515 Jan 04 j 03:53	10°Ϡ04'47	47°03'35
	1512 Aug 02 j 21:04	0°Ω		asc. node	1515 Jan 06 j 10:38	12°Ϡ23'01	
	1512 Aug 27 j 05:30	0°Π			1515 Jan 25 j 19:07	0°Υ	
morning set	1512 Sep 08 j 00:04	14°Π37'24		greatest brilliancy	1515 Feb 09 j 23:55	9°Υ53'18	-4.6m
	1512 Sep 20 j 07:56	0°Ω		retrograde	1515 Feb 23 j 22:15	13°Υ27'16	
max. Earth dist.	1512 Oct 13 j 20:04	29°Ω26'16	1.71487 AU	evening set	1515 Mar 13 j 12:26	7°Υ25'56	
	1512 Oct 14 j 06:49	0°Π		inferior conj	1515 Mar 17 j 01:33	5°Υ13'24	7°58'37
				minimum elong	1515 Mar 17 j 08:58	5°Υ01'44	7°57'44
superior conj	1512 Oct 16 j 02:34	2°Π17'16	0°55'10	min. Earth dist.	1515 Mar 16 j 19:33	5°Υ22'52	0.28293 AU
minimum elong	1512 Oct 16 j 12:58	2°Π49'55	0°54'46	morning rise	1515 Mar 21 j 05:43	2°Υ38'48	
	1512 Nov 07 j 04:13	0°Ϡ			1515 Mar 26 j 04:05	30°ϠϠ	
desc. node	1512 Nov 10 j 05:09	3°Ϡ49'06		direct	1515 Apr 07 j 03:15	27°Ϡ07'09	
evening rise	1512 Nov 25 j 18:18	23°Ϡ20'56		greatest brilliancy	1515 Apr 18 j 18:23	29°Ϡ33'49	-4.5m
	1512 Dec 01 j 01:26	0°Ϡ			1515 Apr 19 j 19:48	0°Υ	
	1512 Dec 24 j 23:30	0°≈		desc. node	1515 Apr 27 j 23:59	4°Υ18'23	
	1513 Jan 18 j 00:06	0°Ϡ		morning max el	1515 May 26 j 03:05	27°Υ17'57	45°49'01
	1513 Feb 11 j 06:04	0°Υ			1515 May 28 j 22:11	0°Ϡ	
asc. node	1513 Mar 03 j 08:25	24°Υ30'48			1515 Jun 26 j 15:51	0°Π	
	1513 Mar 07 j 21:31	0°Ϡ			1515 Jul 23 j 06:06	0°Ϡ	
	1513 Apr 02 j 04:16	0°Π			1515 Aug 17 j 18:20	0°Ω	
	1513 Apr 28 j 13:18	0°Ϡ		asc. node	1515 Aug 19 j 03:33	1°Ω39'17	
	1513 May 27 j 07:54	0°Ω			1515 Sep 11 j 13:22	0°Π	
evening max el	1513 May 28 j 07:33	0°Ω56'47	45°22'13		1515 Oct 05 j 20:42	0°Ω	
desc. node	1513 Jun 22 j 21:44	22°Ω08'03			1515 Oct 29 j 21:01	0°Π	
greatest brilliancy	1513 Jul 03 j 04:15	27°Ω43'37	-4.5m	morning set	1515 Nov 21 j 01:05	27°Π51'19	
	1513 Jul 10 j 07:45	0°Π			1515 Nov 22 j 18:00	0°Ϡ	
retrograde	1513 Jul 15 j 21:52	0°Π35'02		desc. node	1515 Dec 08 j 16:55	20°Ϡ04'55	
	1513 Jul 21 j 08:33	30°ϠΩ			1515 Dec 16 j 14:02	0°Ϡ	
evening set	1513 Aug 02 j 04:32	25°Ω00'28					
inferior conj	1513 Aug 06 j 07:10	22°Ω30'47	-8°-6'-49	superior conj	1516 Jan 01 j 16:24	20°Ϡ14'58	0°-53'-12
minimum elong	1513 Aug 06 j 00:22	22°Ω41'19	8°06'08	minimum elong	1516 Jan 01 j 04:46	19°Ϡ38'24	0°52'46
min. Earth dist.	1513 Aug 06 j 15:11	22°Ω18'21	0.28704 AU	max. Earth dist.	1516 Jan 04 j 02:13	23°Ϡ16'42	1.71184 AU
morning rise	1513 Aug 09 j 19:57	20°Ω20'45			1516 Jan 09 j 10:36	0°≈	
direct	1513 Aug 27 j 18:46	14°Ω16'52			1516 Feb 02 j 08:53	0°Ϡ	

evening rise	1516 Feb 11 j 18:44	11° ✕ 45'32		greatest brilliancy	1518 Jun 30 j 02:50	8° II 09'01	-4.5m
	1516 Feb 26 j 10:22	0° Y			1518 Jul 30 j 09:03	0° ☿	
	1516 Mar 21 j 16:44	0° 8		morning max el	1518 Aug 04 j 12:48	4° ☿ 50'33	45°50'49
asc. node	1516 Mar 30 j 20:27	11° 8 14'09			1518 Aug 28 j 21:57	0° ♊	
	1516 Apr 15 j 05:38	0° II		asc. node	1518 Sep 15 j 15:28	19° ♊ 53'06	
	1516 May 10 j 03:01	0° ☿			1518 Sep 24 j 08:50	0° ♊	
	1516 Jun 04 j 12:13	0° ♊			1518 Oct 19 j 11:39	0° ♊	
	1516 Jun 30 j 16:46	0° ♊			1518 Nov 12 j 21:58	0° ♊	
desc. node	1516 Jul 20 j 09:30	21° ♊ 31'28			1518 Dec 07 j 00:23	0° ♊	
	1516 Jul 28 j 12:24	0° ♊			1518 Dec 30 j 23:51	0° ☿	
evening max el	1516 Aug 08 j 13:44	11° ♊ 00'27	46°04'03	desc. node	1519 Jan 05 j 04:40	6° ☿ 30'51	
	1516 Aug 30 j 15:21	0° ♊			1519 Jan 23 j 22:56	0° ☿	
greatest brilliancy	1516 Sep 16 j 05:32	9° ♊ 24'31	-4.6m	morning set	1519 Feb 06 j 07:29	16° ☿ 42'10	
retrograde	1516 Sep 26 j 20:03	11° ♊ 26'22			1519 Feb 16 j 23:06	0° ✕	
evening set	1516 Oct 12 j 17:48	6° ♊ 34'58			1519 Mar 13 j 01:24	0° Y	
inferior conj	1516 Oct 17 j 12:48	3° ♊ 44'31	-5°-40'-33				
minimum elong	1516 Oct 17 j 23:10	3° ♊ 28'43	5°38'01	superior conj	1519 Mar 18 j 03:57	6° Y 20'15	-1°-18'-8
min. Earth dist.	1516 Oct 18 j 07:46	3° ♊ 15'38	0.26990 AU	minimum elong	1519 Mar 18 j 11:55	6° Y 44'59	1°17'59
morning rise	1516 Oct 23 j 04:04	0° ♊ 25'28		max. Earth dist.	1519 Mar 21 j 23:24	11° Y 03'46	1.72568 AU
	1516 Oct 23 j 23:00	30° R ♊			1519 Apr 06 j 06:40	0° 8	
direct	1516 Nov 07 j 06:54	25° ♊ 56'31		evening rise	1519 Apr 25 j 13:10	23° 8 44'48	
asc. node	1516 Nov 10 j 13:00	26° ♊ 09'14		asc. node	1519 Apr 28 j 08:17	27° 8 11'04	
greatest brilliancy	1516 Nov 20 j 16:32	29° ♊ 16'33	-4.7m		1519 Apr 30 j 15:16	0° II	
	1516 Nov 22 j 04:06	0° ♊			1519 May 25 j 03:07	0° ☿	
morning max el	1516 Dec 28 j 01:48	29° ♊ 28'35	46°57'15		1519 Jun 18 j 18:21	0° ♊	
	1516 Dec 28 j 14:08	0° ♊			1519 Jul 13 j 14:08	0° ♊	
	1517 Jan 25 j 04:06	0° ☿			1519 Aug 07 j 17:02	0° ♊	
	1517 Feb 20 j 00:36	0° ☿		desc. node	1519 Aug 17 j 21:26	12° ♊ 00'52	
desc. node	1517 Mar 02 j 02:29	11° ☿ 56'05			1519 Sep 02 j 07:32	0° ♊	
	1517 Mar 17 j 05:40	0° ✕			1519 Sep 28 j 19:16	0° ♊	
	1517 Apr 11 j 04:02	0° Y		evening max el	1519 Oct 21 j 18:41	24° ♊ 20'10	47°10'12
	1517 May 05 j 23:07	0° 8			1519 Oct 27 j 12:48	0° ☿	
	1517 May 30 j 15:47	0° II		greatest brilliancy	1519 Nov 29 j 11:50	24° ☿ 48'38	-4.7m
asc. node	1517 Jun 23 j 05:51	28° II 47'30		asc. node	1519 Dec 09 j 00:47	27° ☿ 23'23	
	1517 Jun 24 j 05:32	0° ☿		retrograde	1519 Dec 11 j 11:13	27° ☿ 30'33	
morning set	1517 Jun 29 j 01:33	5° ☿ 55'24		evening set	1519 Dec 26 j 11:48	23° ☿ 01'34	
	1517 Jul 18 j 15:31	0° ♊		min. Earth dist.	1519 Dec 31 j 07:37	20° ☿ 10'08	0.26682 AU
max. Earth dist.	1517 Aug 01 j 01:27	16° ♊ 34'00	1.72970 AU	inferior conj	1520 Jan 01 j 02:21	19° ☿ 41'15	5°32'41
				minimum elong	1519 Dec 31 j 16:14	19° ☿ 56'51	5°30'08
superior conj	1517 Aug 04 j 10:25	20° ♊ 44'28	1°18'33	morning rise	1520 Jan 05 j 21:00	16° ☿ 49'26	
minimum elong	1517 Aug 04 j 04:09	20° ♊ 25'05	1°18'26	direct	1520 Jan 21 j 11:00	12° ☿ 01'48	
	1517 Aug 11 j 21:45	0° ♊		greatest brilliancy	1520 Feb 01 j 09:44	14° ☿ 15'31	-4.6m
	1517 Sep 05 j 01:16	0° ♊			1520 Feb 25 j 07:48	0° ☿	
evening rise	1517 Sep 10 j 04:22	6° ♊ 22'57		morning max el	1520 Mar 11 j 07:03	13° ☿ 51'00	46°28'52
	1517 Sep 29 j 03:33	0° ♊			1520 Mar 26 j 23:57	0° ✕	
desc. node	1517 Oct 12 j 19:21	17° ♊ 00'23		desc. node	1520 Mar 29 j 14:19	2° ✕ 46'38	
	1517 Oct 23 j 05:51	0° ♊			1520 Apr 23 j 04:02	0° Y	
	1517 Nov 16 j 09:04	0° ☿			1520 May 19 j 04:33	0° 8	
	1517 Dec 10 j 14:49	0° ☿			1520 Jun 13 j 15:15	0° II	
	1518 Jan 04 j 02:52	0° ✕			1520 Jul 08 j 16:07	0° ☿	
	1518 Jan 29 j 05:05	0° Y		asc. node	1520 Jul 20 j 17:42	14° ☿ 37'20	
asc. node	1518 Feb 02 j 22:30	5° Y 31'07			1520 Aug 02 j 08:11	0° ♊	
	1518 Feb 24 j 13:49	0° 8			1520 Aug 26 j 16:28	0° ♊	
evening max el	1518 Mar 16 j 12:11	20° 8 47'18	45°55'33	morning set	1520 Sep 05 j 15:48	12° ♊ 22'54	
	1518 Mar 26 j 07:05	0° II			1520 Sep 19 j 18:52	0° ♊	
greatest brilliancy	1518 Apr 19 j 22:53	17° II 45'15	-4.5m	max. Earth dist.	1520 Oct 11 j 08:30	27° ♊ 00'15	1.71528 AU
retrograde	1518 May 04 j 15:14	21° II 32'04					
evening set	1518 May 19 j 17:33	17° II 07'30		superior conj	1520 Oct 13 j 15:42	29° ♊ 53'22	0°57'55
desc. node	1518 May 25 j 11:50	13° II 40'16		minimum elong	1520 Oct 14 j 02:10	0° ♊ 26'11	0°57'32
inferior conj	1518 May 26 j 02:16	13° II 17'34	0°-8'-30		1520 Oct 13 j 17:49	0° ♊	
minimum elong	1518 May 26 j 01:57	13° II 18'03	0°08'25		1520 Nov 06 j 15:18	0° ♊	
transit middle	1518 May 26 j 01:57	13° II 18'03	0°08'25	desc. node	1520 Nov 09 j 07:09	3° ♊ 20'32	
transit begin	1518 May 25 j 22:29	13° II 23'30		evening rise	1520 Nov 23 j 05:02	20° ♊ 49'01	
transit end	1518 May 26 j 05:25	13° II 12'36			1520 Nov 30 j 12:35	0° ☿	
min. Earth dist.	1518 May 26 j 02:10	13° II 17'42	0.28924 AU		1520 Dec 24 j 10:44	0° ☿	
morning rise	1518 Jun 01 j 10:30	9° II 28'26			1521 Jan 17 j 11:30	0° ✕	
direct	1518 Jun 16 j 17:13	5° II 00'53			1521 Feb 10 j 17:46	0° Y	

asc. node	1521 Mar 02 j 10:33	24° Υ 00'38			1523 Aug 17 j 06:19	0° Ω	
	1521 Mar 07 j 09:45	0° \mathcal{B}		asc. node	1523 Aug 18 j 05:40	1° Ω 09'52	
	1521 Apr 01 j 17:35	0° Π			1523 Sep 11 j 00:48	0° \mathfrak{M}	
	1521 Apr 28 j 04:58	0° \mathfrak{S}			1523 Oct 05 j 07:51	0° $\underline{\mathfrak{A}}$	
evening max el	1521 May 25 j 23:12	28° \mathfrak{S} 45'37	45°22'11		1523 Oct 29 j 08:02	0° \mathfrak{M}	
	1521 May 27 j 06:27	0° Ω		morning set	1523 Nov 18 j 12:11	25° \mathfrak{M} 20'49	
desc. node	1521 Jun 21 j 23:44	20° Ω 51'56			1523 Nov 22 j 04:57	0° \mathcal{A}	
greatest brilliancy	1521 Jun 30 j 15:25	25° Ω 27'28	-4.5m	desc. node	1523 Dec 07 j 18:52	19° \mathcal{A} 36'34	
retrograde	1521 Jul 13 j 13:37	28° Ω 23'24			1523 Dec 16 j 00:59	0° \mathfrak{C}	
evening set	1521 Jul 30 j 16:40	22° Ω 52'55					
inferior conj	1521 Aug 03 j 22:39	20° Ω 18'18	-7°-58'-55	superior conj	1523 Dec 30 j 01:53	17° \mathfrak{C} 39'29	0°-49'-59
minimum elong	1521 Aug 03 j 15:17	20° Ω 29'43	7°58'05	minimum elong	1523 Dec 29 j 14:36	17° \mathfrak{C} 04'00	0°49'32
min. Earth dist.	1521 Aug 04 j 05:31	20° Ω 07'41	0.28740 AU	max. Earth dist.	1524 Jan 01 j 10:27	20° \mathfrak{C} 37'15	1.71159 AU
morning rise	1521 Aug 07 j 13:42	18° Ω 05'04			1524 Jan 08 j 21:32	0° \approx	
direct	1521 Aug 25 j 10:58	12° Ω 03'55			1524 Feb 01 j 19:49	0° \mathcal{H}	
greatest brilliancy	1521 Sep 09 j 00:21	15° Ω 48'07	-4.6m	evening rise	1524 Feb 09 j 05:52	9° \mathcal{H} 16'24	
	1521 Sep 29 j 12:59	0° \mathfrak{M}			1524 Feb 25 j 21:18	0° Υ	
asc. node	1521 Oct 13 j 03:15	12° \mathfrak{M} 37'14			1524 Mar 21 j 03:44	0° \mathcal{B}	
morning max el	1521 Oct 14 j 12:43	14° \mathfrak{M} 00'31	46°30'50	asc. node	1524 Mar 29 j 22:29	10° \mathcal{B} 46'26	
	1521 Oct 29 j 18:18	0° $\underline{\mathfrak{A}}$			1524 Apr 14 j 16:54	0° Π	
	1521 Nov 25 j 02:12	0° \mathfrak{M}			1524 May 09 j 14:49	0° \mathfrak{S}	
	1521 Dec 20 j 03:26	0° \mathcal{A}			1524 Jun 04 j 01:04	0° Ω	
	1522 Jan 13 j 16:23	0° \mathfrak{C}			1524 Jun 30 j 07:40	0° \mathfrak{M}	
desc. node	1522 Feb 01 j 16:38	23° \mathfrak{C} 25'01		desc. node	1524 Jul 19 j 11:37	20° \mathfrak{M} 49'59	
	1522 Feb 07 j 00:40	0° \approx			1524 Jul 28 j 08:18	0° $\underline{\mathfrak{A}}$	
	1522 Mar 03 j 07:47	0° \mathcal{H}		evening max el	1524 Aug 06 j 03:27	8° $\underline{\mathfrak{A}}$ 41'49	46°01'32
	1522 Mar 27 j 15:25	0° Υ			1524 Aug 31 j 13:12	0° \mathfrak{M}	
morning set	1522 Apr 19 j 21:54	28° Υ 38'54		greatest brilliancy	1524 Sep 13 j 18:46	7° \mathfrak{M} 02'04	-4.6m
	1522 Apr 21 j 00:16	0° \mathcal{B}		retrograde	1524 Sep 24 j 07:49	9° \mathfrak{M} 02'30	
	1522 May 15 j 10:09	0° Π		evening set	1524 Oct 10 j 09:42	4° \mathfrak{M} 06'48	
asc. node	1522 May 25 j 20:04	12° Π 47'26		inferior conj	1524 Oct 15 j 01:39	1° \mathfrak{M} 20'26	-5°-58'00
				minimum elong	1524 Oct 15 j 12:09	1° \mathfrak{M} 04'24	5°55'33
superior conj	1522 May 26 j 21:54	14° Π 06'49	0°02'35	min. Earth dist.	1524 Oct 15 j 21:29	0° \mathfrak{M} 50'10	0.27050 AU
minimum elong	1522 May 26 j 21:23	14° Π 05'12	0°02'33		1524 Oct 17 j 06:34	30° \mathcal{R} $\underline{\mathfrak{A}}$	
behind sun begin	1522 May 25 j 23:00	12° Π 56'26		morning rise	1524 Oct 20 j 14:06	28° $\underline{\mathfrak{A}}$ 04'43	
behind sun end	1522 May 27 j 19:46	15° Π 13'58		direct	1524 Nov 04 j 20:18	23° $\underline{\mathfrak{A}}$ 31'32	
max. Earth dist.	1522 May 26 j 17:30	13° Π 53'17	1.73596 AU	asc. node	1524 Nov 09 j 14:54	23° $\underline{\mathfrak{A}}$ 58'31	
	1522 Jun 08 j 20:17	0° \mathfrak{S}		greatest brilliancy	1524 Nov 18 j 07:23	26° $\underline{\mathfrak{A}}$ 52'33	-4.7m
evening rise	1522 Jul 01 j 22:38	28° \mathfrak{S} 23'39			1524 Nov 24 j 01:11	0° \mathfrak{M}	
	1522 Jul 03 j 05:59	0° Ω		morning max el	1524 Dec 25 j 14:28	27° \mathfrak{M} 01'05	46°57'12
	1522 Jul 27 j 15:22	0° \mathfrak{M}			1524 Dec 28 j 12:04	0° \mathcal{A}	
	1522 Aug 21 j 01:26	0° $\underline{\mathfrak{A}}$			1525 Jan 24 j 20:12	0° \mathfrak{C}	
desc. node	1522 Sep 14 j 09:28	29° $\underline{\mathfrak{A}}$ 47'42			1525 Feb 19 j 14:23	0° \approx	
	1522 Sep 14 j 13:30	0° \mathfrak{M}		desc. node	1525 Mar 01 j 04:32	11° \approx 22'57	
	1522 Oct 09 j 04:56	0° \mathcal{A}			1525 Mar 16 j 18:12	0° \mathcal{H}	
	1522 Nov 03 j 02:17	0° \mathfrak{C}			1525 Apr 10 j 15:45	0° Υ	
	1522 Nov 28 j 12:32	0° \approx			1525 May 05 j 10:17	0° \mathcal{B}	
	1522 Dec 25 j 08:23	0° \mathcal{H}			1525 May 30 j 02:37	0° Π	
evening max el	1523 Jan 01 j 20:02	7° \mathcal{H} 48'18	47°05'29	asc. node	1525 Jun 22 j 07:57	28° Π 21'22	
asc. node	1523 Jan 05 j 12:47	11° \mathcal{H} 31'19			1525 Jun 23 j 16:09	0° \mathfrak{S}	
	1523 Jan 26 j 09:54	0° Υ		morning set	1525 Jun 26 j 19:44	3° \mathfrak{S} 51'33	
greatest brilliancy	1523 Feb 07 j 16:31	7° Υ 38'13	-4.6m		1525 Jul 18 j 02:06	0° Ω	
retrograde	1523 Feb 21 j 14:31	11° Υ 11'17		max. Earth dist.	1525 Jul 29 j 18:42	14° Ω 26'14	1.73019 AU
evening set	1523 Mar 11 j 06:10	5° Υ 06'36					
inferior conj	1523 Mar 14 j 16:51	2° Υ 57'41	8°07'06	superior conj	1525 Aug 02 j 04:25	18° Ω 38'55	1°17'18
minimum elong	1523 Mar 14 j 23:43	2° Υ 46'53	8°06'21	minimum elong	1525 Aug 01 j 21:43	18° Ω 18'11	1°17'10
min. Earth dist.	1523 Mar 14 j 09:35	3° Υ 09'09	0.28252 AU		1525 Aug 11 j 08:23	0° \mathfrak{M}	
morning rise	1523 Mar 18 j 17:32	0° Υ 28'25			1525 Sep 04 j 12:02	0° $\underline{\mathfrak{A}}$	
	1523 Mar 19 j 12:54	30° \mathcal{R} \mathcal{H}		evening rise	1525 Sep 07 j 19:56	4° $\underline{\mathfrak{A}}$ 08'29	
direct	1523 Apr 04 j 18:30	24° \mathcal{H} 52'21			1525 Sep 28 j 14:31	0° \mathfrak{M}	
greatest brilliancy	1523 Apr 16 j 06:13	27° \mathcal{H} 16'16	-4.5m	desc. node	1525 Oct 11 j 21:19	16° \mathfrak{M} 31'55	
	1523 Apr 22 j 01:10	0° Υ			1525 Oct 22 j 17:04	0° \mathcal{A}	
desc. node	1523 Apr 27 j 01:58	2° Υ 59'53			1525 Nov 15 j 20:36	0° \mathfrak{C}	
morning max el	1523 May 23 j 19:07	25° Υ 07'38	45°49'40		1525 Dec 10 j 02:46	0° \approx	
	1523 May 28 j 19:13	0° \mathcal{B}			1526 Jan 03 j 15:30	0° \mathcal{H}	
	1523 Jun 26 j 07:04	0° Π			1526 Jan 28 j 18:58	0° Υ	
	1523 Jul 22 j 19:08	0° \mathfrak{S}		asc. node	1526 Feb 02 j 00:37	4° Υ 56'02	

	1526 Feb 24 j 06:36	0°♄			1528 Aug 26 j 03:14	0°♍		
evening max el	1526 Mar 14 j 02:42	18°♄31'52	45°57'46	morning set	1528 Sep 03 j 07:57	10°♍10'27		
	1526 Mar 26 j 10:21	0°♄			1528 Sep 19 j 05:38	0°♄		
greatest brilliancy	1526 Apr 17 j 15:16	15°♄36'24	-4.5m	max. Earth dist.	1528 Oct 08 j 21:57	24°♄37'58	1.71572 AU	
retrograde	1526 May 02 j 07:23	19°♄24'00						
evening set	1526 May 17 j 10:50	14°♄58'10		superior conj	1528 Oct 11 j 05:08	27°♄31'01	1°00'31	
inferior conj	1526 May 23 j 18:47	11°♄09'30	0°11'13	minimum elong	1528 Oct 11 j 15:35	28°♄03'46	1°00'10	
minimum elong	1526 May 23 j 19:12	11°♄08'51	0°11'07		1528 Oct 13 j 04:39	0°♍		
transit middle	1526 May 23 j 19:12	11°♄08'51	0°11'07		1528 Nov 06 j 02:15	0°♄		
transit begin	1526 May 23 j 16:15	11°♄13'30		desc. node	1528 Nov 08 j 09:12	2°♄52'32		
transit end	1526 May 23 j 22:09	11°♄04'12		evening rise	1528 Nov 20 j 15:42	18°♄17'13		
min. Earth dist.	1526 May 23 j 19:18	11°♄08'42	0.28912 AU		1528 Nov 29 j 23:39	0°♄		
desc. node	1526 May 24 j 13:49	10°♄39'34			1528 Dec 23 j 21:56	0°♄		
morning rise	1526 May 30 j 03:38	7°♄19'15			1529 Jan 16 j 22:52	0°♄		
direct	1526 Jun 14 j 08:53	2°♄52'50			1529 Feb 10 j 05:26	0°♄		
greatest brilliancy	1526 Jun 27 j 18:10	5°♄59'55	-4.5m	asc. node	1529 Mar 01 j 12:33	23°♄30'18		
	1526 Jul 30 j 08:48	0°♄			1529 Mar 06 j 21:58	0°♄		
morning max el	1526 Aug 02 j 03:44	2°♄38'35	45°49'59		1529 Apr 01 j 06:54	0°♄		
	1526 Aug 28 j 13:49	0°♄			1529 Apr 27 j 20:45	0°♄		
asc. node	1526 Sep 14 j 17:30	19°♄18'47		evening max el	1529 May 23 j 15:31	26°♄36'26	45°22'12	
	1526 Sep 23 j 22:13	0°♍			1529 May 27 j 05:51	0°♄		
	1526 Oct 18 j 23:56	0°♄		desc. node	1529 Jun 21 j 01:55	19°♄34'10		
	1526 Nov 12 j 09:43	0°♍		greatest brilliancy	1529 Jun 28 j 03:52	23°♄13'27	-4.5m	
	1526 Dec 06 j 11:49	0°♄		retrograde	1529 Jul 11 j 05:25	26°♄12'21		
	1526 Dec 30 j 11:03	0°♄		evening set	1529 Jul 28 j 04:56	20°♄46'17		
desc. node	1527 Jan 04 j 06:51	6°♄02'44		inferior conj	1529 Aug 01 j 14:15	18°♄06'34	-7°-50'-23	
	1527 Jan 23 j 09:57	0°♄		minimum elong	1529 Aug 01 j 06:23	18°♄18'45	7°49'25	
morning set	1527 Feb 03 j 18:08	14°♄11'19		min. Earth dist.	1529 Aug 01 j 19:54	17°♄57'49	0.28769 AU	
	1527 Feb 16 j 09:57	0°♄		morning rise	1529 Aug 05 j 07:41	15°♄49'48		
	1527 Mar 12 j 12:09	0°♄		direct	1529 Aug 23 j 03:34	9°♄51'57		
				greatest brilliancy	1529 Sep 06 j 15:32	13°♄34'59	-4.6m	
superior conj	1527 Mar 15 j 17:51	4°♄01'13	-1°-19'-34		1529 Sep 29 j 18:18	0°♍		
minimum elong	1527 Mar 16 j 01:17	4°♄24'14	1°19'27	morning max el	1529 Oct 12 j 04:28	11°♍45'33	46°29'17	
max. Earth dist.	1527 Mar 19 j 13:11	8°♄44'27	1.72512 AU	asc. node	1529 Oct 12 j 05:11	11°♍47'20		
	1527 Apr 05 j 17:23	0°♄			1529 Oct 29 j 11:48	0°♄		
evening rise	1527 Apr 23 j 05:29	21°♄34'24			1529 Nov 24 j 16:34	0°♍		
asc. node	1527 Apr 27 j 10:17	26°♄44'13			1529 Dec 19 j 16:26	0°♄		
	1527 Apr 30 j 02:01	0°♄			1530 Jan 13 j 04:37	0°♄		
	1527 May 24 j 13:59	0°♄		desc. node	1530 Jan 31 j 18:41	22°♄54'48		
	1527 Jun 18 j 05:31	0°♄			1530 Feb 06 j 12:25	0°♄		
	1527 Jul 13 j 01:50	0°♍			1530 Mar 02 j 19:10	0°♄		
	1527 Aug 07 j 05:40	0°♄			1530 Mar 27 j 02:31	0°♄		
desc. node	1527 Aug 16 j 23:32	11°♄28'25		morning set	1530 Apr 17 j 14:21	26°♄28'27		
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	1527 Sep 28 j 12:42	0°♄			1530 May 14 j 20:52	0°♄		
evening max el	1527 Oct 19 j 07:39	21°♄54'16	47°08'38					
	1527 Oct 27 j 15:21	0°♄		superior conj	1530 May 24 j 15:40	12°♄01'04	0°00'-38	
greatest brilliancy	1527 Nov 27 j 01:51	22°♄21'02	-4.7m	minimum elong	1530 May 24 j 15:47	12°♄01'24	0°00'39	
asc. node	1527 Dec 08 j 02:57	25°♄00'59		behind sun begin	1530 May 23 j 17:13	10°♄52'05		
retrograde	1527 Dec 09 j 00:00	25°♄01'56		behind sun end	1530 May 25 j 14:21	13°♄10'44		
evening set	1527 Dec 23 j 21:36	20°♄36'47		max. Earth dist.	1530 May 24 j 17:15	12°♄05'56	1.73586 AU	
min. Earth dist.	1527 Dec 28 j 21:00	17°♄40'50	0.26641 AU	asc. node	1530 May 24 j 22:12	12°♄21'08		
inferior conj	1527 Dec 29 j 14:50	17°♄13'27	5°13'31		1530 Jun 08 j 06:59	0°♄		
minimum elong	1527 Dec 29 j 04:58	17°♄28'36	5°10'56	evening rise	1530 Jun 29 j 17:37	26°♄21'14		
morning rise	1528 Jan 03 j 12:39	14°♄17'35			1530 Jul 02 j 16:47	0°♄		
direct	1528 Jan 18 j 22:55	9°♄34'15			1530 Jul 27 j 02:23	0°♍		
greatest brilliancy	1528 Jan 30 j 00:07	11°♄50'43	-4.6m		1530 Aug 20 j 12:47	0°♄		
	1528 Feb 25 j 15:09	0°♄		desc. node	1530 Sep 13 j 11:27	29°♄17'43		
morning max el	1528 Mar 08 j 20:47	11°♄29'28	46°30'31		1530 Sep 14 j 01:18	0°♍		
	1528 Mar 26 j 18:08	0°♄			1530 Oct 08 j 17:25	0°♄		
desc. node	1528 Mar 28 j 16:20	2°♄04'21			1530 Nov 02 j 15:49	0°♄		
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	1528 May 18 j 17:18	0°♄			1530 Dec 25 j 04:20	0°♄		
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	1528 Jul 08 j 03:21	0°♄		asc. node	1531 Jan 04 j 14:50	10°♄38'01		
asc. node	1528 Jul 19 j 19:51	14°♄10'14			1531 Jan 27 j 06:12	0°♄		
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


























































































































retrograde	1531 Feb 19 j 06:13	8°Υ53'50		max. Earth dist.	1533 Jul 27 j 13:49	12°Ω23'24	1.73064 AU
evening set	1531 Mar 08 j 23:37	2°Υ46'19					
inferior conj	1531 Mar 12 j 08:00	0°Υ40'44	8°14'55	superior conj	1533 Jul 30 j 22:25	16°Ω32'33	1°15'56
minimum elong	1531 Mar 12 j 14:16	0°Υ30'51	8°14'18	minimum elong	1533 Jul 30 j 15:18	16°Ω10'32	1°15'47
min. Earth dist.	1531 Mar 11 j 23:41	0°Υ53'52	0.28208 AU		1533 Aug 10 j 19:16	0°η	
	1531 Mar 13 j 09:52	30°Rκ			1533 Sep 03 j 23:03	0°Δ	
morning rise	1531 Mar 16 j 05:12	28°κ16'34		evening rise	1533 Sep 05 j 11:46	1°Δ54'07	
direct	1531 Apr 02 j 09:36	22°κ36'26			1533 Sep 28 j 01:47	0°ℓ	
greatest brilliancy	1531 Apr 13 j 17:51	24°κ57'16	-4.5m	desc. node	1533 Oct 10 j 23:21	16°ℓ02'46	
	1531 Apr 23 j 12:34	0°Υ			1533 Oct 22 j 04:37	0°χ	
desc. node	1531 Apr 26 j 04:00	1°Υ42'58			1533 Nov 15 j 08:30	0°ϑ	
morning max el	1531 May 21 j 10:13	22°Υ54'20	45°50'26		1533 Dec 09 j 15:04	0°≈	
	1531 May 28 j 15:47	0°Ϡ			1534 Jan 03 j 04:27	0°κ	
	1531 Jun 25 j 22:13	0°Π			1534 Jan 28 j 09:13	0°Υ	
	1531 Jul 22 j 08:11	0°ϙ		asc. node	1534 Feb 01 j 02:38	4°Υ19'41	
	1531 Aug 16 j 18:22	0°Ω			1534 Feb 23 j 23:59	0°Ϡ	
asc. node	1531 Aug 17 j 07:37	0°Ω39'41		evening max el	1534 Mar 11 j 17:07	16°Ϡ15'29	45°59'59
	1531 Sep 10 j 12:20	0°η			1534 Mar 26 j 15:48	0°Π	
	1531 Oct 04 j 19:08	0°Δ		greatest brilliancy	1534 Apr 15 j 06:44	13°Π25'34	-4.5m
	1531 Oct 28 j 19:11	0°ℓ		retrograde	1534 Apr 29 j 23:53	17°Π15'15	
morning set	1531 Nov 15 j 23:50	22°ℓ51'40		evening set	1534 May 15 j 04:17	12°Π47'39	
	1531 Nov 21 j 16:02	0°χ		inferior conj	1534 May 21 j 11:21	9°Π00'30	0°31'03
desc. node	1531 Dec 06 j 21:04	19°χ08'39		minimum elong	1534 May 21 j 12:29	8°Π58'42	0°30'42
	1531 Dec 15 j 12:02	0°ϑ		min. Earth dist.	1534 May 21 j 12:16	8°Π59'03	0.28905 AU
				desc. node	1534 May 23 j 16:01	7°Π38'07	
superior conj	1531 Dec 27 j 11:49	15°ϑ05'05	0°-46'-40	morning rise	1534 May 27 j 20:43	5°Π09'32	
minimum elong	1531 Dec 27 j 00:58	14°ϑ30'57	0°46'14	direct	1534 Jun 12 j 00:42	0°Π43'41	
max. Earth dist.	1531 Dec 29 j 17:43	17°ϑ54'32	1.71136 AU	greatest brilliancy	1534 Jun 25 j 10:39	3°Π51'13	-4.5m
	1532 Jan 08 j 08:36	0°≈			1534 Jul 30 j 07:57	0°ϙ	
	1532 Feb 01 j 06:53	0°κ		morning max el	1534 Jul 30 j 19:35	0°ϙ27'49	45°49'15
evening rise	1532 Feb 06 j 17:04	6°κ46'55			1534 Aug 28 j 05:47	0°Ω	
	1532 Feb 25 j 08:24	0°Υ		asc. node	1534 Sep 13 j 19:34	18°Ω43'44	
	1532 Mar 20 j 14:59	0°Ϡ			1534 Sep 23 j 11:48	0°η	
asc. node	1532 Mar 29 j 00:27	10°Ϡ17'46			1534 Oct 18 j 12:27	0°Δ	
	1532 Apr 14 j 04:26	0°Π			1534 Nov 11 j 21:42	0°ℓ	
	1532 May 09 j 02:56	0°ϙ			1534 Dec 05 j 23:31	0°χ	
	1532 Jun 03 j 14:15	0°Ω			1534 Dec 29 j 22:33	0°ϑ	
	1532 Jun 29 j 23:01	0°η		desc. node	1535 Jan 03 j 08:50	5°ϑ33'04	
desc. node	1532 Jul 18 j 13:40	20°η07'11			1535 Jan 22 j 21:16	0°≈	
	1532 Jul 28 j 05:06	0°Δ		morning set	1535 Feb 01 j 04:51	11°≈39'33	
evening max el	1532 Aug 03 j 16:13	6°Δ20'26	45°59'07		1535 Feb 15 j 21:06	0°κ	
	1532 Sep 01 j 19:32	0°ℓ			1535 Mar 11 j 23:11	0°Υ	
greatest brilliancy	1532 Sep 11 j 08:10	4°ℓ39'34	-4.6m				
retrograde	1532 Sep 21 j 19:38	6°ℓ38'51		superior conj	1535 Mar 13 j 07:55	1°Υ41'39	-1°-20'-51
evening set	1532 Oct 08 j 01:48	1°ℓ38'25		minimum elong	1535 Mar 13 j 14:43	2°Υ02'47	1°20'45
	1532 Oct 10 j 20:52	30°RΔ		max. Earth dist.	1535 Mar 17 j 02:32	6°Υ22'54	1.72455 AU
inferior conj	1532 Oct 12 j 14:41	28°Δ56'23	-6°-14'-44		1535 Apr 05 j 04:23	0°Ϡ	
minimum elong	1532 Oct 13 j 01:15	28°Δ40'14	6°12'22	evening rise	1535 Apr 20 j 21:59	19°Ϡ23'45	
min. Earth dist.	1532 Oct 13 j 11:32	28°Δ24'32	0.27111 AU	asc. node	1535 Apr 26 j 12:26	26°Ϡ17'03	
morning rise	1532 Oct 18 j 00:09	25°Δ44'23			1535 Apr 29 j 13:02	0°Π	
direct	1532 Nov 02 j 09:28	21°Δ06'17			1535 May 24 j 01:10	0°ϙ	
asc. node	1532 Nov 08 j 17:04	21°Δ52'49			1535 Jun 17 j 17:01	0°Ω	
greatest brilliancy	1532 Nov 15 j 23:24	24°Δ29'44	-4.7m		1535 Jul 12 j 13:56	0°η	
	1532 Nov 25 j 08:09	0°ℓ			1535 Aug 06 j 18:44	0°Δ	
morning max el	1532 Dec 23 j 03:10	24°ℓ33'05	46°57'20	desc. node	1535 Aug 16 j 01:29	10°Δ54'27	
	1532 Dec 28 j 09:25	0°χ			1535 Sep 01 j 12:31	0°ℓ	
	1533 Jan 24 j 12:13	0°ϑ			1535 Sep 28 j 06:50	0°χ	
	1533 Feb 19 j 04:12	0°≈		evening max el	1535 Oct 16 j 21:26	19°χ29'52	47°07'04
desc. node	1533 Feb 28 j 06:33	10°≈49'19			1535 Oct 27 j 19:51	0°ϑ	
	1533 Mar 16 j 06:50	0°κ		greatest brilliancy	1535 Nov 24 j 15:01	19°ϑ51'42	-4.7m
	1533 Apr 10 j 03:40	0°Υ		retrograde	1535 Dec 06 j 13:09	22°ϑ32'24	
	1533 May 04 j 21:44	0°Ϡ		asc. node	1535 Dec 07 j 05:02	22°ϑ31'51	
	1533 May 29 j 13:45	0°Π		evening set	1535 Dec 21 j 07:37	18°ϑ10'44	
asc. node	1533 Jun 21 j 10:04	27°Π54'20		min. Earth dist.	1535 Dec 26 j 10:05	15°ϑ10'50	0.26604 AU
	1533 Jun 23 j 03:06	0°ϙ		inferior conj	1535 Dec 27 j 03:16	14°ϑ44'31	4°53'32
				minimum elong	1535 Dec 26 j 17:45	14°ϑ59'06	4°50'58
morning set	1533 Jun 24 j 13:50	1°ϙ46'26		morning rise	1536 Jan 01 j 04:14	11°ϑ44'46	
	1533 Jul 17 j 12:58	0°Ω					

direct	1536 Jan 16 j 11:32	7°☾05'41			1538 Jul 26 j 13:32	0°☿	
greatest brilliancy	1536 Jan 27 j 13:55	9°☾24'08	-4.6m		1538 Aug 20 j 00:17	0°♊	
	1536 Feb 25 j 20:45	0°♋		desc. node	1538 Sep 12 j 13:32	28°♊47'32	
morning max el	1536 Mar 06 j 11:07	9°♋08'27	46°32'10		1538 Sep 13 j 13:19	0°♌	
	1536 Mar 26 j 12:12	0°♈			1538 Oct 08 j 06:09	0°♍	
desc. node	1536 Mar 27 j 18:22	1°♈21'44			1538 Nov 02 j 05:40	0°☾	
	1536 Apr 22 j 09:05	0°♍			1538 Nov 27 j 19:50	0°♋	
	1536 May 18 j 06:14	0°♌			1538 Dec 25 j 01:08	0°♈	
	1536 Jun 12 j 15:03	0°♍		evening max el	1538 Dec 28 j 02:52	3°♈09'52	47°08'32
	1536 Jul 07 j 14:49	0°☾		asc. node	1539 Jan 03 j 16:49	9°♈42'58	
asc. node	1536 Jul 18 j 21:47	13°☾41'43			1539 Jan 28 j 10:29	0°♍	
	1536 Aug 01 j 06:16	0°♌		greatest brilliancy	1539 Feb 03 j 04:01	3°♍08'14	-4.6m
	1536 Aug 25 j 14:17	0°♎		retrograde	1539 Feb 16 j 21:22	6°♍35'31	
morning set	1536 Sep 01 j 00:07	7°♎57'13		evening set	1539 Mar 06 j 16:45	0°♍25'37	
	1536 Sep 18 j 16:41	0°♊			1539 Mar 07 j 09:22	30°♎	
max. Earth dist.	1536 Oct 06 j 09:43	22°♊09'41	1.71613 AU	inferior conj	1539 Mar 09 j 23:02	28°♈23'04	8°21'54
				minimum elong	1539 Mar 10 j 04:39	28°♈14'11	8°21'25
superior conj	1536 Oct 08 j 18:38	25°♊08'03	1°03'02	min. Earth dist.	1539 Mar 09 j 13:57	28°♈37'26	0.28163 AU
minimum elong	1536 Oct 09 j 04:58	25°♊40'25	1°02'40	morning rise	1539 Mar 13 j 16:50	26°♈03'47	
	1536 Oct 12 j 15:45	0°♌		direct	1539 Mar 31 j 00:10	20°♈19'45	
	1536 Nov 05 j 13:26	0°♍		greatest brilliancy	1539 Apr 11 j 06:07	22°♈38'11	-4.5m
desc. node	1536 Nov 07 j 11:20	2°♍24'03			1539 Apr 24 j 13:59	0°♍	
evening rise	1536 Nov 18 j 02:19	15°♍44'31		desc. node	1539 Apr 25 j 06:11	0°♍28'08	
	1536 Nov 29 j 10:58	0°☾		morning max el	1539 May 19 j 00:22	20°♍38'08	45°51'19
	1536 Dec 23 j 09:24	0°♋			1539 May 28 j 11:50	0°♌	
	1537 Jan 16 j 10:33	0°♈			1539 Jun 25 j 13:15	0°♍	
	1537 Feb 09 j 17:26	0°♍			1539 Jul 21 j 21:12	0°☾	
asc. node	1537 Feb 28 j 14:35	22°♍59'02		asc. node	1539 Aug 16 j 09:44	0°♌10'01	
	1537 Mar 06 j 10:31	0°♌			1539 Aug 16 j 06:23	0°♌	
	1537 Mar 31 j 20:35	0°♍			1539 Sep 09 j 23:51	0°♎	
	1537 Apr 27 j 13:03	0°☾			1539 Oct 04 j 06:24	0°♊	
evening max el	1537 May 21 j 07:55	24°☾26'53	45°22'15		1539 Oct 28 j 06:20	0°♌	
	1537 May 27 j 06:36	0°♌		morning set	1539 Nov 13 j 11:16	20°♌21'37	
desc. node	1537 Jun 20 j 03:53	18°♌13'10			1539 Nov 21 j 03:10	0°♍	
greatest brilliancy	1537 Jun 25 j 17:23	21°♌00'23	-4.5m	desc. node	1539 Dec 05 j 23:05	18°♍39'53	
retrograde	1537 Jul 08 j 20:57	24°♌00'57			1539 Dec 14 j 23:10	0°☾	
evening set	1537 Jul 25 j 17:21	18°♌39'35					
inferior conj	1537 Jul 30 j 05:58	15°♌54'40	-7°-41'-11	superior conj	1539 Dec 24 j 21:20	12°☾29'08	0°-43'-13
minimum elong	1537 Jul 29 j 21:40	16°♌07'33	7°40'05	minimum elong	1539 Dec 24 j 11:01	11°☾56'41	0°42'48
min. Earth dist.	1537 Jul 30 j 10:35	15°♌47'29	0.28798 AU	max. Earth dist.	1539 Dec 26 j 20:26	14°☾57'14	1.71115 AU
morning rise	1537 Aug 03 j 01:51	13°♌34'04			1540 Jan 07 j 19:43	0°♋	
direct	1537 Aug 20 j 20:13	7°♌39'55			1540 Jan 31 j 17:59	0°♈	
greatest brilliancy	1537 Sep 04 j 06:08	11°♌20'35	-4.6m	evening rise	1540 Feb 04 j 03:46	4°♈15'40	
	1537 Sep 29 j 22:05	0°♎			1540 Feb 24 j 19:32	0°♍	
morning max el	1537 Oct 09 j 19:26	9°♎27'58	46°27'37		1540 Mar 20 j 02:14	0°♌	
asc. node	1537 Oct 11 j 07:21	10°♎58'02		asc. node	1540 Mar 28 j 02:38	9°♌49'44	
	1537 Oct 29 j 05:14	0°♊			1540 Apr 13 j 16:00	0°♍	
	1537 Nov 24 j 07:02	0°♌			1540 May 08 j 15:06	0°☾	
	1537 Dec 19 j 05:32	0°♍			1540 Jun 03 j 03:31	0°♌	
	1538 Jan 12 j 16:58	0°☾			1540 Jun 29 j 14:31	0°♎	
desc. node	1538 Jan 30 j 20:40	22°☾23'57		desc. node	1540 Jul 17 j 15:41	19°♎24'02	
	1538 Feb 06 j 00:17	0°♋			1540 Jul 28 j 02:28	0°♊	
	1538 Mar 02 j 06:41	0°♈		evening max el	1540 Aug 01 j 04:24	3°♊58'15	45°56'55
	1538 Mar 26 j 13:46	0°♍			1540 Sep 03 j 14:59	0°♌	
morning set	1538 Apr 15 j 06:45	24°♍17'13		greatest brilliancy	1540 Sep 08 j 20:46	2°♌17'09	-4.6m
	1538 Apr 19 j 22:10	0°♌		retrograde	1540 Sep 19 j 07:51	4°♌16'30	
	1538 May 14 j 07:46	0°♍			1540 Oct 04 j 06:22	30°♎	
				evening set	1540 Oct 05 j 17:58	29°♊10'53	
superior conj	1538 May 22 j 09:27	9°♍54'51	0°-3'-52	inferior conj	1540 Oct 10 j 03:51	26°♊33'19	-6°-30'-29
minimum elong	1538 May 22 j 10:16	9°♍57'20	0°03'50	minimum elong	1540 Oct 10 j 14:25	26°♊17'12	6°28'14
behind sun begin	1538 May 21 j 12:07	8°♍49'17		min. Earth dist.	1540 Oct 11 j 01:32	26°♊00'13	0.27179 AU
behind sun end	1538 May 23 j 08:25	11°♍05'23		morning rise	1540 Oct 15 j 10:16	23°♊25'28	
max. Earth dist.	1538 May 22 j 15:54	10°♍14'38	1.73570 AU	direct	1540 Oct 30 j 22:47	18°♊41'50	
asc. node	1538 May 24 j 00:17	11°♍54'07		asc. node	1540 Nov 07 j 19:09	19°♊52'49	
	1538 Jun 07 j 17:50	0°☾		greatest brilliancy	1540 Nov 13 j 16:13	22°♊08'51	-4.7m
evening rise	1538 Jun 27 j 12:40	24°☾18'44			1540 Nov 26 j 06:17	0°♌	
	1538 Jul 02 j 03:43	0°♌		morning max el	1540 Dec 20 j 16:35	22°♌07'08	46°57'12

	1540 Dec 28 j 06:00	0°♊			1543 Aug 06 j 07:37	0°♎		
	1541 Jan 24 j 03:58	0°♋		desc. node	1543 Aug 15 j 03:36	10°♎21'33		
	1541 Feb 18 j 17:54	0°♌			1543 Sep 01 j 03:09	0°♏		
desc. node	1541 Feb 27 j 08:38	10°♌16'08			1543 Sep 28 j 01:02	0°♊		
	1541 Mar 15 j 19:22	0°♍		evening max el	1543 Oct 14 j 12:07	17°♊09'02	47°05'34	
	1541 Apr 09 j 15:27	0°♎			1543 Oct 28 j 01:44	0°♋		
	1541 May 04 j 09:01	0°♏		greatest brilliancy	1543 Nov 22 j 04:24	17°♋24'22	-4.7m	
	1541 May 29 j 00:43	0°♐		retrograde	1543 Dec 04 j 02:34	20°♋04'25		
asc. node	1541 Jun 20 j 12:00	27°♐27'08		asc. node	1543 Dec 06 j 06:56	19°♋58'30		
morning set	1541 Jun 22 j 07:47	29°♐41'15		evening set	1543 Dec 18 j 18:03	15°♋46'15		
	1541 Jun 22 j 13:54	0°♑		min. Earth dist.	1543 Dec 23 j 23:04	12°♋42'46	0.26566 AU	
	1541 Jul 16 j 23:41	0°♒		inferior conj	1543 Dec 24 j 15:46	12°♋17'12	4°33'05	
max. Earth dist.	1541 Jul 25 j 10:11	10°♒24'54	1.73105 AU	minimum elong	1543 Dec 24 j 06:40	12°♋31'08	4°30'33	
				morning rise	1543 Dec 29 j 19:45	9°♋13'45		
superior conj	1541 Jul 28 j 16:26	14°♒26'42	1°14'27	direct	1544 Jan 14 j 00:30	4°♋39'06		
minimum elong	1541 Jul 28 j 08:56	14°♒03'31	1°14'17	greatest brilliancy	1544 Jan 25 j 02:44	6°♋58'04	-4.6m	
	1541 Aug 10 j 06:01	0°♓			1544 Feb 25 j 23:54	0°♌		
evening rise	1541 Sep 03 j 03:53	29°♓41'19		morning max el	1544 Mar 04 j 01:19	6°♌48'22	46°33'31	
	1541 Sep 03 j 09:54	0°♍			1544 Mar 26 j 05:27	0°♍		
	1541 Sep 27 j 12:49	0°♎		desc. node	1544 Mar 26 j 20:30	0°♍41'03		
desc. node	1541 Oct 10 j 01:31	15°♎34'47			1544 Apr 21 j 23:10	0°♎		
	1541 Oct 21 j 15:56	0°♏			1544 May 17 j 18:47	0°♏		
	1541 Nov 14 j 20:09	0°♐			1544 Jun 12 j 02:43	0°♐		
	1541 Dec 09 j 03:12	0°♑			1544 Jul 07 j 01:56	0°♑		
	1542 Jan 02 j 17:20	0°♒		asc. node	1544 Jul 17 j 23:54	13°♑14'42		
	1542 Jan 27 j 23:31	0°♓			1544 Jul 31 j 17:06	0°♒		
asc. node	1542 Jan 31 j 04:40	3°♓43'29			1544 Aug 25 j 01:01	0°♓		
	1542 Feb 23 j 17:39	0°♍		morning set	1544 Aug 29 j 16:07	5°♓44'37		
evening max el	1542 Mar 09 j 07:53	14°♍00'12	46°02'23		1544 Sep 18 j 03:25	0°♍		
	1542 Mar 26 j 23:25	0°♎		max. Earth dist.	1544 Oct 03 j 18:51	19°♍34'14	1.71656 AU	
greatest brilliancy	1542 Apr 12 j 21:58	11°♎14'31	-4.5m					
retrograde	1542 Apr 27 j 16:41	15°♎06'20		superior conj	1544 Oct 06 j 08:14	22°♍46'29	1°05'24	
evening set	1542 May 12 j 21:41	10°♎36'45		minimum elong	1544 Oct 06 j 18:22	23°♍18'15	1°05'05	
inferior conj	1542 May 19 j 03:40	6°♎51'12	0°50'53		1544 Oct 12 j 02:34	0°♏		
minimum elong	1542 May 19 j 05:32	6°♎48'17	0°50'20		1544 Nov 05 j 00:19	0°♊		
min. Earth dist.	1542 May 19 j 04:39	6°♎49'39	0.28896 AU	desc. node	1544 Nov 06 j 13:19	1°♊56'05		
desc. node	1542 May 22 j 17:57	4°♎37'34		evening rise	1544 Nov 15 j 13:02	13°♊13'11		
morning rise	1542 May 25 j 13:26	2°♎59'59			1544 Nov 28 j 21:56	0°♋		
	1542 Jun 01 j 05:09	30°♏♌			1544 Dec 22 j 20:29	0°♌		
direct	1542 Jun 09 j 16:40	28°♏34'21			1545 Jan 15 j 21:48	0°♍		
	1542 Jun 18 j 13:39	0°♐			1545 Feb 09 j 05:00	0°♎		
greatest brilliancy	1542 Jun 23 j 02:42	1°♐42'20	-4.5m	asc. node	1545 Feb 27 j 16:43	22°♎29'24		
morning max el	1542 Jul 28 j 12:06	28°♐19'20	45°48'33		1545 Mar 05 j 22:41	0°♏		
	1542 Jul 30 j 05:55	0°♑			1545 Mar 31 j 09:58	0°♐		
	1542 Aug 27 j 21:14	0°♒			1545 Apr 27 j 05:15	0°♑		
asc. node	1542 Sep 12 j 21:38	18°♒09'43		evening max el	1545 May 18 j 23:50	22°♑17'00	45°22'17	
	1542 Sep 23 j 01:00	0°♓			1545 May 27 j 08:18	0°♒		
	1542 Oct 18 j 00:37	0°♍		desc. node	1545 Jun 19 j 05:55	16°♒50'23		
	1542 Nov 11 j 09:19	0°♎		greatest brilliancy	1545 Jun 23 j 07:48	18°♒49'07	-4.5m	
	1542 Dec 05 j 10:50	0°♏		retrograde	1545 Jul 06 j 12:04	21°♒50'29		
	1542 Dec 29 j 09:40	0°♐		evening set	1545 Jul 23 j 05:45	16°♒33'57		
desc. node	1543 Jan 02 j 10:50	5°♐04'32		inferior conj	1545 Jul 27 j 21:43	13°♒43'52	-7°-31'-16	
	1543 Jan 22 j 08:14	0°♑		minimum elong	1545 Jul 27 j 13:01	13°♒57'25	7°30'02	
morning set	1543 Jan 29 j 15:23	9°♑08'06		min. Earth dist.	1545 Jul 28 j 01:39	13°♒37'44	0.28823 AU	
	1543 Feb 15 j 07:58	0°♒		morning rise	1545 Jul 31 j 20:07	11°♒19'12		
				direct	1545 Aug 18 j 12:19	5°♒28'58		
superior conj	1543 Mar 10 j 21:27	29°♒21'06	-1°-22'00	greatest brilliancy	1545 Sep 01 j 20:33	9°♒06'58	-4.5m	
minimum elong	1543 Mar 11 j 03:36	29°♒40'11	1°21'57		1545 Sep 29 j 23:55	0°♓		
	1543 Mar 11 j 09:58	0°♔		morning max el	1545 Oct 07 j 09:28	7°♓09'04	46°25'56	
max. Earth dist.	1543 Mar 14 j 15:38	4°♔01'11	1.72403 AU	asc. node	1545 Oct 10 j 09:25	10°♓10'15		
	1543 Apr 04 j 15:07	0°♕			1545 Oct 28 j 21:58	0°♍		
evening rise	1543 Apr 18 j 13:54	17°♕12'04			1545 Nov 23 j 21:02	0°♎		
asc. node	1543 Apr 25 j 14:27	25°♕50'11			1545 Dec 18 j 18:15	0°♏		
	1543 Apr 28 j 23:48	0°♐			1546 Jan 12 j 04:55	0°♋		
	1543 May 23 j 12:05	0°♑		desc. node	1546 Jan 29 j 22:48	21°♋54'41		
	1543 Jun 17 j 04:16	0°♒			1546 Feb 05 j 11:45	0°♌		
	1543 Jul 12 j 01:48	0°♓			1546 Mar 01 j 17:47	0°♍		

	1546 Mar 26 j 00:35	0°♄		greatest brilliancy	1548 Sep 06 j 08:24	29°♌54'01	-4.6m
morning set	1546 Apr 12 j 23:21	22°♄07'44			1548 Sep 06 j 15:02	0°♌	
	1546 Apr 19 j 08:48	0°♄		retrograde	1548 Sep 16 j 20:36	1°♌54'32	
	1546 May 13 j 18:18	0°♌			1548 Sep 26 j 16:17	30°♌♌	
superior conj	1546 May 20 j 03:22	7°♌50'06	0°-7'-2	evening set	1548 Oct 03 j 10:07	26°♌43'32	
minimum elong	1546 May 20 j 04:50	7°♌54'36	0°06'59	inferior conj	1548 Oct 07 j 17:01	24°♌10'22	-6°-45'-20
behind sun begin	1546 May 19 j 08:13	6°♌51'17		minimum elong	1548 Oct 08 j 03:29	23°♌54'25	6°43'14
behind sun end	1546 May 21 j 01:26	8°♌57'55		min. Earth dist.	1548 Oct 08 j 15:10	23°♌36'35	0.27249 AU
max. Earth dist.	1546 May 20 j 13:02	8°♌19'50	1.73556 AU	morning rise	1548 Oct 12 j 20:16	21°♌07'06	
asc. node	1546 May 23 j 02:14	11°♌27'46		direct	1548 Oct 28 j 12:33	16°♌17'34	
	1546 Jun 07 j 04:22	0°♌		asc. node	1548 Nov 06 j 21:04	17°♌57'25	
evening rise	1546 Jun 25 j 07:38	22°♌16'53		greatest brilliancy	1548 Nov 11 j 09:01	19°♌48'19	-4.7m
	1546 Jul 01 j 14:21	0°♌			1548 Nov 26 j 22:42	0°♌	
	1546 Jul 26 j 00:24	0°♌		morning max el	1548 Dec 18 j 06:55	19°♌43'42	46°57'04
	1546 Aug 19 j 11:31	0°♌			1548 Dec 28 j 01:54	0°♌	
desc. node	1546 Sep 11 j 15:37	28°♌18'08			1549 Jan 23 j 19:26	0°♌	
	1546 Sep 13 j 01:05	0°♌		desc. node	1549 Feb 18 j 07:26	0°♌	
	1546 Oct 07 j 18:42	0°♌			1549 Feb 26 j 10:41	9°♌43'02	
	1546 Nov 01 j 19:24	0°♌			1549 Mar 15 j 07:48	0°♌	
	1546 Nov 27 j 11:41	0°♌			1549 Apr 09 j 03:11	0°♄	
	1546 Dec 24 j 22:22	0°♌			1549 May 03 j 20:15	0°♄	
evening max el	1546 Dec 25 j 16:58	0°♌47'37	47°10'04	asc. node	1549 May 28 j 11:38	0°♌	
asc. node	1547 Jan 02 j 18:57	8°♌47'56		morning set	1549 Jun 19 j 14:08	27°♌00'46	
	1547 Jan 30 j 02:33	0°♄			1549 Jun 20 j 02:09	27°♌37'35	
greatest brilliancy	1547 Jan 31 j 22:03	0°♄53'59	-4.6m		1549 Jun 22 j 00:38	0°♌	
retrograde	1547 Feb 14 j 12:21	4°♄18'24		max. Earth dist.	1549 Jul 16 j 10:21	0°♌	
	1547 Mar 01 j 04:14	30°♌♌			1549 Jul 23 j 08:36	8°♌32'53	1.73148 AU
evening set	1547 Mar 04 j 09:43	28°♌06'31		superior conj	1549 Jul 26 j 10:43	12°♌21'51	1°12'54
min. Earth dist.	1547 Mar 07 j 04:32	26°♌22'01	0.28113 AU	minimum elong	1549 Jul 26 j 02:54	11°♌57'43	1°12'42
inferior conj	1547 Mar 07 j 14:11	26°♌06'44	8°28'06		1549 Aug 09 j 16:44	0°♌	
minimum elong	1547 Mar 07 j 19:06	25°♌58'58	8°27'45	evening rise	1549 Aug 31 j 20:14	27°♌29'10	
morning rise	1547 Mar 11 j 04:43	23°♌52'13			1549 Sep 02 j 20:48	0°♌	
direct	1547 Mar 28 j 14:18	18°♌04'18			1549 Sep 26 j 23:58	0°♌	
greatest brilliancy	1547 Apr 08 j 19:14	20°♌21'19	-4.5m	desc. node	1549 Oct 09 j 03:27	15°♌05'44	
desc. node	1547 Apr 24 j 08:07	29°♌16'19			1549 Oct 21 j 03:24	0°♌	
	1547 Apr 25 j 07:59	0°♄			1549 Nov 14 j 07:58	0°♌	
morning max el	1547 May 16 j 14:09	18°♄22'05	45°52'15		1549 Dec 08 j 15:29	0°♌	
	1547 May 28 j 06:49	0°♄			1550 Jan 02 j 06:24	0°♌	
	1547 Jun 25 j 03:45	0°♌			1550 Jan 27 j 14:05	0°♄	
	1547 Jul 21 j 09:53	0°♌		asc. node	1550 Jan 30 j 06:47	3°♄06'50	
asc. node	1547 Aug 15 j 11:49	29°♌40'59			1550 Feb 23 j 11:53	0°♄	
	1547 Aug 15 j 18:10	0°♌		evening max el	1550 Mar 06 j 23:42	11°♌47'08	46°04'51
	1547 Sep 09 j 11:09	0°♌			1550 Mar 27 j 10:00	0°♌	
	1547 Oct 03 j 17:27	0°♌		greatest brilliancy	1550 Apr 10 j 14:07	9°♌04'34	-4.5m
	1547 Oct 27 j 17:18	0°♌		retrograde	1550 Apr 25 j 09:59	12°♌57'22	
morning set	1547 Nov 10 j 22:44	17°♌52'18		evening set	1550 May 10 j 15:25	8°♌25'52	
	1547 Nov 20 j 14:06	0°♌		inferior conj	1550 May 16 j 20:06	4°♌41'55	1°10'35
desc. node	1547 Dec 05 j 01:03	18°♌11'37		minimum elong	1550 May 16 j 22:41	4°♌37'53	1°09'51
	1547 Dec 14 j 10:08	0°♌		min. Earth dist.	1550 May 16 j 20:54	4°♌40'41	0.28881 AU
superior conj	1547 Dec 22 j 06:48	9°♌53'31	0°-39'-41	desc. node	1550 May 21 j 19:59	1°♌38'51	
minimum elong	1547 Dec 21 j 21:05	9°♌23'00	0°39'16	morning rise	1550 May 23 j 06:07	0°♌50'44	
max. Earth dist.	1547 Dec 23 j 21:28	11°♌55'09	1.71099 AU		1550 May 24 j 20:32	30°♌♌	
	1548 Jan 07 j 06:41	0°♌		direct	1550 Jun 07 j 09:09	26°♌25'19	
	1548 Jan 31 j 04:57	0°♌		greatest brilliancy	1550 Jun 20 j 17:48	29°♌32'31	-4.5m
evening rise	1548 Feb 01 j 14:28	1°♌44'49			1550 Jun 21 j 18:12	0°♌	
	1548 Feb 24 j 06:30	0°♄		morning max el	1550 Jul 26 j 04:57	26°♌11'51	45°47'52
	1548 Mar 19 j 13:19	0°♄			1550 Jul 30 j 03:04	0°♌	
asc. node	1548 Mar 27 j 04:38	9°♌21'46			1550 Aug 27 j 12:30	0°♌	
	1548 Apr 13 j 03:23	0°♌		asc. node	1550 Sep 11 j 23:41	17°♌35'35	
	1548 May 08 j 03:04	0°♌			1550 Sep 22 j 14:12	0°♌	
	1548 Jun 02 j 16:38	0°♌			1550 Oct 17 j 12:54	0°♌	
	1548 Jun 29 j 06:04	0°♌			1550 Nov 10 j 21:10	0°♌	
desc. node	1548 Jul 16 j 17:47	18°♌40'53			1550 Dec 04 j 22:25	0°♌	
	1548 Jul 28 j 00:33	0°♌			1550 Dec 28 j 21:03	0°♌	
evening max el	1548 Jul 29 j 17:08	1°♌37'52	45°54'38	desc. node	1551 Jan 01 j 13:01	4°♌35'44	
					1551 Jan 21 j 19:28	0°♌	

morning set	1551 Jan 27 j 01:38	6°≈34'55		min. Earth dist.	1553 Jul 25 j 17:12	11°Ω26'44	0.28844 AU
	1551 Feb 14 j 19:04	0°✕		morning rise	1553 Jul 29 j 14:32	9°Ω03'39	
				direct	1553 Aug 16 j 03:59	3°Ω17'11	
superior conj	1551 Mar 08 j 10:42	26°✕58'48	-1°-23'-2	greatest brilliancy	1553 Aug 30 j 11:32	6°Ω53'19	-4.5m
minimum elong	1551 Mar 08 j 16:06	27°✕15'38	1°22'59		1553 Sep 30 j 00:45	0°൬	
	1551 Mar 10 j 21:00	0°൬		morning max el	1553 Oct 04 j 23:10	4°൬48'43	46°24'29
max. Earth dist.	1551 Mar 12 j 06:44	1°൬44'48	1.72350 AU	asc. node	1553 Oct 09 j 11:22	9°൬22'08	
	1551 Apr 04 j 02:06	0°✕			1553 Oct 28 j 14:38	0°Ω	
evening rise	1551 Apr 16 j 05:45	14°✕59'19			1553 Nov 23 j 11:08	0°ℳ	
asc. node	1551 Apr 24 j 16:27	25°✕22'31			1553 Dec 18 j 07:11	0°✕	
	1551 Apr 28 j 10:50	0°ℳ			1554 Jan 11 j 17:13	0°✕	
	1551 May 22 j 23:15	0°Ω		desc. node	1554 Jan 29 j 00:50	21°✕23'52	
	1551 Jun 16 j 15:46	0°Ω			1554 Feb 04 j 23:38	0°≈	
	1551 Jul 11 j 13:53	0°൬			1554 Mar 01 j 05:22	0°✕	
	1551 Aug 05 j 20:45	0°Ω			1554 Mar 25 j 11:53	0°൬	
desc. node	1551 Aug 14 j 05:40	9°Ω47'55		morning set	1554 Apr 10 j 15:13	19°൬54'29	
	1551 Aug 31 j 18:09	0°ℳ			1554 Apr 18 j 19:53	0°✕	
	1551 Sep 27 j 20:00	0°✕			1554 May 13 j 05:16	0°ℳ	
evening max el	1551 Oct 12 j 02:49	14°✕47'18	47°03'35				
	1551 Oct 28 j 10:32	0°✕		superior conj	1554 May 17 j 20:47	5°ℳ42'33	0°-10'-14
greatest brilliancy	1551 Nov 19 j 18:32	14°✕56'11	-4.7m	minimum elong	1554 May 17 j 22:56	5°ℳ49'08	0°10'09
retrograde	1551 Dec 01 j 15:30	17°✕33'59		behind sun begin	1554 May 17 j 05:14	4°ℳ54'47	
asc. node	1551 Dec 05 j 09:07	17°✕16'39		behind sun end	1554 May 18 j 16:37	6°ℳ43'29	
evening set	1551 Dec 16 j 04:26	13°✕19'23		max. Earth dist.	1554 May 18 j 08:36	6°ℳ18'49	1.73538 AU
min. Earth dist.	1551 Dec 21 j 12:10	10°✕11'54	0.26533 AU	asc. node	1554 May 22 j 04:21	11°ℳ00'36	
inferior conj	1551 Dec 22 j 03:59	9°✕47'40	4°11'49		1554 Jun 06 j 15:20	0°Ω	
minimum elong	1551 Dec 21 j 19:24	10°✕00'49	4°09'21	evening rise	1554 Jun 23 j 02:25	20°Ω13'13	
morning rise	1551 Dec 27 j 10:52	6°✕40'21			1554 Jul 01 j 01:26	0°Ω	
direct	1552 Jan 11 j 13:06	2°✕10'18			1554 Jul 25 j 11:42	0°൬	
greatest brilliancy	1552 Jan 22 j 15:26	4°✕29'33	-4.6m		1554 Aug 18 j 23:09	0°Ω	
	1552 Feb 26 j 02:11	0°≈		desc. node	1554 Sep 10 j 17:35	27°Ω47'19	
morning max el	1552 Mar 01 j 14:27	4°≈23'58	46°34'57		1554 Sep 12 j 13:13	0°ℳ	
desc. node	1552 Mar 25 j 22:30	29°≈59'08			1554 Oct 07 j 07:35	0°✕	
	1552 Mar 25 j 22:49	0°✕			1554 Nov 01 j 09:30	0°✕	
	1552 Apr 21 j 13:29	0°൬			1554 Nov 27 j 04:04	0°≈	
	1552 May 17 j 07:36	0°✕		evening max el	1554 Dec 23 j 06:20	28°≈22'28	47°11'19
	1552 Jun 11 j 14:40	0°ℳ			1554 Dec 24 j 20:44	0°✕	
	1552 Jul 06 j 13:22	0°Ω		asc. node	1555 Jan 01 j 20:59	7°✕50'26	
asc. node	1552 Jul 17 j 02:00	12°Ω46'44		greatest brilliancy	1555 Jan 29 j 14:57	28°✕36'30	-4.6m
	1552 Jul 31 j 04:13	0°Ω			1555 Feb 01 j 21:54	0°൬	
	1552 Aug 24 j 12:00	0°൬		retrograde	1555 Feb 12 j 03:09	1°൬59'23	
morning set	1552 Aug 27 j 08:40	3°൬32'57			1555 Feb 21 j 23:15	30°✕	
	1552 Sep 17 j 14:24	0°Ω		evening set	1555 Mar 02 j 02:09	25°✕45'37	
max. Earth dist.	1552 Oct 01 j 04:39	17°Ω00'11	1.71704 AU	inferior conj	1555 Mar 05 j 05:08	23°✕48'16	8°33'29
				minimum elong	1555 Mar 05 j 09:18	23°✕41'41	8°33'13
superior conj	1552 Oct 03 j 22:31	20°Ω26'23	1°07'36	min. Earth dist.	1555 Mar 04 j 18:58	24°✕04'21	0.28071 AU
minimum elong	1552 Oct 04 j 08:24	20°Ω57'20	1°07'19	morning rise	1555 Mar 08 j 16:39	21°✕38'19	
	1552 Oct 11 j 13:37	0°ℳ		direct	1555 Mar 26 j 03:59	15°✕46'26	
	1552 Nov 04 j 11:30	0°✕		greatest brilliancy	1555 Apr 06 j 09:07	18°✕03'18	-4.5m
desc. node	1552 Nov 05 j 15:22	1°✕27'24		desc. node	1555 Apr 23 j 10:11	28°✕04'57	
evening rise	1552 Nov 13 j 00:04	10°✕41'50			1555 Apr 25 j 22:15	0°൬	
	1552 Nov 28 j 09:16	0°✕		morning max el	1555 May 14 j 04:22	16°൬05'23	45°53'17
	1552 Dec 22 j 08:00	0°≈			1555 May 28 j 01:53	0°✕	
	1553 Jan 15 j 09:32	0°✕			1555 Jun 24 j 18:33	0°ℳ	
	1553 Feb 08 j 17:04	0°൬			1555 Jul 20 j 22:52	0°Ω	
asc. node	1553 Feb 26 j 18:42	21°൬57'45		asc. node	1555 Aug 14 j 13:46	29°Ω10'29	
	1553 Mar 05 j 11:23	0°✕			1555 Aug 15 j 06:15	0°Ω	
	1553 Mar 30 j 23:57	0°ℳ			1555 Sep 08 j 22:45	0°൬	
	1553 Apr 26 j 22:18	0°Ω			1555 Oct 03 j 04:48	0°Ω	
evening max el	1553 May 16 j 14:55	20°Ω03'45	45°22'28		1555 Oct 27 j 04:31	0°ℳ	
	1553 May 27 j 12:07	0°Ω		morning set	1555 Nov 08 j 10:48	15°ℳ24'05	
desc. node	1553 Jun 18 j 08:05	15°Ω23'51			1555 Nov 20 j 01:17	0°✕	
greatest brilliancy	1553 Jun 20 j 22:03	16°Ω36'29	-4.5m	desc. node	1555 Dec 04 j 03:14	17°✕43'24	
retrograde	1553 Jul 04 j 03:04	19°Ω39'18			1555 Dec 13 j 21:17	0°✕	
evening set	1553 Jul 20 j 18:16	14°Ω27'21					
inferior conj	1553 Jul 25 j 13:34	11°Ω32'24	-7°-20'-50	superior conj	1555 Dec 19 j 16:43	7°✕18'41	0°-36'-6
minimum elong	1553 Jul 25 j 04:30	11°Ω46'32	7°19'27	minimum elong	1555 Dec 19 j 07:41	6°✕50'18	0°35'42

max. Earth dist.	1555 Dec 21 j 02:20	9°  04'26	1.71087 AU		1558 Jun 23 j 14:41	0° 	
	1556 Jan 06 j 17:50	0° 		morning max el	1558 Jul 23 j 21:33	24°  03'32	45°47'05
evening rise	1556 Jan 30 j 01:28	29°  14'15			1558 Jul 29 j 23:35	0° 	
	1556 Jan 30 j 16:06	0° 			1558 Aug 27 j 03:37	0° 	
	1556 Feb 23 j 17:44	0° 		asc. node	1558 Sep 11 j 01:43	17°  01'28	
	1556 Mar 19 j 00:43	0° 			1558 Sep 22 j 03:20	0° 	
asc. node	1556 Mar 26 j 06:37	8°  52'45			1558 Oct 17 j 01:07	0° 	
	1556 Apr 12 j 15:08	0° 			1558 Nov 10 j 08:55	0° 	
	1556 May 07 j 15:28	0° 			1558 Dec 04 j 09:54	0° 	
	1556 Jun 02 j 06:15	0° 			1558 Dec 28 j 08:20	0° 	
	1556 Jun 28 j 22:15	0° 		desc. node	1558 Dec 31 j 14:59	4°  06'35	
desc. node	1556 Jul 15 j 19:50	17°  55'55			1559 Jan 21 j 06:35	0° 	
evening max el	1556 Jul 27 j 06:41	29°  18'46	45°52'33	morning set	1559 Jan 24 j 11:57	4°  02'17	
	1556 Jul 27 j 23:57	0° 			1559 Feb 14 j 06:03	0° 	
greatest brilliancy	1556 Sep 03 j 19:11	27°  29'31	-4.6m				
retrograde	1556 Sep 14 j 09:49	29°  31'53		superior conj	1559 Mar 06 j 00:03	24°  37'13	-1°-23'-55
evening set	1556 Oct 01 j 02:16	24°  15'35		minimum elong	1559 Mar 06 j 04:39	24°  31'34	1°23'53
inferior conj	1556 Oct 05 j 06:08	21°  46'43	-6°-59'-33	max. Earth dist.	1559 Mar 09 j 23:33	29°  34'10	1.72292 AU
minimum elong	1556 Oct 05 j 16:25	21°  31'02	6°57'36		1559 Mar 10 j 07:51	0° 	
min. Earth dist.	1556 Oct 06 j 04:22	21°  12'50	0.27317 AU		1559 Apr 03 j 12:55	0° 	
morning rise	1556 Oct 10 j 06:05	18°  48'18		evening rise	1559 Apr 13 j 21:40	12°  47'18	
direct	1556 Oct 26 j 02:43	13°  52'48		asc. node	1559 Apr 23 j 18:36	24°  55'56	
asc. node	1556 Nov 05 j 23:15	16°  06'01			1559 Apr 27 j 21:40	0° 	
greatest brilliancy	1556 Nov 09 j 00:53	17°  26'07	-4.7m		1559 May 22 j 10:16	0° 	
	1556 Nov 27 j 11:13	0° 			1559 Jun 16 j 03:10	0° 	
morning max el	1556 Dec 15 j 22:07	17°  22'13	46°57'00		1559 Jul 11 j 01:58	0° 	
	1556 Dec 27 j 21:21	0° 			1559 Aug 05 j 09:56	0° 	
	1557 Jan 23 j 10:46	0° 		desc. node	1559 Aug 13 j 07:38	9°  13'52	
	1557 Feb 17 j 20:54	0° 			1559 Aug 31 j 09:17	0° 	
desc. node	1557 Feb 25 j 12:41	9°  09'48			1559 Sep 27 j 15:22	0° 	
	1557 Mar 14 j 20:14	0° 		evening max el	1559 Oct 09 j 16:59	12°  24'40	47°01'38
	1557 Apr 08 j 14:57	0° 			1559 Oct 28 j 22:06	0° 	
	1557 May 03 j 07:37	0° 		greatest brilliancy	1559 Nov 17 j 09:27	12°  29'31	-4.7m
	1557 May 27 j 22:43	0° 		retrograde	1559 Nov 29 j 03:53	15°  04'02	
morning set	1557 Jun 17 j 20:13	25°  32'28		asc. node	1559 Dec 04 j 11:09	14°  29'12	
asc. node	1557 Jun 18 j 16:14	26°  33'45		evening set	1559 Dec 13 j 15:04	10°  25'49	
	1557 Jun 21 j 11:33	0° 		min. Earth dist.	1559 Dec 19 j 01:42	7°  41'09	0.26500 AU
	1557 Jul 15 j 21:11	0° 		inferior conj	1559 Dec 19 j 16:14	7°  18'53	3°50'00
max. Earth dist.	1557 Jul 21 j 06:00	6°  03'718	1.73186 AU	minimum elong	1559 Dec 19 j 08:14	7°  31'09	3°47'38
				morning rise	1559 Dec 25 j 01:50	4°  07'39	
superior conj	1557 Jul 24 j 04:40	10°  01'529	1°11'13		1560 Jan 05 j 05:45	30°  00'00	
minimum elong	1557 Jul 23 j 20:35	9°  05'0'31	1°11'00	direct	1560 Jan 09 j 01:17	29°  24'07	
	1557 Aug 09 j 03:37	0° 			1560 Jan 12 j 22:18	0° 	
evening rise	1557 Aug 29 j 12:26	25°  16'11		greatest brilliancy	1560 Jan 20 j 04:53	2°  02'20	-4.7m
	1557 Sep 02 j 07:50	0° 			1560 Feb 26 j 02:51	0° 	
	1557 Sep 26 j 11:15	0° 		morning max el	1560 Feb 28 j 02:49	1°  58'11	46°36'28
desc. node	1557 Oct 08 j 05:32	14°  36'47		desc. node	1560 Mar 25 j 00:32	29°  18'37	
	1557 Oct 20 j 14:58	0° 			1560 Mar 25 j 15:32	0° 	
	1557 Nov 13 j 19:52	0° 			1560 Apr 21 j 03:21	0° 	
	1557 Dec 08 j 03:51	0° 			1560 May 16 j 20:01	0° 	
	1558 Jan 01 j 19:32	0° 			1560 Jun 11 j 02:15	0° 	
	1558 Jan 27 j 04:46	0° 			1560 Jul 06 j 00:28	0° 	
asc. node	1558 Jan 29 j 08:47	2°  09'29'47		asc. node	1560 Jul 16 j 03:57	12°  05'19'11	
	1558 Feb 23 j 06:27	0° 			1560 Jul 30 j 15:06	0° 	
evening max el	1558 Mar 04 j 16:07	9°  35'47	46°07'14		1560 Aug 23 j 22:48	0° 	
	1558 Mar 28 j 00:05	0° 		morning set	1560 Aug 25 j 01:02	1°  09'21'21	
greatest brilliancy	1558 Apr 08 j 07:00	6°  25'54'5	-4.5m		1560 Sep 17 j 01:13	0° 	
retrograde	1558 Apr 23 j 03:05	10°  24'48'12		max. Earth dist.	1560 Sep 28 j 14:14	14°  26'05	1.71753 AU
evening set	1558 May 08 j 09:17	6°  21'45'3					
inferior conj	1558 May 14 j 12:31	2°  32'32	1°30'17	superior conj	1560 Oct 01 j 12:41	18°  06'32	1°09'43
minimum elong	1558 May 14 j 15:48	2°  27'24	1°29'20	minimum elong	1560 Oct 01 j 22:15	18°  36'31	1°09'26
min. Earth dist.	1558 May 14 j 13:03	2°  31'42	0.28870 AU		1560 Oct 11 j 00:29	0° 	
	1558 May 18 j 15:35	30°  00'00			1560 Nov 03 j 22:28	0° 	
morning rise	1558 May 20 j 22:35	28° 41'24		desc. node	1560 Nov 04 j 17:30	0° 25'59'44	
desc. node	1558 May 20 j 22:09	28° 42'00		evening rise	1560 Nov 10 j 10:57	8° 21'10'51	
direct	1558 Jun 05 j 01:53	24° 48'16'15			1560 Nov 27 j 20:21	0°	
greatest brilliancy	1558 Jun 18 j 08:02	27° 21'22	-4.5m		1560 Dec 21 j 19:15	0°	

	1561 Jan 14 j 21:00	0° H		asc. node	1563 Aug 13 j 15:53	28° S 41'56	
	1561 Feb 08 j 04:52	0° Y			1563 Aug 14 j 17:51	0° Q	
asc. node	1561 Feb 25 j 20:43	21° Y 27'04			1563 Sep 08 j 09:55	0° M	
	1561 Mar 04 j 23:49	0° B			1563 Oct 02 j 15:46	0° L	
	1561 Mar 30 j 13:42	0° II			1563 Oct 26 j 15:25	0° M	
	1561 Apr 26 j 15:13	0° S		morning set	1563 Nov 05 j 22:55	12° M 57'02	
evening max el	1561 May 14 j 05:35	17° S 50'52	45°22'49		1563 Nov 19 j 12:12	0° A	
	1561 May 27 j 17:08	0° Q		desc. node	1563 Dec 03 j 05:14	17° A 15'19	
desc. node	1561 Jun 17 j 10:02	13° Q 55'41			1563 Dec 13 j 08:14	0° C	
greatest brilliancy	1561 Jun 18 j 11:03	14° Q 24'00	-4.5m				
retrograde	1561 Jul 01 j 18:20	17° Q 30'07		superior conj	1563 Dec 17 j 02:10	4° C 43'01	0°-32'-22
evening set	1561 Jul 18 j 06:58	12° Q 22'13		minimum elong	1563 Dec 16 j 17:55	4° C 17'04	0°32'01
inferior conj	1561 Jul 23 j 05:35	9° Q 22'41	-7°-9'-45	max. Earth dist.	1563 Dec 18 j 08:36	6° C 18'48	1.71079 AU
minimum elong	1561 Jul 22 j 20:14	9° Q 37'16	7°08'13		1564 Jan 06 j 04:46	0° \approx	
min. Earth dist.	1561 Jul 23 j 08:59	9° Q 17'23	0.28869 AU	evening rise	1564 Jan 27 j 11:57	26° \approx 42'46	
morning rise	1561 Jul 27 j 09:14	6° Q 49'52			1564 Jan 30 j 03:01	0° H	
direct	1561 Aug 13 j 19:40	1° Q 06'55			1564 Feb 23 j 04:42	0° Y	
greatest brilliancy	1561 Aug 28 j 03:56	4° Q 42'53	-4.5m		1564 Mar 18 j 11:51	0° B	
	1561 Sep 30 j 00:06	0° M		asc. node	1564 Mar 25 j 08:47	8° B 25'12	
morning max el	1561 Oct 02 j 13:29	2° M 30'51	46°22'54		1564 Apr 12 j 02:36	0° II	
asc. node	1561 Oct 08 j 13:32	8° M 36'04			1564 May 07 j 03:34	0° S	
	1561 Oct 28 j 06:47	0° L			1564 Jun 01 j 19:37	0° Q	
	1561 Nov 23 j 00:54	0° M			1564 Jun 28 j 14:17	0° M	
	1561 Dec 17 j 19:49	0° A		desc. node	1564 Jul 14 j 21:52	17° M 11'38	
	1562 Jan 11 j 05:11	0° C		evening max el	1564 Jul 24 j 21:23	27° M 04'00	45°50'35
desc. node	1562 Jan 28 j 02:51	20° C 54'07			1564 Jul 27 j 23:49	0° L	
	1562 Feb 04 j 11:09	0° \approx		greatest brilliancy	1564 Sep 01 j 06:02	25° L 07'25	-4.6m
	1562 Feb 28 j 16:32	0° H		retrograde	1564 Sep 11 j 23:16	27° L 11'32	
	1562 Mar 24 j 22:48	0° Y		evening set	1564 Sep 28 j 18:42	21° L 50'16	
morning set	1562 Apr 08 j 07:07	17° Y 42'18		inferior conj	1564 Oct 02 j 19:35	19° L 25'27	-7°-12'-46
	1562 Apr 18 j 06:36	0° B		minimum elong	1564 Oct 03 j 05:38	19° L 10'07	7°10'57
	1562 May 12 j 15:52	0° II		min. Earth dist.	1564 Oct 03 j 17:34	18° L 51'55	0.27386 AU
				morning rise	1564 Oct 07 j 16:08	16° L 31'49	
superior conj	1562 May 15 j 14:29	3° II 36'58	0°-13'-25	direct	1564 Oct 23 j 17:35	11° L 30'35	
minimum elong	1562 May 15 j 17:17	3° II 45'35	0°13'18	asc. node	1564 Nov 05 j 01:17	14° L 20'29	
behind sun begin	1562 May 15 j 04:42	3° II 06'54		greatest brilliancy	1564 Nov 06 j 15:59	15° L 04'44	-4.6m
behind sun end	1562 May 16 j 05:53	4° II 24'15			1564 Nov 27 j 19:59	0° M	
max. Earth dist.	1562 May 16 j 03:35	4° II 17'11	1.73517 AU	morning max el	1564 Dec 13 j 13:23	15° M 01'52	46°56'30
asc. node	1562 May 21 j 06:26	10° II 34'32			1564 Dec 27 j 16:01	0° A	
	1562 Jun 06 j 01:54	0° S			1565 Jan 23 j 01:44	0° C	
evening rise	1562 Jun 20 j 21:33	18° S 12'04			1565 Feb 17 j 10:08	0° \approx	
	1562 Jun 30 j 12:06	0° Q		desc. node	1565 Feb 24 j 14:48	8° \approx 37'24	
	1562 Jul 24 j 22:36	0° M			1565 Mar 14 j 08:27	0° H	
	1562 Aug 18 j 10:26	0° L			1565 Apr 08 j 02:31	0° Y	
desc. node	1562 Sep 09 j 19:42	27° L 17'49			1565 May 02 j 18:44	0° B	
	1562 Sep 12 j 01:05	0° M			1565 May 27 j 09:33	0° II	
	1562 Oct 06 j 20:18	0° A		morning set	1565 Jun 15 j 14:24	23° II 28'33	
	1562 Oct 31 j 23:30	0° C		asc. node	1565 Jun 17 j 18:10	26° II 07'01	
	1562 Nov 26 j 20:29	0° \approx			1565 Jun 20 j 22:12	0° S	
evening max el	1562 Dec 20 j 20:06	25° \approx 59'05	47°12'46		1565 Jul 15 j 07:47	0° Q	
	1562 Dec 24 j 19:45	0° H		max. Earth dist.	1565 Jul 19 j 02:02	4° Q 38'18	1.73219 AU
asc. node	1562 Dec 31 j 22:58	6° H 52'18					
greatest brilliancy	1563 Jan 27 j 06:53	26° H 18'31	-4.6m	superior conj	1565 Jul 21 j 22:57	8° Q 10'59	1°09'28
retrograde	1563 Feb 09 j 18:22	29° H 41'17		minimum elong	1565 Jul 21 j 14:38	7° Q 45'18	1°09'13
evening set	1563 Feb 27 j 18:15	23° H 25'48			1565 Aug 08 j 14:15	0° M	
inferior conj	1563 Mar 02 j 20:02	21° H 30'34	8°38'01	evening rise	1565 Aug 27 j 05:08	23° M 05'38	
minimum elong	1563 Mar 02 j 23:27	21° H 25'11	8°37'50		1565 Sep 01 j 18:37	0° L	
min. Earth dist.	1563 Mar 02 j 09:08	21° H 47'46	0.28024 AU		1565 Sep 25 j 22:15	0° M	
morning rise	1563 Mar 06 j 04:49	19° H 24'57		desc. node	1565 Oct 07 j 07:41	14° M 08'56	
direct	1563 Mar 23 j 17:45	13° H 29'18			1565 Oct 20 j 02:16	0° A	
greatest brilliancy	1563 Apr 03 j 22:53	15° H 46'14	-4.5m		1565 Nov 13 j 07:33	0° C	
desc. node	1563 Apr 22 j 12:22	26° H 56'54			1565 Dec 07 j 16:05	0° \approx	
	1563 Apr 26 j 08:22	0° Y			1566 Jan 01 j 08:39	0° H	
morning max el	1563 May 11 j 19:35	13° Y 52'12	45°54'27		1566 Jan 26 j 19:35	0° Y	
	1563 May 27 j 20:00	0° B		asc. node	1566 Jan 28 j 10:51	1° Y 52'42	
	1563 Jun 24 j 08:43	0° II			1566 Feb 23 j 01:32	0° B	
	1563 Jul 20 j 11:21	0° S		evening max el	1566 Mar 02 j 08:28	7° B 23'58	46°09'37

	1566 Mar 28 j 19:11	0°♄			1568 Aug 23 j 09:41	0°♄	
greatest brilliancy	1566 Apr 06 j 01:01	4°♄48'09	-4.5m		1568 Sep 16 j 12:06	0°♄	
retrograde	1566 Apr 20 j 19:43	8°♄38'41		max. Earth dist.	1568 Sep 26 j 02:25	11°♄59'51	1.71804 AU
evening set	1566 May 06 j 03:15	4°♄03'39					
inferior conj	1566 May 12 j 04:52	0°♄23'06	1°49'55	superior conj	1568 Sep 29 j 03:02	15°♄47'04	1°11'41
minimum elong	1566 May 12 j 08:50	0°♄16'53	1°48'46	minimum elong	1568 Sep 29 j 12:14	16°♄15'51	1°11'26
min. Earth dist.	1566 May 12 j 05:22	0°♄22'19	0.28852 AU		1568 Oct 10 j 11:27	0°♄	
	1566 May 12 j 19:34	30°♄♂			1568 Nov 03 j 09:33	0°♄	
morning rise	1566 May 18 j 14:45	26°♄32'02		desc. node	1568 Nov 03 j 19:29	0°♄31'09	
desc. node	1566 May 20 j 00:06	25°♄47'55		evening rise	1568 Nov 07 j 22:12	5°♄40'44	
direct	1566 Jun 02 j 18:22	22°♄07'16			1568 Nov 27 j 07:34	0°♄	
greatest brilliancy	1566 Jun 15 j 21:14	25°♄09'02	-4.5m		1568 Dec 21 j 06:37	0°♄	
	1566 Jun 24 j 20:49	0°♄			1569 Jan 14 j 08:34	0°♄	
morning max el	1566 Jul 21 j 13:21	21°♄53'40	45°46'25		1569 Feb 07 j 16:48	0°♄	
	1566 Jul 29 j 19:18	0°♄		asc. node	1569 Feb 24 j 22:53	20°♄56'17	
	1566 Aug 26 j 18:22	0°♄			1569 Mar 04 j 12:26	0°♄	
asc. node	1566 Sep 10 j 03:48	16°♄28'09			1569 Mar 30 j 03:48	0°♄	
	1566 Sep 21 j 16:13	0°♄			1569 Apr 26 j 08:49	0°♄	
	1566 Oct 16 j 13:08	0°♄		evening max el	1569 May 11 j 20:20	15°♄37'20	45°23'13
	1566 Nov 09 j 20:28	0°♄			1569 May 28 j 00:54	0°♄	
	1566 Dec 03 j 21:11	0°♄		greatest brilliancy	1569 Jun 15 j 23:21	12°♄09'33	-4.5m
	1566 Dec 27 j 19:27	0°♄		desc. node	1569 Jun 16 j 12:06	12°♄23'27	
desc. node	1566 Dec 30 j 17:01	3°♄38'07		retrograde	1569 Jun 29 j 10:02	15°♄19'55	
	1567 Jan 20 j 17:35	0°♄		evening set	1569 Jul 15 j 19:37	10°♄15'47	
morning set	1567 Jan 21 j 22:16	1°♄29'48		inferior conj	1569 Jul 20 j 21:30	7°♄11'50	-6°-57'-55
	1567 Feb 13 j 16:59	0°♄		minimum elong	1569 Jul 20 j 11:54	7°♄26'46	6°56'17
				min. Earth dist.	1569 Jul 21 j 00:28	7°♄07'13	0.28891 AU
superior conj	1567 Mar 03 j 13:03	22°♄14'29	-1°-24'-38	morning rise	1569 Jul 25 j 03:55	4°♄35'03	
minimum elong	1567 Mar 03 j 16:49	22°♄26'11	1°24'38		1569 Aug 04 j 02:51	30°♄♂	
max. Earth dist.	1567 Mar 07 j 15:23	27°♄20'21	1.72237 AU	direct	1569 Aug 11 j 11:21	28°♄55'33	
	1567 Mar 09 j 18:44	0°♄			1569 Aug 19 j 02:30	0°♄	
	1567 Apr 02 j 23:45	0°♄		greatest brilliancy	1569 Aug 25 j 20:50	2°♄32'28	-4.5m
evening rise	1567 Apr 11 j 13:01	10°♄33'14			1569 Sep 29 j 22:43	0°♄	
asc. node	1567 Apr 22 j 20:36	24°♄28'43		morning max el	1569 Sep 30 j 04:33	0°♄14'25	46°21'24
	1567 Apr 27 j 08:33	0°♄		asc. node	1569 Oct 07 j 15:36	7°♄49'50	
	1567 May 21 j 21:20	0°♄			1569 Oct 27 j 22:51	0°♄	
	1567 Jun 15 j 14:37	0°♄			1569 Nov 22 j 14:43	0°♄	
	1567 Jul 10 j 14:05	0°♄			1569 Dec 17 j 08:32	0°♄	
	1567 Aug 04 j 23:11	0°♄		desc. node	1570 Jan 10 j 17:17	0°♄	
desc. node	1567 Aug 12 j 09:46	8°♄40'14			1570 Jan 27 j 04:58	20°♄24'12	
	1567 Aug 31 j 00:35	0°♄			1570 Feb 03 j 22:49	0°♄	
	1567 Sep 27 j 11:12	0°♄			1570 Feb 28 j 03:53	0°♄	
evening max el	1567 Oct 07 j 06:31	10°♄00'50	46°59'41		1570 Mar 24 j 09:53	0°♄	
	1567 Oct 29 j 13:12	0°♄		morning set	1570 Apr 05 j 23:02	15°♄29'29	
greatest brilliancy	1567 Nov 15 j 00:54	10°♄04'15	-4.7m		1570 Apr 17 j 17:31	0°♄	
retrograde	1567 Nov 26 j 15:58	12°♄35'19			1570 May 12 j 02:43	0°♄	
asc. node	1567 Dec 03 j 13:06	11°♄37'00					
evening set	1567 Dec 11 j 02:11	8°♄26'52		superior conj	1570 May 13 j 08:04	1°♄30'11	0°-16'-35
min. Earth dist.	1567 Dec 16 j 15:49	5°♄11'09	0.26472 AU	minimum elong	1570 May 13 j 11:31	1°♄40'49	0°16'26
inferior conj	1567 Dec 17 j 04:45	4°♄51'19	3°27'47	max. Earth dist.	1570 May 13 j 23:26	2°♄17'25	1.73503 AU
minimum elong	1567 Dec 16 j 21:23	5°♄02'38	3°25'34	asc. node	1570 May 20 j 08:25	10°♄07'18	
morning rise	1567 Dec 22 j 16:54	1°♄36'20			1570 Jun 05 j 12:47	0°♄	
	1567 Dec 25 j 21:19	30°♄♂		evening rise	1570 Jun 18 j 16:31	16°♄09'24	
direct	1568 Jan 06 j 13:16	27°♄14'51			1570 Jun 29 j 23:06	0°♄	
greatest brilliancy	1568 Jan 17 j 19:28	29°♄37'08	-4.7m		1570 Jul 24 j 09:50	0°♄	
	1568 Jan 18 j 17:31	0°♄			1570 Aug 17 j 22:03	0°♄	
morning max el	1568 Feb 25 j 14:56	29°♄31'44	46°37'47	desc. node	1570 Sep 08 j 21:47	26°♄47'17	
	1568 Feb 26 j 02:18	0°♄			1570 Sep 11 j 13:17	0°♄	
desc. node	1568 Mar 24 j 02:41	28°♄38'41			1570 Oct 06 j 09:21	0°♄	
	1568 Mar 25 j 07:59	0°♄			1570 Oct 31 j 13:56	0°♄	
	1568 Apr 20 j 17:12	0°♄			1570 Nov 26 j 13:31	0°♄	
	1568 May 16 j 08:32	0°♄		evening max el	1570 Dec 18 j 10:56	23°♄37'32	47°14'05
	1568 Jun 10 j 13:59	0°♄			1570 Dec 24 j 20:10	0°♄	
	1568 Jul 05 j 11:43	0°♄		asc. node	1570 Dec 31 j 01:09	5°♄52'18	
asc. node	1568 Jul 15 j 06:05	11°♄51'48		greatest brilliancy	1571 Jan 24 j 22:06	23°♄58'33	-4.6m
	1568 Jul 30 j 02:05	0°♄		retrograde	1571 Feb 07 j 09:59	27°♄21'56	
morning set	1568 Aug 22 j 17:23	29°♄09'29		evening set	1571 Feb 25 j 09:52	21°♄05'16	

inferior conj	1571 Feb 28 j 10:49	19° H 11'32	8°41'37	evening rise	1573 Aug 24 j 21:49	20° M 53'58	
minimum elong	1571 Feb 28 j 13:26	19° H 07'26	8°41'31		1573 Sep 01 j 05:46	0° L	
min. Earth dist.	1571 Feb 27 j 22:50	19° H 30'23	0.27975 AU		1573 Sep 25 j 09:40	0° M	
morning rise	1571 Mar 03 j 17:11	17° H 09'53		desc. node	1573 Oct 06 j 09:37	13° M 39'10	
direct	1571 Mar 21 j 07:53	11° H 11'00			1573 Oct 19 j 13:58	0° J	
greatest brilliancy	1571 Apr 01 j 11:44	13° H 27'15	-4.5m		1573 Nov 12 j 19:39	0° Z	
desc. node	1571 Apr 21 j 14:17	25° H 49'23			1573 Dec 07 j 04:43	0° \approx	
	1571 Apr 26 j 16:06	0° Y			1573 Dec 31 j 22:10	0° H	
morning max el	1571 May 09 j 11:21	11° Y 39'34	45°55'33		1574 Jan 26 j 10:53	0° Y	
	1571 May 27 j 13:59	0° B		asc. node	1574 Jan 27 j 12:57	1° Y 14'32	
	1571 Jun 23 j 23:06	0° II			1574 Feb 22 j 21:31	0° B	
	1571 Jul 20 j 00:08	0° S		evening max el	1574 Feb 28 j 00:00	5° B 09'07	46°11'57
asc. node	1571 Aug 12 j 17:59	28° S 12'08			1574 Mar 29 j 22:00	0° II	
	1571 Aug 14 j 05:50	0° Q		greatest brilliancy	1574 Apr 03 j 19:15	2° II 39'47	-4.5m
	1571 Sep 07 j 21:27	0° M		retrograde	1574 Apr 18 j 11:49	6° II 28'15	
	1571 Oct 02 j 03:04	0° L		evening set	1574 May 03 j 21:19	1° II 51'19	
	1571 Oct 26 j 02:39	0° M			1574 May 07 j 00:43	30° R B	
morning set	1571 Nov 03 j 11:06	10° M 29'15		inferior conj	1574 May 09 j 21:14	28° B 12'53	2°09'21
	1571 Nov 18 j 23:25	0° J		minimum elong	1574 May 10 j 01:51	28° B 05'37	2°08'01
desc. node	1571 Dec 02 j 07:15	16° J 46'24		min. Earth dist.	1574 May 09 j 22:01	28° B 11'40	0.28834 AU
	1571 Dec 12 j 19:27	0° Z		morning rise	1574 May 16 j 06:42	24° B 21'58	
				desc. node	1574 May 19 j 02:10	22° B 56'00	
superior conj	1571 Dec 14 j 11:36	2° Z 06'19	0°-28'-35	direct	1574 May 31 j 10:28	19° B 57'29	
minimum elong	1571 Dec 14 j 04:13	1° Z 43'04	0°28'16	greatest brilliancy	1574 Jun 13 j 10:46	22° B 56'13	-4.5m
max. Earth dist.	1571 Dec 15 j 17:39	3° Z 40'53	1.71072 AU		1574 Jun 25 j 18:58	0° II	
	1572 Jan 05 j 16:00	0° \approx		morning max el	1574 Jul 19 j 04:15	19° II 40'56	45°45'52
evening rise	1572 Jan 24 j 22:27	24° \approx 10'13			1574 Jul 29 j 14:42	0° S	
	1572 Jan 29 j 14:17	0° H			1574 Aug 26 j 09:11	0° Q	
	1572 Feb 22 j 16:01	0° Y		asc. node	1574 Sep 09 j 05:51	15° Q 54'11	
	1572 Mar 17 j 23:20	0° B			1574 Sep 21 j 05:17	0° M	
asc. node	1572 Mar 24 j 10:47	7° B 56'04			1574 Oct 16 j 01:24	0° L	
	1572 Apr 11 j 14:25	0° II			1574 Nov 09 j 08:19	0° M	
	1572 May 06 j 16:03	0° S			1574 Dec 03 j 08:47	0° J	
	1572 Jun 01 j 09:25	0° Q			1574 Dec 27 j 06:52	0° Z	
	1572 Jun 28 j 07:02	0° M		desc. node	1574 Dec 29 j 19:12	3° Z 09'13	
desc. node	1572 Jul 13 j 23:58	16° M 25'31		morning set	1575 Jan 19 j 08:10	28° Z 55'08	
evening max el	1572 Jul 22 j 12:17	24° M 48'24	45°48'24		1575 Jan 20 j 04:52	0° \approx	
	1572 Jul 28 j 01:32	0° L			1575 Feb 13 j 04:08	0° H	
greatest brilliancy	1572 Aug 29 j 17:38	22° L 44'36	-4.5m				
retrograde	1572 Sep 09 j 12:12	24° L 49'22		superior conj	1575 Mar 01 j 01:52	19° H 50'26	-1°-25'-13
evening set	1572 Sep 26 j 11:00	19° L 23'33		minimum elong	1575 Mar 01 j 04:44	19° H 59'24	1°25'13
inferior conj	1572 Sep 30 j 08:55	17° L 02'39	-7°-25'-9	max. Earth dist.	1575 Mar 05 j 06:20	25° H 03'08	1.72179 AU
minimum elong	1572 Sep 30 j 18:39	16° L 47'46	7°23'31		1575 Mar 09 j 05:48	0° Y	
min. Earth dist.	1572 Oct 01 j 06:43	16° L 29'21	0.27453 AU		1575 Apr 02 j 10:48	0° B	
morning rise	1572 Oct 05 j 01:55	14° L 13'48		evening rise	1575 Apr 09 j 04:14	8° B 18'06	
direct	1572 Oct 21 j 08:17	9° L 07'03		asc. node	1575 Apr 21 j 22:38	24° B 00'55	
asc. node	1572 Nov 04 j 03:15	12° L 37'14			1575 Apr 26 j 19:39	0° II	
greatest brilliancy	1572 Nov 04 j 06:19	12° L 40'54	-4.6m		1575 May 21 j 08:36	0° S	
	1572 Nov 28 j 02:51	0° M			1575 Jun 15 j 02:17	0° Q	
morning max el	1572 Dec 11 j 03:35	12° M 37'42	46°56'00		1575 Jul 10 j 02:25	0° M	
	1572 Dec 27 j 10:35	0° J			1575 Aug 04 j 12:41	0° L	
	1573 Jan 22 j 16:48	0° Z		desc. node	1575 Aug 11 j 11:49	8° L 05'41	
	1573 Feb 16 j 23:34	0° \approx			1575 Aug 30 j 16:15	0° M	
desc. node	1573 Feb 23 j 16:52	8° \approx 04'07			1575 Sep 27 j 07:54	0° J	
	1573 Mar 13 j 20:56	0° H		evening max el	1575 Oct 04 j 18:53	7° J 33'30	46°57'29
	1573 Apr 07 j 14:23	0° Y			1575 Oct 30 j 10:02	0° Z	
	1573 May 02 j 06:10	0° B		greatest brilliancy	1575 Nov 12 j 15:42	7° Z 36'39	-4.7m
	1573 May 26 j 20:41	0° II		retrograde	1575 Nov 24 j 03:37	10° Z 04'55	
morning set	1573 Jun 13 j 08:45	21° II 24'12		asc. node	1575 Dec 02 j 15:17	8° Z 36'36	
asc. node	1573 Jun 16 j 20:20	25° II 40'08		evening set	1575 Dec 08 j 13:07	5° Z 58'29	
	1573 Jun 20 j 09:08	0° S		min. Earth dist.	1575 Dec 14 j 05:48	2° Z 38'55	0.26452 AU
	1573 Jul 14 j 18:40	0° Q		inferior conj	1575 Dec 14 j 16:56	2° Z 21'53	3°04'54
max. Earth dist.	1573 Jul 16 j 21:14	2° Q 35'51	1.73255 AU	minimum elong	1575 Dec 14 j 10:15	2° Z 32'06	3°02'51
					1575 Dec 18 j 15:21	30° R J	
superior conj	1573 Jul 19 j 17:20	6° Q 05'54	1°07'36	morning rise	1575 Dec 20 j 07:33	29° J 03'27	
minimum elong	1573 Jul 19 j 08:51	5° Q 39'43	1°07'22	direct	1576 Jan 04 j 00:45	24° J 45'21	
	1573 Aug 08 j 01:13	0° M		greatest brilliancy	1576 Jan 15 j 10:51	27° J 11'14	-4.7m

	1576 Jan 21 j 05:50	0°☾				1578 Aug 17 j 09:31	0°♄		
morning max el	1576 Feb 23 j 03:10	27°☾04'29	46°39'20	desc. node		1578 Sep 07 j 23:44	26°♄16'53		
	1576 Feb 26 j 01:07	0°≈				1578 Sep 11 j 01:19	0°♍		
desc. node	1576 Mar 23 j 04:41	27°≈58'12				1578 Oct 05 j 22:16	0°♎		
	1576 Mar 25 j 00:20	0°♈				1578 Oct 31 j 04:13	0°☾		
	1576 Apr 20 j 07:02	0°♉				1578 Nov 26 j 06:33	0°≈		
	1576 May 15 j 21:03	0°♊		evening max el		1578 Dec 16 j 02:27	21°≈18'35	47°15'10	
	1576 Jun 10 j 01:43	0°♋				1578 Dec 24 j 21:28	0°♈		
asc. node	1576 Jul 04 j 23:00	0°☾		asc. node		1578 Dec 30 j 03:09	4°♈51'17		
	1576 Jul 14 j 08:10	11°☾24'11		greatest brilliancy		1579 Jan 22 j 13:27	21°♈39'11	-4.6m	
	1576 Jul 29 j 13:06	0°♌		retrograde		1579 Feb 05 j 01:38	25°♈02'32		
morning set	1576 Aug 20 j 10:04	26°♌58'36		evening set		1579 Feb 23 j 01:00	18°♈45'23		
	1576 Aug 22 j 20:35	0°♍		min. Earth dist.		1579 Feb 25 j 12:10	17°♈13'22	0.27927 AU	
	1576 Sep 15 j 23:00	0°♎		inferior conj		1579 Feb 26 j 01:27	16°♈52'30	8°44'27	
max. Earth dist.	1576 Sep 23 j 17:44	9°♎43'29	1.71856 AU	minimum elong		1579 Feb 26 j 03:15	16°♈49'41	8°44'25	
				morning rise		1579 Mar 01 j 05:42	14°♈54'18		
superior conj	1576 Sep 26 j 17:44	13°♎28'39	1°13'30	direct		1579 Mar 18 j 22:22	8°♈52'53		
minimum elong	1576 Sep 27 j 02:30	13°♎56'05	1°13'17	greatest brilliancy		1579 Mar 29 j 23:51	11°♈07'31	-4.5m	
	1576 Oct 09 j 22:26	0°♏		desc. node		1579 Apr 20 j 16:22	24°♈44'19		
desc. node	1576 Nov 02 j 21:33	0°♎02'48				1579 Apr 26 j 21:25	0°♉		
	1576 Nov 02 j 20:39	0°♏		morning max el		1579 May 07 j 03:09	9°♉27'27	45°56'39	
evening rise	1576 Nov 05 j 09:40	3°♏11'15				1579 May 27 j 07:23	0°♊		
	1576 Nov 26 j 18:51	0°☾				1579 Jun 23 j 13:04	0°♋		
	1576 Dec 20 j 18:05	0°≈				1579 Jul 19 j 12:34	0°☾		
	1577 Jan 13 j 20:16	0°♈		asc. node		1579 Aug 11 j 19:56	27°☾42'58		
	1577 Feb 07 j 04:50	0°♉				1579 Aug 13 j 17:27	0°♌		
asc. node	1577 Feb 24 j 00:51	20°♉24'36				1579 Sep 07 j 08:39	0°♍		
	1577 Mar 04 j 01:12	0°♊				1579 Oct 01 j 14:04	0°♎		
	1577 Mar 29 j 18:04	0°♋				1579 Oct 25 j 13:34	0°♏		
	1577 Apr 26 j 02:49	0°☾		morning set		1579 Oct 31 j 23:41	8°♏03'46		
evening max el	1577 May 09 j 11:38	13°☾25'20	45°23'50			1579 Nov 18 j 10:19	0°♏		
	1577 May 28 j 11:21	0°♌		desc. node		1579 Dec 01 j 09:25	16°♏19'01		
greatest brilliancy	1577 Jun 13 j 11:29	9°♌55'21	-4.5m						
desc. node	1577 Jun 15 j 14:14	10°♌48'27		superior conj		1579 Dec 11 j 21:29	29°♏32'10	0°-24'-47	
retrograde	1577 Jun 27 j 02:16	13°♌10'12		minimum elong		1579 Dec 11 j 15:01	29°♏11'48	0°24'29	
evening set	1577 Jul 13 j 08:27	8°♌09'42				1579 Dec 12 j 06:20	0°☾		
inferior conj	1577 Jul 18 j 13:28	5°♌01'23	-6°-45'-34	max. Earth dist.		1579 Dec 13 j 02:24	1°☾03'07	1.71062 AU	
minimum elong	1577 Jul 18 j 03:41	5°♌16'35	6°43'49			1580 Jan 05 j 02:51	0°≈		
min. Earth dist.	1577 Jul 18 j 15:42	4°♌57'55	0.28911 AU	evening rise		1580 Jan 22 j 09:13	21°≈39'33		
morning rise	1577 Jul 22 j 22:41	2°♌20'43				1580 Jan 29 j 01:10	0°♈		
	1577 Jul 27 j 06:33	30°♌☾				1580 Feb 22 j 03:00	0°♉		
direct	1577 Aug 09 j 03:33	26°☾44'41				1580 Mar 17 j 10:29	0°♊		
	1577 Aug 22 j 18:03	0°♌		asc. node		1580 Mar 23 j 12:47	7°♊27'54		
greatest brilliancy	1577 Aug 23 j 13:40	0°♌22'35	-4.5m			1580 Apr 11 j 01:56	0°♋		
morning max el	1577 Sep 27 j 20:27	28°♌00'47	46°19'58			1580 May 06 j 04:16	0°☾		
	1577 Sep 29 j 20:18	0°♍				1580 May 31 j 23:01	0°♌		
asc. node	1577 Oct 06 j 17:33	7°♍04'25				1580 Jun 27 j 23:43	0°♍		
	1577 Oct 27 j 14:29	0°♎		desc. node		1580 Jul 13 j 02:00	15°♍39'43		
	1577 Nov 22 j 04:15	0°♏		evening max el		1580 Jul 20 j 02:35	22°♍32'37	45°46'21	
	1577 Dec 16 j 21:04	0°♏				1580 Jul 28 j 04:07	0°♎		
	1578 Jan 10 j 05:15	0°☾		greatest brilliancy		1580 Aug 27 j 06:14	20°♎24'39	-4.5m	
desc. node	1578 Jan 26 j 06:59	19°☾54'15		retrograde		1580 Sep 07 j 00:52	22°♎29'11		
	1578 Feb 03 j 10:24	0°≈		evening set		1580 Sep 24 j 03:25	16°♎59'01		
	1578 Feb 27 j 15:09	0°♈		inferior conj		1580 Sep 27 j 22:29	14°♎41'53	-7°-36'-37	
	1578 Mar 23 j 20:54	0°♉		minimum elong		1580 Sep 28 j 07:48	14°♎27'36	7°35'11	
morning set	1578 Apr 03 j 14:31	13°♉15'28		min. Earth dist.		1580 Sep 28 j 20:15	14°♎08'33	0.27520 AU	
	1578 Apr 17 j 04:20	0°♊		morning rise		1580 Oct 02 j 11:51	11°♎57'48		
				direct		1580 Oct 18 j 22:42	6°♎45'24		
superior conj	1578 May 11 j 01:19	29°♊22'46	0°-19'-45	greatest brilliancy		1580 Nov 01 j 21:02	10°♎19'03	-4.6m	
minimum elong	1578 May 11 j 05:26	29°♊35'24	0°19'35	asc. node		1580 Nov 03 j 05:26	10°♎59'25		
	1578 May 11 j 13:26	0°♋				1580 Nov 28 j 07:08	0°♏		
max. Earth dist.	1578 May 11 j 20:53	0°♋22'57	1.73482 AU	morning max el		1580 Dec 08 j 17:01	10°♏12'44	46°55'34	
asc. node	1578 May 19 j 10:32	9°♋41'01				1580 Dec 27 j 04:17	0°♏		
	1578 Jun 04 j 23:30	0°☾				1581 Jan 22 j 07:15	0°☾		
evening rise	1578 Jun 16 j 11:26	14°☾07'10				1581 Feb 16 j 12:27	0°≈		
	1578 Jun 29 j 09:56	0°♌		desc. node		1581 Feb 22 j 18:51	7°≈32'08		
	1578 Jul 23 j 20:54	0°♍				1581 Mar 13 j 08:54	0°♈		

	1581 Apr 07 j 01:46	0°Υ			1583 Nov 10 13:40	0°Θ	
	1581 May 01 j 17:10	0°Ϡ		greatest brilliancy	1583 Nov 20 05:30	5°Θ09'03	-4.7m
	1581 May 26 j 07:24	0°Π		retrograde	1583 Dec 01 15:37	7°Θ35'55	
morning set	1581 Jun 11 j 02:58	19°Π20'35		asc. node	1583 Dec 11 17:18	5°Θ31'59	
asc. node	1581 Jun 15 j 22:23	25°Π13'59		evening set	1583 Dec 16 00:19	3°Θ30'41	
	1581 Jun 19 j 19:42	0°Ϡ		inferior conj	1583 Dec 22 05:07	29°Ϡ53'25	2°41'37
	1581 Jul 14 j 05:11	0°Ω		minimum elong	1583 Dec 21 23:11	0°Θ02'28	2°39'45
max. Earth dist.	1581 Jul 14 j 15:14	0°Ω30'57	1.73289 AU	min. Earth dist.	1583 Dec 21 19:33	0°Θ08'02	0.26437 AU
					1583 Dec 22 00:48	30°ϠϠ	
superior conj	1581 Jul 17 j 11:39	4°Ω01'55	1°05'40	morning rise	1583 Dec 27 22:08	26°Ϡ32'00	
minimum elong	1581 Jul 17 j 03:03	3°Ω35'22	1°05'23	direct	1584 Jan 11 12:33	22°Ϡ16'38	
	1581 Aug 07 j 11:48	0°Ϡ		greatest brilliancy	1584 Jan 23 02:20	24°Ϡ46'24	-4.7m
evening rise	1581 Aug 22 j 14:35	18°Ϡ43'57			1584 Feb 01 19:46	0°Θ	
	1581 Aug 31 j 16:32	0°Δ		morning max el	1584 Mar 01 16:27	24°Θ40'29	46°40'51
	1581 Sep 24 j 20:41	0°Ϡ			1584 Mar 06 22:46	0°≈	
desc. node	1581 Oct 05 j 11:42	13°Ϡ11'01		desc. node	1584 Apr 01 06:43	27°≈19'02	
	1581 Oct 19 j 01:19	0°Ϡ			1584 Apr 03 16:10	0°Ϡ	
	1581 Nov 12 j 07:24	0°Θ			1584 Apr 29 20:28	0°Υ	
	1581 Dec 06 j 17:01	0°≈			1584 May 25 09:13	0°Ϡ	
	1581 Dec 31 j 11:23	0°Ϡ			1584 Jun 19 13:08	0°Π	
	1582 Jan 26 j 01:56	0°Υ			1584 Jul 14 09:59	0°Ϡ	
asc. node	1582 Jan 26 j 14:57	0°Υ37'07		asc. node	1584 Jul 23 10:07	10°Ϡ56'58	
	1582 Feb 22 j 17:33	0°Ϡ			1584 Aug 07 23:52	0°Ω	
evening max el	1582 Feb 25 j 14:37	2°Ϡ53'16	46°14'22	morning set	1584 Aug 28 02:51	24°Ω48'46	
	1582 Mar 31 j 11:08	0°Π			1584 Sep 01 07:18	0°Ϡ	
greatest brilliancy	1582 Apr 01 j 12:51	0°Π32'05	-4.5m		1584 Sep 25 09:44	0°Δ	
retrograde	1582 Apr 16 j 03:53	4°Π19'40		max. Earth dist.	1584 Oct 01 09:14	7°Δ28'13	1.71906 AU
	1582 May 01 j 01:25	30°ϠϠ					
evening set	1582 May 01 j 15:35	29°Ϡ40'22		superior conj	1584 Oct 04 08:29	11°Δ10'58	1°15'11
inferior conj	1582 May 07 j 13:45	26°Ϡ04'24	2°28'32	minimum elong	1584 Oct 04 16:46	11°Δ36'54	1°15'00
minimum elong	1582 May 07 j 18:59	25°Ϡ56'09	2°27'03		1584 Oct 19 09:14	0°Ϡ	
min. Earth dist.	1582 May 07 j 14:56	26°Ϡ02'31	0.28819 AU	desc. node	1584 Nov 11 23:41	29°Ϡ35'11	
morning rise	1582 May 13 j 22:37	22°Ϡ13'53			1584 Nov 12 07:36	0°Ϡ	
desc. node	1582 May 18 j 04:18	20°Ϡ09'29		evening rise	1584 Nov 12 21:09	0°Ϡ42'30	
direct	1582 May 29 j 02:18	17°Ϡ49'12			1584 Dec 06 05:57	0°Θ	
greatest brilliancy	1582 Jun 11 j 01:36	20°Ϡ46'18	-4.5m		1584 Dec 30 05:22	0°≈	
	1582 Jun 26 j 10:43	0°Π			1585 Jan 23 07:48	0°Ϡ	
morning max el	1582 Jul 16 j 19:09	17°Π29'16	45°45'21		1585 Feb 16 16:47	0°Υ	
	1582 Jul 29 j 09:08	0°Ϡ		asc. node	1585 Mar 05 02:54	19°Υ53'26	
	1582 Aug 25 j 23:26	0°Ω			1585 Mar 13 13:55	0°Ϡ	
asc. node	1582 Sep 08 j 07:53	15°Ω21'31			1585 Apr 08 08:22	0°Π	
	1582 Sep 20 j 17:53	0°Ϡ			1585 May 05 21:05	0°Ϡ	
	1582 Oct 25 13:13	0°Δ		evening max el	1585 May 17 03:49	11°Ϡ16'02	45°24'37
	1582 Nov 18 19:45	0°Ϡ			1585 Jun 08 01:06	0°Ω	
	1582 Dec 12 19:59	0°Ϡ		greatest brilliancy	1585 Jun 21 00:23	7°Ω42'53	-4.5m
desc. node	1583 Jan 05 17:55	0°Θ		desc. node	1585 Jun 24 16:12	9°Ω10'41	
morning set	1583 Jan 07 21:07	2°Θ40'38		retrograde	1585 Jul 04 18:45	11°Ω01'12	
	1583 Jan 26 17:57	26°Θ21'05		evening set	1585 Jul 20 21:33	6°Ω04'23	
	1583 Jan 29 15:48	0°≈		inferior conj	1585 Jul 26 05:31	2°Ω51'42	-6°-32'-46
	1583 Feb 22 14:57	0°Ϡ		minimum elong	1585 Jul 25 19:38	3°Ω07'03	6°30'53
				min. Earth dist.	1585 Jul 26 06:44	2°Ω49'47	0.28928 AU
superior conj	1583 Mar 08 14:41	17°Ϡ27'27	-1°-25'-38	morning rise	1585 Jul 30 17:32	0°Ω07'06	
minimum elong	1583 Mar 08 16:38	17°Ϡ33'31	1°25'38		1585 Jul 30 22:25	30°ϠϠ	
max. Earth dist.	1583 Mar 12 18:42	22°Ϡ38'52	1.72116 AU	direct	1585 Aug 16 20:20	24°Ϡ34'50	
	1583 Mar 18 16:31	0°Υ		greatest brilliancy	1585 Aug 31 05:44	28°Ϡ12'29	-4.5m
	1583 Apr 11 21:27	0°Ϡ			1585 Sep 03 17:27	0°Ω	
evening rise	1583 Apr 16 19:28	6°Ϡ04'11		morning max el	1585 Oct 05 12:38	25°Ω48'19	46°18'19
asc. node	1583 May 01 00:47	23°Ϡ34'44			1585 Oct 09 17:01	0°Ϡ	
	1583 May 06 06:21	0°Π		asc. node	1585 Oct 15 19:44	6°Ϡ20'23	
	1583 May 30 19:31	0°Ϡ			1585 Nov 06 05:52	0°Δ	
	1583 Jun 24 13:37	0°Ω			1585 Dec 01 17:41	0°Ϡ	
	1583 Jul 19 14:29	0°Ϡ			1585 Dec 26 09:33	0°Ϡ	
	1583 Aug 14 01:59	0°Δ			1586 Jan 19 17:10	0°Θ	
desc. node	1583 Aug 20 13:47	7°Δ31'35		desc. node	1586 Feb 04 09:01	19°Θ24'28	
	1583 Sep 09 07:51	0°Ϡ			1586 Feb 12 21:56	0°≈	
	1583 Oct 07 04:57	0°Ϡ			1586 Mar 09 02:23	0°Ϡ	
evening max el	1583 Oct 12 07:10	5°Ϡ07'12	46°55'24		1586 Apr 02 07:54	0°Υ	

morning set	1586 Apr 11 05:46	11° Υ 00'34		min. Earth dist.	1588 Oct 06 10:09	11° Ω 47'34	0.27586 AU
	1586 Apr 26 15:11	0° \mathcal{B}		morning rise	1588 Oct 09 21:57	9° Ω 41'57	
				direct	1588 Oct 26 12:43	4° Ω 23'41	
superior conj	1586 May 18 18:26	27° \mathcal{B} 14'42	0°-22'-56	greatest brilliancy	1588 Nov 09 12:28	7° Ω 57'56	-4.6m
minimum elong	1586 May 18 23:10	27° \mathcal{B} 29'18	0°22'43	asc. node	1588 Nov 12 07:26	9° Ω 24'33	
max. Earth dist.	1586 May 19 18:56	28° \mathcal{B} 30'03	1.73457 AU		1588 Dec 08 10:00	0° \mathcal{M}	
	1586 May 21 00:12	0° Π		morning max el	1588 Dec 16 05:48	7° \mathcal{M} 45'18	46°54'56
asc. node	1586 May 28 12:35	9° Π 14'20			1589 Jan 05 21:55	0° \mathcal{X}	
	1586 Jun 14 10:15	0° \mathcal{G}			1589 Jan 31 21:55	0° \mathcal{Z}	
evening rise	1586 Jun 24 06:21	12° \mathcal{G} 04'48			1589 Feb 26 01:40	0° \approx	
	1586 Jul 08 20:47	0° Ω		desc. node	1589 Mar 03 20:58	6° \approx 59'25	
	1586 Aug 02 07:59	0° \mathcal{M}			1589 Mar 22 21:15	0° \mathcal{H}	
	1586 Aug 26 21:01	0° Ω			1589 Apr 16 13:33	0° Υ	
desc. node	1586 Sep 17 01:53	25° Ω 46'45			1589 May 11 04:32	0° \mathcal{B}	
	1586 Sep 20 13:29	0° \mathcal{M}			1589 Jun 04 18:30	0° Π	
	1586 Oct 15 11:22	0° \mathcal{X}		morning set	1589 Jun 18 20:56	17° Π 15'01	
	1586 Nov 09 18:50	0° \mathcal{Z}		asc. node	1589 Jun 25 00:20	24° Π 46'23	
	1586 Dec 06 00:09	0° \approx			1589 Jun 29 06:38	0° \mathcal{G}	
evening max el	1586 Dec 23 18:13	18° \approx 59'28	47°16'10	max. Earth dist.	1589 Jul 22 09:38	28° \mathcal{G} 26'08	1.73323 AU
	1587 Jan 04 00:29	0° \mathcal{H}			1589 Jul 23 16:06	0° Ω	
asc. node	1587 Jan 08 05:09	3° \mathcal{H} 48'05					
greatest brilliancy	1587 Jan 30 05:44	19° \mathcal{H} 20'09	-4.7m	superior conj	1589 Jul 25 05:58	1° Ω 56'45	1°03'38
retrograde	1587 Feb 12 16:58	22° \mathcal{H} 41'49		minimum elong	1589 Jul 24 21:15	1° Ω 29'54	1°03'20
evening set	1587 Mar 02 15:39	16° \mathcal{H} 25'02			1589 Aug 16 22:47	0° \mathcal{M}	
min. Earth dist.	1587 Mar 05 01:22	14° \mathcal{H} 55'13	0.27874 AU	evening rise	1589 Aug 30 07:37	16° \mathcal{M} 33'39	
inferior conj	1587 Mar 05 15:55	14° \mathcal{H} 32'21	8°46'29		1589 Sep 10 03:40	0° Ω	
minimum elong	1587 Mar 05 16:54	14° \mathcal{H} 30'49	8°46'27		1589 Oct 04 08:03	0° \mathcal{M}	
morning rise	1587 Mar 08 18:23	12° \mathcal{H} 36'56		desc. node	1589 Oct 14 13:50	12° \mathcal{M} 42'00	
direct	1587 Mar 26 12:56	6° \mathcal{H} 33'53			1589 Oct 28 12:59	0° \mathcal{X}	
greatest brilliancy	1587 Apr 06 11:14	8° \mathcal{H} 46'04	-4.6m		1589 Nov 21 19:28	0° \mathcal{Z}	
desc. node	1587 Apr 29 18:32	23° \mathcal{H} 40'30			1589 Dec 16 05:43	0° \approx	
	1587 May 07 01:09	0° Υ			1590 Jan 10 01:06	0° \mathcal{H}	
morning max el	1587 May 14 18:05	7° Υ 12'32	45°57'43	asc. node	1590 Feb 04 17:01	29° \mathcal{H} 58'08	
	1587 Jun 06 00:36	0° \mathcal{B}			1590 Feb 04 17:40	0° Υ	
	1587 Jul 03 03:05	0° Π			1590 Mar 04 14:54	0° \mathcal{B}	
	1587 Jul 29 01:05	0° \mathcal{G}		evening max el	1590 Mar 05 04:29	0° \mathcal{B} 33'52	46°16'48
asc. node	1587 Aug 20 22:03	27° \mathcal{G} 13'54		greatest brilliancy	1590 Apr 09 05:35	28° \mathcal{B} 21'11	-4.5m
	1587 Aug 23 05:11	0° Ω			1590 Apr 13 00:35	0° Π	
	1587 Sep 16 19:57	0° \mathcal{M}		retrograde	1590 Apr 23 20:01	2° Π 09'04	
	1587 Oct 11 01:12	0° Ω			1590 May 04 04:59	30° \mathcal{R} \mathcal{B}	
	1587 Nov 04 00:40	0° \mathcal{M}		evening set	1590 May 09 09:46	27° \mathcal{B} 26'53	
morning set	1587 Nov 08 12:21	5° \mathcal{M} 38'02		inferior conj	1590 May 15 06:04	23° \mathcal{B} 53'47	2°47'40
	1587 Nov 27 21:26	0° \mathcal{X}		minimum elong	1590 May 15 11:55	23° \mathcal{B} 44'34	2°46'01
desc. node	1587 Dec 10 11:23	15° \mathcal{X} 50'14		min. Earth dist.	1590 May 15 07:40	23° \mathcal{B} 51'15	0.28804 AU
				morning rise	1590 May 21 14:14	20° \mathcal{B} 04'04	
superior conj	1587 Dec 19 07:11	26° \mathcal{X} 56'36	0°-20'-54	desc. node	1590 May 27 06:14	17° \mathcal{B} 25'02	
minimum elong	1587 Dec 19 01:41	26° \mathcal{X} 39'17	0°20'39	direct	1590 Jun 05 17:38	15° \mathcal{B} 38'39	
max. Earth dist.	1587 Dec 20 07:10	28° \mathcal{X} 12'05	1.71057 AU	greatest brilliancy	1590 Jun 18 17:06	18° \mathcal{B} 35'25	-4.5m
	1587 Dec 21 17:28	0° \mathcal{Z}			1590 Jul 06 23:13	0° Π	
	1588 Jan 14 14:01	0° \approx		morning max el	1590 Jul 24 10:22	15° Π 16'56	45°44'57
evening rise	1588 Jan 29 19:21	19° \approx 05'56			1590 Aug 08 03:37	0° \mathcal{G}	
	1588 Feb 07 12:21	0° \mathcal{H}			1590 Sep 04 14:00	0° Ω	
	1588 Mar 02 14:16	0° Υ		asc. node	1590 Sep 17 09:59	14° Ω 47'55	
	1588 Mar 26 21:57	0° \mathcal{B}			1590 Sep 30 06:51	0° \mathcal{M}	
asc. node	1588 Apr 01 14:57	6° \mathcal{B} 59'15			1590 Oct 25 01:24	0° Ω	
	1588 Apr 20 13:47	0° Π			1590 Nov 18 07:30	0° \mathcal{M}	
	1588 May 15 16:52	0° \mathcal{G}			1590 Dec 12 07:28	0° \mathcal{X}	
	1588 Jun 10 13:06	0° Ω			1591 Jan 05 05:15	0° \mathcal{Z}	
	1588 Jul 07 17:06	0° \mathcal{M}		desc. node	1591 Jan 06 23:12	2° \mathcal{Z} 11'36	
desc. node	1588 Jul 22 04:02	14° \mathcal{M} 52'22		morning set	1591 Jan 24 03:58	23° \mathcal{Z} 46'38	
evening max el	1588 Jul 27 16:05	20° \mathcal{M} 14'09	45°44'26		1591 Jan 29 03:02	0° \approx	
	1588 Aug 07 08:46	0° Ω			1591 Feb 22 02:07	0° \mathcal{H}	
greatest brilliancy	1588 Sep 03 19:24	18° Ω 04'56	-4.5m				
retrograde	1588 Sep 14 13:25	20° Ω 09'04		superior conj	1591 Mar 06 03:20	15° \mathcal{H} 02'41	-1°-25'-53
evening set	1588 Oct 01 19:50	14° Ω 34'36		minimum elong	1591 Mar 06 04:19	15° \mathcal{H} 05'45	1°25'55
inferior conj	1588 Oct 05 12:14	12° Ω 21'13	-7°-47'-12	max. Earth dist.	1591 Mar 10 04:54	20° \mathcal{H} 06'38	1.72063 AU
minimum elong	1588 Oct 05 21:04	12° Ω 07'38	7°45'56		1591 Mar 18 03:37	0° Υ	

	1591 Apr 11 08:32	0°♄			1593 Sep 05 01:37	0°♌		
evening rise	1591 Apr 14 10:18	3°♄47'40		morning max el	1593 Oct 03 04:18	23°♌34'05	46°16'37	
asc. node	1591 Apr 30 02:45	23°♄06'33			1593 Oct 09 13:19	0°♍		
	1591 May 05 17:30	0°♎		asc. node	1593 Oct 14 21:46	5°♍35'59		
	1591 May 30 06:54	0°♏			1593 Nov 05 21:14	0°♐		
	1591 Jun 24 01:26	0°♑			1593 Dec 01 07:12	0°♒		
	1591 Jul 19 03:03	0°♓			1593 Dec 25 22:10	0°♑		
	1591 Aug 13 15:51	0°♐			1594 Jan 19 05:14	0°♒		
desc. node	1591 Aug 19 15:56	6°♐56'26		desc. node	1594 Feb 03 11:09	18°♒54'36		
	1591 Sep 09 00:10	0°♑			1594 Feb 12 09:34	0°♒		
	1591 Oct 07 03:16	0°♑			1594 Mar 08 13:41	0°♑		
evening max el	1591 Oct 09 20:15	2°♑41'57	46°53'23		1594 Apr 01 18:57	0°♑		
	1591 Nov 12 05:43	0°♒		morning set	1594 Apr 08 21:20	8°♑46'28		
greatest brilliancy	1591 Nov 17 18:43	2°♒40'02	-4.7m		1594 Apr 26 02:05	0°♑		
retrograde	1591 Nov 29 04:18	5°♒06'20						
asc. node	1591 Dec 10 19:16	2°♒21'51		superior conj	1594 May 16 11:46	25°♑07'08	0°-26'-3	
evening set	1591 Dec 13 11:52	1°♒01'56		minimum elong	1594 May 16 17:07	25°♑23'36	0°25'48	
	1591 Dec 15 08:48	30°♒♑		max. Earth dist.	1594 May 17 18:04	26°♑40'18	1.73433 AU	
inferior conj	1591 Dec 19 17:20	27°♑24'14	2°17'56		1594 May 20 11:01	0°♒		
minimum elong	1591 Dec 19 12:12	27°♑32'03	2°16'19	asc. node	1594 May 27 14:35	8°♒47'15		
min. Earth dist.	1591 Dec 19 09:01	27°♑36'55	0.26421 AU		1594 Jun 13 21:06	0°♓		
morning rise	1591 Dec 25 12:38	24°♑00'17		evening rise	1594 Jun 22 01:20	10°♓02'23		
direct	1592 Jan 09 00:54	19°♑47'24			1594 Jul 08 07:45	0°♑		
greatest brilliancy	1592 Jan 20 16:50	22°♑20'02	-4.7m		1594 Aug 01 19:13	0°♑		
	1592 Feb 02 22:42	0°♒			1594 Aug 26 08:41	0°♐		
morning max el	1592 Feb 28 06:32	22°♒17'59	46°42'14	desc. node	1594 Sep 16 03:56	25°♐15'59		
	1592 Mar 06 19:52	0°♑			1594 Sep 20 01:48	0°♒		
desc. node	1592 Mar 31 08:53	26°♑39'54			1594 Oct 15 00:40	0°♑		
	1592 Apr 03 07:58	0°♑			1594 Nov 09 09:43	0°♒		
	1592 Apr 29 10:06	0°♑			1594 Dec 05 18:15	0°♑		
	1592 May 24 21:40	0°♑		evening max el	1594 Dec 21 09:41	16°♑39'11	47°17'00	
	1592 Jun 19 00:54	0°♒			1595 Jan 04 05:17	0°♑		
	1592 Jul 13 21:19	0°♓		asc. node	1595 Jan 07 07:19	2°♑43'30		
asc. node	1592 Jul 22 12:16	10°♓29'19		greatest brilliancy	1595 Jan 27 23:14	17°♑02'22	-4.7m	
	1592 Aug 07 10:59	0°♑		retrograde	1595 Feb 10 08:02	20°♑20'53		
morning set	1592 Aug 25 19:32	22°♑37'47		evening set	1595 Feb 28 05:58	14°♑05'31		
	1592 Aug 31 18:19	0°♑		min. Earth dist.	1595 Mar 02 14:57	12°♑36'44	0.27815 AU	
	1592 Sep 24 20:46	0°♐		inferior conj	1595 Mar 03 06:28	12°♑12'20	8°47'34	
max. Earth dist.	1592 Sep 28 23:42	5°♐08'53	1.71956 AU	minimum elong	1595 Mar 03 06:36	12°♑12'08	8°47'35	
				morning rise	1595 Mar 06 07:29	10°♑19'02		
superior conj	1592 Oct 01 23:15	8°♐52'29	1°16'46	direct	1595 Mar 24 03:12	4°♑15'12		
minimum elong	1592 Oct 02 07:00	9°♐16'42	1°16'35	greatest brilliancy	1595 Apr 03 22:50	6°♑24'54	-4.6m	
	1592 Oct 18 20:22	0°♒		desc. node	1595 Apr 28 20:27	22°♑38'09		
evening rise	1592 Nov 10 08:43	28°♒12'59			1595 May 07 03:09	0°♑		
desc. node	1592 Nov 11 01:38	29°♒05'59		morning max el	1595 May 12 08:07	4°♑55'39	45°58'55	
	1592 Nov 11 18:52	0°♑			1595 Jun 05 17:20	0°♑		
	1592 Dec 05 17:22	0°♒			1595 Jul 02 16:50	0°♒		
	1592 Dec 29 16:55	0°♑			1595 Jul 28 13:29	0°♓		
	1593 Jan 22 19:33	0°♑		asc. node	1595 Aug 20 00:08	26°♓44'55		
	1593 Feb 16 04:56	0°♑			1595 Aug 22 16:51	0°♑		
asc. node	1593 Mar 04 05:01	19°♑21'57			1595 Sep 16 07:15	0°♑		
	1593 Mar 13 02:51	0°♑			1595 Oct 10 12:19	0°♐		
	1593 Apr 07 23:00	0°♒			1595 Nov 03 11:44	0°♒		
	1593 May 05 16:07	0°♓		morning set	1595 Nov 06 01:05	3°♒12'36		
evening max el	1593 May 14 20:36	9°♓07'24	45°25'14		1595 Nov 27 08:30	0°♑		
	1593 Jun 08 20:08	0°♑		desc. node	1595 Dec 09 13:26	15°♑21'53		
greatest brilliancy	1593 Jun 18 14:38	5°♑31'14	-4.5m					
desc. node	1593 Jun 23 18:16	7°♑28'41		superior conj	1595 Dec 16 16:57	24°♑21'33	0°-16'-59	
retrograde	1593 Jul 02 11:06	8°♑51'14		minimum elong	1595 Dec 16 12:27	24°♑07'22	0°16'47	
evening set	1593 Jul 18 10:50	3°♑58'20		max. Earth dist.	1595 Dec 17 10:04	25°♑15'23	1.71057 AU	
inferior conj	1593 Jul 23 21:35	0°♑41'16	-6°-19'-17		1595 Dec 21 04:33	0°♒		
minimum elong	1593 Jul 23 11:40	0°♑56'42	6°17'19		1596 Jan 14 01:07	0°♑		
min. Earth dist.	1593 Jul 23 21:56	0°♑40'42	0.28943 AU	evening rise	1596 Jan 27 05:30	16°♑32'25		
	1593 Jul 25 00:08	30°♑♓			1596 Feb 06 23:29	0°♑		
morning rise	1593 Jul 28 12:23	27°♓52'35			1596 Mar 02 01:29	0°♑		
direct	1593 Aug 14 13:11	22°♓24'27			1596 Mar 26 09:19	0°♑		
greatest brilliancy	1593 Aug 28 20:38	26°♓00'12	-4.5m	asc. node	1596 Mar 31 16:56	6°♑30'23		

	1596 Apr 20 01:30	0° Π			1599 Jan 04 16:22	0° \eth	
	1596 May 15 05:20	0° \eth		desc. node	1599 Jan 06 01:22	1° \eth 43'38	
	1596 Jun 10 03:06	0° Ω		morning set	1599 Jan 21 13:33	21° \eth 11'31	
	1596 Jul 07 10:38	0° \mathfrak{M}			1599 Jan 28 14:01	0° \approx	
desc. node	1596 Jul 21 06:09	14° \mathfrak{M} 05'04			1599 Feb 21 13:00	0° \mathfrak{H}	
evening max el	1596 Jul 25 05:03	17° \mathfrak{M} 55'04	45°42'25				
	1596 Aug 07 15:11	0° $\underline{\mathfrak{A}}$		superior conj	1599 Mar 03 15:32	12° \mathfrak{H} 37'16	-1°-25'-59
greatest brilliancy	1596 Sep 01 08:07	15° $\underline{\mathfrak{A}}$ 45'20	-4.5m	minimum elong	1599 Mar 03 15:32	12° \mathfrak{H} 37'16	1°26'01
retrograde	1596 Sep 12 02:08	17° $\underline{\mathfrak{A}}$ 49'54		max. Earth dist.	1599 Mar 07 14:55	17° \mathfrak{H} 34'38	1.72008 AU
evening set	1596 Sep 29 12:09	12° $\underline{\mathfrak{A}}$ 11'01			1599 Mar 17 14:25	0° Υ	
inferior conj	1596 Oct 03 02:06	10° $\underline{\mathfrak{A}}$ 01'18	-7°-56'-47		1599 Apr 10 19:19	0° \mathfrak{C}	
minimum elong	1596 Oct 03 10:25	9° $\underline{\mathfrak{A}}$ 48'31	7°55'41	evening rise	1599 Apr 12 00:58	1° \mathfrak{C} 31'33	
min. Earth dist.	1596 Oct 04 00:17	9° $\underline{\mathfrak{A}}$ 27'14	0.27656 AU	asc. node	1599 Apr 29 04:48	22° \mathfrak{C} 39'34	
morning rise	1596 Oct 07 08:17	7° $\underline{\mathfrak{A}}$ 26'58			1599 May 05 04:22	0° Π	
direct	1596 Oct 24 02:37	2° $\underline{\mathfrak{A}}$ 02'28			1599 May 29 17:59	0° \eth	
greatest brilliancy	1596 Nov 07 05:03	5° $\underline{\mathfrak{A}}$ 38'56	-4.6m		1599 Jun 23 12:55	0° Ω	
asc. node	1596 Nov 11 09:25	7° $\underline{\mathfrak{A}}$ 53'24			1599 Jul 18 15:16	0° \mathfrak{M}	
	1596 Dec 08 11:18	0° \mathfrak{M}			1599 Aug 13 05:21	0° $\underline{\mathfrak{A}}$	
morning max el	1596 Dec 13 19:07	5° \mathfrak{M} 19'39	46°54'23	desc. node	1599 Aug 18 18:00	6° $\underline{\mathfrak{A}}$ 22'17	
	1597 Jan 05 15:00	0° \mathfrak{A}			1599 Sep 08 16:14	0° \mathfrak{M}	
	1597 Jan 31 12:14	0° \eth			1599 Oct 07 01:55	0° \mathfrak{A}	
	1597 Feb 25 14:36	0° \approx		evening max el	1599 Oct 07 10:09	0° \mathfrak{A} 20'19	46°51'10
desc. node	1597 Mar 02 23:01	6° \approx 27'15			1599 Nov 14 20:09	0° \eth	
	1597 Mar 22 09:22	0° \mathfrak{H}		greatest brilliancy	1599 Nov 15 07:23	0° \eth 11'32	-4.7m
	1597 Apr 16 01:05	0° Υ		retrograde	1599 Nov 26 17:07	2° \eth 37'19	
	1597 May 10 15:39	0° \mathfrak{C}			1599 Dec 08 01:16	30° \mathfrak{R} \mathfrak{A}	
	1597 Jun 04 05:19	0° Π		asc. node	1599 Dec 09 21:28	29° \mathfrak{A} 07'24	
morning set	1597 Jun 16 15:17	15° Π 11'23		evening set	1599 Dec 10 23:35	28° \mathfrak{A} 33'37	
asc. node	1597 Jun 24 02:31	24° Π 20'24		inferior conj	1599 Dec 17 05:26	24° \mathfrak{A} 55'29	1°53'51
	1597 Jun 28 17:17	0° \eth		minimum elong	1599 Dec 17 01:09	25° \mathfrak{A} 02'00	1°52'29
max. Earth dist.	1597 Jul 20 06:48	26° \eth 30'48	1.73356 AU	min. Earth dist.	1599 Dec 16 22:13	25° \mathfrak{A} 06'27	0.26415 AU
				morning rise	1599 Dec 23 02:50	21° \mathfrak{A} 29'10	
superior conj	1597 Jul 23 00:40	29° \eth 53'43	1°01'31	direct	1600 Jan 06 13:40	17° \mathfrak{A} 18'41	
minimum elong	1597 Jul 22 15:54	29° \eth 26'43	1°01'14	greatest brilliancy	1600 Jan 18 06:43	19° \mathfrak{A} 53'13	-4.7m
	1597 Jul 23 02:42	0° Ω			1600 Feb 03 18:16	0° \eth	
	1597 Aug 16 09:29	0° \mathfrak{M}		morning max el	1600 Feb 25 20:49	19° \eth 56'22	46°43'30
evening rise	1597 Aug 28 01:05	14° \mathfrak{M} 25'43			1600 Mar 06 16:04	0° \approx	
	1597 Sep 09 14:34	0° $\underline{\mathfrak{A}}$		desc. node	1600 Mar 30 10:51	26° \approx 01'17	
	1597 Oct 03 19:13	0° \mathfrak{M}			1600 Apr 02 23:19	0° \mathfrak{H}	
desc. node	1597 Oct 13 15:47	12° \mathfrak{M} 13'03			1600 Apr 28 23:19	0° Υ	
	1597 Oct 28 00:29	0° \mathfrak{A}			1600 May 24 09:45	0° \mathfrak{C}	
	1597 Nov 21 07:25	0° \eth			1600 Jun 18 12:18	0° Π	
	1597 Dec 15 18:16	0° \approx			1600 Jul 13 08:19	0° \eth	
	1598 Jan 09 14:41	0° \mathfrak{H}		asc. node	1600 Jul 21 14:20	10° \eth 02'28	
asc. node	1598 Feb 03 19:07	29° \mathfrak{H} 19'40			1600 Aug 06 21:45	0° Ω	
	1598 Feb 04 09:23	0° Υ		morning set	1600 Aug 23 12:39	20° Ω 29'21	
evening max el	1598 Mar 02 18:40	28° Υ 15'57	46°19'20		1600 Aug 31 04:58	0° \mathfrak{M}	
	1598 Mar 04 12:44	0° \mathfrak{C}			1600 Sep 24 07:25	0° $\underline{\mathfrak{A}}$	
greatest brilliancy	1598 Apr 06 21:32	26° \mathfrak{C} 10'05	-4.5m	max. Earth dist.	1600 Sep 26 13:19	2° $\underline{\mathfrak{A}}$ 48'14	1.72003 AU
retrograde	1598 Apr 21 12:37	29° \mathfrak{C} 59'24					
evening set	1598 May 07 04:05	25° \mathfrak{C} 14'00		superior conj	1600 Sep 29 14:40	6° $\underline{\mathfrak{A}}$ 37'17	1°18'10
inferior conj	1598 May 12 22:24	21° \mathfrak{C} 43'57	3°06'33	minimum elong	1600 Sep 29 21:49	6° $\underline{\mathfrak{A}}$ 59'38	1°18'01
minimum elong	1598 May 13 04:49	21° \mathfrak{C} 33'50	3°04'46		1600 Oct 18 07:06	0° \mathfrak{M}	
min. Earth dist.	1598 May 13 00:12	21° \mathfrak{C} 41'07	0.28787 AU	evening rise	1600 Nov 07 20:45	25° \mathfrak{M} 46'10	
morning rise	1598 May 19 05:43	17° \mathfrak{C} 55'33		desc. node	1600 Nov 10 03:45	28° \mathfrak{M} 38'31	
desc. node	1598 May 26 08:21	14° \mathfrak{C} 45'50			1600 Nov 11 05:45	0° \mathfrak{A}	
direct	1598 Jun 03 09:08	13° \mathfrak{C} 28'53			1600 Dec 05 04:26	0° \eth	
greatest brilliancy	1598 Jun 16 08:52	16° \mathfrak{C} 25'58	-4.5m		1600 Dec 29 04:12	0° \approx	
	1598 Jul 07 07:58	0° Π					
morning max el	1598 Jul 22 02:31	13° Π 08'08	45°44'46				
	1598 Aug 07 21:12	0° \eth					
	1598 Sep 04 03:57	0° Ω					
asc. node	1598 Sep 16 12:00	14° Ω 15'34					
	1598 Sep 29 19:20	0° \mathfrak{M}					
	1598 Oct 24 13:12	0° $\underline{\mathfrak{A}}$					
	1598 Nov 17 18:56	0° \mathfrak{M}					
	1598 Dec 11 18:43	0° \mathfrak{A}					

superior conj	1600 Sep 29 14:40	6°♌37'17	1°18'10	minimum elong	1603 Feb 28 20:13	9°♋53'51	8°47'44
minimum elong	1600 Sep 29 21:49	6°♌59'38	1°18'01	morning rise	1603 Mar 03 20:57	8°♋00'47	
	1600 Oct 18 07:06	0°♍		direct	1603 Mar 21 16:52	1°♋56'33	
evening rise	1600 Nov 07 20:45	25°♍46'10		greatest brilliancy	1603 Apr 01 11:33	4°♋04'53	-4.6m
desc. node	1600 Nov 10 03:45	28°♍38'31		desc. node	1603 Apr 27 22:35	21°♋37'51	
	1600 Nov 11 05:45	0°♎			1603 May 07 03:50	0°♎	
	1600 Dec 05 04:26	0°♏		morning max el	1603 May 09 21:33	2°♎37'05	46°00'05
	1600 Dec 29 04:12	0°♐			1603 Jun 05 09:45	0°♏	
	1601 Jan 22 07:06	0°♑			1603 Jul 02 06:27	0°♐	
	1601 Feb 15 16:56	0°♒			1603 Jul 28 01:44	0°♑	
asc. node	1601 Mar 03 07:00	18°♒50'26		asc. node	1603 Aug 19 02:07	26°♑15'58	
	1601 Mar 12 15:42	0°♓			1603 Aug 22 04:23	0°♒	
	1601 Apr 07 13:39	0°♐			1603 Sep 15 18:24	0°♓	
	1601 May 05 11:28	0°♑			1603 Oct 09 23:19	0°♐	
evening max el	1601 May 12 13:02	6°♑58'26	45°26'00	greatest brilliancy	1603 Oct 13 00:56	3°♑49'34	-3.9m
	1601 Jun 09 21:43	0°♒			1603 Nov 02 22:41	0°♑	
greatest brilliancy	1601 Jun 16 05:43	3°♒21'13	-4.5m	morning set	1603 Nov 03 13:58	0°♒48'00	
desc. node	1601 Jun 22 20:24	5°♒43'43			1603 Nov 26 19:25	0°♓	
retrograde	1601 Jun 30 02:58	6°♒41'50		desc. node	1603 Dec 08 15:36	14°♓54'21	
evening set	1601 Jul 16 00:13	1°♒52'55					
	1601 Jul 19 04:40	30°♓		superior conj	1603 Dec 14 03:07	21°♓48'09	0°-13'-4
inferior conj	1601 Jul 21 13:38	28°♓31'41	-6°-5'-19	minimum elong	1603 Dec 13 23:38	21°♓37'12	0°12'55
minimum elong	1601 Jul 21 03:43	28°♓47'08	6°03'17	behind sun begin	1603 Dec 13 07:12	20°♓45'31	
min. Earth dist.	1601 Jul 21 13:30	28°♓31'53	0.28951 AU	behind sun end	1603 Dec 14 16:03	22°♓28'53	
morning rise	1601 Jul 26 07:08	25°♓38'48		max. Earth dist.	1603 Dec 14 12:58	22°♓19'10	1.71055 AU
direct	1601 Aug 12 05:42	20°♓14'57			1603 Dec 20 15:27	0°♓	
greatest brilliancy	1601 Aug 26 10:38	23°♓47'34	-4.5m		1604 Jan 13 12:01	0°♐	
	1601 Sep 06 00:13	0°♑		evening rise	1604 Jan 24 16:00	14°♐00'36	
morning max el	1601 Sep 30 19:10	21°♑19'00	46°15'09		1604 Feb 06 10:27	0°♋	
	1601 Oct 09 08:36	0°♓			1604 Mar 01 12:33	0°♎	
asc. node	1601 Oct 13 23:45	4°♓53'07			1604 Mar 25 20:37	0°♏	
	1601 Nov 05 12:00	0°♐		asc. node	1604 Mar 30 18:58	6°♏01'53	
	1601 Nov 30 20:14	0°♑			1604 Apr 19 13:14	0°♐	
	1601 Dec 25 10:21	0°♒			1604 May 14 17:52	0°♑	
	1602 Jan 18 16:55	0°♓			1604 Jun 09 17:17	0°♒	
desc. node	1602 Feb 02 13:10	18°♓25'20			1604 Jul 07 04:40	0°♓	
	1602 Feb 11 20:55	0°♐		desc. node	1604 Jul 20 08:11	13°♓16'35	
	1602 Mar 08 00:47	0°♑		evening max el	1604 Jul 22 17:53	15°♓35'40	45°40'40
	1602 Apr 01 05:50	0°♒			1604 Aug 08 00:13	0°♐	
morning set	1602 Apr 06 12:18	6°♒30'56		greatest brilliancy	1604 Aug 29 19:37	13°♐24'26	-4.5m
	1602 Apr 25 12:49	0°♓		retrograde	1604 Sep 09 15:13	15°♐30'49	
				evening set	1604 Sep 27 04:12	9°♐47'24	
superior conj	1602 May 14 04:35	22°♓58'27	0°-29'-9	inferior conj	1604 Sep 30 15:52	7°♐41'11	-8°-5'-29
minimum elong	1602 May 14 10:31	23°♓16'44	0°28'54	minimum elong	1604 Sep 30 23:35	7°♐29'20	8°04'35
max. Earth dist.	1602 May 15 15:51	24°♓46'55	1.73403 AU	min. Earth dist.	1604 Oct 01 14:04	7°♐07'07	0.27726 AU
	1602 May 19 21:40	0°♐		morning rise	1604 Oct 04 18:36	5°♐11'56	
asc. node	1602 May 26 16:44	8°♐21'13			1604 Oct 17 17:58	30°♓	
	1602 Jun 13 07:45	0°♑		direct	1604 Oct 21 16:43	29°♓40'58	
evening rise	1602 Jun 19 19:54	7°♑59'14			1604 Oct 25 17:17	0°♐	
	1602 Jul 07 18:32	0°♒		greatest brilliancy	1604 Nov 04 21:59	3°♐20'30	-4.6m
	1602 Aug 01 06:18	0°♓		asc. node	1604 Nov 10 11:38	6°♐25'38	
	1602 Aug 25 20:12	0°♐			1604 Dec 08 11:25	0°♑	
desc. node	1602 Sep 15 05:55	24°♐45'34		morning max el	1604 Dec 11 09:28	2°♑56'43	46°53'55
	1602 Sep 19 13:58	0°♑			1605 Jan 05 07:44	0°♓	
	1602 Oct 14 13:46	0°♒			1605 Jan 31 02:21	0°♓	
	1602 Nov 09 00:24	0°♓			1605 Feb 25 03:22	0°♐	
	1602 Dec 05 12:21	0°♑		desc. node	1605 Mar 02 01:01	5°♑55'20	
evening max el	1602 Dec 19 00:03	14°♑17'04	47°17'38		1605 Mar 21 21:20	0°♋	
	1603 Jan 04 11:40	0°♌			1605 Apr 15 12:32	0°♎	
asc. node	1603 Jan 06 09:19	1°♌37'57			1605 May 10 02:46	0°♏	
greatest brilliancy	1603 Jan 25 16:44	14°♌45'08	-4.7m		1605 Jun 03 16:11	0°♐	
retrograde	1603 Feb 07 22:32	18°♌00'18		morning set	1605 Jun 14 09:20	13°♐06'35	
evening set	1603 Feb 25 19:43	11°♌47'05		asc. node	1605 Jun 23 04:33	23°♐53'39	
min. Earth dist.	1603 Feb 28 04:50	10°♌18'04	0.27763 AU		1605 Jun 28 04:02	0°♑	
inferior conj	1603 Feb 28 20:58	9°♌52'40	8°47'43	max. Earth dist.	1605 Jul 18 04:29	24°♑36'39	1.73388 AU

superior conj	1605 Jul 20 18:57	27° $\overline{54}$ 9'05	0°59'18	direct	1608 Jan 04 02:26	14° $\overline{27}$ 49'05	
minimum elong	1605 Jul 20 10:12	27° $\overline{52}$ 22'07	0°59'00	greatest brilliancy	1608 Jan 15 19:54	17° $\overline{27}$ 24'26	-4.7m
	1605 Jul 22 13:26	0° Ω			1608 Feb 04 09:17	0° $\overline{3}$	
	1605 Aug 15 20:19	0° $\overline{\eta}$		morning max el	1608 Feb 23 10:37	17° $\overline{3}$ 32'36	46°44'43
evening rise	1605 Aug 25 18:17	12° $\overline{\eta}$ 16'38			1608 Mar 06 11:57	0° \approx	
	1605 Sep 09 01:34	0° $\underline{\Delta}$		desc. node	1608 Mar 29 12:56	25° \approx 22'37	
	1605 Oct 03 06:29	0° $\overline{\text{M}}$			1608 Apr 02 14:42	0° H	
desc. node	1605 Oct 12 17:53	11° $\overline{\text{M}}$ 44'09			1608 Apr 28 12:42	0° $\overline{\Upsilon}$	
	1605 Oct 27 12:07	0° $\overline{\text{Z}}$			1608 May 23 22:01	0° $\overline{8}$	
	1605 Nov 20 19:30	0° $\overline{3}$			1608 Jun 17 23:54	0° $\overline{\text{II}}$	
	1605 Dec 15 07:00	0° \approx			1608 Jul 12 19:32	0° $\overline{5}$	
	1606 Jan 09 04:29	0° H		asc. node	1608 Jul 20 16:18	9° $\overline{5}$ 34'34	
asc. node	1606 Feb 02 21:08	28° H 40'30			1608 Aug 06 08:46	0° Ω	
	1606 Feb 04 01:23	0° $\overline{\Upsilon}$		morning set	1608 Aug 21 05:44	18° Ω 19'52	
evening max el	1606 Feb 28 09:49	26° $\overline{\Upsilon}$ 00'24	46°21'58		1608 Aug 30 15:57	0° $\overline{\eta}$	
	1606 Mar 04 11:26	0° $\overline{8}$			1608 Sep 23 18:26	0° $\underline{\Delta}$	
greatest brilliancy	1606 Apr 04 13:11	23° $\overline{8}$ 58'41	-4.5m	max. Earth dist.	1608 Sep 24 00:11	0° $\underline{\Delta}$ 17'55	1.72056 AU
retrograde	1606 Apr 19 05:39	27° $\overline{8}$ 49'43					
evening set	1606 May 04 22:32	23° $\overline{8}$ 00'55		superior conj	1608 Sep 27 05:58	4° $\underline{\Delta}$ 20'42	1°19'26
inferior conj	1606 May 10 14:45	19° $\overline{8}$ 33'54	3°25'05	minimum elong	1608 Sep 27 12:30	4° $\underline{\Delta}$ 41'05	1°19'20
minimum elong	1606 May 10 21:43	19° $\overline{8}$ 22'57	3°23'11		1608 Oct 17 18:15	0° $\overline{\text{M}}$	
min. Earth dist.	1606 May 10 16:22	19° $\overline{8}$ 31'22	0.28774 AU	evening rise	1608 Nov 05 08:27	23° $\overline{\text{M}}$ 17'09	
morning rise	1606 May 16 21:06	15° $\overline{8}$ 47'11		desc. node	1608 Nov 09 05:51	28° $\overline{\text{M}}$ 09'45	
desc. node	1606 May 25 10:28	12° $\overline{8}$ 11'18			1608 Nov 10 17:02	0° $\overline{\text{Z}}$	
direct	1606 Jun 01 01:11	11° $\overline{8}$ 18'56			1608 Dec 04 15:53	0° \approx	
greatest brilliancy	1606 Jun 14 00:08	14° $\overline{8}$ 15'42	-4.5m		1608 Dec 28 15:50	0° H	
	1606 Jul 07 14:28	0° $\overline{\text{II}}$			1609 Jan 21 19:01	0° $\overline{\Upsilon}$	
morning max el	1606 Jul 19 19:33	11° $\overline{\text{II}}$ 00'54	45°44'23		1609 Feb 15 05:19	0° $\overline{\Upsilon}$	
	1606 Aug 07 14:40	0° $\overline{5}$		asc. node	1609 Mar 02 09:04	18° $\overline{\Upsilon}$ 18'05	
	1606 Sep 03 18:04	0° Ω			1609 Mar 12 04:58	0° $\overline{8}$	
asc. node	1606 Sep 15 14:04	13° Ω 42'44			1609 Apr 07 04:47	0° $\overline{\text{II}}$	
	1606 Sep 29 08:02	0° $\overline{\eta}$			1609 May 05 07:42	0° $\overline{5}$	
	1606 Oct 24 01:11	0° $\underline{\Delta}$		evening max el	1609 May 10 05:03	4° $\overline{5}$ 47'46	45°26'54
	1606 Nov 17 06:33	0° $\overline{\text{M}}$			1609 Jun 11 10:22	0° Ω	
	1606 Dec 11 06:07	0° $\overline{\text{Z}}$		greatest brilliancy	1609 Jun 13 21:00	1° Ω 11'09	-4.5m
desc. node	1607 Jan 04 03:38	0° $\overline{3}$		desc. node	1609 Jun 21 22:21	3° Ω 54'44	
morning set	1607 Jan 05 03:17	1° $\overline{3}$ 14'14		retrograde	1609 Jun 27 18:35	4° Ω 32'39	
	1607 Jan 18 23:09	18° $\overline{3}$ 35'52			1609 Jul 13 04:56	30° $\overline{\text{R}}$ $\overline{5}$	
	1607 Jan 28 01:12	0° \approx		evening set	1609 Jul 13 14:01	29° $\overline{5}$ 47'21	
	1607 Feb 21 00:05	0° H		inferior conj	1609 Jul 19 05:58	26° $\overline{5}$ 22'22	-5°-51'-2
				minimum elong	1609 Jul 18 20:07	26° $\overline{5}$ 37'45	5°48'55
superior conj	1607 Mar 01 03:43	10° H 11'07	-1°-25'-56	min. Earth dist.	1609 Jul 19 05:38	26° $\overline{5}$ 22'53	0.28961 AU
minimum elong	1607 Mar 01 02:44	10° H 08'01	1°25'56	morning rise	1609 Jul 24 02:05	23° $\overline{5}$ 25'17	
max. Earth dist.	1607 Mar 05 02:03	15° H 05'21	1.71952 AU	direct	1609 Aug 09 22:03	18° $\overline{5}$ 05'35	
	1607 Mar 17 01:24	0° $\overline{\Upsilon}$		greatest brilliancy	1609 Aug 24 01:05	21° $\overline{5}$ 35'14	-4.5m
evening rise	1607 Apr 09 15:46	29° $\overline{\Upsilon}$ 15'17			1609 Sep 06 17:09	0° Ω	
	1607 Apr 10 06:15	0° $\overline{8}$		morning max el	1609 Sep 28 09:27	19° Ω 01'38	46°13'26
asc. node	1607 Apr 28 06:58	22° $\overline{8}$ 12'24			1609 Oct 09 03:44	0° $\overline{\eta}$	
	1607 May 04 15:23	0° $\overline{\text{II}}$		asc. node	1609 Oct 13 01:56	4° $\overline{\eta}$ 10'21	
	1607 May 29 05:15	0° $\overline{5}$			1609 Nov 05 03:01	0° $\underline{\Delta}$	
	1607 Jun 23 00:40	0° Ω			1609 Nov 30 09:39	0° $\overline{\text{M}}$	
	1607 Jul 18 03:50	0° $\overline{\eta}$			1609 Dec 24 22:56	0° $\overline{\text{Z}}$	
	1607 Aug 12 19:21	0° $\underline{\Delta}$			1610 Jan 18 04:59	0° $\overline{3}$	
desc. node	1607 Aug 17 19:57	5° $\underline{\Delta}$ 46'33		desc. node	1610 Feb 01 15:12	17° $\overline{3}$ 54'59	
	1607 Sep 08 09:01	0° $\overline{\text{M}}$			1610 Feb 11 08:36	0° \approx	
evening max el	1607 Oct 05 00:45	27° $\overline{\text{M}}$ 59'26	46°48'56		1610 Mar 07 12:10	0° H	
	1607 Oct 07 02:04	0° $\overline{\text{Z}}$			1610 Mar 31 17:01	0° $\overline{\Upsilon}$	
greatest brilliancy	1607 Nov 12 20:31	27° $\overline{\text{Z}}$ 42'39	-4.7m	morning set	1610 Apr 04 03:09	4° $\overline{\Upsilon}$ 14'01	
	1607 Nov 21 19:39	0° $\overline{3}$			1610 Apr 24 23:51	0° $\overline{8}$	
retrograde	1607 Nov 24 05:47	0° $\overline{3}$ 07'02					
	1607 Nov 26 15:10	30° $\overline{\text{R}}$ $\overline{\text{Z}}$		superior conj	1610 May 11 21:33	20° $\overline{8}$ 49'18	0°-32'-14
evening set	1607 Dec 08 11:33	26° $\overline{\text{Z}}$ 04'04		minimum elong	1610 May 12 04:03	21° $\overline{8}$ 09'18	0°31'57
asc. node	1607 Dec 08 23:28	25° $\overline{\text{Z}}$ 48'05		max. Earth dist.	1610 May 13 11:56	22° $\overline{8}$ 47'23	1.73368 AU
inferior conj	1607 Dec 14 17:27	22° $\overline{\text{Z}}$ 25'39	1°29'34		1610 May 19 08:37	0° $\overline{\text{II}}$	
minimum elong	1607 Dec 14 14:03	22° $\overline{\text{Z}}$ 30'49	1°28'28	asc. node	1610 May 25 18:45	7° $\overline{\text{II}}$ 53'46	
min. Earth dist.	1607 Dec 14 11:25	22° $\overline{\text{Z}}$ 34'49	0.26407 AU		1610 Jun 12 18:42	0° $\overline{5}$	
morning rise	1607 Dec 20 16:44	18° $\overline{\text{Z}}$ 57'00		evening rise	1610 Jun 17 14:42	5° $\overline{5}$ 55'57	

	1610 Jul 07 05:35	0°♈		greatest brilliancy	1612 Nov 02 14:45	1°♊02'48	-4.6m
	1610 Jul 31 17:37	0°♍		asc. node	1612 Nov 09 13:36	5°♊00'59	
	1610 Aug 25 08:00	0°♌			1612 Dec 08 10:28	0°♌	
desc. node	1610 Sep 14 08:03	24°♌14'41		morning max el	1612 Dec 09 00:44	0°♌36'19	46°53'05
	1610 Sep 19 02:28	0°♌			1613 Jan 05 00:18	0°♌	
	1610 Oct 14 03:21	0°♌			1613 Jan 30 16:32	0°♌	
	1610 Nov 08 15:46	0°♌			1613 Feb 24 16:21	0°♌	
	1610 Dec 05 07:30	0°♌		desc. node	1613 Mar 01 03:08	5°♌23'01	
evening max el	1610 Dec 16 13:39	11°♌51'18	47°18'12		1613 Mar 21 09:32	0°♌	
	1611 Jan 04 21:24	0°♌			1613 Apr 15 00:12	0°♌	
asc. node	1611 Jan 05 11:20	0°♌28'56			1613 May 09 14:01	0°♌	
greatest brilliancy	1611 Jan 23 09:47	12°♌25'11	-4.7m		1613 Jun 03 03:10	0°♌	
retrograde	1611 Feb 05 12:40	15°♌37'45		morning set	1613 Jun 12 03:19	11°♌01'16	
evening set	1611 Feb 23 08:49	9°♌27'14		asc. node	1613 Jun 22 06:30	23°♌26'20	
inferior conj	1611 Feb 26 11:15	7°♌31'09	8°47'03		1613 Jun 27 14:52	0°♌	
minimum elong	1611 Feb 26 09:37	7°♌33'42	8°47'01	max. Earth dist.	1613 Jul 16 03:06	22°♌45'09	1.73416 AU
min. Earth dist.	1611 Feb 25 18:47	7°♌57'04	0.27705 AU				
morning rise	1611 Mar 01 10:38	5°♌40'07		superior conj	1613 Jul 18 13:20	25°♌44'31	0°57'02
	1611 Mar 14 18:42	30°♌		minimum elong	1613 Jul 18 04:37	25°♌17'40	0°56'42
direct	1611 Mar 19 05:54	29°♌35'51			1613 Jul 22 00:15	0°♌	
	1611 Mar 23 19:37	0°♌			1613 Aug 15 07:13	0°♌	
greatest brilliancy	1611 Mar 30 00:55	1°♌44'04	-4.6m	evening rise	1613 Aug 23 11:52	10°♌08'36	
desc. node	1611 Apr 27 00:43	20°♌38'01			1613 Sep 08 12:38	0°♌	
	1611 May 07 03:44	0°♌			1613 Oct 02 17:47	0°♌	
morning max el	1611 May 07 10:56	0°♌17'21	46°01'28	desc. node	1613 Oct 11 19:59	11°♌15'20	
	1611 Jun 05 02:08	0°♌			1613 Oct 26 23:45	0°♌	
	1611 Jul 01 20:10	0°♌			1613 Nov 20 07:36	0°♌	
	1611 Jul 27 14:08	0°♌			1613 Dec 14 19:48	0°♌	
asc. node	1611 Aug 18 04:14	25°♌46'54			1614 Jan 08 18:27	0°♌	
	1611 Aug 21 16:04	0°♌		asc. node	1614 Feb 01 23:12	28°♌00'45	
	1611 Sep 15 05:44	0°♌			1614 Feb 03 17:48	0°♌	
	1611 Oct 09 10:30	0°♌		evening max el	1614 Feb 26 01:50	23°♌46'19	46°24'27
greatest brilliancy	1611 Oct 16 10:55	8°♌45'37	-3.9m		1614 Mar 04 11:26	0°♌	
morning set	1611 Nov 01 03:10	28°♌23'47		greatest brilliancy	1614 Apr 02 05:48	21°♌47'34	-4.5m
	1611 Nov 02 09:50	0°♌		retrograde	1614 Apr 16 22:40	25°♌38'35	
	1611 Nov 26 06:36	0°♌		evening set	1614 May 02 16:56	20°♌46'37	
desc. node	1611 Dec 07 17:34	14°♌25'12		inferior conj	1614 May 08 06:52	17°♌22'39	3°43'34
				minimum elong	1614 May 08 14:21	17°♌10'54	3°41'33
superior conj	1611 Dec 11 13:05	19°♌13'13	0°-9'-7	min. Earth dist.	1614 May 08 08:07	17°♌20'41	0.28755 AU
minimum elong	1611 Dec 11 10:39	19°♌05'34	0°09'00	morning rise	1614 May 14 12:02	13°♌37'51	
behind sun begin	1611 Dec 10 12:20	17°♌55'20		desc. node	1614 May 24 12:23	9°♌40'34	
behind sun end	1611 Dec 12 08:58	20°♌15'47		direct	1614 May 29 17:20	9°♌08'06	
max. Earth dist.	1611 Dec 11 17:17	19°♌26'25	1.71066 AU	greatest brilliancy	1614 Jun 11 14:03	12°♌03'14	-4.5m
	1611 Dec 20 02:41	0°♌			1614 Jul 07 19:01	0°♌	
	1612 Jan 12 23:18	0°♌		morning max el	1614 Jul 17 12:24	8°♌53'16	45°44'06
evening rise	1612 Jan 22 01:59	11°♌26'05			1614 Aug 07 07:44	0°♌	
	1612 Feb 05 21:46	0°♌			1614 Sep 03 07:56	0°♌	
	1612 Feb 29 23:57	0°♌		asc. node	1614 Sep 14 16:09	13°♌10'21	
	1612 Mar 25 08:12	0°♌			1614 Sep 28 20:33	0°♌	
asc. node	1612 Mar 29 21:07	5°♌32'52			1614 Oct 23 13:01	0°♌	
	1612 Apr 19 01:14	0°♌			1614 Nov 16 18:00	0°♌	
	1612 May 14 06:43	0°♌			1614 Dec 10 17:21	0°♌	
	1612 Jun 09 07:50	0°♌			1615 Jan 03 14:45	0°♌	
	1612 Jul 06 23:18	0°♌		desc. node	1615 Jan 04 05:23	0°♌45'56	
desc. node	1612 Jul 19 10:14	12°♌27'10		morning set	1615 Jan 16 09:09	16°♌01'59	
evening max el	1612 Jul 20 07:51	13°♌18'57	45°39'10		1615 Jan 27 12:14	0°♌	
	1612 Aug 08 12:21	0°♌			1615 Feb 20 11:02	0°♌	
greatest brilliancy	1612 Aug 27 06:16	11°♌03'25	-4.5m				
retrograde	1612 Sep 07 05:12	13°♌12'52		superior conj	1615 Feb 26 15:45	7°♌44'39	-1°-25'-41
evening set	1612 Sep 24 20:24	7°♌25'12		minimum elong	1615 Feb 26 13:44	7°♌38'21	1°25'42
inferior conj	1612 Sep 28 06:00	5°♌22'06	-8°-13'-14	max. Earth dist.	1615 Mar 02 14:57	12°♌41'49	1.71904 AU
minimum elong	1612 Sep 28 13:05	5°♌11'14	8°12'29		1615 Mar 16 12:18	0°♌	
min. Earth dist.	1612 Sep 29 03:44	4°♌48'47	0.27795 AU	evening rise	1615 Apr 07 06:06	26°♌57'34	
morning rise	1612 Oct 02 05:26	2°♌57'51			1615 Apr 09 17:10	0°♌	
	1612 Oct 07 20:45	30°♌		asc. node	1615 Apr 27 08:56	21°♌44'44	
direct	1612 Oct 19 07:40	27°♌20'45			1615 May 04 02:23	0°♌	
	1612 Oct 31 07:17	0°♌			1615 May 28 16:29	0°♌	

	1615 Jun 22 12:21	0°♌			1618 Jan 17 16:38	0°♈		
	1615 Jul 17 16:19	0°♍		desc. node	1618 Jan 31 17:19	17°♈26'04		
	1615 Aug 12 09:18	0°♎			1618 Feb 10 19:53	0°♏		
desc. node	1615 Aug 16 22:06	5°♎11'39			1618 Mar 06 23:10	0°♏		
	1615 Sep 08 01:55	0°♏			1618 Mar 31 03:48	0°♏		
evening max el	1615 Oct 02 15:15	25°♏39'05	46°46'37	morning set	1618 Apr 01 18:00	1°♏58'12		
	1615 Oct 07 03:06	0°♐			1618 Apr 24 10:30	0°♏		
greatest brilliancy	1615 Nov 10 10:38	25°♐16'04	-4.7m					
retrograde	1615 Nov 21 18:05	27°♐37'51		superior conj	1618 May 09 14:32	18°♏41'21	0°-35'-15	
evening set	1615 Dec 05 23:55	23°♐35'37		minimum elong	1618 May 09 21:33	19°♏02'58	0°34'57	
asc. node	1615 Dec 08 01:26	22°♐27'00		max. Earth dist.	1618 May 11 07:06	20°♏46'11	1.73338 AU	
inferior conj	1615 Dec 12 05:37	19°♐57'15	1°05'08		1618 May 18 19:11	0°♐		
minimum elong	1615 Dec 12 03:08	20°♐01'02	1°04'19	asc. node	1618 May 24 20:46	7°♐27'28		
min. Earth dist.	1615 Dec 12 01:05	20°♐04'10	0.26401 AU		1618 Jun 12 05:18	0°♐		
morning rise	1615 Dec 18 06:31	16°♐26'17		evening rise	1618 Jun 15 09:24	3°♐53'27		
direct	1616 Jan 01 15:02	12°♐20'55			1618 Jul 06 16:21	0°♌		
greatest brilliancy	1616 Jan 13 09:28	14°♐57'11	-4.7m		1618 Jul 31 04:41	0°♍		
	1616 Feb 04 20:02	0°♈			1618 Aug 24 19:32	0°♎		
morning max el	1616 Feb 20 23:27	15°♈07'16	46°45'50	desc. node	1618 Sep 13 10:05	23°♎44'25		
	1616 Mar 06 06:54	0°♏			1618 Sep 18 14:43	0°♏		
desc. node	1616 Mar 28 15:03	24°♏45'12			1618 Oct 13 16:39	0°♐		
	1616 Apr 02 05:34	0°♏			1618 Nov 08 06:55	0°♈		
	1616 Apr 28 01:44	0°♏			1618 Dec 05 02:43	0°♏		
	1616 May 23 10:03	0°♏		evening max el	1618 Dec 14 03:04	9°♏26'14	47°18'45	
	1616 Jun 17 11:19	0°♐		asc. node	1619 Jan 04 13:30	29°♏19'31		
	1616 Jul 12 06:33	0°♐			1619 Jan 05 09:47	0°♏		
asc. node	1616 Jul 19 18:27	9°♐07'49		greatest brilliancy	1619 Jan 21 01:45	10°♏04'50	-4.7m	
	1616 Aug 05 19:34	0°♌		retrograde	1619 Feb 03 02:56	13°♏16'19		
morning set	1616 Aug 18 22:40	16°♌10'47		evening set	1619 Feb 20 21:24	7°♏08'49		
	1616 Aug 30 02:38	0°♍		min. Earth dist.	1619 Feb 23 08:35	5°♏37'03	0.27649 AU	
max. Earth dist.	1616 Sep 21 11:56	27°♍51'23	1.72110 AU	inferior conj	1619 Feb 24 01:29	5°♏10'31	8°45'20	
	1616 Sep 23 05:10	0°♎		minimum elong	1619 Feb 23 23:00	5°♏14'25	8°45'14	
				morning rise	1619 Feb 27 00:47	3°♏19'47		
superior conj	1616 Sep 24 21:26	2°♎05'38	1°20'35		1619 Mar 05 03:45	30°♏		
minimum elong	1616 Sep 25 03:19	2°♎23'59	1°20'30	direct	1619 Mar 16 18:52	27°♏15'55		
	1616 Oct 17 05:05	0°♏		greatest brilliancy	1619 Mar 27 14:41	29°♏24'46	-4.6m	
evening rise	1616 Nov 02 20:28	20°♏50'09			1619 Mar 29 01:57	0°♏		
desc. node	1616 Nov 08 07:48	27°♏41'26		desc. node	1619 Apr 26 02:37	19°♏40'20		
	1616 Nov 10 04:03	0°♐		morning max el	1619 May 05 01:03	28°♏00'32	46°02'57	
	1616 Dec 04 03:02	0°♈			1619 May 07 02:07	0°♏		
	1616 Dec 28 03:09	0°♏			1619 Jun 04 17:47	0°♏		
	1617 Jan 21 06:35	0°♏			1619 Jul 01 09:20	0°♐		
	1617 Feb 14 17:21	0°♏			1619 Jul 27 02:07	0°♐		
asc. node	1617 Mar 01 11:12	17°♏47'03		asc. node	1619 Aug 17 06:18	25°♐18'40		
	1617 Mar 11 17:56	0°♏			1619 Aug 21 03:26	0°♌		
	1617 Apr 06 19:45	0°♐			1619 Sep 14 16:47	0°♍		
	1617 May 05 04:17	0°♐			1619 Oct 08 21:24	0°♎		
evening max el	1617 May 07 20:10	2°♐35'35	45°27'40	greatest brilliancy	1619 Oct 19 10:11	13°♎09'30	-3.9m	
greatest brilliancy	1617 Jun 11 11:42	29°♐00'40	-4.5m	morning set	1619 Oct 29 16:23	26°♎00'38		
	1617 Jun 13 19:28	0°♌			1619 Nov 01 20:41	0°♏		
desc. node	1617 Jun 21 00:27	2°♌02'06			1619 Nov 25 17:27	0°♐		
retrograde	1617 Jun 25 10:02	2°♌23'55		desc. node	1619 Dec 06 19:38	13°♐57'32		
	1617 Jul 06 12:15	30°♏						
evening set	1617 Jul 11 03:46	27°♏41'46		superior conj	1619 Dec 08 23:02	16°♐39'17	0°-5'-8	
inferior conj	1617 Jul 16 22:11	24°♏13'26	-5°-36'-5	minimum elong	1619 Dec 08 21:40	16°♐34'58	0°05'05	
minimum elong	1617 Jul 16 12:27	24°♏28'38	5°33'55	behind sun begin	1619 Dec 07 20:24	15°♐15'26		
min. Earth dist.	1617 Jul 16 21:57	24°♏13'48	0.28970 AU	behind sun end	1619 Dec 09 22:56	17°♐54'31		
morning rise	1617 Jul 21 20:57	21°♏12'16		max. Earth dist.	1619 Dec 09 01:13	16°♐46'09	1.71076 AU	
direct	1617 Aug 07 13:53	15°♏56'28			1619 Dec 19 13:33	0°♈		
greatest brilliancy	1617 Aug 21 16:30	19°♏24'42	-4.5m		1620 Jan 12 10:13	0°♏		
	1617 Sep 07 05:28	0°♌		evening rise	1620 Jan 19 12:05	8°♏53'00		
morning max el	1617 Sep 25 23:30	16°♌44'41	46°11'56		1620 Feb 05 08:45	0°♏		
	1617 Oct 08 22:00	0°♍			1620 Feb 29 11:02	0°♏		
asc. node	1617 Oct 12 03:56	3°♍28'36			1620 Mar 24 19:29	0°♏		
	1617 Nov 04 17:29	0°♎		asc. node	1620 Mar 28 23:05	5°♏04'13		
	1617 Nov 29 22:35	0°♏			1620 Apr 18 12:56	0°♐		
	1617 Dec 24 11:05	0°♐			1620 May 13 19:17	0°♐		

	1620 Jun 08 22:13	0°♈		desc. node	1623 Jan 03 07:32	0°♈17'40	
	1620 Jul 06 18:05	0°♍			1623 Jan 03 01:55	0°♈	
evening max el	1620 Jul 17 22:27	11°♍04'43	45°37'30	morning set	1623 Jan 13 18:45	13°♈26'36	
desc. node	1620 Jul 18 12:20	11°♍37'48			1623 Jan 26 23:17	0°♍	
	1620 Aug 09 04:16	0°♊			1623 Feb 19 21:59	0°♋	
greatest brilliancy	1620 Aug 24 16:23	8°♊42'22	-4.5m				
retrograde	1620 Sep 04 19:10	10°♊54'56		superior conj	1623 Feb 24 03:22	5°♋16'51	-1°-25'-17
evening set	1620 Sep 22 12:13	5°♊03'29		minimum elong	1623 Feb 24 00:20	5°♋07'23	1°25'17
inferior conj	1620 Sep 25 19:55	3°♊03'03	-8°-20'-11	max. Earth dist.	1623 Feb 28 05:07	10°♋22'07	1.71849 AU
minimum elong	1620 Sep 26 02:20	2°♊53'12	8°19'35		1623 Mar 15 23:11	0°♌	
min. Earth dist.	1620 Sep 26 16:52	2°♊30'56	0.27865 AU	evening rise	1623 Apr 04 20:09	24°♌39'00	
morning rise	1620 Sep 29 16:10	0°♊43'33			1623 Apr 09 04:03	0°♍	
	1620 Sep 30 22:22	30°♌♍		asc. node	1623 Apr 26 10:58	21°♍17'21	
direct	1620 Oct 16 22:53	25°♌00'46			1623 May 03 13:24	0°♎	
greatest brilliancy	1620 Oct 31 06:40	28°♌44'15	-4.6m		1623 May 28 03:45	0°♏	
	1620 Nov 02 17:12	0°♐			1623 Jun 22 00:05	0°♏	
asc. node	1620 Nov 08 15:37	3°♐39'23			1623 Jul 17 04:53	0°♐	
morning max el	1620 Dec 06 16:10	28°♐16'53	46°52'18		1623 Aug 11 23:23	0°♐	
	1620 Dec 08 08:25	0°♑		desc. node	1623 Aug 16 00:09	4°♐36'19	
	1621 Jan 04 16:20	0°♒			1623 Sep 07 19:09	0°♑	
	1621 Jan 30 06:19	0°♓		evening max el	1623 Sep 30 04:39	23°♑16'01	46°44'04
	1621 Feb 24 04:57	0°♈			1623 Oct 07 05:32	0°♒	
desc. node	1621 Feb 28 05:11	4°♈51'34		greatest brilliancy	1623 Nov 08 01:05	22°♒49'26	-4.6m
	1621 Mar 20 21:25	0°♋		retrograde	1623 Nov 19 05:30	25°♒08'05	
	1621 Apr 14 11:34	0°♌		evening set	1623 Dec 03 12:21	21°♒06'03	
	1621 May 09 01:00	0°♍		asc. node	1623 Dec 07 03:38	19°♒02'10	
	1621 Jun 02 13:54	0°♎		inferior conj	1623 Dec 09 17:42	17°♒28'13	0°40'25
morning set	1621 Jun 09 21:28	8°♎57'12		minimum elong	1623 Dec 09 16:09	17°♒30'35	0°39'55
asc. node	1621 Jun 21 08:41	23°♎00'27		min. Earth dist.	1623 Dec 09 15:01	17°♒32'18	0.26403 AU
	1621 Jun 27 01:28	0°♏		morning rise	1623 Dec 15 19:58	13°♒55'01	
max. Earth dist.	1621 Jul 14 01:57	20°♏55'10	1.73440 AU	direct	1623 Dec 30 03:10	9°♒51'43	
				greatest brilliancy	1624 Jan 11 00:14	12°♒30'18	-4.7m
superior conj	1621 Jul 16 07:50	23°♏41'05	0°54'40		1624 Feb 05 04:18	0°♓	
minimum elong	1621 Jul 15 23:13	23°♏14'33	0°54'21	morning max el	1624 Feb 18 11:24	12°♓38'38	46°47'01
	1621 Jul 21 10:50	0°♈			1624 Mar 06 01:37	0°♈	
	1621 Aug 14 17:54	0°♍		desc. node	1624 Mar 27 17:02	24°♈07'09	
evening rise	1621 Aug 21 05:35	8°♍01'39			1624 Apr 01 20:27	0°♋	
	1621 Sep 07 23:31	0°♊			1624 Apr 27 14:50	0°♌	
	1621 Oct 02 04:58	0°♌			1624 May 22 22:08	0°♍	
desc. node	1621 Oct 10 21:57	10°♌46'19			1624 Jun 16 22:48	0°♎	
	1621 Oct 26 11:19	0°♏			1624 Jul 11 17:41	0°♏	
	1621 Nov 19 19:41	0°♐		asc. node	1624 Jul 18 20:29	8°♏40'20	
	1621 Dec 14 08:34	0°♑			1624 Aug 05 06:29	0°♏	
	1622 Jan 08 08:24	0°♋		morning set	1624 Aug 16 15:53	14°♏02'09	
asc. node	1622 Feb 01 01:17	27°♋21'09			1624 Aug 29 13:29	0°♐	
	1622 Feb 03 10:19	0°♌		max. Earth dist.	1624 Sep 19 02:17	25°♐32'35	1.72163 AU
evening max el	1622 Feb 23 18:05	21°♌33'13	46°26'57				
	1622 Mar 04 12:23	0°♍		superior conj	1624 Sep 22 13:23	29°♍51'44	1°21'35
greatest brilliancy	1622 Mar 30 23:28	19°♍38'17	-4.6m	minimum elong	1624 Sep 22 18:34	0°♎07'56	1°21'30
retrograde	1622 Apr 14 15:23	23°♍27'44			1624 Sep 22 16:02	0°♏	
evening set	1622 Apr 30 11:30	18°♍32'40			1624 Oct 16 16:04	0°♑	
inferior conj	1622 May 05 23:01	15°♍11'47	4°01'46	evening rise	1624 Oct 31 09:00	18°♑24'26	
minimum elong	1622 May 06 06:57	14°♍59'17	3°59'40	desc. node	1624 Nov 07 09:56	27°♑13'15	
min. Earth dist.	1622 May 05 23:53	15°♍10'24	0.28734 AU		1624 Nov 09 15:11	0°♒	
morning rise	1622 May 12 02:46	11°♍28'58			1624 Dec 03 14:22	0°♓	
desc. node	1622 May 23 14:32	7°♍14'57			1624 Dec 27 14:43	0°♈	
direct	1622 May 27 09:41	6°♍57'45			1625 Jan 20 18:27	0°♋	
greatest brilliancy	1622 Jun 09 03:12	9°♍50'05	-4.5m		1625 Feb 14 05:45	0°♌	
	1622 Jul 07 21:41	0°♎		asc. node	1625 Feb 28 13:09	17°♌14'27	
morning max el	1622 Jul 15 04:38	6°♎44'31	45°43'53		1625 Mar 11 07:18	0°♍	
	1622 Aug 07 00:18	0°♏			1625 Apr 06 11:14	0°♎	
	1622 Sep 02 21:34	0°♏			1625 May 05 01:54	0°♏	
asc. node	1622 Sep 13 18:10	12°♏38'19		evening max el	1625 May 05 10:46	0°♏21'24	45°28'44
	1622 Sep 28 08:54	0°♐		greatest brilliancy	1625 Jun 09 01:29	26°♏48'34	-4.5m
	1622 Oct 23 00:45	0°♑			1625 Jun 19 10:42	0°♏	
	1622 Nov 16 05:25	0°♑		desc. node	1625 Jun 20 02:35	0°♏04'57	
	1622 Dec 10 04:37	0°♒		retrograde	1625 Jun 23 01:57	0°♏15'04	

	1625 Jun 26 15:52	30° RE		superior conj	1627 Dec 06 09:21	14° JO 5'27	0°-1'-9
evening set	1625 Jul 08 17:45	25° E 35'29		minimum elong	1627 Dec 06 09:03	14° JO 4'30	0°01'10
inferior conj	1625 Jul 14 14:30	22° E 04'08	-5°-20'-39	behind sun begin	1627 Dec 05 06:50	12° JO 41'59	
minimum elong	1625 Jul 14 04:56	22° E 19'04	5°18'28	behind sun end	1627 Dec 07 11:16	15° JO 27'01	
min. Earth dist.	1625 Jul 14 14:17	22° E 04'29	0.28979 AU	max. Earth dist.	1627 Dec 06 10:17	14° JO 8'26	1.71082 AU
morning rise	1625 Jul 19 15:53	18° E 59'10			1627 Dec 19 00:44	0° E	
direct	1625 Aug 05 05:42	13° E 46'48			1628 Jan 11 21:25	0° \approx	
greatest brilliancy	1625 Aug 19 09:12	17° E 15'21	-4.5m	evening rise	1628 Jan 16 22:31	6° \approx 20'03	
	1625 Sep 07 14:51	0° O			1628 Feb 04 20:01	0° H	
morning max el	1625 Sep 23 14:19	14° O 29'06	46°10'37		1628 Feb 28 22:24	0° Y	
	1625 Oct 08 16:04	0° M			1628 Mar 24 07:06	0° B	
asc. node	1625 Oct 11 05:56	2° M 46'43		asc. node	1628 Mar 28 01:09	4° B 34'56	
	1625 Nov 04 08:00	0° A			1628 Apr 18 01:01	0° H	
	1625 Nov 29 11:38	0° M			1628 May 13 08:19	0° E	
	1625 Dec 23 23:23	0° J			1628 Jun 08 13:10	0° O	
	1626 Jan 17 04:29	0° E			1628 Jul 06 13:52	0° M	
desc. node	1626 Jan 30 19:19	16° E 56'01		evening max el	1628 Jul 15 13:41	8° M 51'04	45°35'59
	1626 Feb 10 07:25	0° \approx		desc. node	1628 Jul 17 14:22	10° M 46'19	
	1626 Mar 06 10:29	0° H			1628 Aug 10 02:13	0° A	
morning set	1626 Mar 30 08:22	29° H 39'39		greatest brilliancy	1628 Aug 22 03:33	6° A 22'08	-4.5m
	1626 Mar 30 14:56	0° Y		retrograde	1628 Sep 02 09:10	8° A 36'42	
	1626 Apr 23 21:29	0° B		evening set	1628 Sep 20 04:02	2° A 42'10	
				inferior conj	1628 Sep 23 10:04	0° A 43'54	-8°-26'-11
superior conj	1626 May 07 07:08	16° B 31'10	0°-38'-15	minimum elong	1628 Sep 23 15:47	0° A 35'08	8°25'43
minimum elong	1626 May 07 14:40	16° B 54'21	0°37'56	min. Earth dist.	1628 Sep 24 06:04	0° A 13'12	0.27931 AU
max. Earth dist.	1626 May 09 01:14	18° B 40'45	1.73303 AU		1628 Sep 24 14:42	30° RM	
	1626 May 18 06:05	0° H		morning rise	1628 Sep 27 03:18	28° M 28'44	
asc. node	1626 May 23 22:54	7° H 00'33		direct	1628 Oct 14 14:27	22° M 40'54	
	1626 Jun 11 16:13	0° E		greatest brilliancy	1628 Oct 28 21:40	26° M 24'04	-4.6m
evening rise	1626 Jun 13 03:55	1° E 49'30			1628 Nov 04 06:32	0° A	
	1626 Jul 06 03:25	0° O		asc. node	1628 Nov 07 17:49	2° A 20'06	
	1626 Jul 30 16:05	0° M		morning max el	1628 Dec 04 07:15	25° A 55'51	46°51'23
	1626 Aug 24 07:26	0° A			1628 Dec 08 05:55	0° M	
desc. node	1626 Sep 12 12:04	23° A 12'57			1629 Jan 04 08:26	0° J	
	1626 Sep 18 03:20	0° M			1629 Jan 29 20:16	0° E	
	1626 Oct 13 06:22	0° J			1629 Feb 23 17:45	0° \approx	
	1626 Nov 07 22:33	0° E		desc. node	1629 Feb 27 07:11	4° \approx 19'13	
	1626 Dec 04 22:45	0° \approx			1629 Mar 20 09:29	0° H	
evening max el	1626 Dec 11 17:02	7° \approx 02'07	47°19'16		1629 Apr 13 23:08	0° Y	
asc. node	1627 Jan 03 15:29	28° \approx 07'10			1629 May 08 12:14	0° B	
	1627 Jan 06 02:41	0° H			1629 Jun 02 00:54	0° H	
greatest brilliancy	1627 Jan 18 16:40	7° H 42'27	-4.7m	morning set	1629 Jun 07 15:42	6° H 52'28	
retrograde	1627 Jan 31 17:42	10° H 54'13		asc. node	1629 Jun 20 10:43	22° H 33'08	
evening set	1627 Feb 18 09:34	4° H 50'05			1629 Jun 26 12:22	0° E	
min. Earth dist.	1627 Feb 20 22:04	3° H 16'36	0.27596 AU	max. Earth dist.	1629 Jul 11 22:59	18° E 58'42	1.73462 AU
inferior conj	1627 Feb 21 15:44	2° H 48'56	8°42'37				
minimum elong	1627 Feb 21 12:24	2° H 54'09	8°42'28	superior conj	1629 Jul 14 02:21	21° E 36'47	0°52'14
morning rise	1627 Feb 24 15:26	0° H 57'54		minimum elong	1629 Jul 13 17:53	21° E 10'44	0°51'55
	1627 Feb 26 06:26	30° $\text{R}\approx$			1629 Jul 20 21:44	0° O	
direct	1627 Mar 14 08:19	24° \approx 54'58			1629 Aug 14 04:53	0° M	
greatest brilliancy	1627 Mar 25 04:15	27° \approx 04'19	-4.6m	evening rise	1629 Aug 18 23:18	5° M 53'52	
	1627 Mar 31 11:29	0° H			1629 Sep 07 10:41	0° A	
desc. node	1627 Apr 25 04:48	18° H 43'24			1629 Oct 01 16:25	0° M	
morning max el	1627 May 02 16:06	25° H 44'46	46°04'20	desc. node	1629 Oct 10 00:05	10° M 17'05	
	1627 May 07 00:05	0° Y			1629 Oct 25 23:11	0° J	
	1627 Jun 04 09:37	0° B			1629 Nov 19 08:04	0° E	
	1627 Jun 30 22:49	0° H			1629 Dec 13 21:42	0° \approx	
	1627 Jul 26 14:24	0° E			1630 Jan 07 22:45	0° H	
asc. node	1627 Aug 16 08:17	24° E 49'12		asc. node	1630 Jan 31 03:18	26° H 40'15	
	1627 Aug 20 15:05	0° O			1630 Feb 03 03:25	0° Y	
	1627 Sep 14 04:07	0° M		evening max el	1630 Feb 21 09:57	19° Y 18'19	46°29'28
	1627 Oct 08 08:37	0° A			1630 Mar 04 14:57	0° B	
greatest brilliancy	1627 Oct 21 18:39	16° A 46'20	-3.9m	greatest brilliancy	1630 Mar 28 18:06	17° B 29'48	-4.6m
morning set	1627 Oct 27 05:55	23° A 37'33		retrograde	1630 Apr 12 07:49	21° B 16'38	
	1627 Nov 01 07:52	0° M		evening set	1630 Apr 28 06:18	16° B 18'34	
	1627 Nov 25 04:37	0° J		inferior conj	1630 May 03 15:19	13° B 00'52	4°19'25
desc. node	1627 Dec 05 21:47	13° J 29'02		minimum elong	1630 May 03 23:40	12° B 47'42	4°17'17

min. Earth dist.	1630 May 03 15:58	12°♄59'51	0.28711 AU		1632 Oct 16 03:06	0°♍	
morning rise	1630 May 09 17:27	9°♄20'04		evening rise	1632 Oct 28 21:28	15°♍58'30	
desc. node	1630 May 22 16:38	4°♄54'11		desc. node	1632 Nov 06 12:02	26°♍44'56	
direct	1630 May 25 02:00	4°♄47'26			1632 Nov 09 02:22	0°♌	
greatest brilliancy	1630 Jun 06 16:17	7°♄36'30	-4.5m		1632 Dec 03 01:43	0°♋	
	1630 Jul 07 23:09	0°♊			1632 Dec 27 02:16	0°♌	
morning max el	1630 Jul 12 20:08	4°♊33'24	45°43'37		1633 Jan 20 06:20	0°♌	
	1630 Aug 06 16:50	0°♋			1633 Feb 13 18:11	0°♍	
	1630 Sep 02 11:20	0°♌		asc. node	1633 Feb 27 15:15	16°♍42'10	
asc. node	1630 Sep 12 20:15	12°♌05'54			1633 Mar 10 20:46	0°♎	
	1630 Sep 27 21:25	0°♍			1633 Apr 06 02:57	0°♏	
	1630 Oct 22 12:38	0°♎		evening max el	1633 May 03 01:45	28°♏08'18	45°29'59
	1630 Nov 15 16:59	0°♏			1633 May 05 00:21	0°♐	
	1630 Dec 09 16:01	0°♐		greatest brilliancy	1633 Jun 06 14:44	24°♐36'06	-4.5m
desc. node	1631 Jan 02 09:28	29°♐48'12		desc. node	1633 Jun 19 04:32	28°♐03'44	
	1631 Jan 02 13:14	0°♑		retrograde	1633 Jun 20 18:27	28°♐06'37	
morning set	1631 Jan 11 04:17	10°♑50'28		evening set	1633 Jul 06 07:53	23°♐29'18	
	1631 Jan 26 10:31	0°♒		inferior conj	1633 Jul 12 06:48	19°♐55'10	-5°-4'-51
	1631 Feb 19 09:07	0°♒		minimum elong	1633 Jul 11 21:27	20°♐09'45	5°02'39
				min. Earth dist.	1633 Jul 12 06:17	19°♐55'59	0.28986 AU
superior conj	1631 Feb 21 14:58	2°♒48'20	-1°-24'-43	morning rise	1633 Jul 17 10:47	16°♐46'41	
minimum elong	1631 Feb 21 10:57	2°♒35'48	1°24'42	direct	1633 Aug 02 21:44	11°♐37'34	
max. Earth dist.	1631 Feb 25 17:36	7°♒56'29	1.71793 AU	greatest brilliancy	1633 Aug 17 02:10	15°♐07'03	-4.5m
	1631 Mar 15 10:14	0°♓			1633 Sep 07 21:27	0°♑	
evening rise	1631 Apr 02 10:10	22°♓19'40		morning max el	1633 Sep 21 05:57	12°♑16'10	46°09'10
	1631 Apr 08 15:06	0°♔			1633 Oct 08 09:37	0°♒	
asc. node	1631 Apr 25 13:09	20°♔50'01		asc. node	1633 Oct 10 08:09	2°♒06'11	
	1631 May 03 00:32	0°♕			1633 Nov 03 22:18	0°♓	
	1631 May 27 15:08	0°♖			1633 Nov 29 00:35	0°♔	
	1631 Jun 21 11:58	0°♗			1633 Dec 23 11:36	0°♕	
	1631 Jul 16 17:39	0°♘			1634 Jan 16 16:13	0°♖	
	1631 Aug 11 13:47	0°♙		desc. node	1634 Jan 29 21:25	16°♖26'36	
desc. node	1631 Aug 15 02:08	4°♙00'05			1634 Feb 09 18:49	0°♗	
	1631 Sep 07 12:56	0°♚			1634 Mar 05 21:38	0°♘	
evening max el	1631 Sep 27 17:13	20°♚50'40	46°41'37	morning set	1634 Mar 27 22:26	27°♘20'32	
	1631 Oct 07 09:43	0°♛			1634 Mar 30 01:54	0°♙	
greatest brilliancy	1631 Nov 05 15:42	20°♛23'02	-4.6m		1634 Apr 23 08:19	0°♚	
retrograde	1631 Nov 16 16:57	22°♛38'51					
evening set	1631 Dec 01 01:07	18°♛36'20		superior conj	1634 May 04 23:37	14°♛20'55	0°-41'-12
asc. node	1631 Dec 06 05:36	15°♛36'38		minimum elong	1634 May 05 07:37	14°♛45'34	0°40'53
inferior conj	1631 Dec 07 05:56	14°♛59'34	0°15'52	max. Earth dist.	1634 May 06 19:30	16°♛36'03	1.73270 AU
minimum elong	1631 Dec 07 05:20	15°♛00'30	0°15'39		1634 May 17 16:51	0°♜	
transit middle	1631 Dec 07 05:20	15°♛00'30	0°15'39	asc. node	1634 May 23 00:56	6°♜33'39	
transit begin	1631 Dec 07 03:52	15°♛02'44		evening rise	1634 Jun 10 22:27	29°♜46'04	
transit end	1631 Dec 07 06:47	14°♛58'16			1634 Jun 11 03:00	0°♞	
min. Earth dist.	1631 Dec 07 05:13	15°♛00'40	0.26410 AU		1634 Jul 05 14:21	0°♟	
morning rise	1631 Dec 13 09:24	11°♛24'32			1634 Jul 30 03:18	0°♠	
direct	1631 Dec 27 15:02	7°♛22'40			1634 Aug 23 19:09	0°♞	
greatest brilliancy	1632 Jan 08 15:52	10°♛04'39	-4.7m	desc. node	1634 Sep 11 14:14	22°♞42'38	
	1632 Feb 05 10:15	0°♠			1634 Sep 17 15:47	0°♟	
morning max el	1632 Feb 15 23:31	10°♠10'11	46°48'06		1634 Oct 12 20:00	0°♠	
	1632 Mar 05 19:55	0°♡			1634 Nov 07 14:17	0°♠	
desc. node	1632 Mar 26 19:09	23°♡29'36			1634 Dec 04 19:21	0°♡	
	1632 Apr 01 11:13	0°♢		evening max el	1634 Dec 09 07:54	4°♡40'26	47°19'38
	1632 Apr 27 03:54	0°♣		asc. node	1635 Jan 02 17:32	26°♡52'44	
	1632 May 22 10:14	0°♣			1635 Jan 07 01:31	0°♢	
	1632 Jun 16 10:17	0°♤		greatest brilliancy	1635 Jan 16 07:18	5°♢19'28	-4.7m
	1632 Jul 11 04:47	0°♥		retrograde	1635 Jan 29 08:40	8°♢31'26	
asc. node	1632 Jul 17 22:30	8°♥12'50		evening set	1635 Feb 15 21:06	2°♢31'16	
	1632 Aug 04 17:23	0°♦		min. Earth dist.	1635 Feb 18 10:57	0°♢55'59	0.27540 AU
morning set	1632 Aug 14 09:11	11°♦53'51		inferior conj	1635 Feb 19 05:42	0°♢26'41	8°39'01
	1632 Aug 29 00:20	0°♧		minimum elong	1635 Feb 19 01:32	0°♢33'12	8°38'45
max. Earth dist.	1632 Sep 16 18:23	23°♧19'12	1.72219 AU		1635 Feb 19 22:48	30°♧	
				morning rise	1635 Feb 22 06:11	28°♧34'47	
superior conj	1632 Sep 20 05:19	27°♧37'43	1°22'27	direct	1635 Mar 11 22:00	22°♧33'39	
minimum elong	1632 Sep 20 09:49	27°♧51'44	1°22'24	greatest brilliancy	1635 Mar 22 16:38	24°♧42'30	-4.6m
	1632 Sep 22 02:56	0°♨			1635 Apr 02 00:21	0°♣	

desc. node	1635 Apr 24 06:55	17° ✕ 48'03		1637 Sep 06 21:34	0° ♎	
morning max el	1635 Apr 30 07:14	23° ✕ 29'41	46°05'41	1637 Oct 01 03:34	0° ♍	
	1635 May 06 21:03	0° ♊		1637 Oct 09 02:09	9° ♍ 48'41	
	1635 Jun 04 00:59	0° ♉		1637 Oct 25 10:42	0° ♊	
	1635 Jun 30 11:57	0° ♈		1637 Nov 18 20:06	0° ♊	
	1635 Jul 26 02:24	0° ♊		1637 Dec 13 10:29	0° ♊	
asc. node	1635 Aug 15 10:26	24° ♊ 21'04		1638 Jan 07 12:52	0° ✕	
	1635 Aug 20 02:28	0° ♈		1638 Jan 30 05:24	26° ✕ 00'02	
	1635 Sep 13 15:11	0° ♊		1638 Feb 02 20:32	0° ♊	
	1635 Oct 07 19:31	0° ♎		evening max el	1638 Feb 19 00:45	17° ♊ 01'13 46°31'45
greatest brilliancy	1635 Oct 23 15:30	19° ♎ 47'56	-3.9m		1638 Mar 04 18:54	0° ♉
morning set	1635 Oct 24 19:45	21° ♎ 16'26		greatest brilliancy	1638 Mar 26 12:39	15° ♉ 21'13 -4.6m
	1635 Oct 31 18:44	0° ♍		retrograde	1638 Apr 09 23:43	19° ♉ 05'24
	1635 Nov 24 15:31	0° ♊		evening set	1638 Apr 26 00:56	14° ♉ 04'09
superior conj	1635 Dec 03 19:41	11° ♊ 32'32	0°02'50	inferior conj	1638 May 01 07:25	10° ♉ 49'55 4°36'54
minimum elong	1635 Dec 03 20:26	11° ♊ 34'53	0°02'48	minimum elong	1638 May 01 16:07	10° ♉ 36'10 4°34'43
behind sun begin	1635 Dec 02 18:29	10° ♊ 13'15		min. Earth dist.	1638 May 01 08:08	10° ♉ 48'47 0.28688 AU
behind sun end	1635 Dec 04 22:22	12° ♊ 56'31		morning rise	1638 May 07 07:41	7° ♉ 11'19
max. Earth dist.	1635 Dec 03 18:54	11° ♊ 30'02	1.71095 AU	desc. node	1638 May 21 18:34	2° ♉ 38'03
desc. node	1635 Dec 04 23:45	13° ♊ 00'51		direct	1638 May 22 17:35	2° ♉ 36'59
	1635 Dec 18 11:41	0° ♊		greatest brilliancy	1638 Jun 04 05:52	5° ♉ 23'35 -4.5m
	1636 Jan 11 08:27	0° ♊			1638 Jul 07 23:07	0° ♈
evening rise	1636 Jan 14 08:31	3° ♊ 46'14		morning max el	1638 Jul 10 10:40	2° ♈ 20'32 45°43'29
	1636 Feb 04 07:05	0° ✕			1638 Aug 06 08:46	0° ♊
	1636 Feb 28 09:35	0° ♊			1638 Sep 02 00:40	0° ♈
	1636 Mar 23 18:30	0° ♉		asc. node	1638 Sep 11 22:20	11° ♈ 34'28
asc. node	1636 Mar 27 03:18	4° ♉ 06'34			1638 Sep 27 09:35	0° ♊
	1636 Apr 17 12:55	0° ♈			1638 Oct 22 00:12	0° ♎
	1636 May 12 21:11	0° ♊			1638 Nov 15 04:14	0° ♍
	1636 Jun 08 04:04	0° ♈		desc. node	1638 Dec 09 03:05	0° ♊
	1636 Jul 06 09:57	0° ♊			1639 Jan 01 11:34	29° ♊ 20'24
evening max el	1636 Jul 13 04:52	6° ♊ 38'08	45°34'30		1639 Jan 02 00:10	0° ♊
desc. node	1636 Jul 16 16:26	9° ♊ 54'47		morning set	1639 Jan 08 14:10	8° ♊ 16'29
	1636 Aug 11 07:42	0° ♎			1639 Jan 25 21:21	0° ♊
greatest brilliancy	1636 Aug 19 15:58	4° ♎ 04'29	-4.5m		1639 Feb 18 19:52	0° ✕
retrograde	1636 Aug 30 22:52	6° ♎ 19'49		superior conj	1639 Feb 19 02:42	0° ✕ 21'20 -1°-23'-59
evening set	1636 Sep 17 19:41	0° ♎ 23'00		minimum elong	1639 Feb 18 21:42	0° ✕ 05'44 1°23'56
	1636 Sep 18 11:04	30° ♊		max. Earth dist.	1639 Feb 23 04:33	5° ✕ 27'07 1.71741 AU
inferior conj	1636 Sep 21 00:21	28° ♊ 26'26	-8°-31'-20		1639 Mar 14 20:58	0° ♊
minimum elong	1636 Sep 21 05:17	28° ♊ 18'50	8°31'00	evening rise	1639 Mar 30 23:58	20° ♊ 00'33
min. Earth dist.	1636 Sep 21 19:34	27° ♊ 56'52	0.27991 AU		1639 Apr 08 01:52	0° ♉
morning rise	1636 Sep 24 14:42	26° ♊ 15'13		asc. node	1639 Apr 24 15:06	20° ♉ 22'42
direct	1636 Oct 12 05:43	20° ♊ 22'51			1639 May 02 11:25	0° ♈
greatest brilliancy	1636 Oct 26 11:59	24° ♊ 04'32	-4.6m		1639 May 27 02:17	0° ♊
	1636 Nov 05 08:04	0° ♎			1639 Jun 20 23:38	0° ♈
asc. node	1636 Nov 06 19:47	1° ♎ 04'10			1639 Jul 16 06:15	0° ♊
morning max el	1636 Dec 01 21:16	23° ♎ 33'26	46°50'21		1639 Aug 11 04:06	0° ♎
	1636 Dec 08 02:12	0° ♍		desc. node	1639 Aug 14 04:18	3° ♎ 24'46
	1637 Jan 03 23:53	0° ♊			1639 Sep 07 06:54	0° ♍
	1637 Jan 29 09:47	0° ♊		evening max el	1639 Sep 25 05:09	18° ♍ 24'37 46°39'10
	1637 Feb 23 06:13	0° ♊			1639 Oct 07 15:33	0° ♊
desc. node	1637 Feb 26 09:19	3° ♊ 48'09		greatest brilliancy	1639 Nov 03 05:50	17° ♊ 56'40 -4.6m
	1637 Mar 19 21:17	0° ✕		retrograde	1639 Nov 14 04:41	20° ♊ 10'28
	1637 Apr 13 10:26	0° ♊		evening set	1639 Nov 28 14:01	16° ♊ 06'45
	1637 May 07 23:10	0° ♉		inferior conj	1639 Dec 04 18:05	12° ♊ 31'33 0°-8'-49
	1637 Jun 01 11:37	0° ♈		minimum elong	1639 Dec 04 18:26	12° ♊ 31'02 0°08'44
morning set	1637 Jun 05 09:36	4° ♈ 47'39		transit middle	1639 Dec 04 18:26	12° ♊ 31'02 0°08'44
asc. node	1637 Jun 19 12:42	22° ♈ 06'37		transit begin	1639 Dec 04 14:57	12° ♊ 36'20
	1637 Jun 25 22:58	0° ♊		transit end	1639 Dec 04 21:55	12° ♊ 25'44
max. Earth dist.	1637 Jul 09 18:42	16° ♊ 59'10	1.73484 AU	min. Earth dist.	1639 Dec 04 19:18	12° ♊ 29'42 0.26419 AU
				asc. node	1639 Dec 05 07:39	12° ♊ 10'55
superior conj	1637 Jul 11 20:42	19° ♊ 32'59	0°49'44	morning rise	1639 Dec 10 22:34	8° ♊ 55'11
minimum elong	1637 Jul 11 12:26	19° ♊ 07'32	0°49'24	direct	1639 Dec 25 02:48	4° ♊ 54'01
	1637 Jul 20 08:20	0° ♈		greatest brilliancy	1640 Jan 06 07:41	7° ♊ 40'07 -4.7m
	1637 Aug 13 15:35	0° ♊			1640 Feb 05 13:51	0° ♊
evening rise	1637 Aug 16 17:03	3° ♊ 47'05		morning max el	1640 Feb 13 12:24	7° ♊ 44'35 46°49'21

	1640 Mar 05 13:23	0°♊			1642 Nov 07 06:19	0°♋	
desc. node	1640 Mar 25 21:14	22°♊53'20			1642 Dec 04 16:46	0°♊	
	1640 Apr 01 01:26	0°♋		evening max el	1642 Dec 06 23:22	2°♊20'02	47°19'48
	1640 Apr 26 16:35	0°♌		asc. node	1643 Jan 01 19:41	25°♊35'46	
	1640 May 21 22:02	0°♍			1643 Jan 08 09:33	0°♋	
	1640 Jun 15 21:32	0°♎		greatest brilliancy	1643 Jan 13 22:35	2°♋56'45	-4.7m
	1640 Jul 10 15:41	0°♏		retrograde	1643 Jan 26 23:33	6°♋07'38	
asc. node	1640 Jul 17 00:39	7°♏46'16		evening set	1643 Feb 13 08:13	0°♋12'10	
	1640 Aug 04 04:06	0°♐			1643 Feb 13 16:16	30°♌	
morning set	1640 Aug 12 02:23	9°♐45'50		min. Earth dist.	1643 Feb 15 23:42	28°♌34'29	0.27479 AU
	1640 Aug 28 10:59	0°♑		inferior conj	1643 Feb 16 19:30	28°♌03'35	8°34'28
max. Earth dist.	1640 Sep 14 12:12	21°♑11'47	1.72274 AU	minimum elong	1643 Feb 16 14:33	28°♌11'18	8°34'06
				morning rise	1643 Feb 19 21:09	26°♌10'08	
superior conj	1640 Sep 17 21:11	25°♑24'07	1°23'10	direct	1643 Mar 09 11:49	20°♌11'43	
minimum elong	1640 Sep 18 00:58	25°♑35'54	1°23'09	greatest brilliancy	1643 Mar 20 04:01	22°♌18'53	-4.6m
	1640 Sep 21 13:40	0°♒			1643 Apr 03 02:34	0°♋	
	1640 Oct 15 13:59	0°♓		desc. node	1643 Apr 23 08:49	16°♋53'05	
evening rise	1640 Oct 26 10:02	13°♓33'26		morning max el	1643 Apr 27 22:03	21°♋13'38	46°07'12
desc. node	1640 Nov 05 13:58	26°♓16'30			1643 May 06 17:20	0°♌	
	1640 Nov 08 13:25	0°♈			1643 Jun 03 16:06	0°♍	
	1640 Dec 02 12:56	0°♉			1643 Jun 30 00:59	0°♎	
	1640 Dec 26 13:42	0°♊			1643 Jul 25 14:23	0°♏	
	1641 Jan 19 18:04	0°♋		asc. node	1643 Aug 14 12:28	23°♏52'23	
	1641 Feb 13 06:26	0°♌			1643 Aug 19 13:55	0°♐	
asc. node	1641 Feb 26 17:23	16°♌10'39			1643 Sep 13 02:21	0°♑	
	1641 Mar 10 10:04	0°♍			1643 Oct 07 06:36	0°♒	
	1641 Apr 05 18:37	0°♎		morning set	1643 Oct 22 09:35	18°♒54'49	
evening max el	1641 Apr 30 17:34	25°♎57'57	45°31'11		1643 Oct 31 05:46	0°♓	
	1641 May 04 23:28	0°♏			1643 Nov 24 02:35	0°♈	
greatest brilliancy	1641 Jun 04 04:16	22°♏24'33	-4.5m				
retrograde	1641 Jun 18 11:18	25°♏58'37		superior conj	1643 Dec 01 06:03	8°♈59'18	0°06'47
desc. node	1641 Jun 18 06:38	25°♏58'34		minimum elong	1643 Dec 01 07:50	9°♈04'53	0°06'41
evening set	1641 Jul 03 22:17	21°♏23'26		behind sun begin	1643 Nov 30 07:43	7°♈49'03	
inferior conj	1641 Jul 09 23:08	17°♏46'35	-4°-48'-35	behind sun end	1643 Dec 02 07:56	10°♈20'44	
minimum elong	1641 Jul 09 14:04	18°♏00'42	4°46'23	max. Earth dist.	1643 Dec 01 01:34	8°♈45'11	1.71108 AU
min. Earth dist.	1641 Jul 09 22:08	17°♏48'08	0.28994 AU	desc. node	1643 Dec 04 01:51	12°♈32'32	
morning rise	1641 Jul 15 05:43	14°♏34'39			1643 Dec 17 22:48	0°♉	
direct	1641 Jul 31 14:19	9°♏28'48			1644 Jan 10 19:38	0°♊	
greatest brilliancy	1641 Aug 14 18:43	12°♏58'40	-4.5m	evening rise	1644 Jan 11 18:25	1°♊11'30	
	1641 Sep 08 01:52	0°♐			1644 Feb 03 18:22	0°♋	
morning max el	1641 Sep 18 22:21	10°♐05'34	46°07'41		1644 Feb 27 20:58	0°♌	
	1641 Oct 08 02:43	0°♑			1644 Mar 23 06:07	0°♍	
asc. node	1641 Oct 09 10:07	1°♑25'42		asc. node	1644 Mar 26 05:15	3°♍36'57	
	1641 Nov 03 12:22	0°♒			1644 Apr 17 01:02	0°♎	
	1641 Nov 28 13:21	0°♓			1644 May 12 10:17	0°♏	
	1641 Dec 22 23:41	0°♈			1644 Jun 07 19:17	0°♐	
	1642 Jan 16 03:52	0°♉			1644 Jul 06 06:49	0°♑	
desc. node	1642 Jan 28 23:29	15°♉57'15		evening max el	1644 Jul 10 19:24	4°♑23'23	45°32'59
	1642 Feb 09 06:10	0°♊		desc. node	1644 Jul 15 18:32	9°♑02'01	
	1642 Mar 05 08:43	0°♋			1644 Aug 13 02:50	0°♒	
morning set	1642 Mar 25 12:43	25°♋02'14		greatest brilliancy	1644 Aug 17 04:56	1°♒47'13	-4.5m
	1642 Mar 29 12:47	0°♌		retrograde	1644 Aug 28 12:13	4°♒02'56	
	1642 Apr 22 19:03	0°♍			1644 Sep 12 01:07	30°♓	
				evening set	1644 Sep 15 11:08	28°♓04'15	
superior conj	1642 May 02 16:18	12°♍11'32	0°-44'-5	inferior conj	1644 Sep 18 14:49	26°♓08'55	-8°-35'-36
minimum elong	1642 May 03 00:44	12°♍37'31	0°43'44	minimum elong	1644 Sep 18 18:57	26°♓02'32	8°35'22
max. Earth dist.	1642 May 04 16:08	14°♍38'52	1.73235 AU	min. Earth dist.	1644 Sep 19 09:34	25°♓39'59	0.28055 AU
	1642 May 17 03:31	0°♎		morning rise	1644 Sep 22 02:33	24°♓01'11	
asc. node	1642 May 22 02:58	6°♎07'07		direct	1644 Oct 09 20:37	18°♓04'29	
evening rise	1642 Jun 08 17:12	27°♎43'31		greatest brilliancy	1644 Oct 24 03:02	21°♓45'17	-4.6m
	1642 Jun 10 13:42	0°♏		asc. node	1644 Nov 05 21:48	29°♓49'43	
	1642 Jul 05 01:15	0°♐			1644 Nov 06 03:14	0°♒	
	1642 Jul 29 14:32	0°♑		morning max el	1644 Nov 29 10:43	21°♒08'35	46°49'17
	1642 Aug 23 06:55	0°♒			1644 Dec 07 22:14	0°♓	
desc. node	1642 Sep 10 16:14	22°♒11'38			1645 Jan 03 15:28	0°♈	
	1642 Sep 17 04:21	0°♓			1645 Jan 28 23:30	0°♉	
	1642 Oct 12 09:48	0°♈			1645 Feb 22 18:55	0°♊	

desc. node	1645 Feb 25 11:21	3° \approx 16'00		greatest brilliancy	1647 Oct 31 18:41	15° \approx 28'25	-4.6m
	1645 Mar 19 09:19	0° H		retrograde	1647 Nov 11 16:47	17° \approx 41'36	
	1645 Apr 12 22:00	0° Y		evening set	1647 Nov 26 03:09	13° \approx 36'04	
	1645 May 07 10:23	0° B		inferior conj	1647 Dec 02 06:15	10° \approx 02'36	0°-33'-30
	1645 May 31 22:36	0° II		minimum elong	1647 Dec 02 07:33	10° \approx 00'38	0°33'06
morning set	1645 Jun 03 03:41	2° II 42'30		min. Earth dist.	1647 Dec 02 09:05	9° \approx 58'18	0.26441 AU
asc. node	1645 Jun 18 14:53	21° II 39'57		asc. node	1647 Dec 04 09:48	8° \approx 44'41	
	1645 Jun 25 09:50	0° S		morning rise	1647 Dec 08 11:36	6° \approx 25'22	
max. Earth dist.	1645 Jul 07 14:29	14° S 59'08	1.73501 AU	direct	1647 Dec 22 15:14	2° \approx 24'18	
				greatest brilliancy	1648 Jan 03 23:25	5° \approx 14'23	-4.7m
superior conj	1645 Jul 09 15:24	17° S 29'34	0°47'11		1648 Feb 05 16:30	0° S	
minimum elong	1645 Jul 09 07:21	17° S 04'49	0°46'51	morning max el	1648 Feb 11 02:25	5° S 20'15	46°50'22
	1645 Jul 19 19:11	0° Ω			1648 Mar 05 07:02	0° \approx	
	1645 Aug 13 02:31	0° M		desc. node	1648 Mar 24 23:13	22° \approx 15'25	
evening rise	1645 Aug 14 11:13	1° M 41'04			1648 Mar 31 16:03	0° H	
	1645 Sep 06 08:43	0° A			1648 Apr 26 05:39	0° Y	
	1645 Sep 30 15:04	0° M			1648 May 21 10:12	0° B	
desc. node	1645 Oct 08 04:08	9° M 18'56			1648 Jun 15 09:08	0° II	
	1645 Oct 24 22:38	0° \approx			1648 Jul 10 02:55	0° S	
	1645 Nov 18 08:35	0° S		asc. node	1648 Jul 16 02:40	7° S 18'18	
	1645 Dec 12 23:46	0° \approx			1648 Aug 03 15:08	0° Ω	
	1646 Jan 07 03:34	0° H		morning set	1648 Aug 09 19:47	7° Ω 37'32	
asc. node	1646 Jan 29 07:28	25° H 18'02			1648 Aug 27 21:57	0° M	
	1646 Feb 02 14:28	0° Y		max. Earth dist.	1648 Sep 12 05:48	19° M 02'54	1.72321 AU
evening max el	1646 Feb 16 14:39	14° Y 40'29	46°34'11				
	1646 Mar 05 01:23	0° B		superior conj	1648 Sep 15 13:28	23° M 11'02	1°23'47
greatest brilliancy	1646 Mar 24 06:18	13° B 10'03	-4.6m	minimum elong	1648 Sep 15 16:31	23° M 20'31	1°23'45
retrograde	1646 Apr 07 15:31	16° B 52'59			1648 Sep 21 00:40	0° A	
evening set	1646 Apr 23 19:37	11° B 48'07			1648 Oct 15 01:05	0° M	
inferior conj	1646 Apr 28 23:30	8° B 37'43	4°54'05	evening rise	1648 Oct 23 23:10	11° M 09'30	
minimum elong	1646 Apr 29 08:31	8° B 23'27	4°51'51	desc. node	1648 Nov 04 16:07	25° M 48'06	
min. Earth dist.	1646 Apr 29 00:27	8° B 36'12	0.28664 AU		1648 Nov 08 00:40	0° \approx	
morning rise	1646 May 04 21:44	5° B 01'39			1648 Dec 02 00:23	0° S	
direct	1646 May 20 08:39	0° B 25'05			1648 Dec 26 01:25	0° \approx	
desc. node	1646 May 20 20:44	0° B 25'22			1649 Jan 19 06:10	0° H	
greatest brilliancy	1646 Jun 01 20:22	3° B 10'31	-4.5m		1649 Feb 12 19:08	0° Y	
	1646 Jul 07 22:26	0° II		asc. node	1649 Feb 25 19:18	15° Y 37'08	
morning max el	1646 Jul 08 01:31	0° II 07'19	45°43'39		1649 Mar 09 23:54	0° B	
	1646 Aug 06 00:45	0° S			1649 Apr 05 11:02	0° II	
	1646 Sep 01 14:09	0° Ω		evening max el	1649 Apr 28 10:00	23° II 47'49	45°32'34
asc. node	1646 Sep 11 00:20	11° Ω 02'09			1649 May 05 00:16	0° S	
	1646 Sep 26 21:57	0° M		greatest brilliancy	1649 Jun 01 18:39	20° S 12'49	-4.5m
	1646 Oct 21 12:00	0° A		retrograde	1649 Jun 16 04:01	23° S 48'59	
	1646 Nov 14 15:48	0° M		desc. node	1649 Jun 17 08:44	23° S 47'18	
	1646 Dec 08 14:32	0° \approx		evening set	1649 Jul 01 12:45	19° S 16'05	
desc. node	1646 Dec 31 13:43	28° \approx 51'26		inferior conj	1649 Jul 07 15:18	15° S 36'31	-4°-31'-50
	1647 Jan 01 11:32	0° S		minimum elong	1649 Jul 07 06:35	15° S 50'06	4°29'40
morning set	1647 Jan 05 23:39	5° S 39'48		min. Earth dist.	1649 Jul 07 13:45	15° S 38'56	0.28995 AU
	1647 Jan 25 08:38	0° \approx		morning rise	1649 Jul 13 00:22	12° S 21'12	
				direct	1649 Jul 29 07:03	7° S 18'47	
superior conj	1647 Feb 16 13:52	27° \approx 51'07	-1°-23'-3	greatest brilliancy	1649 Aug 12 09:56	10° S 47'31	-4.5m
minimum elong	1647 Feb 16 07:54	27° \approx 32'28	1°23'00		1649 Sep 08 05:00	0° Ω	
	1647 Feb 18 07:04	0° H		morning max el	1649 Sep 16 14:41	7° Ω 54'11	46°06'20
max. Earth dist.	1647 Feb 20 11:47	2° H 44'48	1.71689 AU		1649 Oct 07 19:43	0° M	
	1647 Mar 14 08:08	0° Y		asc. node	1649 Oct 08 12:09	0° M 45'07	
evening rise	1647 Mar 28 13:18	17° Y 38'42			1649 Nov 03 02:28	0° A	
	1647 Apr 07 13:03	0° B			1649 Nov 28 02:11	0° M	
asc. node	1647 Apr 23 17:11	19° B 54'37			1649 Dec 22 11:50	0° \approx	
	1647 May 01 22:44	0° II			1650 Jan 15 15:36	0° S	
	1647 May 26 13:52	0° S		desc. node	1650 Jan 28 01:30	15° S 27'24	
	1647 Jun 20 11:43	0° Ω			1650 Feb 08 17:38	0° \approx	
	1647 Jul 15 19:16	0° M			1650 Mar 04 20:00	0° H	
	1647 Aug 10 18:54	0° A		morning set	1650 Mar 23 02:26	22° H 41'24	
desc. node	1647 Aug 13 06:19	2° A 47'59			1650 Mar 28 23:54	0° Y	
	1647 Sep 07 01:34	0° M			1650 Apr 22 06:02	0° B	
evening max el	1647 Sep 22 17:36	15° M 59'32	46°36'47				
	1647 Oct 07 23:58	0° \approx		superior conj	1650 Apr 30 08:17	9° B 59'05	0°-46'-57

minimum elong	1650 Apr 30 17:06	10°♄26'15	0°46'36	minimum elong	1652 Sep 16 08:33	23°♍46'33	8°38'47
max. Earth dist.	1650 May 02 12:48	12°♄40'56	1.73199 AU	min. Earth dist.	1652 Sep 16 23:47	23°♍23'02	0.28116 AU
	1650 May 16 14:26	0°♈		morning rise	1652 Sep 19 14:42	21°♍47'06	
asc. node	1650 May 21 05:06	5°♈40'07		direct	1652 Oct 07 11:06	15°♍46'11	
evening rise	1650 Jun 06 11:18	25°♈38'12		greatest brilliancy	1652 Oct 21 18:48	19°♍27'25	-4.6m
	1650 Jun 10 00:39	0°♊		asc. node	1652 Nov 05 00:01	28°♍38'01	
	1650 Jul 04 12:23	0°♈			1652 Nov 06 17:23	0°♊	
	1650 Jul 29 02:01	0°♍		morning max el	1652 Nov 27 00:03	18°♊43'51	46°48'19
	1650 Aug 22 18:55	0°♊			1652 Dec 07 17:32	0°♌	
desc. node	1650 Sep 09 18:14	21°♊39'59			1653 Jan 03 06:39	0°♌	
	1650 Sep 16 17:08	0°♌			1653 Jan 28 12:54	0°♊	
	1650 Oct 11 23:50	0°♌			1653 Feb 22 07:18	0°♌	
	1650 Nov 06 22:40	0°♊		desc. node	1653 Feb 24 13:22	2°♌44'40	
evening max el	1650 Dec 04 14:52	29°♊59'55	47°19'55		1653 Mar 18 21:01	0°♌	
	1650 Dec 04 14:54	0°♌			1653 Apr 12 09:14	0°♍	
asc. node	1650 Dec 31 21:39	24°♌16'21			1653 May 06 21:19	0°♌	
	1651 Jan 10 08:44	0°♌			1653 May 31 09:21	0°♈	
greatest brilliancy	1651 Jan 11 14:36	0°♌35'21	-4.7m	morning set	1653 May 31 21:38	0°♈37'36	
retrograde	1651 Jan 24 14:14	3°♌44'00		asc. node	1653 Jun 17 16:53	21°♈13'19	
	1651 Feb 07 02:18	30°♌			1653 Jun 24 20:30	0°♊	
evening set	1651 Feb 10 19:10	27°♌54'01		max. Earth dist.	1653 Jul 05 09:54	12°♊58'32	1.73524 AU
min. Earth dist.	1651 Feb 13 12:48	26°♌13'00	0.27420 AU				
inferior conj	1651 Feb 14 09:23	25°♌40'51	8°28'57	superior conj	1653 Jul 07 09:52	15°♊26'02	0°44'32
minimum elong	1651 Feb 14 03:42	25°♌49'45	8°28'28	minimum elong	1653 Jul 07 02:06	15°♊02'08	0°44'13
morning rise	1651 Feb 17 12:31	23°♌45'11			1653 Jul 19 05:51	0°♈	
direct	1651 Mar 07 01:40	17°♌50'16		evening rise	1653 Aug 12 05:11	29°♈35'01	
greatest brilliancy	1651 Mar 17 15:36	19°♌55'28	-4.6m		1653 Aug 12 13:17	0°♍	
	1651 Apr 03 21:46	0°♌			1653 Sep 05 19:41	0°♊	
desc. node	1651 Apr 22 11:01	15°♌59'46			1653 Sep 30 02:22	0°♌	
morning max el	1651 Apr 25 12:10	18°♌55'29	46°08'25	desc. node	1653 Oct 07 06:16	8°♌50'20	
	1651 May 06 13:06	0°♍			1653 Oct 24 10:22	0°♌	
	1651 Jun 03 07:10	0°♌			1653 Nov 17 20:53	0°♊	
	1651 Jun 29 14:04	0°♈			1653 Dec 12 12:53	0°♌	
	1651 Jul 25 02:26	0°♊			1654 Jan 06 18:08	0°♌	
asc. node	1651 Aug 13 14:28	23°♊23'26		asc. node	1654 Jan 28 09:29	24°♌36'24	
	1651 Aug 19 01:23	0°♈			1654 Feb 02 08:26	0°♍	
	1651 Sep 12 13:32	0°♍		evening max el	1654 Feb 14 04:32	12°♍20'51	46°36'47
	1651 Oct 06 17:39	0°♊			1654 Mar 05 09:41	0°♌	
morning set	1651 Oct 19 23:23	16°♊33'12		greatest brilliancy	1654 Mar 21 22:55	10°♌58'55	-4.6m
	1651 Oct 30 16:47	0°♌		retrograde	1654 Apr 05 07:43	14°♌42'22	
	1651 Nov 23 13:36	0°♌		evening set	1654 Apr 21 14:27	9°♌33'28	
max. Earth dist.	1651 Nov 28 05:18	5°♌51'14	1.71119 AU	inferior conj	1654 Apr 26 15:44	6°♌27'06	5°10'35
				minimum elong	1654 Apr 27 01:01	6°♌12'25	5°08'22
superior conj	1651 Nov 28 16:45	6°♌27'17	0°10'41	min. Earth dist.	1654 Apr 26 16:44	6°♌25'30	0.28642 AU
minimum elong	1651 Nov 28 19:32	6°♌36'01	0°10'32	morning rise	1654 May 02 11:49	2°♌53'59	
behind sun begin	1651 Nov 27 23:22	5°♌32'35			1654 May 08 14:25	30°♌	
behind sun end	1651 Nov 29 15:42	7°♌39'27		direct	1654 May 17 23:43	28°♌14'39	
desc. node	1651 Dec 03 03:58	12°♌04'29		desc. node	1654 May 19 22:47	28°♌19'04	
	1651 Dec 17 09:52	0°♊			1654 May 27 20:29	0°♌	
evening rise	1652 Jan 09 04:35	28°♊37'57		greatest brilliancy	1654 May 30 11:26	0°♌59'43	-4.5m
	1652 Jan 10 06:43	0°♌		morning max el	1654 Jul 05 17:17	27°♌57'30	45°43'38
	1652 Feb 03 05:29	0°♌			1654 Jul 07 20:20	0°♈	
	1652 Feb 27 08:12	0°♍			1654 Aug 05 16:09	0°♊	
	1652 Mar 22 17:37	0°♌			1654 Sep 01 03:17	0°♈	
asc. node	1652 Mar 25 07:19	3°♌08'06		asc. node	1654 Sep 10 02:25	10°♈30'55	
	1652 Apr 16 13:06	0°♈			1654 Sep 26 10:00	0°♍	
	1652 May 11 23:27	0°♊			1654 Oct 20 23:32	0°♊	
	1652 Jun 07 10:43	0°♈			1654 Nov 14 03:03	0°♌	
	1652 Jul 06 04:30	0°♍			1654 Dec 08 01:39	0°♌	
evening max el	1652 Jul 08 09:05	2°♍06'33	45°31'35	desc. node	1654 Dec 30 15:38	28°♌22'50	
desc. node	1652 Jul 14 20:33	8°♍07'50			1654 Dec 31 22:33	0°♊	
greatest brilliancy	1652 Aug 14 17:37	29°♍29'38	-4.5m	morning set	1655 Jan 03 09:08	3°♊04'10	
	1652 Aug 16 03:02	0°♊			1655 Jan 24 19:33	0°♌	
retrograde	1652 Aug 26 01:27	1°♊46'21					
	1652 Sep 04 14:08	30°♌		superior conj	1655 Feb 14 00:57	25°♌21'40	-1°-21'-58
evening set	1652 Sep 13 02:09	25°♌46'07		minimum elong	1655 Feb 13 18:05	25°♌00'09	1°21'53
inferior conj	1652 Sep 16 05:14	23°♌51'41	-8°-38'-56	max. Earth dist.	1655 Feb 17 17:26	29°♌58'30	1.71638 AU

	1655 Feb 17 17:55	0° Υ			1657 Sep 08 06:02	0° Ω		
	1655 Mar 13 18:56	0° Υ		morning max el	1657 Sep 14 06:28	5° Ω 42'58	46°04'46	
evening rise	1655 Mar 26 02:44	15° Υ 18'15			1657 Oct 07 11:59	0° Υ		
	1655 Apr 06 23:50	0° Υ		asc. node	1657 Oct 07 14:19	0° Υ 06'25		
asc. node	1655 Apr 22 19:19	19° Υ 27'58			1657 Nov 02 16:09	0° Ω		
	1655 May 01 09:37	0° Π			1657 Nov 27 14:44	0° Π		
	1655 May 26 01:01	0° Ω			1657 Dec 21 23:45	0° Υ		
	1655 Jun 19 23:26	0° Ω			1658 Jan 15 03:08	0° Ω		
	1655 Jul 15 08:01	0° Υ		desc. node	1658 Jan 27 03:35	14° Ω 58'26		
	1655 Aug 10 09:34	0° Ω			1658 Feb 08 04:52	0° \approx		
desc. node	1655 Aug 12 08:19	2° Ω 11'40			1658 Mar 04 07:00	0° Υ		
	1655 Sep 06 20:29	0° Π		morning set	1658 Mar 20 16:00	20° Υ 20'57		
evening max el	1655 Sep 20 07:05	13° Π 37'52	46°34'19		1658 Mar 28 10:44	0° Υ		
	1655 Oct 08 11:00	0° Υ			1658 Apr 21 16:43	0° Υ		
greatest brilliancy	1655 Oct 29 06:49	13° Υ 00'09	-4.6m					
retrograde	1655 Nov 09 05:12	15° Υ 13'14		superior conj	1658 Apr 28 00:20	7° Υ 47'39	0°-49'-44	
evening set	1655 Nov 23 16:24	11° Υ 05'49		minimum elong	1658 Apr 28 09:29	8° Υ 15'53	0°49'24	
inferior conj	1655 Nov 29 18:16	7° Υ 34'07	0°-58'-7	max. Earth dist.	1658 Apr 30 10:01	10° Υ 45'31	1.73158 AU	
minimum elong	1655 Nov 29 20:29	7° Υ 30'44	0°57'24		1658 May 16 01:04	0° Π		
min. Earth dist.	1655 Nov 29 22:25	7° Υ 27'49	0.26462 AU	asc. node	1658 May 20 07:05	5° Π 13'33		
asc. node	1655 Dec 03 11:45	5° Υ 20'31		evening rise	1658 Jun 04 05:35	23° Π 34'17		
morning rise	1655 Dec 06 00:16	3° Υ 56'27			1658 Jun 09 11:20	0° Ω		
	1655 Dec 18 05:27	30° Π			1658 Jul 03 23:14	0° Ω		
direct	1655 Dec 20 04:02	29° Π 55'20			1658 Jul 28 13:11	0° Υ		
	1655 Dec 22 03:02	0° Υ			1658 Aug 22 06:37	0° Ω		
greatest brilliancy	1656 Jan 01 14:04	2° Υ 48'11	-4.7m	desc. node	1658 Sep 08 20:25	21° Ω 09'45		
	1656 Feb 05 17:20	0° Ω			1658 Sep 16 05:41	0° Π		
morning max el	1656 Feb 08 17:00	2° Ω 58'28	46°51'20		1658 Oct 11 13:46	0° Υ		
	1656 Mar 04 23:55	0° \approx			1658 Nov 06 15:09	0° Ω		
desc. node	1656 Mar 24 01:20	21° \approx 39'28		evening max el	1658 Dec 02 05:46	27° Ω 38'11	47°19'40	
	1656 Mar 31 06:04	0° Υ			1658 Dec 04 13:57	0° \approx		
	1656 Apr 25 18:13	0° Υ		asc. node	1658 Dec 30 23:42	22° \approx 54'07		
	1656 May 20 21:53	0° Υ		greatest brilliancy	1659 Jan 09 07:20	28° \approx 14'10	-4.7m	
	1656 Jun 14 20:15	0° Π			1659 Jan 13 21:49	0° Υ		
	1656 Jul 09 13:41	0° Ω		retrograde	1659 Jan 22 04:13	1° Υ 19'24		
asc. node	1656 Jul 15 04:40	6° Ω 51'39			1659 Jan 30 03:20	30° Π		
	1656 Aug 03 01:44	0° Ω		evening set	1659 Feb 08 05:38	25° \approx 35'37		
morning set	1656 Aug 07 13:25	5° Ω 31'22		min. Earth dist.	1659 Feb 11 02:10	23° \approx 50'12	0.27358 AU	
	1656 Aug 27 08:33	0° Υ		inferior conj	1659 Feb 11 23:04	23° \approx 17'31	8°22'29	
max. Earth dist.	1656 Sep 09 21:40	16° Υ 49'44	1.72375 AU	minimum elong	1659 Feb 11 16:38	23° \approx 27'35	8°21'51	
				morning rise	1659 Feb 15 03:57	21° \approx 19'07		
superior conj	1656 Sep 13 05:51	20° Υ 59'20	1°24'14	direct	1659 Mar 04 14:47	15° \approx 28'10		
minimum elong	1656 Sep 13 08:09	21° Υ 06'28	1°24'13	greatest brilliancy	1659 Mar 15 03:54	17° \approx 32'19	-4.6m	
	1656 Sep 20 11:22	0° Ω			1659 Apr 04 12:04	0° Υ		
	1656 Oct 14 11:55	0° Π		desc. node	1659 Apr 21 13:06	15° Υ 07'27		
evening rise	1656 Oct 21 12:07	8° Π 45'51		morning max el	1659 Apr 23 01:12	16° Υ 34'47	46°09'52	
desc. node	1656 Nov 03 18:12	25° Π 20'17			1659 May 06 08:09	0° Υ		
	1656 Nov 07 11:40	0° Υ			1659 Jun 02 21:51	0° Υ		
	1656 Dec 01 11:35	0° Ω			1659 Jun 29 02:51	0° Π		
	1656 Dec 25 12:51	0° \approx			1659 Jul 24 14:14	0° Ω		
	1657 Jan 18 17:58	0° Υ		asc. node	1659 Aug 12 16:35	22° Ω 55'29		
	1657 Feb 12 07:32	0° Υ			1659 Aug 18 12:39	0° Ω		
asc. node	1657 Feb 24 21:25	15° Υ 05'05			1659 Sep 12 00:31	0° Υ		
	1657 Mar 09 13:28	0° Υ			1659 Oct 06 04:30	0° Ω		
	1657 Apr 05 03:17	0° Π		morning set	1659 Oct 17 13:45	14° Ω 13'56		
evening max el	1657 Apr 26 03:05	21° Π 40'27	45°34'02		1659 Oct 30 03:38	0° Π		
	1657 May 05 01:44	0° Ω			1659 Nov 23 00:31	0° Υ		
greatest brilliancy	1657 May 30 10:31	18° Ω 04'42	-4.5m	max. Earth dist.	1659 Nov 25 09:28	2° Υ 59'04	1.71143 AU	
retrograde	1657 Jun 13 20:42	21° Ω 41'22						
desc. node	1657 Jun 16 10:42	21° Ω 33'31		superior conj	1659 Nov 26 03:47	3° Υ 56'40	0°14'32	
evening set	1657 Jun 29 03:43	17° Ω 10'49		minimum elong	1659 Nov 26 07:31	4° Υ 08'25	0°14'20	
inferior conj	1657 Jul 05 07:47	13° Ω 28'42	-4°-14'-52	behind sun begin	1659 Nov 25 18:58	3° Υ 28'58		
minimum elong	1657 Jul 04 23:26	13° Ω 41'44	4°12'45	behind sun end	1659 Nov 26 20:04	4° Υ 47'52		
min. Earth dist.	1657 Jul 05 05:47	13° Ω 31'49	0.28994 AU	desc. node	1659 Dec 02 05:56	11° Υ 36'17		
morning rise	1657 Jul 10 19:11	10° Ω 09'57			1659 Dec 16 20:52	0° Ω		
direct	1657 Jul 27 00:04	5° Ω 11'13		evening rise	1660 Jan 06 14:32	26° Ω 03'45		
greatest brilliancy	1657 Aug 10 00:06	8° Ω 36'58	-4.5m		1660 Jan 09 17:48	0° \approx		

	1660 Feb 02 16:38	0° Υ			1662 Aug 31 16:30	0° Ω		
	1660 Feb 26 19:29	0° Υ		asc. node	1662 Sep 09 04:30	9° Ω 59'15		
	1660 Mar 22 05:11	0° Υ			1662 Sep 25 22:12	0° Υ		
asc. node	1660 Mar 24 09:27	2° Υ 39'16			1662 Oct 20 11:13	0° Ω		
	1660 Apr 16 01:14	0° Π			1662 Nov 13 14:28	0° Υ		
	1660 May 11 12:42	0° Ω		desc. node	1662 Dec 07 12:55	0° Υ		
evening max el	1660 Jun 07 02:21	0° Ω			1662 Dec 29 17:47	27° Υ 54'30		
	1660 Jul 05 22:42	29° Ω 49'56	45°30'24		1662 Dec 31 09:42	0° Υ		
	1660 Jul 06 02:55	0° Υ		morning set	1662 Dec 31 19:13	0° Υ 29'55		
desc. node	1660 Jul 13 22:37	7° Υ 13'00			1663 Jan 24 06:38	0° \approx		
greatest brilliancy	1660 Aug 12 05:33	27° Υ 12'10	-4.5m					
retrograde	1660 Aug 23 15:15	29° Υ 31'20		superior conj	1663 Feb 11 12:11	22° \approx 51'57	-1°-20'-43	
evening set	1660 Sep 10 17:03	23° Υ 29'49		minimum elong	1663 Feb 11 04:27	22° \approx 27'45	1°20'36	
inferior conj	1660 Sep 13 19:57	21° Υ 35'47	-8°-41'-18	max. Earth dist.	1663 Feb 15 01:56	27° \approx 20'24	1.71595 AU	
minimum elong	1660 Sep 13 22:26	21° Υ 31'58	8°41'15		1663 Feb 17 04:57	0° Υ		
min. Earth dist.	1660 Sep 14 14:09	21° Υ 07'42	0.28175 AU		1663 Mar 13 05:58	0° Υ		
morning rise	1660 Sep 17 03:34	19° Υ 34'01		evening rise	1663 Mar 23 16:07	12° Υ 56'45		
direct	1660 Oct 05 01:54	13° Υ 29'12			1663 Apr 06 10:56	0° Υ		
greatest brilliancy	1660 Oct 19 11:38	17° Υ 12'09	-4.6m	asc. node	1663 Apr 21 21:16	18° Υ 59'45		
asc. node	1660 Nov 04 01:56	27° Υ 28'26			1663 Apr 30 20:50	0° Π		
	1660 Nov 07 03:36	0° Ω			1663 May 25 12:33	0° Ω		
morning max el	1660 Nov 24 14:05	16° Ω 21'35	46°47'17		1663 Jun 19 11:32	0° Ω		
	1660 Dec 07 12:10	0° Υ			1663 Jul 14 21:11	0° Υ		
	1661 Jan 02 21:35	0° Υ			1663 Aug 10 00:45	0° Ω		
	1661 Jan 28 02:14	0° Υ		desc. node	1663 Aug 11 10:29	1° Ω 34'38		
	1661 Feb 21 19:44	0° \approx			1663 Sep 06 16:14	0° Υ		
desc. node	1661 Feb 23 15:30	2° \approx 13'27		evening max el	1663 Sep 17 21:24	11° Υ 17'46	46°31'53	
	1661 Mar 18 08:51	0° Υ			1663 Oct 09 02:03	0° Υ		
	1661 Apr 11 20:37	0° Υ		greatest brilliancy	1663 Oct 26 19:14	10° Υ 32'07	-4.6m	
	1661 May 06 08:23	0° Υ		retrograde	1663 Nov 06 17:52	12° Υ 44'38		
morning set	1661 May 29 15:19	28° Υ 31'31		evening set	1663 Nov 21 06:07	8° Υ 35'25		
	1661 May 30 20:12	0° Π		inferior conj	1663 Nov 27 06:27	5° Υ 05'31	-1°-22'-28	
asc. node	1661 Jun 16 18:53	20° Π 46'29		minimum elong	1663 Nov 27 09:36	5° Υ 00'44	1°21'28	
	1661 Jun 24 07:15	0° Ω		min. Earth dist.	1663 Nov 27 11:47	4° Υ 57'25	0.26482 AU	
max. Earth dist.	1661 Jul 03 07:00	11° Ω 02'54	1.73543 AU	asc. node	1663 Dec 02 13:50	1° Υ 58'33		
				morning rise	1663 Dec 03 12:50	1° Υ 27'34		
superior conj	1661 Jul 05 04:18	13° Ω 22'07	0°41'51		1663 Dec 06 12:46	30° Υ		
minimum elong	1661 Jul 04 20:50	12° Ω 59'10	0°41'31	direct	1663 Dec 17 17:17	27° Υ 26'28		
	1661 Jul 18 16:36	0° Ω			1663 Dec 29 08:38	0° Υ		
evening rise	1661 Aug 09 23:28	27° Ω 29'43		greatest brilliancy	1663 Dec 30 04:05	0° Υ 20'50	-4.7m	
	1661 Aug 12 00:09	0° Υ			1664 Feb 05 17:12	0° Υ		
	1661 Sep 05 06:46	0° Ω		morning max el	1664 Feb 06 07:18	0° Υ 35'27	46°52'14	
	1661 Sep 29 13:46	0° Υ			1664 Mar 04 16:39	0° \approx		
desc. node	1661 Oct 06 08:19	8° Υ 21'17		desc. node	1664 Mar 23 03:25	21° \approx 03'03		
	1661 Oct 23 22:11	0° Υ			1664 Mar 30 20:10	0° Υ		
	1661 Nov 17 09:15	0° Υ			1664 Apr 25 06:59	0° Υ		
	1661 Dec 12 02:06	0° \approx			1664 May 20 09:52	0° Υ		
	1662 Jan 06 08:57	0° Υ			1664 Jun 14 07:44	0° Π		
asc. node	1662 Jan 27 11:35	23° Υ 53'56			1664 Jul 09 00:51	0° Ω		
	1662 Feb 02 03:04	0° Υ		asc. node	1664 Jul 14 06:51	6° Ω 24'20		
evening max el	1662 Feb 11 19:02	10° Υ 01'53	46°39'08		1664 Aug 02 12:44	0° Ω		
	1662 Mar 05 21:36	0° Υ		morning set	1664 Aug 05 06:56	3° Ω 23'41		
greatest brilliancy	1662 Mar 19 14:43	8° Υ 45'17	-4.6m		1664 Aug 26 19:30	0° Υ		
retrograde	1662 Apr 03 00:06	12° Υ 29'57		max. Earth dist.	1664 Sep 07 12:17	14° Υ 31'51	1.72425 AU	
evening set	1662 Apr 19 09:05	7° Υ 16'45						
inferior conj	1662 Apr 24 07:41	4° Υ 14'33	5°26'49	superior conj	1664 Sep 10 22:16	18° Υ 46'49	1°24'33	
minimum elong	1662 Apr 24 17:11	3° Υ 59'34	5°24'37	minimum elong	1664 Sep 10 23:48	18° Υ 51'37	1°24'34	
min. Earth dist.	1662 Apr 24 08:32	4° Υ 13'13	0.28622 AU		1664 Sep 19 22:23	0° Ω		
morning rise	1662 Apr 30 01:31	0° Υ 44'53			1664 Oct 13 23:04	0° Υ		
	1662 May 01 10:16	30° Υ		evening rise	1664 Oct 19 01:12	6° Υ 21'40		
direct	1662 May 15 14:57	26° Υ 02'15		desc. node	1664 Nov 02 20:09	24° Υ 51'05		
desc. node	1662 May 19 00:44	26° Υ 15'33			1664 Nov 06 23:00	0° Υ		
greatest brilliancy	1662 May 28 02:20	28° Υ 47'17	-4.5m		1664 Nov 30 23:07	0° Υ		
	1662 May 30 18:47	0° Υ			1664 Dec 25 00:39	0° \approx		
morning max el	1662 Jul 03 09:39	25° Υ 48'10	45°43'49		1665 Jan 18 06:07	0° Υ		
	1662 Jul 07 17:47	0° Π			1665 Feb 11 20:17	0° Υ		
	1662 Aug 05 07:34	0° Ω		asc. node	1665 Feb 23 23:32	14° Υ 32'04		

	1665 Mar 09 03:26	0°♄			1667 Oct 29 14:46	0°♍	
	1665 Apr 04 20:11	0°♂			1667 Nov 22 11:41	0°♁	
evening max el	1665 Apr 23 19:28	19°♂30'12	45°35'16	max. Earth dist.	1667 Nov 22 15:22	0°♁11'36	1.71165 AU
	1665 May 05 05:15	0°♄					
greatest brilliancy	1665 May 28 02:53	15°♄55'39	-4.5m	superior conj	1667 Nov 23 14:37	1°♁24'42	0°18'21
retrograde	1665 Jun 11 12:44	19°♄32'02		minimum elong	1667 Nov 23 19:17	1°♁39'22	0°18'08
desc. node	1665 Jun 15 12:49	19°♄13'09		desc. node	1667 Dec 01 08:03	11°♁07'46	
evening set	1665 Jun 26 18:42	15°♄03'40			1667 Dec 16 08:05	0°♄	
inferior conj	1665 Jul 03 00:08	11°♄19'19	-3°-57'-29	evening rise	1668 Jan 04 00:25	23°♄28'45	
minimum elong	1665 Jul 02 16:13	11°♄31'42	3°55'26		1668 Jan 09 05:04	0°♄	
min. Earth dist.	1665 Jul 02 22:07	11°♄22'29	0.28993 AU		1668 Feb 02 03:59	0°♁	
morning rise	1665 Jul 08 13:46	7°♄57'04			1668 Feb 26 06:59	0°♄	
direct	1665 Jul 24 16:38	3°♄01'59			1668 Mar 21 17:00	0°♄	
greatest brilliancy	1665 Aug 07 14:06	6°♄24'32	-4.5m	asc. node	1668 Mar 23 11:24	2°♄09'09	
	1665 Sep 08 06:27	0°♄			1668 Apr 15 13:37	0°♂	
morning max el	1665 Sep 11 21:14	3°♄27'58	46°03'19		1668 May 11 02:13	0°♄	
asc. node	1665 Oct 06 16:19	29°♄26'24			1668 Jun 06 18:24	0°♄	
	1665 Oct 07 04:26	0°♄		evening max el	1668 Jul 03 12:28	27°♄33'23	45°29'16
	1665 Nov 02 06:05	0°♄			1668 Jul 06 02:30	0°♄	
	1665 Nov 27 03:31	0°♍		desc. node	1668 Jul 13 00:43	6°♄16'32	
	1665 Dec 21 11:56	0°♁		greatest brilliancy	1668 Aug 09 16:08	24°♄52'44	-4.5m
	1666 Jan 14 14:56	0°♄		retrograde	1668 Aug 21 05:32	27°♄15'40	
desc. node	1666 Jan 26 05:40	14°♄28'36		evening set	1668 Sep 08 07:27	21°♄13'11	
	1666 Feb 07 16:24	0°♄		inferior conj	1668 Sep 11 10:34	19°♄18'57	-8°-42'-53
	1666 Mar 03 18:18	0°♁		minimum elong	1668 Sep 11 12:11	19°♄16'27	8°42'52
morning set	1666 Mar 18 05:38	17°♁59'40		min. Earth dist.	1668 Sep 12 04:02	18°♄52'01	0.28239 AU
	1666 Mar 27 21:50	0°♄		morning rise	1668 Sep 14 16:41	17°♄19'33	
	1666 Apr 21 03:41	0°♄		direct	1668 Oct 02 16:59	11°♄11'16	
				greatest brilliancy	1668 Oct 17 04:58	14°♄56'49	-4.6m
superior conj	1666 Apr 25 16:31	5°♄35'46	0°-52'-27	asc. node	1668 Nov 03 04:02	26°♄20'07	
minimum elong	1666 Apr 26 01:57	6°♄04'51	0°52'06		1668 Nov 07 11:30	0°♄	
max. Earth dist.	1666 Apr 28 07:11	8°♄49'00	1.73115 AU	morning max el	1668 Nov 22 05:02	14°♄00'55	46°46'14
	1666 May 15 11:59	0°♂			1668 Dec 07 06:39	0°♍	
asc. node	1666 May 19 09:09	4°♂46'20			1669 Jan 02 12:35	0°♁	
evening rise	1666 Jun 01 23:52	21°♂29'25			1669 Jan 27 15:38	0°♄	
	1666 Jun 08 22:20	0°♄			1669 Feb 21 08:12	0°♄	
	1666 Jul 03 10:26	0°♄		desc. node	1669 Feb 22 17:32	1°♄41'45	
	1666 Jul 28 00:46	0°♄			1669 Mar 17 20:42	0°♁	
	1666 Aug 21 18:45	0°♄			1669 Apr 11 08:03	0°♄	
desc. node	1666 Sep 07 22:23	20°♄37'36			1669 May 05 19:31	0°♄	
	1666 Sep 15 18:40	0°♍		morning set	1669 May 27 09:07	26°♄25'24	
	1666 Oct 11 04:11	0°♁			1669 May 30 07:08	0°♂	
	1666 Nov 06 08:17	0°♄		asc. node	1669 Jun 15 21:04	20°♂19'58	
evening max el	1666 Nov 29 19:33	25°♄12'42	47°19'24		1669 Jun 23 18:04	0°♄	
	1666 Dec 04 14:22	0°♄		max. Earth dist.	1669 Jul 01 05:38	9°♄11'42	1.73558 AU
asc. node	1666 Dec 30 01:51	21°♄28'22					
greatest brilliancy	1667 Jan 07 00:00	25°♄51'49	-4.7m	superior conj	1669 Jul 02 22:51	11°♄18'23	0°39'06
retrograde	1667 Jan 19 17:41	28°♄53'52		minimum elong	1669 Jul 02 15:43	10°♄56'29	0°38'47
evening set	1667 Feb 05 15:51	23°♄16'22			1669 Jul 18 03:24	0°♄	
min. Earth dist.	1667 Feb 08 15:50	21°♄25'55	0.27297 AU	evening rise	1669 Aug 07 17:58	25°♄25'03	
inferior conj	1667 Feb 09 12:44	20°♄53'15	8°15'06		1669 Aug 11 11:03	0°♄	
minimum elong	1667 Feb 09 05:36	21°♄04'24	8°14'17		1669 Sep 04 17:55	0°♄	
morning rise	1667 Feb 12 19:38	18°♄51'43			1669 Sep 29 01:16	0°♍	
direct	1667 Mar 02 03:25	13°♄04'50		desc. node	1669 Oct 05 10:18	7°♍51'37	
greatest brilliancy	1667 Mar 12 17:22	15°♄09'20	-4.6m		1669 Oct 23 10:09	0°♁	
	1667 Apr 04 23:06	0°♁			1669 Nov 16 21:49	0°♄	
morning max el	1667 Apr 20 13:58	14°♁12'23	46°11'28		1669 Dec 11 15:34	0°♄	
desc. node	1667 Apr 20 15:01	14°♁14'57			1670 Jan 06 00:05	0°♁	
	1667 May 06 02:56	0°♄		asc. node	1670 Jan 26 13:39	23°♁10'37	
	1667 Jun 02 12:34	0°♄			1670 Feb 01 22:17	0°♄	
	1667 Jun 28 15:48	0°♂		evening max el	1670 Feb 09 10:18	7°♄44'42	46°41'40
	1667 Jul 24 02:16	0°♄			1670 Mar 06 13:36	0°♄	
asc. node	1667 Aug 11 18:39	22°♄26'34		greatest brilliancy	1670 Mar 17 06:41	6°♄31'52	-4.6m
	1667 Aug 18 00:11	0°♄		retrograde	1670 Mar 31 16:48	10°♄17'20	
	1667 Sep 11 11:48	0°♄		evening set	1670 Apr 17 03:46	4°♄59'49	
	1667 Oct 05 15:40	0°♄		inferior conj	1670 Apr 21 23:35	2°♄01'45	5°42'42
morning set	1667 Oct 15 03:54	11°♄53'03		minimum elong	1670 Apr 22 09:15	1°♄46'31	5°40'32

min. Earth dist.	1670 Apr 21 23:52	2°♄01'18	0.28599 AU		1672 Sep 19 09:07	0°♎	
	1670 Apr 25 05:48	30°♌♎			1672 Oct 13 09:55	0°♌	
morning rise	1670 Apr 27 15:00	28°♎♎35'51		evening rise	1672 Oct 16 14:45	4°♌00'00	
direct	1670 May 13 06:39	23°♎♎49'49		desc. node	1672 Nov 01 22:18	24°♌23'32	
desc. node	1670 May 18 02:56	24°♎♎16'34			1672 Nov 06 10:00	0°♎	
greatest brilliancy	1670 May 25 16:28	26°♎♎33'59	-4.5m		1672 Nov 30 10:21	0°♎	
	1670 Jun 01 12:57	0°♎			1672 Dec 24 12:11	0°♎	
morning max el	1670 Jul 01 02:29	23°♄40'10	45°44'02		1673 Jan 17 18:03	0°♎	
	1670 Jul 07 14:25	0°♌			1673 Feb 11 08:53	0°♎	
	1670 Aug 04 22:41	0°♎		asc. node	1673 Feb 23 01:28	13°♎58'53	
	1670 Aug 31 05:31	0°♎			1673 Mar 08 17:20	0°♎	
asc. node	1670 Sep 08 06:30	9°♎27'44			1673 Apr 04 13:11	0°♌	
	1670 Sep 25 10:14	0°♎		evening max el	1673 Apr 21 10:55	17°♌18'19	45°36'47
	1670 Oct 19 22:47	0°♎			1673 May 05 10:12	0°♎	
	1670 Nov 13 01:50	0°♌		greatest brilliancy	1673 May 25 19:06	13°♎47'18	-4.5m
	1670 Dec 07 00:10	0°♎		retrograde	1673 Jun 09 04:33	17°♎23'58	
desc. node	1670 Dec 28 19:53	27°♎26'02		desc. node	1673 Jun 14 14:52	16°♎49'12	
morning set	1670 Dec 29 04:55	27°♎54'25		evening set	1673 Jun 24 09:56	12°♎57'21	
	1670 Dec 30 20:52	0°♎		inferior conj	1673 Jun 30 16:35	9°♎11'13	-3°-39'-49
	1671 Jan 23 17:42	0°♎		minimum elong	1673 Jun 30 09:08	9°♎22'53	3°37'51
				min. Earth dist.	1673 Jun 30 14:47	9°♎14'02	0.28990 AU
superior conj	1671 Feb 08 22:45	20°♎20'09	-1°-19'-16	morning rise	1673 Jul 06 08:20	5°♎45'35	
minimum elong	1671 Feb 08 14:12	19°♎53'20	1°19'07	direct	1673 Jul 22 08:51	0°♎53'56	
max. Earth dist.	1671 Feb 12 11:51	24°♎46'41	1.71548 AU	greatest brilliancy	1673 Aug 05 04:57	4°♎14'16	-4.5m
	1671 Feb 16 15:57	0°♎			1673 Sep 08 05:20	0°♎	
	1671 Mar 12 16:55	0°♎		morning max el	1673 Sep 09 11:29	1°♎12'51	46°02'00
evening rise	1671 Mar 21 05:02	10°♎34'03		asc. node	1673 Oct 05 18:20	28°♎48'01	
	1671 Apr 05 21:54	0°♎			1673 Oct 06 20:11	0°♎	
asc. node	1671 Apr 20 23:22	18°♄32'21			1673 Nov 01 19:29	0°♎	
	1671 Apr 30 07:57	0°♌			1673 Nov 26 15:50	0°♌	
	1671 May 24 23:58	0°♎			1673 Dec 20 23:39	0°♎	
	1671 Jun 18 23:33	0°♎			1674 Jan 14 02:18	0°♎	
	1671 Jul 14 10:17	0°♎		desc. node	1674 Jan 25 07:39	13°♎59'42	
	1671 Aug 09 15:55	0°♎			1674 Feb 07 03:32	0°♎	
desc. node	1671 Aug 10 12:29	0°♎57'30			1674 Mar 03 05:15	0°♎	
	1671 Sep 06 12:19	0°♌		morning set	1674 Mar 15 18:52	15°♎37'58	
evening max el	1671 Sep 15 11:46	8°♌58'40	46°29'21		1674 Mar 27 08:37	0°♎	
	1671 Oct 09 21:37	0°♎			1674 Apr 20 14:21	0°♎	
greatest brilliancy	1671 Oct 24 08:02	8°♎05'32	-4.6m				
retrograde	1671 Nov 04 06:02	10°♎16'41		superior conj	1674 Apr 23 08:19	3°♎23'34	0°-55'-7
evening set	1671 Nov 18 20:02	6°♎05'39		minimum elong	1674 Apr 23 17:58	3°♎53'20	0°54'45
inferior conj	1671 Nov 24 18:38	2°♎37'41	-1°-46'-37	max. Earth dist.	1674 Apr 26 01:51	6°♎45'42	1.73068 AU
minimum elong	1671 Nov 24 22:41	2°♎31'33	1°45'21		1674 May 14 22:36	0°♌	
min. Earth dist.	1671 Nov 25 01:14	2°♎27'40	0.26510 AU	asc. node	1674 May 18 11:17	4°♌20'17	
	1671 Nov 29 04:55	30°♌♌		evening rise	1674 May 30 17:44	19°♌24'20	
morning rise	1671 Dec 01 01:06	28°♌59'29			1674 Jun 08 09:00	0°♎	
asc. node	1671 Dec 01 15:59	28°♌40'10			1674 Jul 02 21:18	0°♎	
direct	1671 Dec 15 06:30	24°♌58'20			1674 Jul 27 11:59	0°♎	
greatest brilliancy	1671 Dec 27 18:07	27°♌53'46	-4.7m		1674 Aug 21 06:33	0°♎	
	1671 Dec 31 23:10	0°♎		desc. node	1674 Sep 07 00:24	20°♎06'34	
morning max el	1672 Feb 03 20:40	28°♎10'07	46°52'55		1674 Sep 15 07:23	0°♌	
	1672 Feb 05 15:59	0°♎			1674 Oct 10 18:23	0°♎	
	1672 Mar 04 09:02	0°♎			1674 Nov 06 01:18	0°♎	
desc. node	1672 Mar 22 05:22	20°♎26'46		evening max el	1674 Nov 27 08:40	22°♎46'59	47°19'09
	1672 Mar 30 10:02	0°♎			1674 Dec 04 15:25	0°♎	
	1672 Apr 24 19:31	0°♎		asc. node	1674 Dec 29 03:49	20°♎00'56	
	1672 May 19 21:35	0°♎		greatest brilliancy	1675 Jan 04 15:58	23°♎29'59	-4.7m
	1672 Jun 13 18:55	0°♌		retrograde	1675 Jan 17 07:13	26°♎30'06	
	1672 Jul 08 11:43	0°♎		evening set	1675 Feb 03 01:56	20°♎58'41	
asc. node	1672 Jul 13 08:49	5°♎57'19		min. Earth dist.	1675 Feb 06 05:37	19°♎03'04	0.27241 AU
	1672 Aug 01 23:27	0°♎		inferior conj	1675 Feb 07 02:27	18°♎30'32	8°06'40
morning set	1672 Aug 03 00:33	1°♎17'16		minimum elong	1675 Feb 06 18:41	18°♎42'40	8°05'41
	1672 Aug 26 06:11	0°♎		morning rise	1675 Feb 10 11:41	16°♎25'38	
max. Earth dist.	1672 Sep 05 02:14	12°♎12'47	1.72475 AU	direct	1675 Feb 27 15:59	10°♎42'48	
				greatest brilliancy	1675 Mar 10 07:39	12°♎48'41	-4.6m
superior conj	1672 Sep 08 15:04	16°♎36'30	1°24'45		1675 Apr 05 06:40	0°♎	
minimum elong	1672 Sep 08 15:52	16°♎39'00	1°24'45	morning max el	1675 Apr 18 03:13	11°♎52'10	46°12'59

desc. node	1675 Apr 19 17:13	13° ✕ 25'13			1678 Jan 05 15:14	0° ✕	
	1675 May 05 20:52	0° Υ		asc. node	1678 Jan 25 15:40	22° ✕ 27'07	
	1675 Jun 02 02:48	0° ♄			1678 Feb 01 17:52	0° Υ	
	1675 Jun 28 04:20	0° ♁		evening max el	1678 Feb 07 02:18	5° Υ 29'46	46°44'08
	1675 Jul 23 13:54	0° ♄			1678 Mar 07 10:54	0° ♄	
asc. node	1675 Aug 10 20:39	21° ♄ 58'37		greatest brilliancy	1678 Mar 14 23:53	4° ♄ 20'36	-4.6m
	1675 Aug 17 11:19	0° ♁		retrograde	1678 Mar 29 09:36	8° ♄ 05'04	
	1675 Sep 10 22:40	0° ♅		evening set	1678 Apr 14 22:33	2° ♄ 43'30	
	1675 Oct 05 02:26	0° ♁			1678 Apr 19 08:47	30° ♅ Υ	
morning set	1675 Oct 12 18:13	9° ♁ 34'00		inferior conj	1678 Apr 19 15:28	29° Υ 49'28	5°58'01
	1675 Oct 29 01:32	0° ♁		minimum elong	1678 Apr 20 01:15	29° Υ 34'03	5°55'54
max. Earth dist.	1675 Nov 19 23:52	27° ♁ 33'21	1.71190 AU	min. Earth dist.	1678 Apr 19 14:57	29° Υ 50'17	0.28570 AU
				morning rise	1678 Apr 25 04:18	26° Υ 27'29	
superior conj	1675 Nov 21 01:42	28° ♁ 54'34	0°22'08	direct	1678 May 10 22:37	21° Υ 38'12	
minimum elong	1675 Nov 21 07:15	29° ♁ 12'00	0°21'52	desc. node	1678 May 17 04:56	22° Υ 22'36	
	1675 Nov 21 22:31	0° ♄		greatest brilliancy	1678 May 23 05:23	24° Υ 19'58	-4.5m
desc. node	1675 Nov 30 10:09	10° ♄ 40'17			1678 Jun 02 17:31	0° ♄	
	1675 Dec 15 18:58	0° ♄		morning max el	1678 Jun 28 18:58	21° ♄ 31'59	45°44'09
evening rise	1676 Jan 01 10:37	20° ♄ 55'52			1678 Jul 07 10:08	0° ♁	
	1676 Jan 08 16:00	0° ♄			1678 Aug 04 13:25	0° ♄	
	1676 Feb 01 14:58	0° ✕			1678 Aug 30 18:20	0° ♁	
	1676 Feb 25 18:07	0° Υ		asc. node	1678 Sep 07 08:36	8° ♁ 56'58	
	1676 Mar 21 04:27	0° ♄			1678 Sep 24 22:09	0° ♅	
asc. node	1676 Mar 22 13:31	1° ♄ 40'42			1678 Oct 19 10:15	0° ♁	
	1676 Apr 15 01:41	0° ♁			1678 Nov 12 13:03	0° ♁	
	1676 May 10 15:30	0° ♄			1678 Dec 06 11:16	0° ♄	
	1676 Jun 06 10:22	0° ♁		morning set	1678 Dec 26 14:44	25° ♄ 19'41	
evening max el	1676 Jul 01 03:12	25° ♁ 20'16	45°28'20	desc. node	1678 Dec 27 21:49	26° ♄ 57'24	
	1676 Jul 06 02:49	0° ♅			1678 Dec 30 07:54	0° ♄	
desc. node	1676 Jul 12 02:43	5° ♅ 19'34			1679 Jan 23 04:41	0° ♄	
greatest brilliancy	1676 Aug 07 02:37	22° ♅ 34'36	-4.5m				
retrograde	1676 Aug 18 20:26	25° ♅ 01'29		superior conj	1679 Feb 06 09:14	17° ♄ 48'11	-1°-17'-39
evening set	1676 Sep 05 21:39	18° ♅ 58'43		minimum elong	1679 Feb 05 23:57	17° ♄ 19'03	1°17'29
inferior conj	1676 Sep 09 01:19	17° ♅ 03'39	-8°-43'-36	max. Earth dist.	1679 Feb 09 23:02	22° ♄ 17'02	1.71505 AU
minimum elong	1676 Sep 09 02:07	17° ♅ 02'26	8°43'36		1679 Feb 16 02:55	0° ✕	
min. Earth dist.	1676 Sep 09 17:40	16° ♅ 38'28	0.28298 AU		1679 Mar 12 03:52	0° Υ	
morning rise	1676 Sep 12 06:23	15° ♅ 05'59		evening rise	1679 Mar 18 17:48	8° Υ 10'49	
direct	1676 Sep 30 08:40	8° ♅ 55'08			1679 Apr 05 08:51	0° ♄	
greatest brilliancy	1676 Oct 14 21:40	12° ♅ 42'18	-4.6m	asc. node	1679 Apr 20 01:29	18° ♄ 05'06	
asc. node	1676 Nov 02 06:12	25° ♅ 14'58			1679 Apr 29 19:01	0° ♁	
	1676 Nov 07 16:36	0° ♁			1679 May 24 11:21	0° ♄	
morning max el	1676 Nov 19 20:39	11° ♁ 43'18	46°45'00		1679 Jun 18 11:34	0° ♁	
	1676 Dec 07 00:20	0° ♁			1679 Jul 13 23:27	0° ♅	
	1677 Jan 02 03:04	0° ♄			1679 Aug 09 07:20	0° ♁	
	1677 Jan 27 04:38	0° ♄		desc. node	1679 Aug 09 14:29	0° ♁ 19'54	
	1677 Feb 20 20:19	0° ♄			1679 Sep 06 09:09	0° ♁	
desc. node	1677 Feb 21 19:32	1° ♄ 10'56		evening max el	1679 Sep 13 01:29	6° ♁ 37'47	46°26'42
	1677 Mar 17 08:13	0° ✕			1679 Oct 11 00:24	0° ♄	
	1677 Apr 10 19:09	0° Υ		greatest brilliancy	1679 Oct 21 21:52	5° ♄ 39'55	-4.6m
	1677 May 05 06:20	0° ♄		retrograde	1679 Nov 01 17:41	7° ♄ 48'36	
morning set	1677 May 25 02:58	24° ♄ 20'20		evening set	1679 Nov 16 10:08	3° ♄ 35'33	
	1677 May 29 17:47	0° ♁		inferior conj	1679 Nov 22 06:52	0° ♄ 09'53	-2°-10'-30
asc. node	1677 Jun 14 23:03	19° ♁ 53'38		minimum elong	1679 Nov 22 11:46	0° ♄ 02'26	2°08'57
	1677 Jun 23 04:37	0° ♄		min. Earth dist.	1679 Nov 22 15:00	29° ♁ 57'31	0.26540 AU
max. Earth dist.	1677 Jun 29 04:41	7° ♄ 22'33	1.73573 AU		1679 Nov 22 13:22	30° ♅ ♁	
				morning rise	1679 Nov 28 13:07	26° ♁ 31'33	
superior conj	1677 Jun 30 17:17	9° ♄ 15'04	0°36'17	asc. node	1679 Nov 30 17:55	25° ♁ 25'41	
minimum elong	1677 Jun 30 10:33	8° ♄ 54'21	0°35'59	direct	1679 Dec 12 19:11	22° ♁ 30'07	
	1677 Jul 17 13:58	0° ♁		greatest brilliancy	1679 Dec 25 08:31	25° ♁ 26'58	-4.7m
evening rise	1677 Aug 05 12:22	23° ♁ 20'47			1680 Jan 02 14:35	0° ♄	
	1677 Aug 10 21:45	0° ♅		morning max el	1680 Feb 01 08:59	25° ♄ 41'50	46°53'33
	1677 Sep 04 04:51	0° ♁			1680 Feb 05 13:57	0° ♄	
	1677 Sep 28 12:34	0° ♁			1680 Mar 04 01:12	0° ♄	
desc. node	1677 Oct 04 12:27	7° ♁ 23'08		desc. node	1680 Mar 21 07:32	19° ♄ 51'05	
	1677 Oct 22 21:55	0° ♄			1680 Mar 29 23:53	0° ✕	
	1677 Nov 16 10:13	0° ♄			1680 Apr 24 08:06	0° Υ	
	1677 Dec 11 04:56	0° ♄			1680 May 19 09:23	0° ♄	

	1680 Jun 13 06:12	0°♊		asc. node	1682 Dec 28 05:53	18°♊28'25	
	1680 Jul 07 22:41	0°♋		greatest brilliancy	1683 Jan 02 06:49	21°♊04'25	-4.7m
asc. node	1680 Jul 12 10:52	5°♋30'11		retrograde	1683 Jan 14 20:48	24°♊03'43	
morning set	1680 Jul 31 18:18	29°♋10'54		evening set	1683 Jan 31 11:28	18°♊38'18	
	1680 Aug 01 10:16	0°♌		min. Earth dist.	1683 Feb 03 18:48	16°♊37'39	0.27185 AU
	1680 Aug 25 17:00	0°♍		inferior conj	1683 Feb 04 15:47	16°♊05'00	7°57'07
max. Earth dist.	1680 Sep 02 17:29	9°♍57'25	1.72531 AU	minimum elong	1683 Feb 04 07:25	16°♊18'02	7°55'57
				morning rise	1683 Feb 08 03:38	13°♊56'31	
superior conj	1680 Sep 06 07:59	14°♍26'10	1°24'49	direct	1683 Feb 25 04:22	8°♊17'54	
minimum elong	1680 Sep 06 08:02	14°♍26'20	1°24'49	greatest brilliancy	1683 Mar 07 21:25	10°♊25'17	-4.6m
	1680 Sep 18 20:01	0°♎			1683 Apr 05 12:43	0°♋	
	1680 Oct 12 20:59	0°♏		morning max el	1683 Apr 15 16:56	9°♋31'31	46°14'36
evening rise	1680 Oct 14 04:19	1°♏37'51		desc. node	1683 Apr 18 19:16	12°♋34'35	
desc. node	1680 Nov 01 00:22	23°♏54'56			1683 May 05 14:52	0°♌	
	1680 Nov 05 21:15	0°♐			1683 Jun 01 17:17	0°♍	
	1680 Nov 29 21:50	0°♑			1683 Jun 27 17:13	0°♎	
	1680 Dec 23 23:56	0°♒			1683 Jul 23 01:55	0°♏	
	1681 Jan 17 06:13	0°♓		asc. node	1683 Aug 09 22:45	21°♏29'54	
	1681 Feb 10 21:45	0°♑			1683 Aug 16 22:49	0°♌	
asc. node	1681 Feb 22 03:36	13°♑25'28			1683 Sep 10 09:54	0°♍	
	1681 Mar 08 07:36	0°♒			1683 Oct 04 13:32	0°♎	
	1681 Apr 04 06:51	0°♓		morning set	1683 Oct 10 08:59	7°♎15'23	
evening max el	1681 Apr 19 01:39	15°♓03'45	45°38'22		1683 Oct 28 12:39	0°♏	
	1681 May 05 17:47	0°♋		max. Earth dist.	1683 Nov 17 11:25	25°♏03'37	1.71218 AU
greatest brilliancy	1681 May 23 10:38	11°♋37'10	-4.5m				
retrograde	1681 Jun 06 20:34	15°♋15'19		superior conj	1683 Nov 18 13:05	26°♏24'16	0°25'50
desc. node	1681 Jun 13 16:52	14°♋19'50		minimum elong	1683 Nov 18 19:26	26°♏44'15	0°25'31
evening set	1681 Jun 22 01:16	10°♋49'55			1683 Nov 21 09:41	0°♐	
inferior conj	1681 Jun 28 09:01	7°♋02'27	-3°-21'-45	desc. node	1683 Nov 29 12:06	10°♐11'15	
minimum elong	1681 Jun 28 02:05	7°♋13'19	3°19'53		1683 Dec 15 06:14	0°♑	
min. Earth dist.	1681 Jun 28 07:34	7°♋04'44	0.28985 AU	evening rise	1683 Dec 29 20:45	18°♑21'29	
morning rise	1681 Jul 04 02:49	3°♋33'43			1684 Jan 08 03:20	0°♒	
	1681 Jul 12 01:06	30°♒♊			1684 Feb 01 02:24	0°♓	
direct	1681 Jul 20 00:39	28°♒45'07			1684 Feb 25 05:44	0°♑	
	1681 Jul 28 07:32	0°♋			1684 Mar 20 16:23	0°♐	
greatest brilliancy	1681 Aug 02 20:40	2°♋04'33	-4.5m	asc. node	1684 Mar 21 15:36	1°♐10'37	
morning max el	1681 Sep 07 01:55	28°♋57'39	46°00'45		1684 Apr 14 14:16	0°♓	
	1681 Sep 08 03:32	0°♌			1684 May 10 05:23	0°♋	
asc. node	1681 Oct 04 20:31	28°♌09'43			1684 Jun 06 03:09	0°♌	
	1681 Oct 06 11:56	0°♍		evening max el	1684 Jun 28 18:42	23°♌07'39	45°27'26
	1681 Nov 01 09:04	0°♎			1684 Jul 06 05:02	0°♍	
	1681 Nov 26 04:26	0°♏		desc. node	1684 Jul 11 04:48	4°♍20'05	
	1681 Dec 20 11:43	0°♐		greatest brilliancy	1684 Aug 04 13:43	20°♍15'56	-4.5m
	1682 Jan 13 14:02	0°♑		retrograde	1684 Aug 16 11:16	22°♍45'53	
desc. node	1682 Jan 24 09:46	13°♑30'09		evening set	1684 Sep 03 11:28	16°♍43'44	
	1682 Feb 06 15:00	0°♒		inferior conj	1684 Sep 06 16:02	14°♍47'09	-8°-43'-29
	1682 Mar 02 16:31	0°♓		minimum elong	1684 Sep 06 16:00	14°♍47'13	8°43'31
morning set	1682 Mar 13 07:38	13°♓13'45		min. Earth dist.	1684 Sep 07 07:05	14°♍23'57	0.28350 AU
	1682 Mar 26 19:43	0°♑		morning rise	1684 Sep 09 20:21	12°♍50'34	
	1682 Apr 20 01:20	0°♒		direct	1684 Sep 28 00:33	6°♍38'05	
superior conj	1682 Apr 20 23:53	1°♒09'35	0°-57'-42	greatest brilliancy	1684 Oct 12 13:00	10°♍25'05	-4.6m
minimum elong	1682 Apr 21 09:42	1°♒39'54	0°57'22	asc. node	1684 Nov 01 08:06	24°♍09'56	
max. Earth dist.	1682 Apr 23 18:45	4°♒35'56	1.73023 AU		1684 Nov 07 20:19	0°♎	
	1682 May 14 09:34	0°♓		morning max el	1684 Nov 17 12:05	9°♎24'33	46°43'48
asc. node	1682 May 17 13:14	3°♓52'36			1684 Dec 06 17:57	0°♏	
evening rise	1682 May 28 11:29	17°♓17'47			1685 Jan 01 17:42	0°♐	
	1682 Jun 07 20:03	0°♋			1685 Jan 26 17:53	0°♑	
	1682 Jul 02 08:32	0°♌		desc. node	1685 Feb 20 08:45	0°♒	
	1682 Jul 26 23:33	0°♍			1685 Feb 20 21:40	0°♓39'29	
	1682 Aug 20 18:42	0°♎			1685 Mar 16 20:07	0°♓	
desc. node	1682 Sep 06 02:34	19°♎34'57			1685 Apr 10 06:40	0°♑	
	1682 Sep 14 20:29	0°♏		morning set	1685 May 04 17:34	0°♒	
	1682 Oct 10 09:05	0°♐			1685 May 22 20:26	22°♒12'52	
	1682 Nov 05 19:10	0°♑		asc. node	1685 May 29 04:49	0°♓	
	1682 Nov 24 21:47	20°♑19'53	47°18'39		1685 Jun 14 01:03	19°♓26'13	
evening max el	1682 Dec 04 18:33	0°♒		max. Earth dist.	1685 Jun 22 15:33	0°♋	
					1685 Jun 27 03:41	5°♋32'07	1.73584 AU

superior conj	1685 Jun 28 11:26	7°50'42	0°33'24	asc. node	1687 Nov 29 20:00	22°15'05	
minimum elong	1685 Jun 28 05:07	6°50'19	0°33'07	direct	1687 Dec 10 07:20	20°11'20	
	1685 Jul 17 00:55	0°0		greatest brilliancy	1687 Dec 22 23:51	23°00'57	-4.7m
evening rise	1685 Aug 03 06:40	21°15'04			1688 Jan 03 18:21	0°0	
	1685 Aug 10 08:50	0°0		morning max el	1688 Jan 29 21:05	23°12'38	46°54'28
	1685 Sep 03 16:12	0°0			1688 Feb 05 11:08	0°0	
	1685 Sep 28 00:14	0°0			1688 Mar 03 17:04	0°0	
desc. node	1685 Oct 03 14:28	6°15'08		desc. node	1688 Mar 20 09:34	19°15'30	
	1685 Oct 22 10:01	0°0			1688 Mar 29 13:32	0°0	
	1685 Nov 15 22:56	0°0			1688 Apr 23 20:33	0°0	
	1685 Dec 10 18:37	0°0			1688 May 18 21:06	0°0	
	1686 Jan 05 06:49	0°0			1688 Jun 12 17:28	0°0	
asc. node	1686 Jan 24 17:45	21°42'32			1688 Jul 07 09:40	0°0	
	1686 Feb 01 14:22	0°0		asc. node	1688 Jul 11 13:01	5°03'19	
evening max el	1686 Feb 04 18:14	3°13'40	46°46'19	morning set	1688 Jul 29 11:55	27°04'06	
	1686 Mar 08 17:16	0°0			1688 Jul 31 21:06	0°0	
greatest brilliancy	1686 Mar 12 17:57	2°09'07	-4.6m		1688 Aug 25 03:49	0°0	
retrograde	1686 Mar 27 01:57	5°51'07		max. Earth dist.	1688 Aug 31 10:38	7°47'58	1.72585 AU
evening set	1686 Apr 12 17:18	0°0					
	1686 Apr 13 10:32	30°0		superior conj	1688 Sep 04 00:49	12°15'42	1°24'45
inferior conj	1686 Apr 17 07:16	27°35'43	6°12'50	minimum elong	1688 Sep 04 00:08	12°13'35	1°24'45
minimum elong	1686 Apr 17 17:06	27°20'13	6°10'48		1688 Sep 18 06:54	0°0	
min. Earth dist.	1686 Apr 17 06:04	27°37'37	0.28543 AU	evening rise	1688 Oct 11 18:00	29°16'17	
morning rise	1686 Apr 22 17:17	24°17'40			1688 Oct 12 08:00	0°0	
direct	1686 May 08 14:31	19°25'12		desc. node	1688 Oct 31 02:19	23°26'03	
desc. node	1686 May 16 06:55	20°31'20			1688 Nov 05 08:29	0°0	
greatest brilliancy	1686 May 20 17:50	22°03'51	-4.5m		1688 Nov 29 09:18	0°0	
	1686 Jun 03 14:57	0°0			1688 Dec 23 11:42	0°0	
morning max el	1686 Jun 26 10:32	19°20'25	45°44'17		1689 Jan 16 18:21	0°0	
	1686 Jul 07 05:41	0°0			1689 Feb 10 10:33	0°0	
	1686 Aug 04 04:18	0°0		asc. node	1689 Feb 21 05:40	12°52'16	
	1686 Aug 30 07:22	0°0			1689 Mar 07 21:48	0°0	
asc. node	1686 Sep 06 10:39	8°25'23			1689 Apr 04 00:38	0°0	
	1686 Sep 24 10:17	0°0		evening max el	1689 Apr 16 16:15	12°49'43	45°40'02
	1686 Oct 18 21:56	0°0			1689 May 06 03:41	0°0	
	1686 Nov 12 00:30	0°0		greatest brilliancy	1689 May 21 01:01	9°26'27	-4.5m
	1686 Dec 05 22:34	0°0		retrograde	1689 Jun 04 13:04	13°07'47	
morning set	1686 Dec 24 01:00	22°45'49		desc. node	1689 Jun 12 18:58	11°46'56	
desc. node	1686 Dec 26 23:57	26°28'56		evening set	1689 Jun 19 16:54	8°43'02	
	1686 Dec 29 19:05	0°0		inferior conj	1689 Jun 26 01:37	4°54'33	-3°-3'-30
	1687 Jan 22 15:48	0°0		minimum elong	1689 Jun 25 19:13	5°04'34	3°01'46
				min. Earth dist.	1689 Jun 26 00:23	4°56'29	0.28986 AU
superior conj	1687 Feb 03 20:06	15°17'03	-1°-15'-54	morning rise	1689 Jul 01 21:24	1°23'03	
minimum elong	1687 Feb 03 10:10	14°45'55	1°15'41		1689 Jul 04 12:02	30°0	
max. Earth dist.	1687 Feb 07 10:37	19°48'14	1.71460 AU	direct	1689 Jul 17 16:34	26°13'59	
	1687 Feb 15 13:58	0°0		greatest brilliancy	1689 Jul 31 13:31	29°15'56	-4.5m
	1687 Mar 11 14:54	0°0			1689 Jul 31 16:13	0°0	
evening rise	1687 Mar 16 06:40	5°47'25		morning max el	1689 Sep 04 17:28	26°45'42	45°59'30
	1687 Apr 04 19:57	0°0			1689 Sep 08 00:46	0°0	
asc. node	1687 Apr 19 03:25	17°36'43		asc. node	1689 Oct 03 22:27	27°31'29	
	1687 Apr 29 06:16	0°0			1689 Oct 06 03:19	0°0	
	1687 May 23 22:57	0°0			1689 Oct 31 22:24	0°0	
	1687 Jun 17 23:50	0°0			1689 Nov 25 16:47	0°0	
	1687 Jul 13 12:56	0°0			1689 Dec 19 23:33	0°0	
desc. node	1687 Aug 08 16:39	29°41'52			1690 Jan 13 01:33	0°0	
	1687 Aug 08 23:12	0°0		desc. node	1690 Jan 23 11:50	13°01'03	
	1687 Sep 06 06:56	0°0			1690 Feb 06 02:17	0°0	
evening max el	1687 Sep 10 14:06	4°13'50	46°24'02		1690 Mar 02 03:34	0°0	
	1687 Oct 12 14:34	0°0		morning set	1690 Mar 10 20:25	10°50'07	
greatest brilliancy	1687 Oct 19 12:13	3°14'29	-4.6m		1690 Mar 26 06:33	0°0	
retrograde	1687 Oct 30 05:00	5°20'20					
evening set	1687 Nov 14 00:22	1°04'45		superior conj	1690 Apr 18 15:40	28°57'04	-1°00'-11
	1687 Nov 15 22:44	30°0		minimum elong	1690 Apr 19 01:37	29°27'47	0°59'51
inferior conj	1687 Nov 19 19:06	27°41'52	-2°-34'00		1690 Apr 19 12:03	0°0	
minimum elong	1687 Nov 20 00:49	27°33'10	2°32'15	max. Earth dist.	1690 Apr 21 11:36	2°26'48	1.72975 AU
min. Earth dist.	1687 Nov 20 05:05	27°26'39	0.26571 AU		1690 May 13 20:14	0°0	
morning rise	1687 Nov 26 00:50	24°03'43		asc. node	1690 May 16 15:20	3°12'16	

evening rise	1690 May 26 05:33	15°II13'10			1693 Jan 26 06:43	0°☾		
	1690 Jun 07 06:48	0°☾		desc. node	1693 Feb 19 23:42	0°≈08'55		
	1690 Jul 01 19:30	0°Ω			1693 Feb 19 20:47	0°≈		
	1690 Jul 26 10:54	0°☿			1693 Mar 16 07:37	0°☿		
	1690 Aug 20 06:41	0°♄			1693 Apr 09 17:48	0°Υ		
desc. node	1690 Sep 05 04:32	19°♄03'13			1693 May 04 04:26	0°♄		
	1690 Sep 14 09:28	0°♄		morning set	1693 May 20 14:04	20°♄07'01		
	1690 Oct 09 23:44	0°♄			1693 May 28 15:28	0°II		
	1690 Nov 05 13:09	0°☾		asc. node	1693 Jun 13 03:15	19°II00'31		
evening max el	1690 Nov 22 11:43	17°☾55'48	47°18'10		1693 Jun 22 02:06	0°☾		
	1690 Dec 04 23:00	0°≈		max. Earth dist.	1693 Jun 25 01:50	3°☾40'19	1.73587 AU	
asc. node	1690 Dec 27 07:59	16°≈53'30						
greatest brilliancy	1690 Dec 30 21:00	18°≈38'50	-4.7m	superior conj	1693 Jun 26 05:55	5°☾06'36	0°30'31	
retrograde	1691 Jan 12 10:57	21°≈38'02		minimum elong	1693 Jun 26 00:04	4°☾48'38	0°30'14	
evening set	1691 Jan 28 20:56	16°≈18'29			1693 Jul 16 11:27	0°Ω		
min. Earth dist.	1691 Feb 01 07:41	14°≈13'08	0.27128 AU	evening rise	1693 Aug 01 01:24	19°Ω12'03		
inferior conj	1691 Feb 02 05:03	13°≈40'00	7°46'44		1693 Aug 09 19:30	0°☿		
minimum elong	1691 Feb 01 20:09	13°≈53'49	7°45'22		1693 Sep 03 03:07	0°♄		
morning rise	1691 Feb 05 19:42	11°≈27'47			1693 Sep 27 11:32	0°♄		
direct	1691 Feb 22 17:09	5°≈53'37		desc. node	1693 Oct 02 16:29	6°♄24'16		
greatest brilliancy	1691 Mar 05 10:25	8°≈01'44	-4.6m		1693 Oct 21 21:49	0°♄		
	1691 Apr 05 16:26	0°☿			1693 Nov 15 11:25	0°☾		
morning max el	1691 Apr 13 07:37	7°☿14'10	46°16'20		1693 Dec 10 08:11	0°≈		
desc. node	1691 Apr 17 21:12	11°☿45'30			1694 Jan 04 22:25	0°☿		
	1691 May 05 08:05	0°Υ		asc. node	1694 Jan 23 19:48	20°☿57'58		
	1691 Jun 01 07:13	0°♄			1694 Feb 01 11:17	0°Υ		
	1691 Jun 27 05:37	0°II		evening max el	1694 Feb 02 09:26	0°Υ56'11	46°48'32	
	1691 Jul 22 13:28	0°☾		greatest brilliancy	1694 Mar 10 12:28	29°Υ58'44	-4.6m	
asc. node	1691 Aug 09 00:48	21°☾02'13			1694 Mar 10 13:31	0°♄		
	1691 Aug 16 09:56	0°Ω		retrograde	1694 Mar 24 17:46	3°♄37'36		
	1691 Sep 09 20:47	0°☿			1694 Apr 07 04:10	30°☿Υ		
	1691 Oct 04 00:22	0°♄		evening set	1694 Apr 10 11:59	28°Υ08'32		
morning set	1691 Oct 07 23:50	4°♄58'00		inferior conj	1694 Apr 14 23:00	25°Υ22'35	6°27'15	
	1691 Oct 27 23:29	0°♄		minimum elong	1694 Apr 15 08:47	25°Υ07'07	6°25'18	
max. Earth dist.	1691 Nov 14 21:42	22°♄30'53	1.71244 AU	min. Earth dist.	1694 Apr 14 21:22	25°Υ25'10	0.28512 AU	
				morning rise	1694 Apr 20 05:59	22°Υ08'35		
superior conj	1691 Nov 16 00:28	23°♄54'58	0°29'28	direct	1694 May 06 05:56	17°Υ12'49		
minimum elong	1691 Nov 16 07:34	24°♄17'17	0°29'08	desc. node	1694 May 15 09:07	18°Υ44'57		
	1691 Nov 20 20:35	0°♄		greatest brilliancy	1694 May 18 06:25	19°Υ48'28	-4.5m	
desc. node	1691 Nov 28 14:15	9°♄43'45			1694 Jun 04 06:27	0°♄		
	1691 Dec 14 17:11	0°☾		morning max el	1694 Jun 24 01:25	17°♄07'58	45°44'39	
evening rise	1691 Dec 27 06:46	15°☾47'42			1694 Jul 07 00:19	0°II		
	1692 Jan 07 14:21	0°≈			1694 Aug 03 18:36	0°☾		
	1692 Jan 31 13:32	0°☿			1694 Aug 29 19:54	0°Ω		
	1692 Feb 24 17:02	0°Υ		asc. node	1694 Sep 05 12:39	7°Ω54'57		
	1692 Mar 20 04:02	0°♄			1694 Sep 23 21:59	0°☿		
asc. node	1692 Mar 20 17:33	0°♄41'06			1694 Oct 18 09:14	0°♄		
	1692 Apr 14 02:33	0°II			1694 Nov 11 11:36	0°♄		
	1692 May 09 18:56	0°☾			1694 Dec 05 09:34	0°♄		
	1692 Jun 05 19:42	0°Ω		morning set	1694 Dec 21 10:59	20°♄11'48		
evening max el	1692 Jun 26 10:39	20°Ω57'42	45°26'35	desc. node	1694 Dec 26 02:04	26°♄01'05		
	1692 Jul 06 08:02	0°☿			1694 Dec 29 06:03	0°☾		
desc. node	1692 Jul 10 06:54	3°☿20'59			1695 Jan 22 02:43	0°≈		
greatest brilliancy	1692 Aug 02 01:49	18°☿00'31	-4.5m					
retrograde	1692 Aug 14 01:59	20°☿32'28		superior conj	1695 Feb 01 06:22	12°≈44'35	-1°-13'-58	
evening set	1692 Sep 01 01:13	14°☿31'46		minimum elong	1695 Jan 31 19:52	12°≈11'37	1°13'42	
inferior conj	1692 Sep 04 07:03	12°☿32'58	-8°-42'-34	max. Earth dist.	1695 Feb 04 17:46	17°≈06'03	1.71416 AU	
minimum elong	1692 Sep 04 06:10	12°☿34'20	8°42'34		1695 Feb 15 00:51	0°☿		
min. Earth dist.	1692 Sep 04 20:54	12°☿11'35	0.28403 AU		1695 Mar 11 01:46	0°Υ		
morning rise	1692 Sep 07 10:58	10°☿36'46		evening rise	1695 Mar 13 18:50	3°Υ22'20		
direct	1692 Sep 25 16:40	4°☿23'25			1695 Apr 04 06:51	0°♄		
greatest brilliancy	1692 Oct 10 03:38	8°☿08'36	-4.6m	asc. node	1695 Apr 18 05:32	17°♄09'32		
asc. node	1692 Oct 31 10:13	23°☿08'08			1695 Apr 28 17:19	0°II		
	1692 Nov 07 22:02	0°♄			1695 May 23 10:22	0°☾		
morning max el	1692 Nov 15 03:10	7°♄05'59	46°42'22		1695 Jun 17 11:56	0°Ω		
	1692 Dec 06 10:54	0°♄			1695 Jul 13 02:15	0°☿		
	1693 Jan 01 07:54	0°♄		desc. node	1695 Aug 07 18:39	29°☿04'01		

	1695 Aug 08 14:58	0°♄		desc. node	1698 Jan 22 13:49	12°♄31'59	
	1695 Sep 06 05:05	0°♌			1698 Feb 05 13:29	0°♌	
evening max el	1695 Sep 08 02:20	1°♌50'22	46°21'34		1698 Mar 01 14:36	0°♌	
	1695 Oct 15 00:07	0°♌		morning set	1698 Mar 08 08:58	8°♌25'37	
greatest brilliancy	1695 Oct 17 02:01	0°♌50'18	-4.6m		1698 Mar 25 17:28	0°♌	
retrograde	1695 Oct 27 16:38	2°♌54'27					
	1695 Nov 08 19:49	30°♌		superior conj	1698 Apr 16 06:59	26°♌42'39	-1°-2'-36
evening set	1695 Nov 11 14:58	28°♌35'36		minimum elong	1698 Apr 16 17:00	27°♌13'33	1°02'16
inferior conj	1695 Nov 17 07:38	25°♌15'53	-2°-56'-55		1698 Apr 18 22:53	0°♌	
minimum elong	1695 Nov 17 14:06	25°♌06'01	2°54'57	max. Earth dist.	1698 Apr 19 03:56	0°♌15'38	1.72932 AU
min. Earth dist.	1695 Nov 17 19:23	24°♌57'59	0.26612 AU		1698 May 13 07:03	0°♌	
morning rise	1695 Nov 23 12:41	21°♌38'22		asc. node	1698 May 15 17:27	2°♌59'29	
asc. node	1695 Nov 28 22:08	19°♌11'46		evening rise	1698 May 23 23:06	13°♌06'30	
direct	1695 Dec 07 19:42	17°♌34'15			1698 Jun 06 17:42	0°♌	
greatest brilliancy	1695 Dec 20 16:10	20°♌37'42	-4.7m		1698 Jul 01 06:37	0°♌	
	1696 Jan 04 14:09	0°♌			1698 Jul 25 22:25	0°♌	
morning max el	1696 Jan 27 10:04	20°♌46'13	46°55'03		1698 Aug 19 18:51	0°♌	
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	1696 Mar 03 08:36	0°♌			1698 Sep 13 22:40	0°♌	
desc. node	1696 Mar 19 11:34	18°♌40'15			1698 Oct 09 14:41	0°♌	
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	1696 Jun 12 04:35	0°♌		asc. node	1698 Dec 26 09:59	15°♌15'14	
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asc. node	1696 Jul 10 14:59	4°♌36'20		retrograde	1699 Jan 10 01:25	19°♌12'33	
morning set	1696 Jul 27 05:32	24°♌57'42		evening set	1699 Jan 26 06:35	13°♌59'00	
	1696 Jul 31 07:49	0°♌		min. Earth dist.	1699 Jan 29 20:33	11°♌49'08	0.27071 AU
	1696 Aug 24 14:31	0°♌		inferior conj	1699 Jan 30 18:26	11°♌15'14	7°35'27
max. Earth dist.	1696 Aug 29 05:06	5°♌43'04	1.72634 AU	minimum elong	1699 Jan 30 09:06	11°♌29'42	7°33'54
				morning rise	1699 Feb 03 11:59	8°♌59'05	
superior conj	1696 Sep 01 17:54	10°♌06'23	1°24'33	direct	1699 Feb 20 06:33	3°♌29'50	
minimum elong	1696 Sep 01 16:31	10°♌02'04	1°24'33	greatest brilliancy	1699 Mar 02 22:35	5°♌37'25	-4.6m
	1696 Sep 17 17:40	0°♌			1699 Apr 05 18:36	0°♌	
evening rise	1696 Oct 09 08:13	26°♌57'00		morning max el	1699 Apr 10 22:27	4°♌56'57	46°17'44
	1696 Oct 11 18:53	0°♌		desc. node	1699 Apr 16 23:26	10°♌57'49	
desc. node	1696 Oct 30 04:29	22°♌58'25			1699 May 05 01:06	0°♌	
	1696 Nov 04 19:33	0°♌			1699 May 31 21:15	0°♌	
	1696 Nov 28 20:37	0°♌			1699 Jun 26 18:13	0°♌	
	1696 Dec 22 23:19	0°♌			1699 Jul 22 01:16	0°♌	
	1697 Jan 16 06:25	0°♌		asc. node	1699 Aug 08 02:49	20°♌33'40	
	1697 Feb 09 23:24	0°♌			1699 Aug 15 21:16	0°♌	
asc. node	1697 Feb 20 07:37	12°♌18'25			1699 Sep 09 07:52	0°♌	
	1697 Mar 07 12:14	0°♌			1699 Oct 03 11:22	0°♌	
	1697 Apr 03 19:01	0°♌		morning set	1699 Oct 05 14:33	2°♌39'45	
evening max el	1697 Apr 14 07:26	10°♌36'38	45°41'50		1699 Oct 27 10:32	0°♌	
	1697 May 06 17:26	0°♌		max. Earth dist.	1699 Nov 12 05:21	19°♌49'15	1.71270 AU
greatest brilliancy	1697 May 18 14:56	7°♌14'29	-4.5m				
retrograde	1697 Jun 02 05:46	10°♌59'18		superior conj	1699 Nov 13 11:58	21°♌25'28	0°33'03
desc. node	1697 Jun 11 21:02	9°♌08'33		minimum elong	1699 Nov 13 19:45	21°♌49'56	0°32'42
evening set	1697 Jun 17 08:28	6°♌34'58			1699 Nov 20 07:41	0°♌	
inferior conj	1697 Jun 23 17:56	2°♌45'37	-2°-44'-52	desc. node	1699 Nov 27 16:18	9°♌15'14	
minimum elong	1697 Jun 23 12:07	2°♌54'43	2°43'15		1699 Dec 14 04:20	0°♌	
min. Earth dist.	1697 Jun 23 16:42	2°♌47'34	0.28984 AU	evening rise	1699 Dec 24 16:51	13°♌13'29	
	1697 Jun 28 06:00	30°♌			1700 Jan 07 01:33	0°♌	
morning rise	1697 Jun 29 15:40	29°♌11'39			1700 Jan 31 00:49	0°♌	
direct	1697 Jul 15 08:37	24°♌27'52			1700 Feb 24 04:30	0°♌	
greatest brilliancy	1697 Jul 29 05:59	27°♌48'27	-4.5m	asc. node	1700 Mar 20 19:41	0°♌11'38	
	1697 Aug 02 14:13	0°♌			1700 Mar 20 15:51	0°♌	
morning max el	1697 Sep 02 09:47	24°♌35'37	45°58'23		1700 Apr 14 15:04	0°♌	
	1697 Sep 07 21:19	0°♌			1700 May 10 08:54	0°♌	
asc. node	1697 Oct 03 00:33	26°♌54'04			1700 Jun 06 13:00	0°♌	
	1697 Oct 05 18:29	0°♌		evening max el	1700 Jun 25 02:09	18°♌45'28	45°25'40
	1697 Oct 31 11:36	0°♌			1700 Jul 07 13:25	0°♌	
	1697 Nov 25 05:02	0°♌		desc. node	1700 Jul 10 08:54	2°♌19'02	
	1697 Dec 19 11:17	0°♌		greatest brilliancy	1700 Jul 31 14:48	15°♌44'43	-4.5m
	1698 Jan 12 12:58	0°♌		retrograde	1700 Aug 12 16:06	18°♌17'42	

evening set	1700 Aug 30 14:32	12° \cap 19'12		minimum elong	1703 Jan 30 05:32	9° \approx 36'13	1°11'34
inferior conj	1700 Sep 02 22:00	10° \cap 17'42	-8°-40'-52	max. Earth dist.	1703 Feb 02 22:10	14° \approx 14'13	1.71375 AU
minimum elong	1700 Sep 02 20:17	10° \cap 20'22	8°40'50		1703 Feb 15 12:04	0° H	
min. Earth dist.	1700 Sep 03 11:01	9° \cap 57'32	0.28452 AU		1703 Mar 11 12:57	0° γ	
morning rise	1700 Sep 06 01:52	8° \cap 21'16		evening rise	1703 Mar 12 07:00	0° γ 56'09	
direct	1700 Sep 24 08:16	2° \cap 07'39			1703 Apr 04 18:03	0° B	
greatest brilliancy	1700 Oct 08 17:52	5° \cap 50'31	-4.6m	asc. node	1703 Apr 18 07:39	16° B 41'24	
asc. node	1700 Oct 31 12:23	22° \cap 06'59			1703 Apr 29 04:40	0° Π	
	1700 Nov 08 22:52	0° $\underline{\text{A}}$			1703 May 23 22:05	0° S	
morning max el	1700 Nov 13 17:06	4° $\underline{\text{A}}$ 43'37	46°40'56		1703 Jun 18 00:21	0° Ω	
	1700 Dec 07 03:50	0° M			1703 Jul 13 15:59	0° \cap	
	1701 Jan 01 22:13	0° Z		desc. node	1703 Aug 07 20:40	28° \cap 24'51	
	1701 Jan 26 19:45	0° Z			1703 Aug 09 07:23	0° $\underline{\text{A}}$	
desc. node	1701 Feb 20 01:41	29° Z 37'29		evening max el	1703 Sep 06 14:37	29° $\underline{\text{A}}$ 25'57	46°18'58
	1701 Feb 20 09:02	0° \approx			1703 Sep 07 04:43	0° M	
	1701 Mar 16 19:20	0° H		greatest brilliancy	1703 Oct 15 14:51	28° M 23'30	-4.6m
	1701 Apr 10 05:08	0° γ			1703 Oct 21 08:24	0° Z	
	1701 May 04 15:29	0° B		retrograde	1703 Oct 26 04:30	0° Z 27'04	
morning set	1701 May 19 07:47	18° B 00'40			1703 Oct 30 22:14	30° R M	
	1701 May 29 02:22	0° Π		evening set	1703 Nov 10 05:33	26° M 04'25	
asc. node	1701 Jun 13 05:12	18° Π 33'12		inferior conj	1703 Nov 15 19:59	22° M 48'09	-3°-19'-35
	1701 Jun 22 12:56	0° S		minimum elong	1703 Nov 16 03:11	22° M 37'12	3°17'26
max. Earth dist.	1701 Jun 23 22:24	1° S 42'47	1.73595 AU	min. Earth dist.	1703 Nov 16 09:19	22° M 27'53	0.26657 AU
				morning rise	1703 Nov 22 00:10	19° M 11'53	
superior conj	1701 Jun 25 00:21	3° S 02'29	0°27'34	asc. node	1703 Nov 29 00:04	16° M 12'19	
minimum elong	1701 Jun 24 19:00	2° S 46'02	0°27'19	direct	1703 Dec 06 08:19	15° M 05'22	
	1701 Jul 16 22:21	0° Ω		greatest brilliancy	1703 Dec 19 08:26	18° M 13'05	-4.7m
evening rise	1701 Jul 30 19:57	17° Ω 07'26			1704 Jan 06 05:32	0° Z	
	1701 Aug 10 06:33	0° \cap		morning max el	1704 Jan 25 23:51	18° Z 20'47	46°55'41
	1701 Sep 03 14:26	0° $\underline{\text{A}}$			1704 Feb 06 03:31	0° Z	
	1701 Sep 27 23:13	0° M			1704 Mar 04 00:13	0° \approx	
desc. node	1701 Oct 02 18:37	5° M 54'36		desc. node	1704 Mar 19 13:43	18° \approx 04'54	
	1701 Oct 22 10:00	0° Z			1704 Mar 29 16:39	0° H	
	1701 Nov 16 00:19	0° Z			1704 Apr 23 21:24	0° γ	
	1701 Dec 10 22:12	0° \approx			1704 May 18 20:29	0° B	
	1702 Jan 05 14:36	0° H			1704 Jun 12 15:54	0° Π	
asc. node	1702 Jan 23 21:50	20° H 11'45			1704 Jul 07 07:33	0° S	
evening max el	1702 Jan 31 23:53	28° H 35'39	46°50'47	asc. node	1704 Jul 10 17:03	4° S 08'59	
	1702 Feb 02 09:22	0° γ		morning set	1704 Jul 25 23:33	22° S 51'58	
greatest brilliancy	1702 Mar 09 06:51	27° γ 47'11	-4.6m		1704 Jul 31 18:44	0° Ω	
	1702 Mar 14 19:44	0° B			1704 Aug 25 01:25	0° \cap	
retrograde	1702 Mar 23 09:26	1° B 23'33		max. Earth dist.	1704 Aug 28 01:00	3° \cap 41'57	1.72688 AU
	1702 Mar 31 15:39	30° R γ					
evening set	1702 Apr 09 06:47	25° γ 50'39		superior conj	1704 Aug 31 11:12	7° \cap 57'07	1°24'15
inferior conj	1702 Apr 13 14:51	23° γ 08'59	6°41'01	minimum elong	1704 Aug 31 09:07	7° \cap 50'37	1°24'14
minimum elong	1702 Apr 14 00:33	22° γ 53'38	6°39'09		1704 Sep 18 04:40	0° $\underline{\text{A}}$	
min. Earth dist.	1702 Apr 13 13:03	23° γ 11'52	0.28479 AU	evening rise	1704 Oct 07 22:32	24° $\underline{\text{A}}$ 37'06	
morning rise	1702 Apr 18 18:41	19° γ 59'12			1704 Oct 12 06:03	0° M	
direct	1702 May 04 20:49	14° γ 59'52		desc. node	1704 Oct 30 06:31	22° M 29'18	
desc. node	1702 May 15 11:05	17° γ 01'48			1704 Nov 05 06:57	0° Z	
greatest brilliancy	1702 May 16 19:41	17° γ 33'18	-4.5m		1704 Nov 29 08:16	0° Z	
	1702 Jun 05 18:16	0° B			1704 Dec 23 11:17	0° \approx	
morning max el	1702 Jun 22 15:58	14° B 53'58	45°45'00		1705 Jan 16 18:50	0° H	
	1702 Jul 07 18:44	0° Π			1705 Feb 10 12:36	0° γ	
	1702 Aug 04 09:05	0° S		asc. node	1705 Feb 20 09:46	11° γ 44'13	
	1702 Aug 30 08:46	0° Ω			1705 Mar 08 03:05	0° B	
asc. node	1702 Sep 05 14:46	7° Ω 23'48			1705 Apr 04 14:08	0° Π	
	1702 Sep 24 10:04	0° \cap		evening max el	1705 Apr 12 23:39	8° Π 25'31	45°43'46
	1702 Oct 18 20:54	0° $\underline{\text{A}}$			1705 May 08 12:09	0° S	
	1702 Nov 11 23:03	0° M		greatest brilliancy	1705 May 17 05:56	5° S 03'46	-4.5m
	1702 Dec 05 20:54	0° Z		retrograde	1705 May 31 22:55	8° S 50'47	
morning set	1702 Dec 19 20:54	17° Z 36'25		desc. node	1705 Jun 11 23:01	6° S 26'24	
desc. node	1702 Dec 26 03:59	25° Z 31'38		evening set	1705 Jun 16 00:27	4° S 26'55	
	1702 Dec 29 17:19	0° Z		inferior conj	1705 Jun 22 10:25	0° S 36'45	-2°-26'00
	1703 Jan 22 13:58	0° \approx		minimum elong	1705 Jun 22 05:12	0° S 44'53	2°24'33
				min. Earth dist.	1705 Jun 22 08:54	0° S 39'06	0.28977 AU
superior conj	1703 Jan 30 16:33	10° \approx 10'47	-1°-11'-51		1705 Jun 23 09:57	30° R Π	






































































































































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direct	1705 Jul 14 01:18	22°II19'06			1708 Feb 24 16:01	0°Υ	
greatest brilliancy	1705 Jul 27 21:34	25°II39'05	-4.5m	asc. node	1708 Mar 19 21:45	29°Υ41'50	
	1705 Aug 04 21:11	0°☿			1708 Mar 20 03:44	0°♄	
morning max el	1705 Sep 01 02:34	22°☿26'52	45°57'10		1708 Apr 14 03:39	0°II	
	1705 Sep 08 17:15	0°♁			1708 May 09 22:56	0°☿	
asc. node	1705 Oct 03 02:40	26°♁16'52			1708 Jun 06 06:32	0°♁	
	1705 Oct 06 09:32	0°♊		evening max el	1708 Jun 22 16:56	16°♁32'00	45°24'57
	1705 Nov 01 00:50	0°♋			1708 Jul 07 20:43	0°♊	
	1705 Nov 25 17:26	0°♌		desc. node	1708 Jul 09 10:58	1°♊16'22	
	1705 Dec 19 23:15	0°♍		greatest brilliancy	1708 Jul 29 04:08	13°♊30'16	-4.5m
	1706 Jan 13 00:38	0°♎		retrograde	1708 Aug 10 06:11	16°♊04'29	
desc. node	1706 Jan 22 15:57	12°♎02'32		evening set	1708 Aug 28 03:46	10°♊08'32	
	1706 Feb 06 00:54	0°♏		inferior conj	1708 Aug 31 13:13	8°♊04'00	-8°-38'-21
	1706 Mar 02 01:48	0°✠		minimum elong	1708 Aug 31 10:41	8°♊07'55	8°38'16
morning set	1706 Mar 06 21:09	5°✠59'17		min. Earth dist.	1708 Sep 01 01:41	7°♊44'39	0.28496 AU
	1706 Mar 26 04:30	0°Υ		morning rise	1708 Sep 03 17:26	6°♊06'49	
					1708 Sep 19 14:51	30°♊♁	
superior conj	1706 Apr 14 22:04	24°Υ26'59	-1°-4'-56	direct	1708 Sep 21 23:36	29°♁53'21	
minimum elong	1706 Apr 15 08:04	24°Υ57'54	1°04'37		1708 Sep 24 08:56	0°♊	
max. Earth dist.	1706 Apr 17 22:01	28°Υ09'22	1.72885 AU	greatest brilliancy	1708 Oct 06 09:03	3°♊34'59	-4.6m
	1706 Apr 19 09:49	0°♄		asc. node	1708 Oct 30 14:16	21°♊07'42	
	1706 May 13 17:59	0°II			1708 Nov 08 22:09	0°♋	
asc. node	1706 May 15 19:25	2°II31'57		morning max el	1708 Nov 11 06:36	2°♋21'16	46°39'37
evening rise	1706 May 22 16:40	10°II59'32			1708 Dec 06 20:07	0°♌	
	1706 Jun 07 04:42	0°☿			1709 Jan 01 12:06	0°♍	
	1706 Jul 01 17:48	0°♁			1709 Jan 26 08:28	0°♎	
	1706 Jul 26 09:58	0°♊		desc. node	1709 Feb 19 03:50	29°♎07'11	
	1706 Aug 20 07:04	0°♋			1709 Feb 19 21:03	0°♏	
desc. node	1706 Sep 04 08:44	17°♋59'34			1709 Mar 16 06:54	0°✠	
	1706 Sep 14 11:57	0°♌			1709 Apr 09 16:21	0°Υ	
	1706 Oct 10 05:50	0°♍			1709 May 04 02:26	0°♄	
	1706 Nov 06 02:42	0°♎		morning set	1709 May 17 01:02	15°♄53'12	
evening max el	1706 Nov 18 18:15	13°♎14'03	47°16'48		1709 May 28 13:06	0°II	
	1706 Dec 06 14:37	0°♏		asc. node	1709 Jun 12 07:15	18°II06'47	
asc. node	1706 Dec 26 12:02	13°♏32'02			1709 Jun 21 23:34	0°☿	
greatest brilliancy	1706 Dec 27 01:55	13°♏47'42	-4.7m	max. Earth dist.	1709 Jun 21 18:09	29°II43'21	1.73598 AU
retrograde	1707 Jan 08 15:19	16°♏44'56					
evening set	1707 Jan 24 15:50	11°♏37'49		superior conj	1709 Jun 22 18:32	0°☿58'14	0°24'33
min. Earth dist.	1707 Jan 28 09:18	9°♏22'49	0.27014 AU	minimum elong	1709 Jun 22 13:42	0°☿43'23	0°24'20
inferior conj	1707 Jan 29 07:24	8°♏48'36	7°23'00		1709 Jul 16 09:00	0°♁	
minimum elong	1707 Jan 28 21:42	9°♏03'37	7°21'18	evening rise	1709 Jul 28 14:32	15°♁03'43	
morning rise	1707 Feb 02 04:01	6°♏28'07			1709 Aug 09 17:22	0°♊	
direct	1707 Feb 18 19:43	1°♏04'20			1709 Sep 03 01:31	0°♋	
greatest brilliancy	1707 Mar 01 10:23	3°♏11'04	-4.6m		1709 Sep 27 10:39	0°♌	
	1707 Apr 06 19:42	0°✠		desc. node	1709 Oct 01 20:37	5°♌25'21	
morning max el	1707 Apr 09 12:22	2°✠36'44	46°19'17		1709 Oct 21 21:55	0°♍	
desc. node	1707 Apr 17 01:26	10°✠09'54			1709 Nov 15 12:56	0°♎	
	1707 May 05 17:54	0°Υ			1709 Dec 10 11:58	0°♏	
	1707 Jun 01 11:10	0°♄			1710 Jan 05 06:40	0°✠	
	1707 Jun 27 06:42	0°II		asc. node	1710 Jan 22 23:56	19°✠26'06	
	1707 Jul 22 12:58	0°☿		evening max el	1710 Jan 29 13:33	26°✠13'57	46°52'46
asc. node	1707 Aug 08 04:56	20°☿05'44			1710 Feb 02 07:58	0°Υ	
	1707 Aug 16 08:29	0°♁		greatest brilliancy	1710 Mar 06 23:54	25°Υ34'06	-4.6m
	1707 Sep 09 18:51	0°♊		retrograde	1710 Mar 21 00:50	29°Υ09'31	
	1707 Oct 03 22:16	0°♋		evening set	1710 Apr 07 01:18	23°Υ32'28	
morning set	1707 Oct 04 05:51	0°♋23'41		inferior conj	1710 Apr 11 06:30	20°Υ55'18	6°54'10
	1707 Oct 27 21:26	0°♌		minimum elong	1710 Apr 11 16:04	20°Υ40'11	6°52'26
max. Earth dist.	1707 Nov 10 11:55	17°♌04'47	1.71302 AU	min. Earth dist.	1710 Apr 11 04:39	20°Υ58'14	0.28451 AU
				morning rise	1710 Apr 16 07:05	17°Υ50'02	
superior conj	1707 Nov 12 00:06	18°♌58'27	0°36'30	direct	1710 May 02 11:19	12°Υ46'30	
minimum elong	1707 Nov 12 08:29	19°♌24'45	0°36'07	greatest brilliancy	1710 May 14 10:03	15°Υ19'22	-4.5m
	1707 Nov 20 18:40	0°♍		desc. node	1710 May 14 13:05	15°Υ22'26	
desc. node	1707 Nov 27 18:17	8°♍46'52			1710 Jun 06 02:52	0°♄	
	1707 Dec 14 15:24	0°♎		morning max el	1710 Jun 20 06:47	12°♄40'55	45°45'33
evening rise	1707 Dec 23 03:03	10°♎39'48			1710 Jul 07 12:30	0°II	
	1708 Jan 07 12:43	0°♏			1710 Aug 03 23:07	0°☿	

	1710 Aug 29 21:13	0°♈	evening max el	1713 Apr 10 16:13	6°♊16'29	45°45'36
asc. node	1710 Sep 04 16:50	6°♈53'40		1713 May 09 13:00	0°♊	
	1710 Sep 23 21:44	0°♎	greatest brilliancy	1713 May 14 21:50	2°♊55'11	-4.5m
	1710 Oct 18 08:11	0°♊	retrograde	1713 May 29 15:49	6°♊42'49	
	1710 Nov 11 10:08	0°♋	desc. node	1713 Jun 11 01:08	3°♊40'43	
	1710 Dec 05 07:52	0°♌	evening set	1713 Jun 13 16:32	2°♊19'30	
morning set	1710 Dec 17 07:21	15°♌03'56		1713 Jun 17 15:54	30°♋♊	
desc. node	1710 Dec 25 06:08	25°♌04'09	inferior conj	1713 Jun 20 02:47	28°♋28'29	-2°-6'-54
	1710 Dec 29 04:11	0°♍	minimum elong	1713 Jun 19 22:13	28°♋35'37	2°05'37
	1711 Jan 22 00:47	0°♎	min. Earth dist.	1713 Jun 20 01:00	28°♋31'17	0.28972 AU
			morning rise	1713 Jun 26 04:01	24°♋50'04	
superior conj	1711 Jan 28 03:04	7°♎39'19	direct	1713 Jul 11 18:13	20°♋11'01	
minimum elong	1711 Jan 27 15:39	7°♎03'28	greatest brilliancy	1713 Jul 25 12:18	23°♋29'12	-4.5m
max. Earth dist.	1711 Jan 31 02:54	11°♎24'43		1713 Aug 05 19:10	0°♋	
	1711 Feb 14 22:51	0°♌	morning max el	1713 Aug 29 18:54	20°♋17'38	45°55'56
evening rise	1711 Mar 09 19:21	28°♌31'43		1713 Sep 08 12:22	0°♈	
	1711 Mar 10 23:44	0°♍	asc. node	1713 Oct 02 04:37	25°♈40'08	
	1711 Apr 04 04:54	0°♎		1713 Oct 06 00:08	0°♎	
asc. node	1711 Apr 17 09:35	16°♎13'41		1713 Oct 31 13:42	0°♊	
	1711 Apr 28 15:43	0°♋		1713 Nov 25 05:29	0°♋	
	1711 May 23 09:32	0°♌		1713 Dec 19 10:51	0°♌	
	1711 Jun 17 12:32	0°♈		1714 Jan 12 11:58	0°♍	
desc. node	1711 Jul 13 05:32	0°♎	desc. node	1714 Jan 21 17:59	11°♍33'49	
	1711 Aug 06 22:49	27°♎46'42		1714 Feb 05 12:00	0°♎	
	1711 Aug 08 23:43	0°♊		1714 Mar 01 12:42	0°♌	
evening max el	1711 Sep 04 03:32	27°♊04'33	morning set	1714 Mar 04 09:17	3°♌33'40	
	1711 Sep 07 04:57	0°♋		1714 Mar 25 15:15	0°♍	
greatest brilliancy	1711 Oct 13 02:35	25°♋57'12				
retrograde	1711 Oct 23 16:54	28°♋01'15	superior conj	1714 Apr 12 13:09	22°♍12'08	-1°-7'-9
evening set	1711 Nov 07 20:22	23°♋34'33	minimum elong	1714 Apr 12 23:05	22°♍42'51	1°06'52
inferior conj	1711 Nov 13 08:20	20°♋21'43	max. Earth dist.	1714 Apr 15 17:52	26°♍09'25	1.72835 AU
minimum elong	1711 Nov 13 16:13	20°♋09'47		1714 Apr 18 20:29	0°♎	
min. Earth dist.	1711 Nov 13 22:51	19°♋59'44		1714 May 13 04:37	0°♋	
morning rise	1711 Nov 19 11:27	16°♋47'13	asc. node	1714 May 14 21:30	2°♋05'41	
asc. node	1711 Nov 28 02:11	13°♋19'59	evening rise	1714 May 20 10:11	8°♋53'19	
direct	1711 Dec 03 21:35	12°♋37'57		1714 Jun 06 15:26	0°♌	
greatest brilliancy	1711 Dec 17 00:14	15°♋49'18		1714 Jul 01 04:46	0°♈	
	1712 Jan 06 16:30	0°♌		1714 Jul 25 21:23	0°♎	
morning max el	1712 Jan 23 14:27	15°♌58'41		1714 Aug 19 19:11	0°♊	
	1712 Feb 05 22:31	0°♍	desc. node	1714 Sep 03 10:39	17°♊27'32	
	1712 Mar 03 15:09	0°♎		1714 Sep 14 01:13	0°♋	
desc. node	1712 Mar 18 15:43	17°♎30'42		1714 Oct 09 21:02	0°♌	
	1712 Mar 29 05:43	0°♌		1714 Nov 05 22:05	0°♍	
	1712 Apr 23 09:25	0°♍	evening max el	1714 Nov 16 09:05	10°♍52'26	47°15'53
	1712 May 18 07:52	0°♎		1714 Dec 07 02:37	0°♎	
	1712 Jun 12 02:53	0°♋	greatest brilliancy	1714 Dec 24 17:24	11°♎23'21	-4.7m
	1712 Jul 06 18:17	0°♌	asc. node	1714 Dec 25 14:09	11°♎45'33	
asc. node	1712 Jul 09 19:10	3°♌42'44	retrograde	1715 Jan 06 04:45	14°♎17'43	
morning set	1712 Jul 23 17:17	20°♌46'21	evening set	1715 Jan 22 01:10	9°♎17'10	
	1712 Jul 31 05:21	0°♈	min. Earth dist.	1715 Jan 25 22:25	6°♎56'38	0.26957 AU
	1712 Aug 24 12:01	0°♎	inferior conj	1715 Jan 26 20:23	6°♎22'35	7°09'46
max. Earth dist.	1712 Aug 25 19:57	1°♎39'00	minimum elong	1715 Jan 26 10:23	6°♎38'05	7°07'54
			morning rise	1715 Jan 30 20:03	3°♎57'35	
superior conj	1712 Aug 29 04:16	5°♎48'10		1715 Feb 08 06:08	30°♋♎	
minimum elong	1712 Aug 29 01:30	5°♎39'33	direct	1715 Feb 16 08:33	28°♎39'25	
	1712 Sep 17 15:20	0°♊		1715 Feb 24 17:47	0°♎	
evening rise	1712 Oct 05 12:46	22°♊18'07	greatest brilliancy	1715 Feb 26 22:52	0°♎45'44	-4.6m
	1712 Oct 11 16:53	0°♋		1715 Apr 06 19:24	0°♌	
desc. node	1712 Oct 29 08:28	22°♋01'03	morning max el	1715 Apr 07 01:22	0°♌14'36	46°20'51
	1712 Nov 04 18:01	0°♌	desc. node	1715 Apr 16 03:23	9°♌23'11	
	1712 Nov 28 19:36	0°♍		1715 May 05 10:11	0°♍	
	1712 Dec 22 22:56	0°♎		1715 Jun 01 00:45	0°♎	
	1713 Jan 16 06:55	0°♌		1715 Jun 26 18:57	0°♋	
	1713 Feb 10 01:29	0°♍		1715 Jul 22 00:27	0°♌	
asc. node	1713 Feb 19 11:50	11°♍10'53	asc. node	1715 Aug 07 06:57	19°♌37'56	
	1713 Mar 07 17:41	0°♎		1715 Aug 15 19:34	0°♈	
	1713 Apr 04 09:17	0°♋		1715 Sep 09 05:45	0°♎	

morning set	1715 Oct 01 20:53	28° \cap 06'55		evening set	1718 Apr 04 19:45	21° Υ 13'17	
	1715 Oct 03 09:08	0° $\underline{\Delta}$		inferior conj	1718 Apr 08 22:07	18° Υ 40'40	7°06'44
	1715 Oct 27 08:21	0° \mathbb{M}		minimum elong	1718 Apr 09 07:27	18° Υ 25'55	7°05'08
max. Earth dist.	1715 Nov 07 16:54	14° \mathbb{M} 15'26	1.71336 AU	min. Earth dist.	1718 Apr 08 19:52	18° Υ 44'13	0.28420 AU
				morning rise	1718 Apr 13 19:22	15° Υ 40'22	
superior conj	1715 Nov 09 12:05	16° \mathbb{M} 31'00	0°39'54	direct	1718 Apr 30 01:55	10° Υ 32'10	
minimum elong	1715 Nov 09 20:59	16° \mathbb{M} 58'56	0°39'30	greatest brilliancy	1718 May 12 00:36	13° Υ 05'02	-4.5m
	1715 Nov 20 05:38	0° \mathcal{X}		desc. node	1718 May 13 15:16	13° Υ 46'12	
desc. node	1715 Nov 26 20:25	8° \mathcal{X} 19'04			1718 Jun 06 09:17	0° \mathcal{B}	
	1715 Dec 14 02:25	0° \mathcal{B}		morning max el	1718 Jun 17 22:25	10° \mathcal{B} 29'13	45°46'09
evening rise	1715 Dec 20 13:01	8° \mathcal{B} 05'36			1718 Jul 07 06:04	0° \mathbb{I}	
	1716 Jan 06 23:50	0° \approx			1718 Aug 03 13:13	0° \mathcal{G}	
	1716 Jan 30 23:22	0° \mathcal{H}			1718 Aug 29 09:48	0° Ω	
	1716 Feb 24 03:29	0° Υ		asc. node	1718 Sep 03 18:47	6° Ω 22'40	
asc. node	1716 Mar 18 23:42	29° Υ 11'49			1718 Sep 23 09:35	0° \cap	
	1716 Mar 19 15:35	0° \mathcal{B}			1718 Oct 17 19:39	0° $\underline{\Delta}$	
	1716 Apr 13 16:14	0° \mathbb{I}			1718 Nov 10 21:26	0° \mathbb{M}	
	1716 May 09 13:03	0° \mathcal{G}			1718 Dec 04 19:05	0° \mathcal{X}	
	1716 Jun 06 00:24	0° Ω		morning set	1718 Dec 14 17:43	12° \mathcal{X} 30'13	
evening max el	1716 Jun 20 06:52	14° Ω 16'41	45°24'19	desc. node	1718 Dec 24 08:12	24° \mathcal{X} 35'21	
	1716 Jul 08 06:39	0° \cap			1718 Dec 28 15:24	0° \mathcal{B}	
desc. node	1716 Jul 08 13:04	0° \cap 12'20			1719 Jan 21 11:58	0° \approx	
greatest brilliancy	1716 Jul 26 16:32	11° \cap 14'56	-4.5m				
retrograde	1716 Aug 07 20:25	13° \cap 51'40		superior conj	1719 Jan 25 12:59	5° \approx 04'41	-1°-7'-11
evening set	1716 Aug 25 16:36	7° \cap 58'25		minimum elong	1719 Jan 25 01:16	4° \approx 27'53	1°06'50
inferior conj	1716 Aug 29 04:25	5° \cap 50'25	-8°-34'-55	max. Earth dist.	1719 Jan 28 07:51	8° \approx 34'34	1.71305 AU
minimum elong	1716 Aug 29 01:06	5° \cap 55'35	8°34'47		1719 Feb 14 10:00	0° \mathcal{H}	
min. Earth dist.	1716 Aug 29 16:22	5° \cap 31'53	0.28545 AU	evening rise	1719 Mar 07 07:09	26° \mathcal{H} 04'29	
morning rise	1716 Sep 01 09:23	3° \cap 52'03			1719 Mar 10 10:51	0° Υ	
	1716 Sep 08 17:29	30° \mathcal{R} Ω			1719 Apr 03 16:04	0° \mathcal{B}	
direct	1716 Sep 19 14:45	27° Ω 38'54		asc. node	1719 Apr 16 11:42	15° \mathcal{B} 45'37	
	1716 Sep 30 23:37	0° \cap			1719 Apr 28 03:06	0° \mathbb{I}	
greatest brilliancy	1716 Oct 04 01:28	1° \cap 21'02	-4.6m		1719 May 22 21:20	0° \mathcal{G}	
asc. node	1716 Oct 29 16:24	20° \cap 09'57			1719 Jun 17 01:06	0° Ω	
	1716 Nov 08 20:40	0° $\underline{\Delta}$			1719 Jul 12 19:31	0° \cap	
morning max el	1716 Nov 08 20:19	29° \cap 59'07	46°38'14	desc. node	1719 Aug 06 00:48	27° \cap 06'50	
	1716 Dec 06 12:19	0° \mathbb{M}			1719 Aug 08 16:41	0° $\underline{\Delta}$	
	1717 Jan 01 02:02	0° \mathcal{X}		evening max el	1719 Sep 01 17:31	24° $\underline{\Delta}$ 45'10	46°14'14
	1717 Jan 25 21:14	0° \mathcal{B}			1719 Sep 07 06:45	0° \mathbb{M}	
desc. node	1717 Feb 18 05:50	28° \mathcal{B} 36'14		greatest brilliancy	1719 Oct 10 13:55	23° \mathbb{M} 30'26	-4.6m
	1717 Feb 19 09:07	0° \approx		retrograde	1719 Oct 21 05:40	25° \mathbb{M} 35'13	
	1717 Mar 15 18:29	0° \mathcal{H}		evening set	1719 Nov 05 11:28	21° \mathbb{M} 04'35	
	1717 Apr 09 03:36	0° Υ		inferior conj	1719 Nov 10 20:51	17° \mathbb{M} 55'03	-4°-3'-10
	1717 May 03 13:25	0° \mathcal{B}		minimum elong	1719 Nov 11 05:19	17° \mathbb{M} 42'12	4°00'45
morning set	1717 May 14 18:13	13° \mathcal{B} 45'12		min. Earth dist.	1719 Nov 11 12:04	17° \mathbb{M} 31'58	0.26755 AU
	1717 May 27 23:55	0° \mathbb{I}		morning rise	1719 Nov 16 22:38	14° \mathbb{M} 22'34	
asc. node	1717 Jun 11 09:23	17° \mathbb{I} 40'15		asc. node	1719 Nov 27 04:15	10° \mathbb{M} 33'30	
max. Earth dist.	1717 Jun 19 13:54	27° \mathbb{I} 43'39	1.73600 AU	direct	1719 Dec 01 11:21	10° \mathbb{M} 10'33	
				greatest brilliancy	1719 Dec 14 15:10	13° \mathbb{M} 23'56	-4.7m
superior conj	1717 Jun 20 12:49	28° \mathbb{I} 53'59	0°21'32		1720 Jan 07 00:57	0° \mathcal{X}	
minimum elong	1717 Jun 20 08:32	28° \mathbb{I} 40'49	0°21'19	morning max el	1720 Jan 21 05:11	13° \mathcal{X} 35'54	46°56'37
	1717 Jun 21 10:18	0° \mathcal{G}			1720 Feb 05 17:29	0° \mathcal{B}	
	1717 Jul 15 19:47	0° Ω			1720 Mar 03 06:22	0° \approx	
evening rise	1717 Jul 26 09:20	13° Ω 00'30		desc. node	1720 Mar 17 17:42	16° \approx 55'14	
	1717 Aug 09 04:18	0° \cap			1720 Mar 28 19:10	0° \mathcal{H}	
	1717 Sep 02 12:43	0° $\underline{\Delta}$			1720 Apr 22 21:50	0° Υ	
	1717 Sep 26 22:16	0° \mathbb{M}			1720 May 17 19:37	0° \mathcal{B}	
desc. node	1717 Sep 30 22:38	4° \mathbb{M} 55'40			1720 Jun 11 14:12	0° \mathbb{I}	
	1717 Oct 21 10:05	0° \mathcal{X}			1720 Jul 06 05:21	0° \mathcal{G}	
	1717 Nov 15 01:53	0° \mathcal{B}		asc. node	1720 Jul 08 21:08	3° \mathcal{G} 14'58	
	1717 Dec 10 02:11	0° \approx		morning set	1720 Jul 21 11:10	18° \mathcal{G} 40'13	
	1718 Jan 04 23:20	0° \mathcal{H}			1720 Jul 30 16:18	0° Ω	
asc. node	1718 Jan 22 01:57	18° \mathcal{H} 38'40		max. Earth dist.	1720 Aug 23 13:26	29° Ω 30'29	1.72780 AU
evening max el	1718 Jan 27 03:19	23° \mathcal{H} 51'35	46°55'02		1720 Aug 23 22:58	0° \cap	
	1718 Feb 02 07:55	0° Υ					
greatest brilliancy	1718 Mar 04 16:05	23° Υ 19'01	-4.6m	superior conj	1720 Aug 26 21:40	3° \cap 39'11	1°23'14
retrograde	1718 Mar 18 16:32	26° Υ 54'49		minimum elong	1720 Aug 26 18:14	3° \cap 28'35	1°23'13

	1720 Sep 17 02:21	0°♄		greatest brilliancy	1723 Feb 24 12:23	28°♄21'13	-4.6m
evening rise	1720 Oct 03 03:26	19°♄59'28			1723 Feb 28 07:19	0°♄	
	1720 Oct 11 04:04	0°♄		morning max el	1723 Apr 04 13:35	27°♄49'52	46°22'21
desc. node	1720 Oct 28 10:38	21°♄32'30			1723 Apr 06 18:16	0°♄	
	1720 Nov 04 05:24	0°♄		desc. node	1723 Apr 15 05:37	8°♄37'23	
	1720 Nov 28 07:15	0°♄			1723 May 05 02:24	0°♄	
	1720 Dec 22 10:54	0°♄			1723 May 31 14:29	0°♄	
	1721 Jan 15 19:24	0°♄			1723 Jun 26 07:24	0°♄	
	1721 Feb 09 14:53	0°♄			1723 Jul 21 12:10	0°♄	
asc. node	1721 Feb 18 13:45	10°♄35'40		asc. node	1723 Aug 06 08:58	19°♄09'24	
	1721 Mar 07 08:57	0°♄			1723 Aug 15 06:52	0°♄	
	1721 Apr 04 05:37	0°♄			1723 Sep 08 16:51	0°♄	
evening max el	1721 Apr 08 08:51	4°♄06'01	45°47'32	morning set	1723 Sep 29 12:02	25°♄50'02	
	1721 May 11 01:25	0°♄			1723 Oct 02 20:11	0°♄	
greatest brilliancy	1721 May 12 15:05	0°♄47'00	-4.5m		1723 Oct 26 19:26	0°♄	
retrograde	1721 May 27 08:27	4°♄33'38		max. Earth dist.	1723 Nov 05 00:46	11°♄34'35	1.71375 AU
desc. node	1721 Jun 10 03:09	0°♄50'29					
evening set	1721 Jun 11 08:55	0°♄10'53		superior conj	1723 Nov 07 00:18	14°♄03'47	0°43'10
	1721 Jun 11 16:48	30°♄		minimum elong	1723 Nov 07 09:40	14°♄33'12	0°42'47
inferior conj	1721 Jun 17 19:15	26°♄19'16	-1°-47'-45		1723 Nov 19 16:47	0°♄	
minimum elong	1721 Jun 17 15:21	26°♄25'23	1°46'38	desc. node	1723 Nov 25 22:28	7°♄50'19	
min. Earth dist.	1721 Jun 17 17:21	26°♄22'15	0.28962 AU		1723 Dec 13 13:39	0°♄	
morning rise	1721 Jun 23 21:59	22°♄38'36		evening rise	1723 Dec 17 23:14	5°♄31'35	
direct	1721 Jul 09 11:03	18°♄02'10			1724 Jan 06 11:08	0°♄	
greatest brilliancy	1721 Jul 23 02:16	21°♄17'23	-4.5m		1724 Jan 30 10:46	0°♄	
	1721 Aug 06 11:55	0°♄			1724 Feb 23 15:04	0°♄	
morning max el	1721 Aug 27 10:22	18°♄05'26	45°54'42	asc. node	1724 Mar 18 01:50	28°♄42'02	
	1721 Sep 08 07:20	0°♄			1724 Mar 19 03:33	0°♄	
asc. node	1721 Oct 01 06:43	25°♄03'13			1724 Apr 13 05:00	0°♄	
	1721 Oct 05 14:54	0°♄			1724 May 09 03:29	0°♄	
	1721 Oct 31 02:49	0°♄			1724 Jun 05 18:56	0°♄	
	1721 Nov 24 17:48	0°♄		evening max el	1724 Jun 17 20:56	12°♄01'17	45°23'47
	1721 Dec 18 22:43	0°♄		desc. node	1724 Jul 07 15:03	29°♄05'57	
	1722 Jan 11 23:32	0°♄			1724 Jul 08 20:19	0°♄	
desc. node	1722 Jan 20 19:59	11°♄04'12		greatest brilliancy	1724 Jul 24 04:11	8°♄58'27	-4.5m
	1722 Feb 04 23:22	0°♄		retrograde	1724 Aug 05 11:19	11°♄38'56	
	1722 Feb 28 23:54	0°♄		evening set	1724 Aug 23 05:17	5°♄48'34	
morning set	1722 Mar 01 21:24	1°♄07'01		inferior conj	1724 Aug 26 19:45	3°♄36'49	-8°-30'-45
	1722 Mar 25 02:20	0°♄		minimum elong	1724 Aug 26 15:39	3°♄43'10	8°30'32
				min. Earth dist.	1724 Aug 27 06:59	3°♄19'24	0.28591 AU
superior conj	1722 Apr 10 04:01	19°♄55'29	-1°-9'-17	morning rise	1724 Aug 30 01:47	1°♄36'55	
minimum elong	1722 Apr 10 13:48	20°♄25'45	1°09'01		1724 Sep 01 20:33	30°♄	
max. Earth dist.	1722 Apr 13 13:22	24°♄07'11	1.72786 AU	direct	1724 Sep 17 06:06	25°♄24'29	
	1722 Apr 18 07:30	0°♄		greatest brilliancy	1724 Oct 01 18:44	29°♄08'21	-4.6m
	1722 May 12 15:38	0°♄			1724 Oct 03 11:45	0°♄	
asc. node	1722 May 13 23:35	1°♄38'16		asc. node	1724 Oct 28 18:32	19°♄13'21	
evening rise	1722 May 18 03:20	6°♄44'43		morning max el	1724 Nov 06 10:50	27°♄39'01	46°36'49
	1722 Jun 06 02:30	0°♄			1724 Nov 08 18:23	0°♄	
	1722 Jun 30 16:04	0°♄			1724 Dec 06 04:18	0°♄	
	1722 Jul 25 09:08	0°♄			1724 Dec 31 15:53	0°♄	
	1722 Aug 19 07:41	0°♄			1725 Jan 25 10:00	0°♄	
desc. node	1722 Sep 02 12:42	16°♄54'48		desc. node	1725 Feb 17 07:51	28°♄05'13	
	1722 Sep 13 14:54	0°♄			1725 Feb 18 21:12	0°♄	
	1722 Oct 09 12:46	0°♄			1725 Mar 15 06:05	0°♄	
	1722 Nov 05 18:22	0°♄			1725 Apr 08 14:50	0°♄	
evening max el	1722 Nov 13 23:08	8°♄28'01	47°14'53		1725 May 03 00:23	0°♄	
	1722 Dec 07 18:58	0°♄		morning set	1725 May 12 11:34	11°♄37'41	
greatest brilliancy	1722 Dec 22 09:35	8°♄59'18	-4.7m		1725 May 27 10:43	0°♄	
asc. node	1722 Dec 24 16:07	9°♄54'15		asc. node	1725 Jun 10 11:21	17°♄13'13	
retrograde	1723 Jan 03 17:48	11°♄50'14		max. Earth dist.	1725 Jun 17 11:01	25°♄48'03	1.73605 AU
evening set	1723 Jan 19 10:45	6°♄56'05					
min. Earth dist.	1723 Jan 23 12:03	4°♄29'47	0.26900 AU	superior conj	1725 Jun 18 07:13	26°♄50'05	0°18'29
inferior conj	1723 Jan 24 09:31	3°♄56'29	6°55'47	minimum elong	1725 Jun 18 03:29	26°♄38'39	0°18'18
minimum elong	1723 Jan 23 23:17	4°♄12'21	6°53'44		1725 Jun 20 21:03	0°♄	
morning rise	1723 Jan 28 12:15	1°♄26'55			1725 Jul 15 06:35	0°♄	
	1723 Jan 31 03:15	30°♄		evening rise	1725 Jul 24 04:17	10°♄57'41	
direct	1723 Feb 13 21:01	26°♄14'17			1725 Aug 08 15:16	0°♄	

	1725 Sep 01 23:57	0°♄			1728 Apr 22 09:55	0°♃		
	1725 Sep 26 09:53	0°♌			1728 May 17 07:05	0°♄		
desc. node	1725 Sep 30 00:46	4°♌26'19			1728 Jun 11 01:15	0°♌		
	1725 Oct 20 22:16	0°♊			1728 Jul 05 16:09	0°♋		
	1725 Nov 14 14:53	0°♎		asc. node	1728 Jul 07 23:13	2°♋48'24		
	1725 Dec 09 16:30	0°♏		morning set	1728 Jul 19 05:18	16°♋35'48		
	1726 Jan 04 16:18	0°♏			1728 Jul 30 02:57	0°♌		
asc. node	1726 Jan 21 04:00	17°♏50'41		max. Earth dist.	1728 Aug 21 06:24	27°♌21'25	1.72827 AU	
evening max el	1726 Jan 24 17:57	21°♏31'26	46°57'11		1728 Aug 23 09:36	0°♍		
	1726 Feb 02 09:00	0°♃						
greatest brilliancy	1726 Mar 02 08:04	21°♃03'40	-4.6m	superior conj	1728 Aug 24 15:19	1°♍32'06	1°22'34	
retrograde	1726 Mar 16 08:48	24°♃40'06		minimum elong	1728 Aug 24 11:17	1°♍19'34	1°22'31	
evening set	1726 Apr 02 14:10	18°♃54'05			1728 Sep 16 13:06	0°♄		
inferior conj	1726 Apr 06 13:40	16°♃25'57	7°18'43	evening rise	1728 Sep 30 18:15	17°♄42'11		
minimum elong	1726 Apr 06 22:45	16°♃11'38	7°17'15		1728 Oct 10 15:00	0°♌		
min. Earth dist.	1726 Apr 06 10:40	16°♃30'41	0.28386 AU	desc. node	1728 Oct 27 12:39	21°♌04'11		
morning rise	1726 Apr 11 07:34	13°♃30'56			1728 Nov 03 16:35	0°♊		
direct	1726 Apr 27 16:51	8°♃17'57			1728 Nov 27 18:42	0°♎		
greatest brilliancy	1726 May 09 14:28	10°♃50'17	-4.5m		1728 Dec 21 22:40	0°♏		
desc. node	1726 May 12 17:14	12°♃13'26			1729 Jan 15 07:41	0°♏		
	1726 Jun 06 13:30	0°♄			1729 Feb 09 04:06	0°♃		
morning max el	1726 Jun 15 14:39	8°♄19'26	45°46'47	asc. node	1729 Feb 17 15:55	10°♃01'49		
	1726 Jul 06 23:05	0°♌			1729 Mar 07 00:09	0°♄		
	1726 Aug 03 03:03	0°♋			1729 Apr 04 02:19	0°♌		
	1726 Aug 28 22:14	0°♌		evening max el	1729 Apr 06 00:37	1°♌54'03	45°49'25	
asc. node	1726 Sep 02 20:56	5°♌52'36		greatest brilliancy	1729 May 10 08:37	28°♌39'44	-4.5m	
	1726 Sep 22 21:20	0°♍			1729 May 13 09:51	0°♋		
	1726 Oct 17 07:02	0°♄		retrograde	1729 May 25 00:36	2°♋25'02		
	1726 Nov 10 08:37	0°♌			1729 Jun 05 01:58	30°♌		
	1726 Dec 04 06:11	0°♊		evening set	1729 Jun 09 01:22	28°♌02'40		
morning set	1726 Dec 12 04:13	9°♊57'28		desc. node	1729 Jun 09 05:10	27°♌57'25		
desc. node	1726 Dec 23 10:10	24°♊06'41		inferior conj	1729 Jun 15 11:40	24°♌10'48	-1°-28'-16	
	1726 Dec 28 02:27	0°♎		minimum elong	1729 Jun 15 08:27	24°♌15'51	1°27'21	
	1727 Jan 20 23:00	0°♏		min. Earth dist.	1729 Jun 15 10:01	24°♌13'23	0.28949 AU	
				morning rise	1729 Jun 21 15:43	20°♌27'55		
superior conj	1727 Jan 22 22:45	2°♏30'00	-1°-4'-37	direct	1729 Jul 07 03:21	15°♌54'01		
minimum elong	1727 Jan 22 10:50	1°♏52'33	1°04'14	greatest brilliancy	1729 Jul 20 16:12	19°♌06'15	-4.5m	
max. Earth dist.	1727 Jan 25 15:46	5°♏54'09	1.71276 AU		1729 Aug 06 23:57	0°♋		
	1727 Feb 13 21:01	0°♏		morning max el	1729 Aug 25 00:59	15°♋52'16	45°53'41	
evening rise	1727 Mar 04 18:53	23°♏37'20			1729 Sep 08 01:22	0°♌		
	1727 Mar 09 21:51	0°♃		asc. node	1729 Sep 30 08:50	24°♌27'42		
	1727 Apr 03 03:08	0°♄			1729 Oct 05 05:07	0°♍		
asc. node	1727 Apr 15 13:48	15°♄17'53			1729 Oct 30 15:31	0°♄		
	1727 Apr 27 14:21	0°♌			1729 Nov 24 05:47	0°♌		
	1727 May 22 08:59	0°♋			1729 Dec 18 10:19	0°♊		
	1727 Jun 16 13:30	0°♌			1730 Jan 11 10:52	0°♎		
	1727 Jul 12 09:24	0°♍		desc. node	1730 Jan 19 22:06	10°♎35'39		
desc. node	1727 Aug 05 02:51	26°♍27'26			1730 Feb 04 10:28	0°♏		
	1727 Aug 08 09:46	0°♄		morning set	1730 Feb 27 08:57	28°♏39'21		
evening max el	1727 Aug 30 07:53	22°♄27'22	46°11'41		1730 Feb 28 10:49	0°♏		
	1727 Sep 07 09:48	0°♌			1730 Mar 24 13:07	0°♃		
greatest brilliancy	1727 Oct 08 02:04	21°♌05'08	-4.6m					
retrograde	1727 Oct 18 18:14	23°♌09'27		superior conj	1730 Apr 07 18:35	17°♃38'47	-1°-11'-20	
evening set	1727 Nov 03 02:44	18°♌35'07		minimum elong	1730 Apr 08 04:08	18°♃08'21	1°11'05	
inferior conj	1727 Nov 08 09:21	15°♌28'57	-4°-24'-11	max. Earth dist.	1730 Apr 11 07:58	22°♃03'04	1.72733 AU	
minimum elong	1727 Nov 08 18:21	15°♌15'17	4°21'41		1730 Apr 17 18:12	0°♄		
min. Earth dist.	1727 Nov 09 01:17	15°♌04'45	0.26806 AU		1730 May 12 02:20	0°♌		
morning rise	1727 Nov 14 09:30	11°♌58'34		asc. node	1730 May 13 01:33	1°♌11'21		
asc. node	1727 Nov 26 06:13	7°♌53'28		evening rise	1730 May 15 20:16	4°♌36'23		
direct	1727 Nov 29 01:05	7°♌43'52			1730 Jun 05 13:19	0°♋		
greatest brilliancy	1727 Dec 12 05:18	10°♌58'01	-4.7m		1730 Jun 30 03:07	0°♌		
	1728 Jan 07 06:48	0°♊			1730 Jul 24 20:37	0°♍		
morning max el	1728 Jan 18 19:09	11°♊11'48	46°56'50		1730 Aug 18 19:53	0°♄		
	1728 Feb 05 11:41	0°♎		desc. node	1730 Sep 01 14:53	16°♄23'29		
	1728 Mar 02 21:06	0°♏			1730 Sep 13 04:17	0°♌		
desc. node	1728 Mar 16 19:53	16°♏21'22			1730 Oct 09 04:19	0°♊		
	1728 Mar 28 08:14	0°♏			1730 Nov 05 14:54	0°♎		

evening max el	1730 Nov 11 12:02	6°  01'41	47°13'37			1733 May 02 11:13	0° 		
	1730 Dec 08 16:30	0° 		morning set		1733 May 10 04:30	9°  29'09		
greatest brilliancy	1730 Dec 20 01:20	6°  34'46	-4.7m			1733 May 26 21:23	0° 		
asc. node	1730 Dec 23 18:12	7°  58'42		asc. node		1733 Jun 09 13:25	16°  46'56		
retrograde	1731 Jan 01 06:22	9°  22'45		max. Earth dist.		1733 Jun 15 09:25	23°  56'50	1.73606 AU	
evening set	1731 Jan 16 20:06	4°  34'28							
min. Earth dist.	1731 Jan 21 01:42	2°  02'17	0.26849 AU	superior conj		1733 Jun 16 01:11	24°  45'17	0°15'22	
inferior conj	1731 Jan 21 22:24	1°  30'14	6°40'37	minimum elong		1733 Jun 15 22:03	24°  35'41	0°15'13	
minimum elong	1731 Jan 21 12:02	1°  46'18	6°38'26	behind sun begin		1733 Jun 15 15:51	24°  16'38		
	1731 Jan 24 09:09	30°  R 		behind sun end		1733 Jun 16 04:16	24°  44'44		
morning rise	1731 Jan 26 04:21	28°  56'01				1733 Jun 20 07:39	0° 		
direct	1731 Feb 11 08:55	23°  48'38				1733 Jul 14 17:15	0° 		
greatest brilliancy	1731 Feb 22 02:42	25°  57'29	-4.6m	evening rise		1733 Jul 21 23:03	8°  54'45		
	1731 Mar 02 07:10	0° 				1733 Aug 08 02:07	0° 		
morning max el	1731 Apr 02 01:48	25°  25'23	46°24'00			1733 Sep 01 11:06	0° 		
	1731 Apr 06 16:03	0° 				1733 Sep 25 21:26	0° 		
desc. node	1731 Apr 14 07:35	7°  52'09		desc. node		1733 Sep 29 02:45	3°  46'49		
	1731 May 04 18:07	0° 				1733 Oct 20 10:21	0° 		
	1731 May 31 03:49	0° 				1733 Nov 14 03:46	0° 		
	1731 Jun 25 19:31	0° 				1733 Dec 09 06:43	0° 		
	1731 Jul 20 23:35	0° 				1734 Jan 04 09:18	0° 		
asc. node	1731 Aug 05 11:05	18°  54'21		asc. node		1734 Jan 20 06:06	17°  52'51		
	1731 Aug 14 17:53	0° 		evening max el		1734 Jan 22 09:26	19°  41'09	46°59'12	
	1731 Sep 08 03:39	0° 				1734 Feb 02 11:09	0° 		
morning set	1731 Sep 27 03:35	23°  35'22		greatest brilliancy		1734 Feb 28 00:10	18°  48'54	-4.6m	
	1731 Oct 02 06:55	0° 		retrograde		1734 Mar 14 01:14	22°  45'21		
	1731 Oct 26 06:11	0° 		evening set		1734 Mar 31 08:28	16°  35'01		
max. Earth dist.	1731 Nov 02 12:32	9°  47'02	1.71413 AU	inferior conj		1734 Apr 04 05:08	14°  41'09	7°30'00	
				minimum elong		1734 Apr 04 13:54	13°  45'20	7°28'40	
superior conj	1731 Nov 04 12:57	11°  43'01	0°46'21	min. Earth dist.		1734 Apr 04 01:05	14°  41'32	0.28355 AU	
minimum elong	1731 Nov 04 22:42	12°  40'38	0°45'56	morning rise		1734 Apr 08 19:37	11°  41'26		
	1731 Nov 19 03:36	0° 		direct		1734 Apr 25 08:12	6°  40'34		
desc. node	1731 Nov 25 00:27	7°  42'29		greatest brilliancy		1734 May 07 03:30	8°  34'31	-4.5m	
	1731 Dec 13 00:34	0° 		desc. node		1734 May 11 19:15	10°  43'55		
evening rise	1731 Dec 15 09:44	2°  59'31				1734 Jun 06 16:02	0° 		
	1732 Jan 05 22:10	0° 		morning max el		1734 Jun 13 07:02	6°  41'02	45°47'20	
	1732 Jan 29 21:58	0° 				1734 Jul 06 15:46	0° 		
	1732 Feb 23 02:30	0° 				1734 Aug 02 16:43	0° 		
asc. node	1732 Mar 17 03:53	28°  41'27				1734 Aug 28 10:34	0° 		
	1732 Mar 18 15:24	0° 		asc. node		1734 Sep 01 22:58	5°  42'27		
	1732 Apr 12 17:39	0° 				1734 Sep 22 08:59	0° 		
	1732 May 08 17:52	0° 				1734 Oct 16 18:20	0° 		
	1732 Jun 05 13:45	0° 				1734 Nov 09 19:45	0° 		
evening max el	1732 Jun 15 11:34	9°  48'00	45°23'26			1734 Dec 03 17:14	0° 		
desc. node	1732 Jul 06 17:09	27°  58'29		morning set		1734 Dec 09 15:01	7°  42'54		
	1732 Jul 09 14:19	0° 		desc. node		1734 Dec 22 12:19	23°  47'38		
greatest brilliancy	1732 Jul 21 15:05	6°  41'45	-4.5m			1734 Dec 27 13:28	0° 		
retrograde	1732 Aug 03 02:39	9°  42'43							
evening set	1732 Aug 20 17:41	3°  39'29		superior conj		1735 Jan 20 08:47	29°  56'21	-1°-1'-54	
inferior conj	1732 Aug 24 10:59	1°  43'38	-8°-25'-50	minimum elong		1735 Jan 19 20:47	29°  18'36	1°01'31	
minimum elong	1732 Aug 24 06:09	1°  31'06	8°25'31			1735 Jan 20 09:57	0° 		
min. Earth dist.	1732 Aug 24 21:13	1°  47'46	0.28634 AU	max. Earth dist.		1735 Jan 23 01:39	3°  42'06	1.71242 AU	
	1732 Aug 26 17:12	30°  R 				1735 Feb 13 07:55	0° 		
morning rise	1732 Aug 27 18:25	29°  42'14		evening rise		1735 Mar 02 06:50	21°  41'05		
direct	1732 Sep 14 21:44	23°  41'03				1735 Mar 09 08:45	0° 		
greatest brilliancy	1732 Sep 29 11:43	26°  56'09	-4.6m			1735 Apr 02 14:08	0° 		
	1732 Oct 05 01:18	0° 		asc. node		1735 Apr 14 15:44	14°  49'52		
asc. node	1732 Oct 27 20:25	18°  41'07				1735 Apr 27 01:35	0° 		
morning max el	1732 Nov 04 02:20	25°  42'27	46°35'35			1735 May 21 20:40	0° 		
	1732 Nov 08 15:01	0° 				1735 Jun 16 02:00	0° 		
	1732 Dec 05 19:43	0° 				1735 Jul 11 23:28	0° 		
	1732 Dec 31 05:18	0° 		desc. node		1735 Aug 04 04:59	25°  47'38		
	1733 Jan 24 22:24	0° 				1735 Aug 08 03:17	0° 		
desc. node	1733 Feb 16 09:59	27°  35'20		evening max el		1735 Aug 27 21:54	20°  48'40	46°09'09	
	1733 Feb 18 09:00	0° 				1735 Sep 07 14:40	0° 		
	1733 Mar 14 17:29	0° 		greatest brilliancy		1735 Oct 05 15:05	18°  40'52	-4.6m	
	1733 Apr 08 01:55	0° 		retrograde		1735 Oct 16 06:14	20°  43'41		

evening set	1735 Oct 31 18:10	16° \mathbb{M} 05'36		minimum elong	1738 Apr 05 18:32	15° Υ 50'20	1°13'01
inferior conj	1735 Nov 05 21:55	13° \mathbb{M} 03'00	-4°-44'-36	max. Earth dist.	1738 Apr 09 00:30	19° Υ 51'44	1.72674 AU
minimum elong	1735 Nov 06 07:22	12° \mathbb{M} 48'37	4°42'03		1738 Apr 17 05:09	0° \mathcal{B}	
min. Earth dist.	1735 Nov 06 14:50	12° \mathbb{M} 37'15	0.26858 AU		1738 May 11 13:15	0° \mathbb{I}	
morning rise	1735 Nov 11 20:06	9° \mathbb{M} 34'46		asc. node	1738 May 12 03:41	0° \mathbb{I} 44'22	
asc. node	1735 Nov 25 08:21	5° \mathbb{M} 19'07		evening rise	1738 May 13 13:22	2° \mathbb{I} 27'51	
direct	1735 Nov 26 14:31	5° \mathbb{M} 17'11			1738 Jun 05 00:19	0° \mathcal{S}	
greatest brilliancy	1735 Dec 09 19:36	8° \mathbb{M} 32'00	-4.7m		1738 Jun 29 14:23	0° \mathcal{Q}	
	1736 Jan 07 10:51	0° \mathcal{A}			1738 Jul 24 08:23	0° \mathbb{M}	
morning max el	1736 Jan 16 08:19	8° \mathcal{A} 45'18	46°57'10		1738 Aug 18 08:26	0° \mathcal{A}	
	1736 Feb 05 05:33	0° \mathcal{B}		desc. node	1738 Aug 31 16:47	15° \mathcal{A} 50'17	
	1736 Mar 02 11:41	0° \approx			1738 Sep 12 18:08	0° \mathbb{M}	
desc. node	1736 Mar 15 21:51	15° \approx 46'59			1738 Oct 08 20:30	0° \mathcal{A}	
	1736 Mar 27 21:12	0° \mathcal{H}			1738 Nov 05 12:34	0° \mathcal{B}	
	1736 Apr 21 21:57	0° Υ		evening max el	1738 Nov 09 00:36	3° \mathcal{B} 33'41	47°12'25
	1736 May 16 18:32	0° \mathcal{B}			1738 Dec 09 22:47	0° \approx	
	1736 Jun 10 12:21	0° \mathbb{I}		greatest brilliancy	1738 Dec 17 16:14	4° \approx 08'06	-4.7m
	1736 Jul 05 03:02	0° \mathcal{S}		asc. node	1738 Dec 22 20:18	5° \approx 57'16	
asc. node	1736 Jul 07 01:20	2° \mathcal{S} 21'39		retrograde	1738 Dec 29 19:10	6° \approx 54'18	
morning set	1736 Jul 16 23:22	14° \mathcal{S} 30'49		evening set	1739 Jan 14 05:27	2° \approx 11'15	
	1736 Jul 29 13:44	0° \mathcal{Q}			1739 Jan 17 22:03	30° $\mathcal{R}\mathcal{B}$	
max. Earth dist.	1736 Aug 18 22:37	25° \mathcal{Q} 09'38	1.72874 AU	min. Earth dist.	1739 Jan 18 15:13	29° \mathcal{B} 33'35	0.26803 AU
				inferior conj	1739 Jan 19 11:12	29° \mathcal{B} 02'42	6°24'36
superior conj	1736 Aug 22 08:57	29° \mathcal{Q} 24'35	1°21'45	minimum elong	1739 Jan 19 00:45	29° \mathcal{B} 18'52	6°22'16
minimum elong	1736 Aug 22 04:18	29° \mathcal{Q} 10'11	1°21'42	morning rise	1739 Jan 23 20:24	26° \mathcal{B} 24'03	
	1736 Aug 22 20:23	0° \mathbb{M}		direct	1739 Feb 08 20:43	21° \mathcal{B} 21'28	
	1736 Sep 15 23:59	0° \mathcal{A}		greatest brilliancy	1739 Feb 19 17:14	23° \mathcal{B} 32'50	-4.6m
evening rise	1736 Sep 28 09:06	15° \mathcal{A} 24'41			1739 Mar 03 16:01	0° \approx	
	1736 Oct 10 02:05	0° \mathbb{M}		morning max el	1739 Mar 30 15:02	23° \approx 02'11	46°25'44
desc. node	1736 Oct 26 14:38	20° \mathbb{M} 35'17			1739 Apr 06 13:27	0° \mathcal{H}	
	1736 Nov 03 03:55	0° \mathcal{A}		desc. node	1739 Apr 13 09:35	7° \mathcal{H} 06'34	
	1736 Nov 27 06:20	0° \mathcal{B}			1739 May 04 09:56	0° Υ	
	1736 Dec 21 10:40	0° \approx			1739 May 30 17:21	0° \mathcal{B}	
	1737 Jan 14 20:13	0° \mathcal{H}			1739 Jun 25 07:50	0° \mathbb{I}	
	1737 Feb 08 17:35	0° Υ			1739 Jul 20 11:12	0° \mathcal{S}	
asc. node	1737 Feb 16 17:58	9° Υ 26'57		asc. node	1739 Aug 04 13:07	18° \mathcal{S} 13'39	
	1737 Mar 06 15:41	0° \mathcal{B}			1739 Aug 14 05:07	0° \mathcal{Q}	
evening max el	1737 Apr 03 15:37	29° \mathcal{B} 39'56	45°51'26		1739 Sep 07 14:45	0° \mathbb{M}	
	1737 Apr 03 23:50	0° \mathbb{I}		morning set	1739 Sep 24 19:12	21° \mathbb{M} 19'59	
greatest brilliancy	1737 May 08 01:19	26° \mathbb{I} 31'22	-4.5m		1739 Oct 01 18:00	0° \mathcal{A}	
	1737 May 18 20:29	0° \mathcal{S}			1739 Oct 25 17:18	0° \mathbb{M}	
retrograde	1737 May 22 16:45	0° \mathcal{S} 16'53		max. Earth dist.	1739 Oct 31 00:46	6° \mathbb{M} 39'49	1.71453 AU
	1737 May 26 11:23	30° $\mathcal{R}\mathbb{I}$					
evening set	1737 Jun 06 18:08	25° \mathbb{I} 54'19		superior conj	1739 Nov 02 01:31	9° \mathbb{M} 12'47	0°49'26
desc. node	1737 Jun 08 07:16	25° \mathbb{I} 01'55		minimum elong	1739 Nov 02 11:34	9° \mathbb{M} 44'18	0°49'01
inferior conj	1737 Jun 13 04:18	22° \mathbb{I} 02'40	-1°-8'-49		1739 Nov 18 14:47	0° \mathcal{A}	
minimum elong	1737 Jun 13 01:47	22° \mathbb{I} 06'37	1°08'06	desc. node	1739 Nov 24 02:36	6° \mathcal{A} 53'59	
min. Earth dist.	1737 Jun 13 03:09	22° \mathbb{I} 04'29	0.28940 AU		1739 Dec 12 11:51	0° \mathcal{B}	
morning rise	1737 Jun 19 09:32	18° \mathbb{I} 17'45		evening rise	1739 Dec 12 20:01	0° \mathcal{B} 25'41	
direct	1737 Jul 04 19:25	13° \mathbb{I} 45'57			1740 Jan 05 09:34	0° \approx	
greatest brilliancy	1737 Jul 18 07:18	16° \mathbb{I} 56'21	-4.5m		1740 Jan 29 09:31	0° \mathcal{H}	
	1737 Aug 07 09:01	0° \mathcal{S}			1740 Feb 22 14:18	0° Υ	
morning max el	1737 Aug 22 15:41	13° \mathcal{S} 38'39	45°52'37	asc. node	1740 Mar 16 05:50	27° Υ 41'25	
	1737 Sep 07 19:15	0° \mathcal{Q}			1740 Mar 18 03:38	0° \mathcal{B}	
asc. node	1737 Sep 29 10:46	23° \mathcal{Q} 51'13			1740 Apr 12 06:45	0° \mathbb{I}	
	1737 Oct 04 19:26	0° \mathbb{M}			1740 May 08 08:47	0° \mathcal{S}	
	1737 Oct 30 04:23	0° \mathcal{A}			1740 Jun 05 09:24	0° \mathcal{Q}	
	1737 Nov 23 17:58	0° \mathbb{M}		evening max el	1740 Jun 13 03:20	7° \mathcal{Q} 36'52	45°23'18
	1737 Dec 17 22:06	0° \mathcal{A}		desc. node	1740 Jul 05 19:14	26° \mathcal{Q} 48'42	
	1738 Jan 10 22:24	0° \mathcal{B}			1740 Jul 10 15:01	0° \mathbb{M}	
desc. node	1738 Jan 19 00:08	10° \mathcal{B} 06'08		greatest brilliancy	1740 Jul 19 02:17	4° \mathbb{M} 25'26	-4.5m
	1738 Feb 03 21:48	0° \approx		retrograde	1740 Jul 31 18:23	7° \mathbb{M} 14'39	
morning set	1738 Feb 24 20:22	26° \approx 10'16		evening set	1740 Aug 18 06:13	1° \mathbb{M} 30'58	
	1738 Feb 27 22:00	0° \mathcal{H}			1740 Aug 20 18:31	30° $\mathcal{R}\mathcal{Q}$	
	1738 Mar 24 00:10	0° Υ		inferior conj	1740 Aug 22 02:29	29° \mathcal{Q} 10'39	-8°-20'-9
				minimum elong	1740 Aug 21 20:59	29° \mathcal{Q} 19'10	8°19'44
superior conj	1738 Apr 05 09:17	15° Υ 21'39	-1°-13'-14	min. Earth dist.	1740 Aug 22 11:25	28° \mathcal{Q} 56'49	0.28675 AU

morning rise	1740 Aug 25 11:34	27°06'25		evening rise	1743 Feb 27 18:06	18°41'42	
direct	1740 Sep 12 14:04	20°05'07			1743 Mar 08 19:56	0°00'	
greatest brilliancy	1740 Sep 27 03:48	24°04'45	-4.6m		1743 Apr 02 01:24	0°00'	
	1740 Oct 06 03:47	0°00'		asc. node	1743 Apr 13 17:52	14°08'21	39
asc. node	1740 Oct 26 22:36	17°00'23	54		1743 Apr 26 13:04	0°00'	
morning max el	1740 Nov 01 18:28	23°00'06	53 46°33'58		1743 May 21 08:36	0°00'	
	1740 Nov 08 11:20	0°00'			1743 Jun 15 14:48	0°00'	
	1740 Dec 05 11:18	0°00'			1743 Jul 11 13:53	0°00'	
	1740 Dec 30 19:02	0°00'		desc. node	1743 Aug 03 06:57	25°00'06	31
	1741 Jan 24 11:09	0°00'			1743 Aug 07 21:20	0°00'	
desc. node	1741 Feb 15 11:59	27°03'59		evening max el	1743 Aug 25 11:25	17°04'48	38 46°06'47
	1741 Feb 17 21:09	0°00'			1743 Sep 07 21:37	0°00'	
	1741 Mar 14 05:12	0°00'		greatest brilliancy	1743 Oct 03 04:48	16°00'18	06 -4.6m
	1741 Apr 07 13:18	0°00'		retrograde	1743 Oct 13 18:04	18°00'19	10
	1741 May 01 22:21	0°00'		evening set	1743 Oct 29 09:56	13°00'37	06
morning set	1741 May 07 21:20	7°00'19	18	inferior conj	1743 Nov 03 10:49	10°00'38	20 -5°-4'-3
	1741 May 26 08:22	0°00'		minimum elong	1743 Nov 03 20:38	10°00'23	21 5°01'29
asc. node	1741 Jun 08 15:33	16°00'19	51	min. Earth dist.	1743 Nov 04 04:52	10°00'10	48 0.26912 AU
				morning rise	1743 Nov 09 06:49	7°00'12	30
superior conj	1741 Jun 13 19:12	22°00'39	36 0°12'14	direct	1743 Nov 24 03:42	2°00'51	37
minimum elong	1741 Jun 13 16:41	22°00'31	54 0°12'07	asc. node	1743 Nov 24 10:25	2°00'51	43
behind sun begin	1741 Jun 13 01:59	21°00'46	44	greatest brilliancy	1743 Dec 07 10:40	6°00'07	44 -4.7m
behind sun end	1741 Jun 14 07:23	23°00'17	03		1744 Jan 07 13:13	0°00'	
max. Earth dist.	1741 Jun 13 08:33	22°00'06	54 1.73600 AU	morning max el	1744 Jan 13 21:01	6°00'17	31 46°57'11
	1741 Jun 19 18:34	0°00'			1744 Feb 04 23:04	0°00'	
	1741 Jul 14 04:12	0°00'			1744 Mar 02 02:15	0°00'	
evening rise	1741 Jul 19 18:01	6°00'51	42	desc. node	1744 Mar 14 23:52	15°00'12	24
	1741 Aug 07 13:12	0°00'			1744 Mar 27 10:16	0°00'	
	1741 Aug 31 22:27	0°00'			1744 Apr 21 10:08	0°00'	
	1741 Sep 25 09:13	0°00'			1744 May 16 06:08	0°00'	
desc. node	1741 Sep 28 04:48	3°00'26	49		1744 Jun 09 23:33	0°00'	
	1741 Oct 19 22:46	0°00'			1744 Jul 04 13:59	0°00'	
	1741 Nov 13 17:06	0°00'		asc. node	1744 Jul 06 03:17	1°00'54	08
	1741 Dec 08 21:31	0°00'		morning set	1744 Jul 14 17:07	12°00'24	42
	1742 Jan 04 03:10	0°00'			1744 Jul 29 00:34	0°00'	
asc. node	1742 Jan 19 08:07	16°00'12	28	max. Earth dist.	1744 Aug 16 15:27	22°00'59	40 1.72921 AU
evening max el	1742 Jan 20 01:23	16°00'15	28 47°01'08				
	1742 Feb 02 15:33	0°00'		superior conj	1744 Aug 20 02:33	27°00'16	54 1°20'50
greatest brilliancy	1742 Feb 25 17:12	16°00'33	35 -4.6m	minimum elong	1744 Aug 19 21:20	27°00'00	46 1°20'46
retrograde	1742 Mar 11 17:22	20°00'08	22		1744 Aug 22 07:12	0°00'	
evening set	1742 Mar 29 02:31	14°00'14	13		1744 Sep 15 10:54	0°00'	
inferior conj	1742 Apr 01 20:21	11°00'54	26 7°40'42	evening rise	1744 Sep 26 00:15	13°00'08	13
minimum elong	1742 Apr 02 04:44	11°00'41	12 7°39'31		1744 Oct 09 13:10	0°00'	
min. Earth dist.	1742 Apr 01 15:10	12°00'02	35 0.28317 AU	desc. node	1744 Oct 25 16:48	20°00'07	08
morning rise	1742 Apr 06 07:16	9°00'10	01		1744 Nov 02 15:12	0°00'	
direct	1742 Apr 22 23:27	3°00'47	56		1744 Nov 26 17:52	0°00'	
greatest brilliancy	1742 May 04 15:11	6°00'15	42 -4.5m		1744 Dec 20 22:34	0°00'	
desc. node	1742 May 10 21:27	9°00'16	17		1745 Jan 14 08:42	0°00'	
	1742 Jun 06 17:36	0°00'			1745 Feb 08 07:08	0°00'	
morning max el	1742 Jun 10 22:51	3°00'58	16 45°47'59	asc. node	1745 Feb 15 19:55	8°00'51	39
	1742 Jul 06 08:26	0°00'			1745 Mar 06 07:30	0°00'	
	1742 Aug 02 06:31	0°00'		evening max el	1745 Apr 01 06:03	27°00'23	56 45°53'26
	1742 Aug 27 23:02	0°00'			1745 Apr 03 22:21	0°00'	
asc. node	1742 Sep 01 00:57	4°00'51	39	greatest brilliancy	1745 May 05 16:57	24°00'22	48 -4.5m
	1742 Sep 21 20:45	0°00'		retrograde	1745 May 20 08:49	28°00'07	50
	1742 Oct 16 05:45	0°00'		evening set	1745 Jun 04 10:46	23°00'44	33
	1742 Nov 09 07:00	0°00'		desc. node	1745 Jun 07 09:17	22°00'02	47
	1742 Dec 03 04:26	0°00'		inferior conj	1745 Jun 10 20:40	19°00'53	32 0°-49'-9
morning set	1742 Dec 07 01:59	4°00'54	07	minimum elong	1745 Jun 10 18:52	19°00'56	22 0°48'38
desc. node	1742 Dec 21 14:21	23°00'09	57	min. Earth dist.	1745 Jun 10 20:04	19°00'54	28 0.28931 AU
	1742 Dec 27 00:40	0°00'		morning rise	1745 Jun 17 02:59	16°00'06	56
				direct	1745 Jul 02 10:55	11°00'36	47
superior conj	1743 Jan 17 18:31	27°00'20	53 0°-59'-3	greatest brilliancy	1745 Jul 15 23:03	14°00'46	47 -4.5m
minimum elong	1743 Jan 17 06:33	26°00'43	18 0°58'38		1745 Aug 07 15:39	0°00'	
	1743 Jan 19 21:09	0°00'		morning max el	1745 Aug 20 06:43	11°00'25	56 45°51'43
max. Earth dist.	1743 Jan 20 09:43	0°00'39	29 1.71215 AU		1745 Sep 07 12:40	0°00'	
	1743 Feb 12 19:05	0°00'		asc. node	1745 Sep 28 12:54	23°00'15	44

	1745 Oct 04 09:30	0° \mathfrak{M}			1748 May 07 23:28	0° \mathfrak{G}	
	1745 Oct 29 17:04	0° \mathfrak{L}			1748 Jun 05 05:18	0° \mathfrak{Q}	
	1745 Nov 23 05:56	0° \mathfrak{M}	evening max el		1748 Jun 10 19:43	5° \mathfrak{Q} 28'01	45°22'58
	1745 Dec 17 09:40	0° \mathfrak{J}	desc. node		1748 Jul 04 21:12	25° \mathfrak{Q} 37'17	
	1746 Jan 10 09:40	0° \mathfrak{Z}			1748 Jul 12 01:23	0° \mathfrak{M}	
desc. node	1746 Jan 18 02:08	9° \mathfrak{Z} 37'16	greatest brilliancy		1748 Jul 16 14:28	2° \mathfrak{M} 10'51	-4.5m
	1746 Feb 03 08:52	0° \approx	retrograde		1748 Jul 29 09:45	5° \mathfrak{M} 02'48	
morning set	1746 Feb 22 07:50	23° \approx 41'58			1748 Aug 14 17:06	30° \mathfrak{R} \mathfrak{Q}	
	1746 Feb 27 08:56	0° \mathfrak{H}	evening set		1748 Aug 15 18:28	29° \mathfrak{Q} 23'18	
	1746 Mar 23 11:01	0° \mathfrak{Y}	inferior conj		1748 Aug 19 17:50	26° \mathfrak{Q} 58'08	-8°-13'-43
			minimum elong		1748 Aug 19 11:41	27° \mathfrak{Q} 07'40	8°13'11
superior conj	1746 Apr 02 23:45	13° \mathfrak{Y} 04'20	min. Earth dist.		1748 Aug 20 01:31	26° \mathfrak{Q} 46'14	0.28712 AU
minimum elong	1746 Apr 03 08:40	13° \mathfrak{Y} 31'59	morning rise		1748 Aug 23 04:46	24° \mathfrak{Q} 51'04	
max. Earth dist.	1746 Apr 06 14:30	17° \mathfrak{Y} 33'04	direct		1748 Sep 10 06:31	18° \mathfrak{Q} 44'19	
	1746 Apr 16 15:56	0° \mathfrak{B}	greatest brilliancy		1748 Sep 24 18:40	22° \mathfrak{Q} 28'28	-4.6m
evening rise	1746 May 11 05:59	0° \mathfrak{I} 18'17			1748 Oct 06 22:49	0° \mathfrak{M}	
asc. node	1746 May 11 05:45	0° \mathfrak{I} 17'32	asc. node		1748 Oct 26 00:40	16° \mathfrak{M} 31'18	
	1746 May 11 00:02	0° \mathfrak{I}	morning max el		1748 Oct 30 09:55	20° \mathfrak{M} 50'41	46°32'23
	1746 Jun 04 11:13	0° \mathfrak{G}			1748 Nov 08 06:42	0° \mathfrak{L}	
	1746 Jun 29 01:33	0° \mathfrak{Q}			1748 Dec 05 02:18	0° \mathfrak{M}	
	1746 Jul 23 20:02	0° \mathfrak{M}			1748 Dec 30 08:17	0° \mathfrak{J}	
	1746 Aug 17 20:54	0° \mathfrak{L}			1749 Jan 23 23:28	0° \mathfrak{Z}	
desc. node	1746 Aug 30 18:51	15° \mathfrak{L} 17'56	desc. node		1749 Feb 14 14:00	26° \mathfrak{Z} 33'55	
	1746 Sep 12 07:55	0° \mathfrak{M}			1749 Feb 17 08:52	0° \approx	
	1746 Oct 08 12:43	0° \mathfrak{J}			1749 Mar 13 16:28	0° \mathfrak{H}	
	1746 Nov 05 10:45	0° \mathfrak{Z}			1749 Apr 07 00:13	0° \mathfrak{Y}	
evening max el	1746 Nov 06 14:01	1° \mathfrak{Z} 08'45			1749 May 01 09:02	0° \mathfrak{B}	
	1746 Dec 11 17:54	0° \approx	morning set		1749 May 05 14:26	5° \mathfrak{B} 11'40	
greatest brilliancy	1746 Dec 15 06:19	1° \approx 41'24			1749 May 25 18:54	0° \mathfrak{I}	
asc. node	1746 Dec 21 22:16	3° \approx 51'47	asc. node		1749 Jun 07 17:30	15° \mathfrak{I} 53'35	
retrograde	1746 Dec 27 08:31	4° \approx 27'01					
	1747 Jan 11 06:52	30° \mathfrak{R} \mathfrak{Z}	superior conj		1749 Jun 11 13:20	20° \mathfrak{I} 35'35	0°09'07
evening set	1747 Jan 11 15:00	29° \mathfrak{Z} 48'44	minimum elong		1749 Jun 11 11:27	20° \mathfrak{I} 29'49	0°09'00
min. Earth dist.	1747 Jan 16 04:29	27° \mathfrak{Z} 06'19	behind sun begin		1749 Jun 10 16:40	19° \mathfrak{I} 32'06	
inferior conj	1747 Jan 17 00:00	26° \mathfrak{Z} 36'15	behind sun end		1749 Jun 12 06:15	21° \mathfrak{I} 27'33	
minimum elong	1747 Jan 16 13:33	26° \mathfrak{Z} 52'20	max. Earth dist.		1749 Jun 11 08:12	20° \mathfrak{I} 19'49	1.73597 AU
morning rise	1747 Jan 21 12:27	23° \mathfrak{Z} 53'22			1749 Jun 19 05:05	0° \mathfrak{G}	
direct	1747 Feb 06 08:56	18° \mathfrak{Z} 55'28			1749 Jul 13 14:48	0° \mathfrak{Q}	
greatest brilliancy	1747 Feb 17 07:05	21° \mathfrak{Z} 08'48	evening rise		1749 Jul 17 12:58	4° \mathfrak{Q} 49'39	
	1747 Mar 04 14:55	0° \approx			1749 Aug 06 23:59	0° \mathfrak{M}	
morning max el	1747 Mar 28 05:08	20° \approx 42'27			1749 Aug 31 09:32	0° \mathfrak{L}	
	1747 Apr 06 09:38	0° \mathfrak{H}			1749 Sep 24 20:44	0° \mathfrak{M}	
desc. node	1747 Apr 12 11:47	6° \mathfrak{H} 23'22	desc. node		1749 Sep 27 06:55	2° \mathfrak{M} 57'52	
	1747 May 04 01:07	0° \mathfrak{Y}			1749 Oct 19 10:55	0° \mathfrak{J}	
	1747 May 30 06:27	0° \mathfrak{B}			1749 Nov 13 06:10	0° \mathfrak{Z}	
	1747 Jun 24 19:50	0° \mathfrak{I}			1749 Dec 08 12:06	0° \approx	
	1747 Jul 19 22:33	0° \mathfrak{G}			1750 Jan 03 21:01	0° \mathfrak{H}	
asc. node	1747 Aug 03 15:08	17° \mathfrak{G} 45'58	evening max el		1750 Jan 17 17:08	14° \mathfrak{H} 39'13	47°02'58
	1747 Aug 13 16:07	0° \mathfrak{Q}	asc. node		1750 Jan 18 10:09	15° \mathfrak{H} 22'24	
	1747 Sep 07 01:34	0° \mathfrak{M}			1750 Feb 02 21:22	0° \mathfrak{Y}	
morning set	1747 Sep 22 10:40	19° \mathfrak{M} 05'12	greatest brilliancy		1750 Feb 23 11:17	14° \mathfrak{Y} 20'46	-4.6m
	1747 Oct 01 04:46	0° \mathfrak{L}	retrograde		1750 Mar 09 09:11	17° \mathfrak{Y} 52'35	
	1747 Oct 25 04:07	0° \mathfrak{M}	evening set		1750 Mar 26 20:36	11° \mathfrak{Y} 55'01	
max. Earth dist.	1747 Oct 28 12:44	4° \mathfrak{M} 12'47	inferior conj		1750 Mar 30 11:40	9° \mathfrak{Y} 39'11	7°50'46
			minimum elong		1750 Mar 30 19:37	9° \mathfrak{Y} 26'39	7°49'43
superior conj	1747 Oct 30 14:06	6° \mathfrak{M} 47'39	min. Earth dist.		1750 Mar 30 05:38	9° \mathfrak{Y} 48'43	0.28274 AU
minimum elong	1747 Oct 31 00:21	7° \mathfrak{M} 19'49	morning rise		1750 Apr 03 18:57	7° \mathfrak{Y} 00'00	
	1747 Nov 18 01:40	0° \mathfrak{J}	direct		1750 Apr 20 14:34	1° \mathfrak{Y} 33'44	
desc. node	1747 Nov 23 04:36	6° \mathfrak{J} 26'01	greatest brilliancy		1750 May 02 02:45	3° \mathfrak{Y} 58'06	-4.5m
evening rise	1747 Dec 10 06:24	27° \mathfrak{J} 53'05	desc. node		1750 May 09 23:22	7° \mathfrak{Y} 52'37	
	1747 Dec 11 22:49	0° \mathfrak{Z}			1750 Jun 06 17:18	0° \mathfrak{B}	
	1748 Jan 04 20:39	0° \approx	morning max el		1750 Jun 08 13:50	1° \mathfrak{B} 45'51	45°48'39
	1748 Jan 28 20:43	0° \mathfrak{H}			1750 Jul 06 00:17	0° \mathfrak{I}	
	1748 Feb 22 01:42	0° \mathfrak{Y}			1750 Aug 01 19:45	0° \mathfrak{G}	
asc. node	1748 Mar 15 08:00	27° \mathfrak{Y} 12'20			1750 Aug 27 11:05	0° \mathfrak{Q}	
	1748 Mar 17 15:27	0° \mathfrak{B}	asc. node		1750 Aug 31 03:05	4° \mathfrak{Q} 22'22	
	1748 Apr 11 19:28	0° \mathfrak{I}			1750 Sep 21 08:12	0° \mathfrak{M}	

	1750 Oct 15 16:54	0°♄	evening set	1753 Jun 02 03:44	21°♄35'18	
	1750 Nov 08 18:00	0°♍	desc. node	1753 Jun 06 11:19	19°♄03'04	
	1750 Dec 02 15:23	0°♎	inferior conj	1753 Jun 08 13:12	17°♄45'10	0°-29'-25
morning set	1750 Dec 04 12:50	2°♎22'55	minimum elong	1753 Jun 08 12:07	17°♄46'52	0°29'07
desc. node	1750 Dec 20 16:19	22°♎41'48	min. Earth dist.	1753 Jun 08 12:57	17°♄45'35	0.28919 AU
	1750 Dec 26 11:35	0°♏	morning rise	1753 Jun 14 20:31	13°♄57'18	
			direct	1753 Jun 30 02:43	9°♄28'18	
superior conj	1751 Jan 15 04:09	24°♏46'12	greatest brilliancy	1753 Jul 13 15:19	12°♄38'40	-4.5m
minimum elong	1751 Jan 14 16:20	24°♏09'03		1753 Aug 07 19:56	0°♑	
max. Earth dist.	1751 Jan 17 15:57	27°♏54'05	morning max el	1753 Aug 17 22:51	9°♑16'33	45°50'56
	1751 Jan 19 08:02	0°♐		1753 Sep 07 05:32	0°♒	
	1751 Feb 12 05:56	0°♑	asc. node	1753 Sep 27 14:58	22°♒40'45	
evening rise	1751 Feb 25 05:18	16°♑13'00		1753 Oct 03 23:18	0°♓	
	1751 Mar 08 06:48	0°♒		1753 Oct 29 05:37	0°♄	
	1751 Apr 01 12:21	0°♓		1753 Nov 22 17:52	0°♍	
asc. node	1751 Apr 12 19:55	13°♓54'10		1753 Dec 16 21:16	0°♎	
	1751 Apr 26 00:15	0°♄		1754 Jan 09 21:03	0°♏	
	1751 May 20 20:13	0°♑	desc. node	1754 Jan 17 04:16	9°♏08'28	
	1751 Jun 15 03:16	0°♒		1754 Feb 02 20:05	0°♐	
	1751 Jul 11 04:05	0°♓	morning set	1754 Feb 19 18:43	21°♐11'23	
desc. node	1751 Aug 02 09:01	24°♓26'08		1754 Feb 26 19:59	0°♑	
	1751 Aug 07 15:30	0°♄		1754 Mar 22 21:57	0°♒	
evening max el	1751 Aug 22 23:54	15°♄26'58				
	1751 Sep 08 06:53	0°♍	superior conj	1754 Mar 31 13:50	10°♒45'26	-1°-16'-43
greatest brilliancy	1751 Sep 30 18:12	13°♍55'13	minimum elong	1754 Mar 31 22:19	11°♒11'47	1°16'32
retrograde	1751 Oct 11 05:38	15°♍54'55	max. Earth dist.	1754 Apr 04 04:02	15°♒12'42	1.72569 AU
evening set	1751 Oct 27 01:33	11°♍08'21		1754 Apr 16 02:47	0°♓	
inferior conj	1751 Oct 31 23:34	8°♍13'45	evening rise	1754 May 08 22:33	29°♓08'20	
minimum elong	1751 Nov 01 09:41	7°♍58'18	asc. node	1754 May 10 07:42	29°♓50'12	
min. Earth dist.	1751 Nov 01 18:59	7°♍44'07		1754 May 10 10:53	0°♄	
morning rise	1751 Nov 06 17:11	4°♍50'45		1754 Jun 03 22:11	0°♑	
direct	1751 Nov 21 16:32	0°♍25'44		1754 Jun 28 12:48	0°♒	
asc. node	1751 Nov 23 12:21	0°♍29'44		1754 Jul 23 07:47	0°♓	
greatest brilliancy	1751 Dec 05 02:49	3°♍44'55		1754 Aug 17 09:27	0°♄	
	1752 Jan 07 14:10	0°♎	desc. node	1754 Aug 29 21:01	14°♄45'40	
morning max el	1752 Jan 11 09:41	3°♎49'51		1754 Sep 11 21:50	0°♍	
	1752 Feb 04 16:04	0°♏		1754 Oct 08 05:14	0°♎	
	1752 Mar 01 16:26	0°♐	evening max el	1754 Nov 04 04:15	28°♎45'50	47°09'49
desc. node	1752 Mar 14 02:02	14°♐39'08		1754 Nov 05 09:57	0°♏	
	1752 Mar 26 23:01	0°♑	greatest brilliancy	1754 Dec 12 19:30	29°♏12'49	-4.7m
	1752 Apr 20 22:02	0°♒		1754 Dec 14 18:33	0°♐	
	1752 May 15 17:28	0°♓	asc. node	1754 Dec 21 00:21	1°♐39'55	
	1752 Jun 09 10:30	0°♄	retrograde	1754 Dec 24 21:55	1°♐58'17	
	1752 Jul 04 00:41	0°♑		1755 Jan 03 15:43	30°♒♏	
asc. node	1752 Jul 05 05:22	1°♑27'46	evening set	1755 Jan 09 00:31	27°♏24'33	
morning set	1752 Jul 12 11:18	10°♑20'36	min. Earth dist.	1755 Jan 13 17:23	24°♏37'37	0.26713 AU
	1752 Jul 28 11:09	0°♒	inferior conj	1755 Jan 14 12:34	24°♏08'09	5°50'04
max. Earth dist.	1752 Aug 14 11:07	20°♒59'15	minimum elong	1755 Jan 14 02:13	24°♏24'02	5°47'33
			morning rise	1755 Jan 19 04:19	21°♏21'02	
superior conj	1752 Aug 17 20:34	25°♒11'16	direct	1755 Feb 03 21:39	16°♏27'54	
minimum elong	1752 Aug 17 14:50	24°♒53'31	greatest brilliancy	1755 Feb 14 20:19	18°♏42'29	-4.6m
	1752 Aug 21 17:49	0°♓		1755 Mar 05 08:30	0°♐	
	1752 Sep 14 21:39	0°♄	morning max el	1755 Mar 25 19:40	18°♐22'33	46°28'56
evening rise	1752 Sep 23 15:50	10°♄53'40		1755 Apr 06 05:37	0°♑	
	1752 Oct 09 00:09	0°♍	desc. node	1755 Apr 11 13:45	5°♑39'05	
desc. node	1752 Oct 24 18:47	19°♍38'40		1755 May 03 16:24	0°♒	
	1752 Nov 02 02:27	0°♎		1755 May 29 19:41	0°♓	
	1752 Nov 26 05:26	0°♏		1755 Jun 24 07:58	0°♄	
	1752 Dec 20 10:31	0°♐		1755 Jul 19 10:03	0°♑	
	1753 Jan 13 21:14	0°♑	asc. node	1755 Aug 02 17:14	17°♑18'04	
	1753 Feb 07 20:45	0°♒		1755 Aug 13 03:16	0°♒	
asc. node	1753 Feb 14 22:04	8°♒16'52		1755 Sep 06 12:33	0°♓	
	1753 Mar 05 23:28	0°♓	morning set	1755 Sep 20 02:45	16°♓51'58	
evening max el	1753 Mar 29 20:41	25°♓08'49		1755 Sep 30 15:42	0°♄	
	1753 Apr 03 21:41	0°♄		1755 Oct 24 15:04	0°♍	
greatest brilliancy	1753 May 03 08:07	22°♄10'14	max. Earth dist.	1755 Oct 25 23:52	1°♍42'47	1.71530 AU
retrograde	1753 May 18 01:30	25°♄59'44				

superior conj	1755 Oct 28 03:28	4°♌24'35	0°55'15	min. Earth dist.	1758 Mar 27 20:24	7°♊33'11	0.28236 AU
minimum elong	1755 Oct 28 13:50	4°♌57'08	0°54'52	morning rise	1758 Apr 01 06:38	4°♊48'41	
	1755 Nov 17 12:43	0°♊			1758 Apr 12 07:44	30°♊	
desc. node	1755 Nov 22 06:37	5°♊57'34		direct	1758 Apr 18 05:17	29°♊18'07	
evening rise	1755 Dec 07 17:14	25°♊21'20			1758 Apr 24 06:58	0°♊	
	1755 Dec 11 09:59	0°♊		greatest brilliancy	1758 Apr 29 15:33	1°♊40'16	-4.5m
	1756 Jan 04 07:58	0°♊		desc. node	1758 May 09 01:26	6°♊30'23	
	1756 Jan 28 08:13	0°♊		morning max el	1758 Jun 06 04:07	29°♊30'04	45°49'21
	1756 Feb 21 13:28	0°♊			1758 Jun 06 16:36	0°♊	
asc. node	1756 Mar 14 10:00	26°♊41'31			1758 Jul 05 16:24	0°♊	
	1756 Mar 17 03:42	0°♊			1758 Aug 01 09:21	0°♊	
	1756 Apr 11 08:41	0°♊			1758 Aug 26 23:29	0°♊	
	1756 May 07 14:45	0°♊		asc. node	1758 Aug 30 05:06	3°♊51'43	
	1756 Jun 05 02:16	0°♊			1758 Sep 20 19:58	0°♊	
evening max el	1756 Jun 08 11:56	3°♊17'54	45°22'50		1758 Oct 15 04:21	0°♊	
desc. node	1756 Jul 03 23:18	24°♊23'16			1758 Nov 08 05:19	0°♊	
greatest brilliancy	1756 Jul 14 03:59	29°♊57'18	-4.5m	morning set	1758 Dec 01 23:59	29°♊51'36	
	1756 Jul 14 06:32	0°♊			1758 Dec 02 02:39	0°♊	
retrograde	1756 Jul 27 00:55	2°♊50'40		desc. node	1758 Dec 19 18:28	22°♊13'16	
	1756 Aug 08 02:47	30°♊			1758 Dec 25 22:48	0°♊	
evening set	1756 Aug 13 06:52	27°♊15'39					
inferior conj	1756 Aug 17 09:24	24°♊45'30	-8°-6'-44	superior conj	1759 Jan 12 14:07	22°♊11'31	0°-52'-58
minimum elong	1756 Aug 17 02:39	24°♊55'59	8°06'03	minimum elong	1759 Jan 12 02:31	21°♊35'04	0°52'31
min. Earth dist.	1756 Aug 17 16:04	24°♊35'08	0.28743 AU	max. Earth dist.	1759 Jan 14 19:40	24°♊59'51	1.71157 AU
morning rise	1756 Aug 20 22:17	22°♊35'16			1759 Jan 18 19:12	0°♊	
direct	1756 Sep 07 22:53	16°♊31'29			1759 Feb 11 17:05	0°♊	
greatest brilliancy	1756 Sep 22 08:56	20°♊12'59	-4.6m	evening rise	1759 Feb 22 16:42	13°♊43'56	
	1756 Oct 07 13:14	0°♊			1759 Mar 07 17:58	0°♊	
asc. node	1756 Oct 25 02:35	15°♊38'41			1759 Mar 31 23:39	0°♊	
morning max el	1756 Oct 28 00:40	18°♊32'14	46°30'53	asc. node	1759 Apr 11 21:53	13°♊25'20	
	1756 Nov 08 01:44	0°♊			1759 Apr 25 11:48	0°♊	
	1756 Dec 04 17:19	0°♊			1759 May 20 08:16	0°♊	
	1756 Dec 29 21:38	0°♊			1759 Jun 14 16:15	0°♊	
	1757 Jan 23 11:58	0°♊			1759 Jul 10 18:55	0°♊	
desc. node	1757 Feb 13 16:08	26°♊03'25		desc. node	1759 Aug 01 11:09	23°♊44'12	
	1757 Feb 16 20:50	0°♊			1759 Aug 07 10:37	0°♊	
	1757 Mar 13 04:04	0°♊		evening max el	1759 Aug 20 12:05	13°♊03'43	46°01'52
	1757 Apr 06 11:32	0°♊			1759 Sep 08 19:52	0°♊	
	1757 Apr 30 20:07	0°♊		greatest brilliancy	1759 Sep 28 06:42	11°♊30'54	-4.6m
morning set	1757 May 03 07:04	3°♊01'17		retrograde	1759 Oct 08 17:39	13°♊30'37	
	1757 May 25 05:50	0°♊		evening set	1759 Oct 24 17:23	8°♊38'59	
asc. node	1757 Jun 06 19:35	15°♊26'31		inferior conj	1759 Oct 29 12:28	5°♊48'45	-5°-41'-6
				minimum elong	1759 Oct 29 22:48	5°♊32'59	5°38'36
superior conj	1757 Jun 09 07:07	18°♊29'18	0°05'55	min. Earth dist.	1759 Oct 30 08:58	5°♊17'30	0.27036 AU
minimum elong	1757 Jun 09 05:53	18°♊25'31	0°05'52	morning rise	1759 Nov 04 03:34	2°♊29'10	
behind sun begin	1757 Jun 08 08:41	17°♊20'25			1759 Nov 09 07:41	30°♊	
behind sun end	1757 Jun 10 03:05	19°♊30'38		direct	1759 Nov 19 05:42	27°♊59'22	
max. Earth dist.	1757 Jun 09 06:19	18°♊26'54	1.73586 AU	asc. node	1759 Nov 22 14:31	28°♊12'53	
	1757 Jun 18 15:59	0°♊			1759 Nov 29 13:25	0°♊	
	1757 Jul 13 01:45	0°♊		greatest brilliancy	1759 Dec 02 19:46	1°♊22'42	-4.7m
evening rise	1757 Jul 15 07:44	2°♊46'00			1760 Jan 07 14:14	0°♊	
	1757 Aug 06 11:07	0°♊		morning max el	1760 Jan 08 23:19	1°♊23'50	46°57'38
	1757 Aug 30 20:58	0°♊			1760 Feb 04 09:00	0°♊	
	1757 Sep 24 08:38	0°♊			1760 Mar 01 06:42	0°♊	
desc. node	1757 Sep 26 08:53	2°♊27'24		desc. node	1760 Mar 13 03:59	14°♊04'39	
	1757 Oct 18 23:27	0°♊			1760 Mar 26 11:55	0°♊	
	1757 Nov 12 19:37	0°♊			1760 Apr 20 10:06	0°♊	
	1757 Dec 08 03:07	0°♊			1760 May 15 05:01	0°♊	
	1758 Jan 03 15:32	0°♊			1760 Jun 08 21:43	0°♊	
evening max el	1758 Jan 15 07:58	12°♊18'47	47°04'35		1760 Jul 03 11:41	0°♊	
asc. node	1758 Jan 17 12:16	14°♊30'56		asc. node	1760 Jul 04 07:29	1°♊00'35	
	1758 Feb 03 05:55	0°♊		morning set	1760 Jul 10 05:19	8°♊15'00	
greatest brilliancy	1758 Feb 21 05:17	12°♊06'42	-4.6m		1760 Jul 27 22:04	0°♊	
retrograde	1758 Mar 07 00:24	15°♊35'33		max. Earth dist.	1760 Aug 12 07:30	19°♊00'00	1.73014 AU
evening set	1758 Mar 24 14:31	9°♊34'47					
inferior conj	1758 Mar 28 03:00	7°♊22'45	8°00'03	superior conj	1760 Aug 15 14:22	23°♊03'59	1°18'41
minimum elong	1758 Mar 28 10:26	7°♊10'59	7°59'08	minimum elong	1760 Aug 15 08:08	22°♊44'40	1°18'33

	1760 Aug 21 04:45	0° \mathfrak{M}		greatest brilliancy	1763 Feb 12 08:54	16° \mathfrak{C} 15'18	-4.6m
	1760 Sep 14 08:42	0° \mathfrak{A}			1763 Mar 05 21:38	0° \approx	
evening rise	1760 Sep 21 07:20	8° \mathfrak{A} 38'06		morning max el	1763 Mar 23 09:41	16° \approx 01'23	46°30'23
	1760 Oct 08 11:23	0° \mathfrak{M}			1763 Apr 06 00:57	0° \mathfrak{H}	
desc. node	1760 Oct 23 20:47	19° \mathfrak{M} 09'30		desc. node	1763 Apr 10 15:46	4° \mathfrak{H} 55'38	
	1760 Nov 01 13:56	0° \mathfrak{J}			1763 May 03 07:25	0° \mathfrak{Y}	
	1760 Nov 25 17:13	0° \mathfrak{C}			1763 May 29 08:46	0° \mathfrak{B}	
	1760 Dec 19 22:43	0° \approx			1763 Jun 23 19:59	0° \mathfrak{H}	
	1761 Jan 13 10:04	0° \mathfrak{H}			1763 Jul 18 21:28	0° \mathfrak{C}	
asc. node	1761 Feb 07 10:42	0° \mathfrak{Y}		asc. node	1763 Aug 01 19:16	16° \mathfrak{C} 50'12	
	1761 Feb 14 00:06	7° \mathfrak{Y} 40'52			1763 Aug 12 14:21	0° \mathfrak{Q}	
	1761 Mar 05 15:54	0° \mathfrak{B}			1763 Sep 05 23:30	0° \mathfrak{M}	
evening max el	1761 Mar 27 11:59	22° \mathfrak{B} 54'52	45°58'00	morning set	1763 Sep 17 18:44	14° \mathfrak{M} 38'31	
	1761 Apr 03 22:19	0° \mathfrak{H}			1763 Sep 30 02:38	0° \mathfrak{A}	
greatest brilliancy	1761 Apr 30 23:08	19° \mathfrak{H} 59'04	-4.5m	max. Earth dist.	1763 Oct 23 07:58	29° \mathfrak{A} 03'22	1.71572 AU
retrograde	1761 May 15 18:31	23° \mathfrak{H} 51'02			1763 Oct 24 02:02	0° \mathfrak{M}	
evening set	1761 May 30 20:50	19° \mathfrak{H} 25'17					
desc. node	1761 Jun 05 13:25	16° \mathfrak{H} 01'32		superior conj	1763 Oct 25 16:42	2° \mathfrak{M} 01'09	0°58'00
inferior conj	1761 Jun 06 05:41	15° \mathfrak{H} 36'04	0°-9'-35	minimum elong	1763 Oct 26 03:07	2° \mathfrak{M} 33'47	0°57'36
minimum elong	1761 Jun 06 05:19	15° \mathfrak{H} 36'37	0°09'30		1763 Nov 16 23:46	0° \mathfrak{J}	
transit middle	1761 Jun 06 05:19	15° \mathfrak{H} 36'37	0°09'30	desc. node	1763 Nov 21 08:47	5° \mathfrak{J} 29'37	
transit begin	1761 Jun 06 02:02	15° \mathfrak{H} 41'46		evening rise	1763 Dec 05 03:38	22° \mathfrak{J} 48'17	
transit end	1761 Jun 06 08:37	15° \mathfrak{H} 31'28			1763 Dec 10 21:09	0° \mathfrak{C}	
min. Earth dist.	1761 Jun 06 05:25	15° \mathfrak{H} 36'28	0.28912 AU		1764 Jan 03 19:14	0° \approx	
morning rise	1761 Jun 12 13:52	11° \mathfrak{H} 47'17			1764 Jan 27 19:38	0° \mathfrak{H}	
direct	1761 Jun 27 19:05	7° \mathfrak{H} 19'09			1764 Feb 21 01:09	0° \mathfrak{Y}	
greatest brilliancy	1761 Jul 11 07:24	10° \mathfrak{H} 29'43	-4.5m	asc. node	1764 Mar 13 11:59	26° \mathfrak{Y} 10'51	
	1761 Aug 07 22:52	0° \mathfrak{C}			1764 Mar 16 15:54	0° \mathfrak{B}	
morning max el	1761 Aug 15 15:36	7° \mathfrak{C} 08'02	45°50'03		1764 Apr 10 21:53	0° \mathfrak{H}	
	1761 Sep 06 22:23	0° \mathfrak{Q}			1764 May 07 06:07	0° \mathfrak{C}	
asc. node	1761 Sep 26 16:55	22° \mathfrak{Q} 04'53			1764 Jun 04 23:47	0° \mathfrak{Q}	
	1761 Oct 03 13:15	0° \mathfrak{M}		evening max el	1764 Jun 06 03:27	1° \mathfrak{Q} 06'31	45°22'46
	1761 Oct 28 18:19	0° \mathfrak{A}		desc. node	1764 Jul 03 01:23	23° \mathfrak{Q} 07'37	
	1761 Nov 22 05:56	0° \mathfrak{M}		greatest brilliancy	1764 Jul 11 18:04	27° \mathfrak{Q} 45'08	-4.5m
	1761 Dec 16 08:57	0° \mathfrak{J}			1764 Jul 18 16:16	0° \mathfrak{M}	
desc. node	1762 Jan 09 08:30	0° \mathfrak{C}		retrograde	1764 Jul 24 15:47	0° \mathfrak{M} 39'34	
	1762 Jan 16 06:17	8° \mathfrak{C} 39'03			1764 Jul 30 11:14	30° \mathfrak{R} \mathfrak{Q}	
	1762 Feb 02 07:22	0° \approx		evening set	1764 Aug 10 19:17	25° \mathfrak{Q} 09'13	
morning set	1762 Feb 17 05:29	18° \approx 40'00		inferior conj	1764 Aug 15 01:04	22° \mathfrak{Q} 34'02	-7°-58'-57
	1762 Feb 26 07:09	0° \mathfrak{H}		minimum elong	1764 Aug 14 17:47	22° \mathfrak{Q} 45'23	7°58'08
	1762 Mar 22 08:58	0° \mathfrak{Y}		min. Earth dist.	1764 Aug 15 07:04	22° \mathfrak{Q} 24'42	0.28773 AU
				morning rise	1764 Aug 18 16:07	20° \mathfrak{Q} 20'17	
superior conj	1762 Mar 29 03:49	8° \mathfrak{Y} 25'49	-1°-18'-17	direct	1764 Sep 05 14:50	14° \mathfrak{Q} 19'44	
minimum elong	1762 Mar 29 11:49	8° \mathfrak{Y} 50'40	1°18'08	greatest brilliancy	1764 Sep 19 23:28	17° \mathfrak{Q} 58'42	-4.6m
max. Earth dist.	1762 Apr 01 18:45	12° \mathfrak{Y} 55'31	1.72513 AU		1764 Oct 07 23:40	0° \mathfrak{M}	
	1762 Apr 15 13:43	0° \mathfrak{B}		asc. node	1764 Oct 24 04:47	14° \mathfrak{M} 48'08	
evening rise	1762 May 06 15:08	25° \mathfrak{B} 58'14		morning max el	1764 Oct 25 14:27	16° \mathfrak{M} 11'52	46°29'13
asc. node	1762 May 09 09:51	29° \mathfrak{B} 23'16			1764 Nov 07 20:08	0° \mathfrak{A}	
	1762 May 09 21:48	0° \mathfrak{H}			1764 Dec 04 08:04	0° \mathfrak{M}	
	1762 Jun 03 09:13	0° \mathfrak{C}			1764 Dec 29 10:50	0° \mathfrak{J}	
	1762 Jun 28 00:08	0° \mathfrak{Q}			1765 Jan 23 00:19	0° \mathfrak{C}	
	1762 Jul 22 19:39	0° \mathfrak{M}		desc. node	1765 Feb 12 18:08	25° \mathfrak{C} 33'00	
	1762 Aug 16 22:12	0° \mathfrak{A}			1765 Feb 16 08:38	0° \approx	
desc. node	1762 Aug 28 22:55	14° \mathfrak{A} 12'02			1765 Mar 12 15:27	0° \mathfrak{H}	
	1762 Sep 11 12:02	0° \mathfrak{M}			1765 Apr 05 22:35	0° \mathfrak{Y}	
	1762 Oct 07 22:14	0° \mathfrak{J}			1765 Apr 30 06:57	0° \mathfrak{B}	
evening max el	1762 Nov 01 19:06	26° \mathfrak{J} 24'14	47°08'24	morning set	1765 Apr 30 23:36	0° \mathfrak{B} 51'13	
	1762 Nov 05 10:20	0° \mathfrak{C}			1765 May 24 16:33	0° \mathfrak{H}	
greatest brilliancy	1762 Dec 10 09:05	26° \mathfrak{C} 44'40	-4.7m	asc. node	1765 Jun 05 21:42	15° \mathfrak{H} 00'15	
asc. node	1762 Dec 20 02:26	29° \mathfrak{C} 22'22					
retrograde	1762 Dec 22 11:20	29° \mathfrak{C} 29'12		superior conj	1765 Jun 07 01:00	16° \mathfrak{H} 24'05	0°02'44
evening set	1763 Jan 06 10:16	25° \mathfrak{C} 00'05		minimum elong	1765 Jun 07 00:26	16° \mathfrak{H} 22'19	0°02'43
min. Earth dist.	1763 Jan 11 06:13	22° \mathfrak{C} 08'47	0.26669 AU	behind sun begin	1765 Jun 06 02:03	15° \mathfrak{H} 13'36	
inferior conj	1763 Jan 12 01:04	21° \mathfrak{C} 39'52	5°31'32	behind sun end	1765 Jun 07 22:48	17° \mathfrak{H} 31'03	
minimum elong	1763 Jan 11 14:56	21° \mathfrak{C} 55'25	5°28'58	max. Earth dist.	1765 Jun 07 02:46	16° \mathfrak{H} 29'30	1.73573 AU
morning rise	1763 Jan 16 20:04	18° \mathfrak{C} 48'32			1765 Jun 18 02:39	0° \mathfrak{C}	
direct	1763 Feb 01 10:37	14° \mathfrak{C} 00'27			1765 Jul 12 12:28	0° \mathfrak{Q}	

evening rise	1765 Jul 13 02:42	0°♌43'45		morning max el	1768 Jan 06 13:55	29°♍01'42	46°57'36
	1765 Aug 05 22:00	0°♎			1768 Jan 07 12:44	0°♏	
	1765 Aug 30 08:09	0°♐			1768 Feb 04 01:14	0°♑	
	1765 Sep 23 20:17	0°♒			1768 Feb 29 20:32	0°♓	
desc. node	1765 Sep 25 10:58	1°♍58'05		desc. node	1768 Mar 12 06:02	13°♊31'28	
	1765 Oct 18 11:47	0°♏			1768 Mar 26 00:29	0°♋	
	1765 Nov 12 08:57	0°♑			1768 Apr 19 21:53	0°♌	
	1765 Dec 07 18:09	0°♒			1768 May 14 16:16	0°♍	
	1766 Jan 03 10:25	0°♋			1768 Jun 08 08:36	0°♎	
evening max el	1766 Jan 12 21:49	9°♋55'55	47°06'14		1768 Jul 02 22:20	0°♏	
asc. node	1766 Jan 16 14:16	13°♋38'26		asc. node	1768 Jul 03 09:27	0°♐34'01	
	1766 Feb 03 17:21	0°♌		morning set	1768 Jul 07 23:19	6°♐10'28	
greatest brilliancy	1766 Feb 18 23:00	9°♌52'13	-4.6m		1768 Jul 27 08:37	0°♑	
retrograde	1766 Mar 04 15:21	13°♌18'41		max. Earth dist.	1768 Aug 10 04:39	17°♑04'19	1.73057 AU
evening set	1766 Mar 22 08:09	7°♌14'49					
inferior conj	1766 Mar 25 18:12	5°♌06'32	8°08'32	superior conj	1768 Aug 13 08:14	20°♑58'01	1°17'25
minimum elong	1766 Mar 26 01:05	4°♌55'39	8°07'47	minimum elong	1768 Aug 13 01:32	20°♑37'18	1°17'17
min. Earth dist.	1766 Mar 25 11:11	5°♌17'38	0.28194 AU		1768 Aug 20 15:20	0°♎	
morning rise	1766 Mar 29 18:15	2°♌37'39			1768 Sep 13 19:26	0°♏	
	1766 Apr 03 14:56	30°♋		evening rise	1768 Sep 18 23:08	6°♏24'34	
direct	1766 Apr 15 19:23	27°♋02'36			1768 Oct 07 22:17	0°♐	
greatest brilliancy	1766 Apr 27 05:03	29°♋23'43	-4.5m	desc. node	1768 Oct 22 22:57	18°♍41'53	
	1766 Apr 28 16:12	0°♌			1768 Nov 01 01:04	0°♏	
desc. node	1766 May 08 03:37	5°♌11'30			1768 Nov 25 04:39	0°♑	
morning max el	1766 Jun 03 18:12	27°♌14'33	45°50'12		1768 Dec 19 10:34	0°♒	
	1766 Jun 06 14:34	0°♋			1769 Jan 12 22:35	0°♋	
	1766 Jul 05 07:55	0°♎			1769 Feb 07 00:25	0°♌	
	1766 Jul 31 22:30	0°♏		asc. node	1769 Feb 13 02:04	7°♌05'22	
	1766 Aug 26 11:28	0°♑			1769 Mar 05 08:21	0°♍	
asc. node	1766 Aug 29 07:06	3°♑22'04		evening max el	1769 Mar 25 04:10	20°♋43'39	46°00'15
	1766 Sep 20 07:21	0°♎			1769 Apr 04 00:00	0°♎	
	1766 Oct 14 15:26	0°♏		greatest brilliancy	1769 Apr 28 15:25	17°♎49'59	-4.5m
	1766 Nov 07 16:17	0°♐		retrograde	1769 May 13 11:39	21°♎42'30	
morning set	1766 Nov 29 11:20	27°♎21'56		evening set	1769 May 28 14:03	17°♎15'34	
	1766 Dec 01 13:35	0°♏		inferior conj	1769 Jun 03 22:03	13°♎27'14	0°10'16
desc. node	1766 Dec 18 20:31	21°♏45'21		minimum elong	1769 Jun 03 22:25	13°♎26'39	0°10'09
	1766 Dec 25 09:44	0°♑		transit middle	1769 Jun 03 22:25	13°♎26'39	0°10'09
				transit begin	1769 Jun 03 19:15	13°♎31'36	
superior conj	1767 Jan 09 23:46	19°♑36'41	0°-49'-43	transit end	1769 Jun 04 01:35	13°♎21'41	
minimum elong	1767 Jan 09 12:31	19°♑01'17	0°49'17	min. Earth dist.	1769 Jun 03 21:32	13°♎28'02	0.28899 AU
max. Earth dist.	1767 Jan 11 21:32	22°♑00'33	1.71139 AU	desc. node	1769 Jun 04 15:25	13°♎00'03	
	1767 Jan 18 06:07	0°♒		morning rise	1769 Jun 10 06:59	9°♎37'48	
	1767 Feb 11 04:00	0°♋		direct	1769 Jun 25 11:43	5°♎10'36	
evening rise	1767 Feb 20 03:35	11°♋13'56		greatest brilliancy	1769 Jul 08 22:25	8°♎20'12	-4.5m
	1767 Mar 07 04:55	0°♌			1769 Aug 07 23:58	0°♏	
	1767 Mar 31 10:41	0°♍		morning max el	1769 Aug 13 08:16	5°♏00'22	45°49'09
asc. node	1767 Apr 11 00:02	12°♋57'57			1769 Sep 06 14:33	0°♑	
	1767 Apr 24 23:04	0°♎		asc. node	1769 Sep 25 19:05	21°♑30'51	
	1767 May 19 20:02	0°♏			1769 Oct 03 02:44	0°♎	
	1767 Jun 14 04:59	0°♑			1769 Oct 28 06:38	0°♏	
	1767 Jul 10 09:33	0°♎			1769 Nov 21 17:39	0°♐	
desc. node	1767 Jul 31 13:06	23°♎02'23			1769 Dec 15 20:19	0°♏	
	1767 Aug 07 05:49	0°♏			1770 Jan 08 19:37	0°♑	
evening max el	1767 Aug 18 00:58	10°♏43'36	45°59'42	desc. node	1770 Jan 15 08:17	8°♑10'39	
	1767 Sep 09 12:19	0°♐			1770 Feb 01 18:19	0°♒	
greatest brilliancy	1767 Sep 25 18:20	9°♐07'36	-4.6m	morning set	1770 Feb 14 16:31	16°♒10'30	
retrograde	1767 Oct 06 06:29	11°♐08'29			1770 Feb 25 17:58	0°♋	
evening set	1767 Oct 22 09:26	6°♐11'37			1770 Mar 21 19:42	0°♌	
inferior conj	1767 Oct 27 01:32	3°♐25'42	-5°-58'-21				
minimum elong	1767 Oct 27 12:02	3°♐09'43	5°55'55	superior conj	1770 Mar 26 17:46	6°♌06'50	-1°-19'-42
min. Earth dist.	1767 Oct 27 22:39	2°♐53'33	0.27101 AU	minimum elong	1770 Mar 27 01:14	6°♌30'00	1°19'35
morning rise	1767 Nov 01 13:59	0°♐10'00		max. Earth dist.	1770 Mar 30 11:21	10°♌44'55	1.72464 AU
	1767 Nov 01 21:16	30°♋			1770 Apr 15 00:24	0°♋	
direct	1767 Nov 16 19:29	25°♏35'05		evening rise	1770 May 04 07:30	23°♋48'01	
asc. node	1767 Nov 21 16:33	26°♏03'16		asc. node	1770 May 08 11:54	28°♋56'41	
greatest brilliancy	1767 Nov 30 12:19	29°♏02'02	-4.7m		1770 May 09 08:30	0°♎	
	1767 Dec 02 10:49	0°♐			1770 Jun 02 20:03	0°♏	

	1770 Jun 27 11:17	0°♌			1773 Feb 15 20:26	0°♊		
	1770 Jul 22 07:20	0°♍			1773 Mar 12 02:51	0°♈		
	1770 Aug 16 10:46	0°♊			1773 Apr 05 09:40	0°♍		
desc. node	1770 Aug 28 01:01	13°♊39'34		morning set	1773 Apr 28 16:13	28°♍41'11		
	1770 Sep 11 02:08	0°♍			1773 Apr 29 17:49	0°♈		
	1770 Oct 07 15:18	0°♈			1773 May 24 03:18	0°♊		
evening max el	1770 Oct 30 10:02	24°♈03'32	47°06'47					
	1770 Nov 05 11:40	0°♊		superior conj	1773 Jun 04 19:01	14°♊19'08	0°00'-27	
greatest brilliancy	1770 Dec 07 23:42	24°♊18'32	-4.7m	minimum elong	1773 Jun 04 19:06	14°♊19'25	0°00'28	
asc. node	1770 Dec 19 04:26	26°♊59'50		behind sun begin	1773 Jun 03 20:31	13°♊10'03		
retrograde	1770 Dec 20 00:29	27°♊00'41		behind sun end	1773 Jun 05 17:41	15°♊28'46		
evening set	1771 Jan 03 20:17	22°♊36'15		asc. node	1773 Jun 04 23:39	14°♊33'26		
min. Earth dist.	1771 Jan 08 19:24	19°♊40'22	0.26625 AU	max. Earth dist.	1773 Jun 04 22:27	14°♊29'42	1.73562 AU	
inferior conj	1771 Jan 09 13:36	19°♊12'25	5°12'21		1773 Jun 17 13:22	0°♊		
minimum elong	1771 Jan 09 03:44	19°♊27'34	5°09'46	evening rise	1773 Jul 10 21:44	28°♊41'34		
morning rise	1771 Jan 14 11:41	16°♊16'49			1773 Jul 11 23:16	0°♌		
direct	1771 Jan 29 23:23	11°♊33'56			1773 Aug 05 08:59	0°♍		
greatest brilliancy	1771 Feb 09 21:33	13°♊48'48	-4.6m		1773 Aug 29 19:29	0°♊		
	1771 Mar 06 07:01	0°♊			1773 Sep 23 08:07	0°♍		
morning max el	1771 Mar 20 22:39	13°♊38'18	46°31'53	desc. node	1773 Sep 24 13:04	1°♍28'19		
	1771 Apr 05 19:28	0°♈			1773 Oct 18 00:19	0°♈		
desc. node	1771 Apr 09 17:58	4°♈13'58			1773 Nov 11 22:31	0°♊		
	1771 May 02 22:00	0°♍			1773 Dec 07 09:32	0°♊		
	1771 May 28 21:34	0°♈			1774 Jan 03 06:00	0°♈		
	1771 Jun 23 07:49	0°♊		evening max el	1774 Jan 10 11:05	7°♈30'58	47°07'45	
	1771 Jul 18 08:44	0°♊		asc. node	1774 Jan 15 16:19	12°♈44'28		
asc. node	1771 Jul 31 21:18	16°♊22'44			1774 Feb 04 09:06	0°♍		
	1771 Aug 12 01:18	0°♌		greatest brilliancy	1774 Feb 16 15:45	7°♍35'22	-4.6m	
	1771 Sep 05 10:18	0°♍		retrograde	1774 Mar 02 06:20	11°♍00'46		
morning set	1771 Sep 15 10:43	12°♍25'35		evening set	1774 Mar 20 01:24	4°♍53'46		
	1771 Sep 29 13:24	0°♊		inferior conj	1774 Mar 23 09:14	2°♍49'05	8°16'17	
max. Earth dist.	1771 Oct 20 16:26	26°♊25'38	1.71618 AU	minimum elong	1774 Mar 23 15:29	2°♍39'12	8°15'41	
				min. Earth dist.	1774 Mar 23 01:45	3°♍00'54	0.28152 AU	
superior conj	1771 Oct 23 06:08	29°♊38'56	1°00'36	morning rise	1774 Mar 27 05:46	0°♍25'31		
minimum elong	1771 Oct 23 16:31	0°♍11'26	1°00'14		1774 Mar 27 23:00	30°♈		
	1771 Oct 23 12:52	0°♍		direct	1774 Apr 13 09:12	24°♈45'40		
	1771 Nov 16 10:42	0°♈		greatest brilliancy	1774 Apr 24 19:01	27°♈06'46	-4.5m	
desc. node	1771 Nov 20 10:45	5°♈01'26			1774 Apr 30 21:29	0°♍		
evening rise	1771 Dec 02 14:13	20°♈16'09		desc. node	1774 May 07 05:31	3°♍53'53		
	1771 Dec 10 08:14	0°♊		morning max el	1774 Jun 01 08:42	24°♍59'23	45°51'17	
	1772 Jan 03 06:27	0°♊			1774 Jun 06 11:57	0°♈		
	1772 Jan 27 07:00	0°♈			1774 Jul 04 23:22	0°♊		
	1772 Feb 20 12:45	0°♍			1774 Jul 31 11:42	0°♊		
asc. node	1772 Mar 12 14:10	25°♍41'06			1774 Aug 25 23:37	0°♌		
	1772 Mar 16 04:00	0°♈		asc. node	1774 Aug 28 09:14	2°♌52'20		
	1772 Apr 10 11:02	0°♊			1774 Sep 19 18:57	0°♍		
	1772 May 06 21:36	0°♊			1774 Oct 14 02:46	0°♊		
evening max el	1772 Jun 03 18:17	28°♊53'39	45°22'40		1774 Nov 07 03:30	0°♍		
	1772 Jun 04 22:06	0°♌		morning set	1774 Nov 26 22:45	24°♍51'47		
desc. node	1772 Jul 02 03:22	21°♌49'33			1774 Dec 01 00:46	0°♈		
greatest brilliancy	1772 Jul 09 07:51	25°♌32'40	-4.5m	desc. node	1774 Dec 17 22:30	21°♈16'31		
retrograde	1772 Jul 22 06:40	28°♌28'55			1774 Dec 24 20:52	0°♊		
evening set	1772 Aug 08 07:42	23°♌03'05						
inferior conj	1772 Aug 12 16:53	20°♌22'58	-7°-50'-26	superior conj	1775 Jan 07 09:19	17°♊00'45	0°-46'-23	
minimum elong	1772 Aug 12 09:03	20°♌35'09	7°49'29	minimum elong	1775 Jan 06 22:30	16°♊26'43	0°45'56	
min. Earth dist.	1772 Aug 12 22:26	20°♌14'17	0.28802 AU	max. Earth dist.	1775 Jan 09 01:53	19°♊08'17	1.71124 AU	
morning rise	1772 Aug 16 10:13	18°♌05'35			1775 Jan 17 17:15	0°♊		
direct	1772 Sep 03 06:29	12°♌08'13			1775 Feb 10 15:09	0°♈		
greatest brilliancy	1772 Sep 17 15:10	15°♌46'10	-4.6m	evening rise	1775 Feb 17 14:28	8°♈43'09		
	1772 Oct 08 07:15	0°♍			1775 Mar 06 16:08	0°♍		
morning max el	1772 Oct 23 03:59	13°♍51'09	46°27'38		1775 Mar 30 22:02	0°♈		
asc. node	1772 Oct 23 06:50	13°♍58'16		asc. node	1775 Apr 10 02:04	12°♈29'13		
	1772 Nov 07 14:02	0°♊			1775 Apr 24 10:40	0°♊		
	1772 Dec 03 22:35	0°♍			1775 May 19 08:07	0°♊		
	1772 Dec 28 23:56	0°♈			1775 Jun 13 18:04	0°♌		
	1773 Jan 22 12:38	0°♊			1775 Jul 10 00:40	0°♍		
desc. node	1773 Feb 11 20:10	25°♊02'40		desc. node	1775 Jul 30 15:12	22°♍19'34		

	1775 Aug 07 01:58	0°♄		morning set	1778 Feb 12 03:02	13°≈37'56	
evening max el	1775 Aug 15 14:35	8°♄24'37	45°57'28		1778 Feb 25 05:13	0°✠	
	1775 Sep 10 11:11	0°♌			1778 Mar 21 06:50	0°Υ	
greatest brilliancy	1775 Sep 23 05:15	6°♌42'37	-4.6m				
retrograde	1775 Oct 03 19:37	8°♌44'59		superior conj	1778 Mar 24 07:12	3°Υ44'56	-1°-21'00
evening set	1775 Oct 20 01:27	3°♌42'58		minimum elong	1778 Mar 24 14:02	4°Υ06'10	1°20'54
inferior conj	1775 Oct 24 14:29	1°♌01'14	-6°-14'-54	max. Earth dist.	1778 Mar 28 05:00	8°Υ36'14	1.72408 AU
minimum elong	1775 Oct 25 01:03	0°♌45'09	6°12'33		1778 Apr 14 11:28	0°♄	
min. Earth dist.	1775 Oct 25 11:51	0°♌28'43	0.27168 AU	evening rise	1778 May 01 23:27	21°♄35'19	
	1775 Oct 26 06:48	30°♌		asc. node	1778 May 07 13:51	28°♄28'39	
morning rise	1775 Oct 30 00:06	27°♄49'39			1778 May 08 19:36	0°♐	
direct	1775 Nov 14 09:39	23°♄09'33			1778 Jun 02 07:18	0°♄	
asc. node	1775 Nov 20 18:31	23°♄57'16			1778 Jun 26 22:51	0°♑	
greatest brilliancy	1775 Nov 28 04:01	26°♄38'57	-4.7m		1778 Jul 21 19:26	0°♎	
	1775 Dec 04 05:34	0°♌			1778 Aug 15 23:45	0°♄	
morning max el	1776 Jan 04 04:54	26°♌39'23	46°57'30	desc. node	1778 Aug 27 03:09	13°♄05'59	
	1776 Jan 07 10:52	0°♄			1778 Sep 10 16:41	0°♌	
	1776 Feb 03 17:35	0°♄			1778 Oct 07 09:03	0°♄	
	1776 Feb 29 10:35	0°≈		evening max el	1778 Oct 27 23:58	21°♄39'34	47°04'57
desc. node	1776 Mar 11 08:12	12°≈57'48			1778 Nov 05 14:46	0°♄	
	1776 Mar 25 13:20	0°✠		greatest brilliancy	1778 Dec 05 14:51	21°♄51'50	-4.7m
	1776 Apr 19 09:59	0°Υ		retrograde	1778 Dec 17 12:53	24°♄30'38	
	1776 May 14 03:52	0°♄		asc. node	1778 Dec 18 06:29	24°♄29'59	
	1776 Jun 07 19:50	0°♐		evening set	1779 Jan 01 06:22	20°♄10'36	
asc. node	1776 Jul 02 11:33	0°♄06'46		min. Earth dist.	1779 Jan 06 08:54	17°♄09'51	0.26588 AU
	1776 Jul 02 09:20	0°♄		inferior conj	1779 Jan 07 02:00	16°♄43'33	4°52'25
morning set	1776 Jul 05 17:28	4°♄05'21		minimum elong	1779 Jan 06 16:30	16°♄58'09	4°49'50
	1776 Jul 26 19:31	0°♑		morning rise	1779 Jan 12 03:07	13°♄33'33	
max. Earth dist.	1776 Aug 08 01:41	15°♑07'16	1.73095 AU	direct	1779 Jan 27 11:32	9°♄05'44	
				greatest brilliancy	1779 Feb 07 11:07	11°♄21'34	-4.6m
superior conj	1776 Aug 11 02:16	18°♑51'37	1°16'04		1779 Mar 06 14:27	0°≈	
minimum elong	1776 Aug 10 19:11	18°♑29'41	1°15'55	morning max el	1779 Mar 18 10:46	11°≈11'26	46°33'21
	1776 Aug 20 02:16	0°♎			1779 Apr 05 14:01	0°✠	
	1776 Sep 13 06:30	0°♄		desc. node	1779 Apr 08 19:54	3°✠30'47	
evening rise	1776 Sep 16 15:08	4°♄10'36			1779 May 02 12:48	0°Υ	
	1776 Oct 07 09:34	0°♌			1779 May 28 10:38	0°♄	
desc. node	1776 Oct 22 00:56	18°♌12'28			1779 Jun 22 19:55	0°♐	
	1776 Oct 31 12:38	0°♄			1779 Jul 17 20:17	0°♄	
	1776 Nov 24 16:33	0°♄		asc. node	1779 Jul 30 23:24	15°♄54'39	
	1776 Dec 18 22:55	0°≈			1779 Aug 11 12:32	0°♑	
	1777 Jan 12 11:37	0°✠			1779 Sep 04 21:22	0°♎	
	1777 Feb 06 14:43	0°Υ		morning set	1779 Sep 13 02:48	10°♎12'09	
asc. node	1777 Feb 12 04:14	6°Υ28'52			1779 Sep 29 00:25	0°♄	
	1777 Mar 05 01:34	0°♄		max. Earth dist.	1779 Oct 18 02:33	23°♄52'27	1.71662 AU
evening max el	1777 Mar 22 20:28	18°♄31'22	46°02'31				
	1777 Apr 04 03:47	0°♐		superior conj	1779 Oct 20 19:59	27°♄17'22	1°03'04
greatest brilliancy	1777 Apr 26 08:40	15°♐40'46	-4.5m	minimum elong	1779 Oct 21 06:16	27°♄49'34	1°02'44
retrograde	1777 May 11 04:34	19°♐32'16			1779 Oct 22 23:54	0°♌	
evening set	1777 May 26 07:23	15°♐04'17			1779 Nov 15 21:50	0°♄	
inferior conj	1777 Jun 01 14:19	11°♐16'54	0°30'13	desc. node	1779 Nov 19 12:47	4°♄32'49	
minimum elong	1777 Jun 01 15:26	11°♐15'10	0°29'53	evening rise	1779 Nov 30 01:12	17°♄44'51	
min. Earth dist.	1777 Jun 01 13:39	11°♐17'58	0.28884 AU		1779 Dec 09 19:29	0°♄	
desc. node	1777 Jun 03 17:27	9°♐57'08			1780 Jan 02 17:50	0°≈	
morning rise	1777 Jun 07 23:47	7°♐26'48			1780 Jan 26 18:34	0°✠	
direct	1777 Jun 23 04:18	3°♐00'41			1780 Feb 20 00:37	0°Υ	
greatest brilliancy	1777 Jul 06 12:18	6°♐07'51	-4.5m	asc. node	1780 Mar 11 16:08	25°Υ09'43	
	1777 Aug 08 00:22	0°♄			1780 Mar 15 16:27	0°♄	
morning max el	1777 Aug 11 00:24	2°♄50'17	45°48'24		1780 Apr 10 00:36	0°♐	
	1777 Sep 06 06:49	0°♑			1780 May 06 13:39	0°♄	
asc. node	1777 Sep 24 21:06	20°♑55'38		evening max el	1780 Jun 01 08:31	26°♄38'34	45°22'49
	1777 Oct 02 16:28	0°♎			1780 Jun 04 21:44	0°♑	
	1777 Oct 27 19:13	0°♄		desc. node	1780 Jul 01 05:27	20°♑28'24	
	1777 Nov 21 05:41	0°♌		greatest brilliancy	1780 Jul 06 20:27	23°♑17'58	-4.5m
	1777 Dec 15 08:02	0°♄		retrograde	1780 Jul 19 21:45	26°♑17'37	
	1778 Jan 08 07:09	0°♄		evening set	1780 Aug 05 19:58	20°♑55'58	
desc. node	1778 Jan 14 10:25	7°♄41'21		inferior conj	1780 Aug 10 08:34	18°♑11'01	-7°-41'-18
	1778 Feb 01 05:42	0°≈		minimum elong	1780 Aug 10 00:16	18°♑23'56	7°40'12

min. Earth dist.	1780 Aug 10 13:43	18°♌03'00	0.28831 AU	max. Earth dist.	1783 Jan 06 08:44	16°♊24'19	1.71105 AU
morning rise	1780 Aug 14 04:21	15°♌49'59			1783 Jan 17 04:13	0°♊	
direct	1780 Aug 31 21:51	9°♌55'39			1783 Feb 10 02:05	0°♋	
greatest brilliancy	1780 Sep 15 07:47	13°♌34'11	-4.5m	evening rise	1783 Feb 15 01:39	6°♋13'58	
	1780 Oct 08 12:54	0°♎			1783 Mar 06 03:05	0°♎	
morning max el	1780 Oct 20 18:21	11°♎32'05	46°26'17		1783 Mar 30 09:06	0°♏	
asc. node	1780 Oct 22 08:45	13°♎08'20		asc. node	1783 Apr 09 04:02	12°♏01'06	
	1780 Nov 07 07:43	0°♐			1783 Apr 23 22:00	0°♐	
	1780 Dec 03 13:03	0°♑			1783 May 18 20:01	0°♑	
	1780 Dec 28 12:59	0°♒			1783 Jun 13 07:01	0°♒	
	1781 Jan 22 00:55	0°♓			1783 Jul 09 15:47	0°♓	
desc. node	1781 Feb 10 22:17	24°♓32'39		desc. node	1783 Jul 29 17:18	21°♓36'52	
	1781 Feb 15 08:13	0°♈			1783 Aug 06 22:32	0°♈	
	1781 Mar 11 14:16	0°♉		evening max el	1783 Aug 13 05:09	6°♉08'42	45°55'17
	1781 Apr 04 20:50	0°♊			1783 Sep 11 18:10	0°♊	
morning set	1781 Apr 26 08:24	26°♊29'25		greatest brilliancy	1783 Sep 20 16:27	4°♊19'08	-4.6m
	1781 Apr 29 04:48	0°♋		retrograde	1783 Oct 01 08:42	6°♊22'30	
	1781 May 23 14:09	0°♌		evening set	1783 Oct 17 17:37	1°♊15'38	
					1783 Oct 19 21:21	30°♋	
superior conj	1781 Jun 02 12:37	12°♌12'39	0°-3'-42	inferior conj	1783 Oct 22 03:33	28°♋37'57	-6°-30'-41
minimum elong	1781 Jun 02 13:23	12°♌15'01	0°03'40	minimum elong	1783 Oct 22 14:06	28°♋21'52	6°28'27
behind sun begin	1781 Jun 01 15:10	11°♌06'44		min. Earth dist.	1783 Oct 23 00:56	28°♋05'21	0.27236 AU
behind sun end	1781 Jun 03 11:37	13°♌23'17		morning rise	1783 Oct 27 10:06	25°♋30'33	
max. Earth dist.	1781 Jun 02 17:36	12°♌27'57	1.73549 AU	direct	1783 Nov 12 00:06	20°♋45'23	
asc. node	1781 Jun 04 01:45	14°♌06'42		asc. node	1783 Nov 19 20:40	21°♋57'16	
	1781 Jun 17 00:10	0°♍		greatest brilliancy	1783 Nov 25 18:47	24°♋15'36	-4.7m
evening rise	1781 Jul 08 16:32	26°♍38'30			1783 Dec 05 10:36	0°♌	
	1781 Jul 11 10:08	0°♎		morning max el	1784 Jan 01 19:47	24°♌17'36	46°57'19
	1781 Aug 04 20:03	0°♎			1784 Jan 07 07:55	0°♏	
	1781 Aug 29 06:55	0°♐			1784 Feb 03 09:23	0°♏	
	1781 Sep 22 20:03	0°♑			1784 Feb 29 00:12	0°♐	
desc. node	1781 Sep 23 15:01	0°♑57'46		desc. node	1784 Mar 10 10:07	12°♐24'35	
	1781 Oct 17 12:57	0°♒			1784 Mar 25 01:45	0°♑	
	1781 Nov 11 12:11	0°♓			1784 Apr 18 21:39	0°♒	
	1781 Dec 07 01:02	0°♈			1784 May 13 15:01	0°♓	
	1782 Jan 03 01:59	0°♉			1784 Jun 07 06:39	0°♈	
evening max el	1782 Jan 08 01:03	5°♉08'22	47°09'24	asc. node	1784 Jul 01 13:38	29°♉40'36	
asc. node	1782 Jan 14 18:25	11°♉50'09			1784 Jul 01 19:58	0°♊	
	1782 Feb 05 05:51	0°♊		morning set	1784 Jul 03 11:45	2°♊01'48	
greatest brilliancy	1782 Feb 14 07:25	5°♊17'50	-4.6m		1784 Jul 26 06:06	0°♋	
retrograde	1782 Feb 27 21:54	8°♊43'43		max. Earth dist.	1784 Aug 05 20:54	13°♋05'42	1.73135 AU
evening set	1782 Mar 17 18:34	2°♊33'34					
min. Earth dist.	1782 Mar 20 16:04	0°♊45'21	0.28113 AU	superior conj	1784 Aug 08 20:22	16°♋46'26	1°14'37
inferior conj	1782 Mar 21 00:22	0°♊32'14	8°23'17	minimum elong	1784 Aug 08 12:55	16°♋23'24	1°14'26
minimum elong	1782 Mar 21 05:59	0°♊23'24	8°22'47		1784 Aug 19 12:54	0°♌	
	1782 Mar 21 20:51	30°♋			1784 Sep 12 17:15	0°♌	
morning rise	1782 Mar 24 17:36	28°♋13'56		evening rise	1784 Sep 14 07:09	1°♌57'44	
direct	1782 Apr 10 23:26	22°♋29'21			1784 Oct 06 20:32	0°♍	
greatest brilliancy	1782 Apr 22 08:55	24°♋50'23	-4.5m	desc. node	1784 Oct 21 02:57	17°♍44'10	
	1782 May 02 08:03	0°♎			1784 Oct 30 23:52	0°♏	
desc. node	1782 May 06 07:37	2°♎39'22			1784 Nov 24 04:09	0°♏	
morning max el	1782 May 30 00:16	22°♎46'59	45°52'13		1784 Dec 18 10:59	0°♐	
	1782 Jun 06 08:30	0°♏			1785 Jan 12 00:24	0°♑	
	1782 Jul 04 14:32	0°♐			1785 Feb 06 04:47	0°♒	
	1782 Jul 31 00:46	0°♑		asc. node	1785 Feb 11 06:13	5°♒52'43	
	1782 Aug 25 11:37	0°♒			1785 Mar 04 18:40	0°♓	
asc. node	1782 Aug 27 11:15	2°♒22'35		evening max el	1785 Mar 20 12:42	16°♓20'12	46°04'55
	1782 Sep 19 06:24	0°♓			1785 Apr 04 08:40	0°♈	
	1782 Oct 13 13:57	0°♈		greatest brilliancy	1785 Apr 24 02:39	13°♈34'19	-4.5m
	1782 Nov 06 14:36	0°♉		retrograde	1785 May 08 21:15	17°♈24'10	
morning set	1782 Nov 24 10:20	22°♉22'36		evening set	1785 May 24 01:07	12°♉55'06	
	1782 Nov 30 11:49	0°♊		inferior conj	1785 May 30 06:53	9°♉08'56	0°49'58
desc. node	1782 Dec 17 00:39	20°♊48'38		minimum elong	1785 May 30 08:43	9°♉06'03	0°49'26
	1782 Dec 24 07:53	0°♋		min. Earth dist.	1785 May 30 06:16	9°♉09'54	0.28868 AU
				desc. node	1785 Jun 02 19:32	6°♉57'47	
superior conj	1783 Jan 04 19:00	14°♋25'38	0°-42'-56	morning rise	1785 Jun 05 16:40	5°♉18'07	
minimum elong	1783 Jan 04 08:42	13°♋53'14	0°42'30	direct	1785 Jun 20 20:57	0°♊53'09	

greatest brilliancy	1785 Jul 04 01:52	3°II57'00	-4.5m	asc. node	1788 Mar 10 18:08	24°V39'13	
	1785 Aug 07 23:03	0°☿			1788 Mar 15 04:41	0°♄	
morning max el	1785 Aug 08 15:56	0°☿40'13	45°47'30		1788 Apr 09 14:00	0°II	
	1785 Sep 05 22:23	0°♁			1788 May 06 05:38	0°☿	
asc. node	1785 Sep 23 23:04	20°♁21'36		evening max el	1788 May 29 23:24	24°☿26'14	45°23'13
	1785 Oct 02 05:42	0°♊			1788 Jun 04 22:01	0°♁	
	1785 Oct 27 07:25	0°♋		desc. node	1788 Jun 30 07:33	19°♁06'11	
	1785 Nov 20 17:19	0°♌		greatest brilliancy	1788 Jul 04 08:19	21°♁04'07	-4.5m
	1785 Dec 14 19:22	0°♍		retrograde	1788 Jul 17 13:40	24°♁08'27	
	1786 Jan 07 18:17	0°☿		evening set	1788 Aug 03 08:32	18°♁50'45	
desc. node	1786 Jan 13 12:26	7°☿12'54		inferior conj	1788 Aug 08 00:33	16°♁01'06	-7°-31'-31
	1786 Jan 31 16:42	0°♊		minimum elong	1788 Aug 07 15:51	16°♁14'38	7°30'16
morning set	1786 Feb 09 13:23	11°♊05'54		min. Earth dist.	1788 Aug 08 05:01	15°♁54'10	0.28858 AU
	1786 Feb 24 16:06	0°♋		morning rise	1788 Aug 11 22:54	13°♁36'24	
	1786 Mar 20 17:35	0°♌		direct	1788 Aug 29 13:43	7°♁45'13	
				greatest brilliancy	1788 Sep 13 00:44	11°♁24'40	-4.5m
superior conj	1786 Mar 21 20:38	1°V24'05	-1°-22'-10		1788 Oct 08 16:03	0°♊	
minimum elong	1786 Mar 22 02:46	1°V43'07	1°22'05	morning max el	1788 Oct 18 09:47	9°♊17'06	46°24'41
max. Earth dist.	1786 Mar 25 21:43	6°V25'46	1.72348 AU	asc. node	1788 Oct 21 10:57	12°♊21'08	
	1786 Apr 13 22:08	0°♄			1788 Nov 07 00:40	0°♋	
evening rise	1786 Apr 29 15:24	19°♄23'50			1788 Dec 03 03:10	0°♌	
asc. node	1786 May 06 16:01	28°♄02'31			1788 Dec 28 01:50	0°♍	
	1786 May 08 06:15	0°♁			1789 Jan 21 13:03	0°☿	
	1786 Jun 01 18:06	0°☿		desc. node	1789 Feb 10 00:17	24°☿02'37	
	1786 Jun 26 09:58	0°♁			1789 Feb 14 19:51	0°♊	
	1786 Jul 21 07:07	0°♊			1789 Mar 11 01:31	0°♋	
	1786 Aug 15 12:25	0°♋			1789 Apr 04 07:49	0°♌	
desc. node	1786 Aug 26 05:03	12°♋32'44		morning set	1789 Apr 24 00:21	24°V17'20	
	1786 Sep 10 07:02	0°♌			1789 Apr 28 15:36	0°♄	
	1786 Oct 07 02:50	0°♍			1789 May 23 00:50	0°♁	
evening max el	1786 Oct 25 13:03	19°♍14'27	47°03'04				
	1786 Nov 05 19:11	0°☿		superior conj	1789 May 31 06:13	10°II06'31	0°-6'-55
greatest brilliancy	1786 Dec 03 06:23	19°☿26'23	-4.7m	minimum elong	1789 May 31 07:39	10°II10'59	0°06'51
retrograde	1786 Dec 15 00:55	22°☿01'39		behind sun begin	1789 May 30 10:54	9°II07'12	
asc. node	1786 Dec 17 08:34	21°☿55'04		behind sun end	1789 Jun 01 04:25	11°II14'45	
evening set	1786 Dec 29 16:37	17°☿45'25		max. Earth dist.	1789 May 31 13:51	10°II29'59	1.73534 AU
min. Earth dist.	1787 Jan 03 22:47	14°☿39'48	0.26553 AU	asc. node	1789 Jun 03 03:51	13°II40'25	
inferior conj	1787 Jan 04 14:25	14°☿15'46	4°31'46		1789 Jun 16 10:49	0°☿	
minimum elong	1787 Jan 04 05:21	14°☿29'42	4°29'14	evening rise	1789 Jul 06 11:35	24°☿36'45	
morning rise	1787 Jan 09 18:27	11°☿11'31			1789 Jul 10 20:50	0°♁	
direct	1787 Jan 24 23:14	6°☿38'17			1789 Aug 04 06:56	0°♊	
greatest brilliancy	1787 Feb 05 01:39	8°☿56'23	-4.6m		1789 Aug 28 18:08	0°♋	
	1787 Mar 06 19:16	0°♊			1789 Sep 22 07:47	0°♌	
morning max el	1787 Mar 15 22:44	8°♊45'03	46°34'53	desc. node	1789 Sep 22 17:09	0°♍28'29	
	1787 Apr 05 07:42	0°♋			1789 Oct 17 01:26	0°♎	
desc. node	1787 Apr 07 21:58	2°♋49'37			1789 Nov 11 01:48	0°☿	
	1787 May 02 03:03	0°♌			1789 Dec 06 16:43	0°♊	
	1787 May 27 23:13	0°♍			1790 Jan 02 22:42	0°♋	
	1787 Jun 22 07:34	0°♁		evening max el	1790 Jan 05 16:03	2°♋48'06	47°10'48
	1787 Jul 17 07:23	0°☿		asc. node	1790 Jan 13 20:25	10°♋54'08	
asc. node	1787 Jul 30 01:24	15°☿27'37			1790 Feb 06 10:56	0°♌	
	1787 Aug 10 23:20	0°♁		greatest brilliancy	1790 Feb 11 22:51	2°V59'08	-4.6m
	1787 Sep 04 08:02	0°♊		retrograde	1790 Feb 25 13:41	6°V25'20	
morning set	1787 Sep 10 19:12	8°♊00'56		evening set	1790 Mar 15 11:10	0°V12'30	
	1787 Sep 28 11:05	0°♋			1790 Mar 15 19:20	30°R♋	
max. Earth dist.	1787 Oct 15 14:52	21°♋27'06	1.71715 AU	min. Earth dist.	1790 Mar 18 05:46	28°R28'54	0.28070 AU
				inferior conj	1790 Mar 18 15:11	28°R14'04	8°29'25
superior conj	1787 Oct 18 10:00	24°♋57'16	1°05'25	minimum elong	1790 Mar 18 20:07	28°R06'19	8°29'03
minimum elong	1787 Oct 18 20:07	25°♋28'57	1°05'06	morning rise	1790 Mar 22 05:16	26°R00'48	
	1787 Oct 22 10:40	0°♌		direct	1790 Apr 08 13:45	20°R11'53	
	1787 Nov 15 08:43	0°♍		greatest brilliancy	1790 Apr 19 21:32	22°R31'49	-4.5m
desc. node	1787 Nov 18 14:57	4°♍05'25			1790 May 03 08:53	0°V	
evening rise	1787 Nov 27 12:07	15°♍14'09		desc. node	1790 May 05 09:46	1°V26'48	
	1787 Dec 09 06:30	0°☿		morning max el	1790 May 27 16:14	20°V35'25	45°53'13
	1788 Jan 02 04:59	0°♊			1790 Jun 06 04:26	0°♄	
	1788 Jan 26 05:54	0°♋			1790 Jul 04 05:28	0°♁	
	1788 Feb 19 12:16	0°♌			1790 Jul 30 13:41	0°☿	

	1790 Aug 24 23:31	0°♈			1793 Mar 04 12:28	0°♈	
asc. node	1790 Aug 26 13:14	1°♈53'00		evening max el	1793 Mar 18 04:06	14°♈05'34	46°07'02
	1790 Sep 18 17:46	0°♎			1793 Apr 04 16:26	0°♈	
	1790 Oct 13 01:04	0°♊		greatest brilliancy	1793 Apr 21 20:30	11°♈25'45	-4.5m
	1790 Nov 06 01:36	0°♋		retrograde	1793 May 06 13:13	15°♈13'58	
morning set	1790 Nov 21 22:29	19°♋55'27		evening set	1793 May 21 18:44	10°♈43'30	
	1790 Nov 29 22:47	0°♌		inferior conj	1793 May 27 23:14	6°♈58'56	1°09'51
desc. node	1790 Dec 16 02:40	20°♌20'26		minimum elong	1793 May 28 01:46	6°♈54'55	1°09'06
	1790 Dec 23 18:52	0°♍		min. Earth dist.	1793 May 27 23:02	6°♈59'14	0.28853 AU
				desc. node	1793 Jun 01 21:33	3°♈57'40	
superior conj	1791 Jan 02 04:39	11°♍50'18	0°-39'-23	morning rise	1793 Jun 03 09:06	3°♈07'32	
minimum elong	1791 Jan 01 18:59	11°♍19'53	0°38'59		1793 Jun 10 11:39	30°♈	
max. Earth dist.	1791 Jan 03 17:42	13°♍46'52	1.71097 AU	direct	1793 Jun 18 12:53	28°♈43'29	
	1791 Jan 16 15:14	0°♎			1793 Jun 26 21:30	0°♈	
	1791 Feb 09 13:09	0°♏		greatest brilliancy	1793 Jul 01 15:49	1°♈44'41	-4.5m
evening rise	1791 Feb 12 12:19	3°♏42'39		morning max el	1793 Aug 06 06:38	28°♈26'49	45°46'49
	1791 Mar 05 14:12	0°♐			1793 Aug 07 21:24	0°♈	
	1791 Mar 29 20:20	0°♑			1793 Sep 05 14:08	0°♈	
asc. node	1791 Apr 08 06:11	11°♑32'59		asc. node	1793 Sep 23 01:15	19°♈47'24	
	1791 Apr 23 09:31	0°♒			1793 Oct 01 19:11	0°♎	
	1791 May 18 08:07	0°♑			1793 Oct 26 19:51	0°♊	
	1791 Jun 12 20:14	0°♈			1793 Nov 20 05:13	0°♋	
desc. node	1791 Jul 09 07:17	0°♎			1793 Dec 14 06:56	0°♌	
	1791 Jul 28 19:16	20°♎52'52		desc. node	1794 Jan 07 05:39	0°♍	
	1791 Aug 06 19:58	0°♊			1794 Jan 12 14:27	6°♍43'45	
evening max el	1791 Aug 10 20:00	3°♊53'14	45°53'12		1794 Jan 31 03:55	0°♎	
	1791 Sep 13 15:27	0°♋		morning set	1794 Feb 07 00:01	8°♎34'01	
greatest brilliancy	1791 Sep 18 04:46	1°♋57'20	-4.6m		1794 Feb 24 03:11	0°♏	
retrograde	1791 Sep 28 21:33	4°♋00'38					
	1791 Oct 13 06:37	30°♋		superior conj	1794 Mar 19 10:11	29°♏02'48	-1°-23'-10
evening set	1791 Oct 15 10:03	28°♋49'13		minimum elong	1794 Mar 19 15:34	29°♏19'32	1°23'08
inferior conj	1791 Oct 19 16:52	26°♋15'34	-6°-45'-38		1794 Mar 20 04:35	0°♐	
minimum elong	1791 Oct 20 03:19	25°♋59'36	6°43'31	max. Earth dist.	1794 Mar 23 13:03	4°♐10'06	1.72293 AU
min. Earth dist.	1791 Oct 20 14:22	25°♋42'45	0.27297 AU		1794 Apr 13 09:06	0°♑	
morning rise	1791 Oct 24 20:10	23°♋12'22		evening rise	1794 Apr 27 07:10	17°♑10'37	
direct	1791 Nov 09 14:34	18°♋22'17		asc. node	1794 May 05 18:03	27°♑34'50	
asc. node	1791 Nov 18 22:41	20°♋02'29			1794 May 07 17:18	0°♒	
greatest brilliancy	1791 Nov 23 08:49	21°♋51'55	-4.7m		1794 Jun 01 05:19	0°♑	
	1791 Dec 06 07:29	0°♋			1794 Jun 25 21:31	0°♈	
morning max el	1791 Dec 30 09:51	21°♋53'54	46°56'55		1794 Jul 20 19:16	0°♎	
	1792 Jan 07 04:13	0°♌			1794 Aug 15 01:34	0°♊	
	1792 Feb 03 01:00	0°♍		desc. node	1794 Aug 25 07:11	11°♊58'46	
	1792 Feb 28 13:51	0°♎			1794 Sep 09 21:59	0°♋	
desc. node	1792 Mar 09 12:11	11°♎51'27			1794 Oct 06 21:30	0°♌	
	1792 Mar 24 14:20	0°♏		evening max el	1794 Oct 23 01:37	16°♌47'08	47°01'14
	1792 Apr 18 09:33	0°♐			1794 Nov 06 02:05	0°♍	
	1792 May 13 02:26	0°♑		greatest brilliancy	1794 Nov 30 21:24	16°♍59'19	-4.7m
	1792 Jun 06 17:44	0°♒		retrograde	1794 Dec 12 13:03	19°♍32'04	
asc. node	1792 Jun 30 15:35	29°♒13'16		asc. node	1794 Dec 16 10:35	19°♍13'22	
morning set	1792 Jul 01 05:44	29°♒56'33		evening set	1794 Dec 27 03:05	15°♍18'53	
	1792 Jul 01 06:51	0°♑		min. Earth dist.	1795 Jan 01 12:45	12°♍08'51	0.26520 AU
	1792 Jul 25 16:55	0°♈		inferior conj	1795 Jan 02 02:52	11°♍47'12	4°10'30
max. Earth dist.	1792 Aug 03 14:33	10°♈58'37	1.73172 AU	minimum elong	1795 Jan 01 18:18	12°♍00'21	4°08'02
				morning rise	1795 Jan 07 09:44	8°♍39'05	
superior conj	1792 Aug 06 14:23	14°♈40'21	1°13'02	direct	1795 Jan 22 10:49	4°♍09'50	
minimum elong	1792 Aug 06 06:36	14°♈16'19	1°12'51	greatest brilliancy	1795 Feb 02 16:43	6°♍31'08	-4.7m
	1792 Aug 18 23:46	0°♎			1795 Mar 06 22:34	0°♎	
evening rise	1792 Sep 11 23:19	29°♎44'40		morning max el	1795 Mar 13 11:23	6°♎19'33	46°36'31
	1792 Sep 12 04:16	0°♊			1795 Apr 05 01:12	0°♏	
	1792 Oct 06 07:44	0°♋		desc. node	1795 Apr 07 00:09	2°♏08'36	
desc. node	1792 Oct 20 05:06	17°♋15'37			1795 May 01 17:23	0°♐	
	1792 Oct 30 11:19	0°♌			1795 May 27 12:03	0°♑	
	1792 Nov 23 15:55	0°♍			1795 Jun 21 19:34	0°♒	
	1792 Dec 17 23:14	0°♎			1795 Jul 16 18:53	0°♑	
	1793 Jan 11 13:23	0°♏		asc. node	1795 Jul 29 03:28	14°♑59'29	
	1793 Feb 05 19:12	0°♐			1795 Aug 10 10:32	0°♈	
asc. node	1793 Feb 10 08:14	5°♐15'42			1795 Sep 03 19:06	0°♎	

morning set	1795 Sep 08 11:24	5° \mathbb{M} 47'59			1798 Mar 09 10:44	30° \mathbb{R} \mathbb{H}		
	1795 Sep 27 22:07	0° \mathbb{L}			evening set	1798 Mar 13 03:33	27° \mathbb{H} 51'07	
max. Earth dist.	1795 Oct 13 05:08	19° \mathbb{L} 06'46	1.71764 AU		inferior conj	1798 Mar 16 06:00	25° \mathbb{H} 55'07	8°34'47
					minimum elong	1798 Mar 16 10:11	25° \mathbb{H} 48'31	8°34'32
superior conj	1795 Oct 15 23:55	22° \mathbb{L} 35'46	1°07'40		min. Earth dist.	1798 Mar 15 19:18	26° \mathbb{H} 11'55	0.28022 AU
minimum elong	1795 Oct 16 09:46	23° \mathbb{L} 06'39	1°07'21		morning rise	1798 Mar 19 17:03	23° \mathbb{H} 46'34	
	1795 Oct 21 21:46	0° \mathbb{M}			direct	1798 Apr 06 04:27	17° \mathbb{H} 53'53	
	1795 Nov 14 19:58	0° \mathbb{J}			greatest brilliancy	1798 Apr 17 09:16	20° \mathbb{H} 11'38	-4.5m
desc. node	1795 Nov 17 16:55	3° \mathbb{J} 36'18			desc. node	1798 May 04 11:42	0° \mathbb{Y} 15'29	
evening rise	1795 Nov 24 23:06	12° \mathbb{J} 42'41				1798 May 04 03:24	0° \mathbb{Y}	
	1795 Dec 08 17:52	0° \mathbb{Z}			morning max el	1798 May 25 08:05	18° \mathbb{Y} 23'11	45°54'19
	1796 Jan 01 16:29	0° \approx				1798 Jun 05 23:53	0° \mathbb{B}	
	1796 Jan 25 17:33	0° \mathbb{H}				1798 Jul 03 20:19	0° \mathbb{H}	
	1796 Feb 19 00:14	0° \mathbb{Y}				1798 Jul 30 02:37	0° \mathbb{S}	
asc. node	1796 Mar 09 20:19	24° \mathbb{Y} 08'20				1798 Aug 24 11:31	0° \mathbb{Q}	
	1796 Mar 14 17:14	0° \mathbb{B}			asc. node	1798 Aug 25 15:25	1° \mathbb{Q} 23'38	
	1796 Apr 09 03:46	0° \mathbb{H}				1798 Sep 18 05:19	0° \mathbb{M}	
	1796 May 05 22:12	0° \mathbb{S}				1798 Oct 12 12:24	0° \mathbb{L}	
evening max el	1796 May 27 15:02	22° \mathbb{S} 14'46	45°23'30			1798 Nov 05 12:51	0° \mathbb{M}	
	1796 Jun 05 00:03	0° \mathbb{Q}			morning set	1798 Nov 19 10:27	17° \mathbb{M} 27'05	
desc. node	1796 Jun 29 09:31	17° \mathbb{Q} 39'47				1798 Nov 29 09:59	0° \mathbb{J}	
greatest brilliancy	1796 Jul 01 19:55	18° \mathbb{Q} 48'37	-4.5m		desc. node	1798 Dec 15 04:41	19° \mathbb{J} 51'36	
retrograde	1796 Jul 15 05:43	21° \mathbb{Q} 57'37				1798 Dec 23 06:03	0° \mathbb{Z}	
evening set	1796 Jul 31 20:59	16° \mathbb{Q} 43'55						
inferior conj	1796 Aug 05 16:21	13° \mathbb{Q} 49'29	-7°-20'-55		superior conj	1798 Dec 30 14:06	9° \mathbb{Z} 13'53	0°-35'-45
minimum elong	1796 Aug 05 07:18	14° \mathbb{Q} 03'32	7°19'33		minimum elong	1798 Dec 30 05:11	8° \mathbb{Z} 45'47	0°35'22
min. Earth dist.	1796 Aug 05 19:54	13° \mathbb{Q} 43'59	0.28885 AU		max. Earth dist.	1799 Jan 01 01:59	11° \mathbb{Z} 06'43	1.71083 AU
morning rise	1796 Aug 09 17:25	11° \mathbb{Q} 20'57				1799 Jan 16 02:24	0° \approx	
direct	1796 Aug 27 06:00	5° \mathbb{Q} 33'09				1799 Feb 09 00:20	0° \mathbb{H}	
greatest brilliancy	1796 Sep 10 17:24	9° \mathbb{Q} 13'24	-4.5m		evening rise	1799 Feb 09 22:51	1° \mathbb{H} 10'27	
	1796 Oct 08 18:18	0° \mathbb{M}				1799 Mar 05 01:27	0° \mathbb{Y}	
morning max el	1796 Oct 16 01:47	7° \mathbb{M} 02'29	46°23'08			1799 Mar 29 07:42	0° \mathbb{B}	
asc. node	1796 Oct 20 12:59	11° \mathbb{M} 32'58			asc. node	1799 Apr 07 08:13	11° \mathbb{B} 04'05	
	1796 Nov 06 17:44	0° \mathbb{L}				1799 Apr 22 21:10	0° \mathbb{H}	
	1796 Dec 02 17:29	0° \mathbb{M}				1799 May 17 20:19	0° \mathbb{S}	
	1796 Dec 27 14:55	0° \mathbb{J}				1799 Jun 12 09:34	0° \mathbb{Q}	
	1797 Jan 21 01:25	0° \mathbb{Z}				1799 Jul 08 23:01	0° \mathbb{M}	
desc. node	1797 Feb 09 02:21	23° \mathbb{Z} 32'02			desc. node	1799 Jul 27 21:23	20° \mathbb{M} 08'45	
	1797 Feb 14 07:43	0° \approx				1799 Aug 06 18:14	0° \mathbb{L}	
	1797 Mar 10 13:02	0° \mathbb{H}			evening max el	1799 Aug 08 10:04	1° \mathbb{L} 35'57	45°50'56
	1797 Apr 03 19:03	0° \mathbb{Y}			greatest brilliancy	1799 Sep 15 17:37	29° \mathbb{L} 36'06	-4.6m
morning set	1797 Apr 21 16:31	22° \mathbb{Y} 05'08				1799 Sep 16 21:01	0° \mathbb{M}	
	1797 Apr 28 02:37	0° \mathbb{B}			retrograde	1799 Sep 26 09:50	1° \mathbb{M} 38'43	
	1797 May 22 11:43	0° \mathbb{H}				1799 Oct 05 13:00	30° \mathbb{R} \mathbb{L}	
					evening set	1799 Oct 13 02:27	26° \mathbb{L} 22'46	
superior conj	1797 May 28 23:58	8° \mathbb{H} 00'12	0°-10'-5		inferior conj	1799 Oct 17 06:15	23° \mathbb{L} 53'10	-6°-59'-37
minimum elong	1797 May 29 02:05	8° \mathbb{H} 06'43	0°10'00		minimum elong	1799 Oct 17 16:31	23° \mathbb{L} 37'27	6°57'40
behind sun begin	1797 May 28 08:09	7° \mathbb{H} 11'36			min. Earth dist.	1799 Oct 18 04:08	23° \mathbb{L} 19'40	0.27366 AU
behind sun end	1797 May 29 20:01	9° \mathbb{H} 01'50			morning rise	1799 Oct 22 06:09	20° \mathbb{L} 54'14	
max. Earth dist.	1797 May 29 12:28	8° \mathbb{H} 38'38	1.73519 AU		direct	1799 Nov 07 04:41	15° \mathbb{L} 58'53	
asc. node	1797 Jun 02 05:49	13° \mathbb{H} 13'08			asc. node	1799 Nov 18 00:42	18° \mathbb{L} 11'36	
	1797 Jun 15 21:41	0° \mathbb{S}			greatest brilliancy	1799 Nov 20 23:49	19° \mathbb{L} 28'53	-4.6m
evening rise	1797 Jul 04 06:46	22° \mathbb{S} 34'41				1799 Dec 06 23:20	0° \mathbb{M}	
	1797 Jul 10 07:48	0° \mathbb{Q}			morning max el	1799 Dec 27 23:00	19° \mathbb{M} 27'09	46°56'33
	1797 Aug 03 18:08	0° \mathbb{M}				1800 Jan 07 00:08	0° \mathbb{J}	
	1797 Aug 28 05:43	0° \mathbb{L}				1800 Feb 02 16:32	0° \mathbb{Z}	
desc. node	1797 Sep 21 19:13	29° \mathbb{L} 57'53				1800 Feb 28 03:28	0° \approx	
	1797 Sep 21 19:55	0° \mathbb{M}			desc. node	1800 Mar 09 14:22	11° \approx 18'38	
	1797 Oct 16 14:19	0° \mathbb{J}				1800 Mar 25 02:52	0° \mathbb{H}	
	1797 Nov 10 15:51	0° \mathbb{Z}				1800 Apr 18 21:23	0° \mathbb{Y}	
	1797 Dec 06 08:56	0° \approx				1800 May 13 13:48	0° \mathbb{B}	
	1798 Jan 02 20:26	0° \mathbb{H}				1800 Jun 07 04:46	0° \mathbb{H}	
evening max el	1798 Jan 03 07:50	0° \mathbb{H} 29'07	47°12'10		morning set	1800 Jun 30 00:03	27° \mathbb{H} 52'32	
asc. node	1798 Jan 12 22:29	9° \mathbb{H} 56'26			asc. node	1800 Jun 30 17:43	28° \mathbb{H} 46'39	
	1798 Feb 08 05:49	0° \mathbb{Y}				1800 Jul 01 17:40	0° \mathbb{S}	
greatest brilliancy	1798 Feb 09 14:50	0° \mathbb{Y} 40'28	-4.6m			1800 Jul 26 03:39	0° \mathbb{Q}	
retrograde	1798 Feb 23 05:33	4° \mathbb{Y} 06'00			max. Earth dist.	1800 Aug 02 08:42	8° \mathbb{Q} 53'26	1.73208 AU

superior conj	1800 Aug 05 08:52	12°Ω36'09	1°11'23	direct	1803 Jan 20 22:46	1°☾41'37	
minimum elong	1800 Aug 05 00:49	12°Ω11'17	1°11'11	greatest brilliancy	1803 Feb 01 07:55	4°☾06'24	-4.7m
	1800 Aug 19 10:32	0°☿			1803 Mar 08 00:14	0°≈	
evening rise	1800 Sep 10 16:01	27°☿33'39		morning max el	1803 Mar 12 01:02	3°≈56'47	46°38'01
	1800 Sep 12 15:10	0°♄			1803 Apr 05 18:14	0°☿	
	1800 Oct 06 18:52	0°♅		desc. node	1803 Apr 07 02:04	1°☿27'41	
desc. node	1800 Oct 20 07:05	16°♅46'36			1803 May 02 07:25	0°☿	
	1800 Oct 30 22:46	0°♁			1803 May 28 00:35	0°♁	
	1800 Nov 24 03:45	0°☾			1803 Jun 22 07:14	0°♂	
	1800 Dec 18 11:35	0°≈			1803 Jul 17 06:02	0°☾	
	1801 Jan 12 02:30	0°☿		asc. node	1803 Jul 29 05:34	14°☾32'27	
	1801 Feb 06 09:47	0°☿			1803 Aug 10 21:24	0°♂	
asc. node	1801 Feb 10 10:24	4°☿38'51			1803 Sep 04 05:50	0°☿	
	1801 Mar 05 06:40	0°♁		morning set	1803 Sep 07 03:58	3°☿37'15	
evening max el	1801 Mar 16 18:29	11°♁48'31	46°09'23		1803 Sep 28 08:49	0°♄	
	1801 Apr 06 02:52	0°♂		max. Earth dist.	1803 Oct 11 20:02	16°♄49'37	1.71808 AU
greatest brilliancy	1801 Apr 20 13:37	9°♂16'34	-4.5m				
retrograde	1801 May 05 05:15	13°♂04'30		superior conj	1803 Oct 14 14:22	20°♄17'11	1°09'44
evening set	1801 May 20 12:31	8°♂32'08		minimum elong	1803 Oct 14 23:56	20°♄47'06	1°09'28
inferior conj	1801 May 26 15:39	4°♂49'35	1°29'33		1803 Oct 22 08:31	0°♅	
minimum elong	1801 May 26 18:54	4°♂44'28	1°28'36		1803 Nov 15 06:49	0°♁	
min. Earth dist.	1801 May 26 16:04	4°♂48'56	0.28835 AU	desc. node	1803 Nov 17 18:58	3°♁08'40	
desc. node	1801 Jun 01 23:37	1°♂00'27		evening rise	1803 Nov 23 10:39	10°♁14'14	
morning rise	1801 Jun 02 01:29	0°♂57'54			1803 Dec 09 04:51	0°☾	
	1801 Jun 03 21:40	30°♁			1804 Jan 02 03:37	0°≈	
direct	1801 Jun 17 04:27	26°♁34'17			1804 Jan 26 04:55	0°☿	
greatest brilliancy	1801 Jun 30 06:46	29°♁34'11	-4.5m		1804 Feb 19 11:58	0°☿	
	1801 Jul 01 06:00	0°♂		asc. node	1804 Mar 09 22:17	23°☿37'27	
morning max el	1801 Aug 04 21:36	26°♂14'41	45°46'21		1804 Mar 15 05:37	0°♁	
	1801 Aug 08 18:38	0°☾			1804 Apr 09 17:25	0°♂	
	1801 Sep 06 05:22	0°♂			1804 May 06 14:50	0°☾	
asc. node	1801 Sep 23 03:15	19°♂13'43		evening max el	1804 May 26 07:18	20°☾05'41	45°24'02
	1801 Oct 02 08:17	0°☿			1804 Jun 06 03:15	0°♂	
	1801 Oct 27 08:00	0°♄		desc. node	1804 Jun 29 11:38	16°♂11'46	
	1801 Nov 20 16:52	0°♅		greatest brilliancy	1804 Jun 30 08:45	16°♂35'46	-4.5m
	1801 Dec 14 18:20	0°♁		retrograde	1804 Jul 13 21:55	19°♂47'54	
	1802 Jan 07 16:55	0°☾		evening set	1804 Jul 30 09:38	14°♂38'25	
desc. node	1802 Jan 12 16:36	6°☾15'18		inferior conj	1804 Aug 04 08:13	11°♂39'06	-7°-9'-53
	1802 Jan 31 15:03	0°≈		minimum elong	1804 Aug 03 22:53	11°♂53'37	7°08'23
morning set	1802 Feb 05 09:59	6°≈00'09		min. Earth dist.	1804 Aug 04 10:38	11°♂35'22	0.28905 AU
	1802 Feb 24 14:11	0°☿		morning rise	1804 Aug 08 11:58	9°♂06'43	
				direct	1804 Aug 25 22:43	3°♂22'37	
superior conj	1802 Mar 17 23:11	26°☿40'05	-1°-24'-3	greatest brilliancy	1804 Sep 09 09:01	7°♂02'10	-4.5m
minimum elong	1802 Mar 18 03:46	26°☿54'21	1°24'01		1804 Oct 09 18:42	0°☿	
	1802 Mar 20 15:28	0°☿		morning max el	1804 Oct 14 17:55	4°☿49'42	46°21'36
max. Earth dist.	1802 Mar 22 01:25	1°☿45'35	1.72233 AU	asc. node	1804 Oct 20 14:57	10°☿46'41	
	1802 Apr 13 19:55	0°♁			1804 Nov 07 10:00	0°♄	
evening rise	1802 Apr 25 22:32	14°♁56'46			1804 Dec 03 07:13	0°♅	
asc. node	1802 May 05 20:02	27°♁07'35			1804 Dec 28 03:27	0°♁	
	1802 May 08 04:09	0°♂			1805 Jan 21 13:16	0°☾	
	1802 Jun 01 16:21	0°☾		desc. node	1805 Feb 09 04:27	23°☾02'58	
	1802 Jun 26 08:53	0°♂			1805 Feb 14 19:08	0°≈	
	1802 Jul 21 07:12	0°☿			1805 Mar 11 00:08	0°☿	
	1802 Aug 15 14:29	0°♄			1805 Apr 04 05:56	0°☿	
desc. node	1802 Aug 25 09:18	11°♄25'35		morning set	1805 Apr 20 08:18	19°☿52'33	
	1802 Sep 10 12:44	0°♅			1805 Apr 28 13:21	0°♁	
	1802 Oct 07 16:12	0°♁			1805 May 22 22:20	0°♂	
evening max el	1802 Oct 21 14:15	14°♁21'25	46°59'18				
	1802 Nov 07 10:54	0°☾		superior conj	1805 May 27 17:13	5°♂53'06	0°-13'-18
greatest brilliancy	1802 Nov 29 11:02	14°☾31'40	-4.7m	minimum elong	1805 May 27 20:01	6°♂01'42	0°13'11
retrograde	1802 Dec 11 01:25	17°☾03'27		behind sun begin	1805 May 27 07:09	5°♂22'09	
asc. node	1802 Dec 16 12:39	16°☾26'25		behind sun end	1805 May 28 08:53	6°♂41'15	
evening set	1802 Dec 25 13:42	12°☾52'29		max. Earth dist.	1805 May 28 11:13	6°♂48'25	1.73499 AU
min. Earth dist.	1802 Dec 31 02:23	9°☾38'44	0.26499 AU	asc. node	1805 Jun 02 07:57	12°♂47'10	
inferior conj	1802 Dec 31 15:12	9°☾19'08	3°48'39		1805 Jun 16 08:15	0°☾	
minimum elong	1802 Dec 31 07:12	9°☾31'22	3°46'17	evening rise	1805 Jul 03 01:31	20°☾32'16	
morning rise	1803 Jan 06 00:54	6°☾07'28			1805 Jul 10 18:27	0°♂	

	1805 Aug 04 05:01	0° \mathbb{M}			1808 Feb 28 16:44	0° \approx		
	1805 Aug 28 16:58	0° $\underline{\mathbf{A}}$		desc. node	1808 Mar 08 16:15	10° \approx 45'52		
desc. node	1805 Sep 21 21:11	29° $\underline{\mathbf{A}}$ 27'57			1808 Mar 24 15:06	0° \mathbb{H}		
	1805 Sep 22 07:43	0° \mathbb{M}			1808 Apr 18 08:57	0° \mathbb{Y}		
	1805 Oct 17 02:54	0° \mathbb{Z}			1808 May 13 00:54	0° \mathbb{B}		
	1805 Nov 11 05:38	0° \mathbb{Z}			1808 Jun 06 15:35	0° \mathbb{H}		
	1805 Dec 07 00:59	0° \approx		morning set	1808 Jun 27 18:10	25° \mathbb{H} 48'18		
evening max el	1806 Jan 01 23:47	28° \approx 11'46	47°13'23	asc. node	1808 Jun 29 19:48	28° \mathbb{H} 20'19		
	1806 Jan 03 18:27	0° \mathbb{H}			1808 Jul 01 04:20	0° \mathbb{G}		
asc. node	1806 Jan 13 00:36	8° \mathbb{H} 59'04			1808 Jul 25 14:17	0° \mathbb{Q}		
greatest brilliancy	1806 Feb 08 07:28	28° \mathbb{H} 23'53	-4.6m	max. Earth dist.	1808 Jul 31 03:14	6° \mathbb{Q} 49'45	1.73247 AU	
	1806 Feb 12 04:25	0° \mathbb{Y}						
retrograde	1806 Feb 21 21:02	1° \mathbb{Y} 47'36		superior conj	1808 Aug 03 03:05	10° \mathbb{Q} 31'24	1°09'38	
	1806 Mar 03 03:45	30° \mathbb{R} \mathbb{H}		minimum elong	1808 Aug 02 18:48	10° \mathbb{Q} 05'50	1°09'24	
evening set	1806 Mar 11 19:38	25° \mathbb{H} 31'24			1808 Aug 18 21:14	0° \mathbb{M}		
inferior conj	1806 Mar 14 20:47	23° \mathbb{H} 37'14	8°39'22	evening rise	1808 Sep 08 08:28	25° \mathbb{M} 22'18		
minimum elong	1806 Mar 15 00:12	23° \mathbb{H} 31'51	8°39'12		1808 Sep 12 02:00	0° $\underline{\mathbf{A}}$		
min. Earth dist.	1806 Mar 14 08:53	23° \mathbb{H} 55'57	0.27975 AU		1808 Oct 06 05:55	0° \mathbb{M}		
morning rise	1806 Mar 18 05:02	21° \mathbb{H} 32'55		desc. node	1808 Oct 19 09:07	16° \mathbb{M} 18'07		
direct	1806 Apr 04 19:17	15° \mathbb{H} 37'05			1808 Oct 30 10:07	0° \mathbb{Z}		
greatest brilliancy	1806 Apr 15 20:49	17° \mathbb{H} 52'03	-4.5m		1808 Nov 23 15:30	0° \mathbb{Z}		
desc. node	1806 May 04 13:48	29° \mathbb{H} 07'27			1808 Dec 17 23:52	0° \approx		
	1806 May 05 16:47	0° \mathbb{Y}			1809 Jan 11 15:36	0° \mathbb{H}		
morning max el	1806 May 23 23:09	16° \mathbb{Y} 09'43	45°55'14		1809 Feb 06 00:26	0° \mathbb{Y}		
	1806 Jun 06 18:32	0° \mathbb{B}		asc. node	1809 Feb 09 12:22	4° \mathbb{Y} 01'28		
	1806 Jul 04 10:44	0° \mathbb{H}			1809 Mar 05 01:11	0° \mathbb{B}		
	1806 Jul 30 15:14	0° \mathbb{G}		evening max el	1809 Mar 14 08:34	9° \mathbb{B} 31'00	46°11'52	
	1806 Aug 24 23:13	0° \mathbb{Q}			1809 Apr 06 16:42	0° \mathbb{H}		
asc. node	1806 Aug 25 17:24	0° \mathbb{Q} 54'35		greatest brilliancy	1809 Apr 18 05:43	7° \mathbb{H} 06'23	-4.5m	
	1806 Sep 18 16:32	0° \mathbb{M}		retrograde	1809 May 02 21:32	10° \mathbb{H} 55'34		
	1806 Oct 12 23:24	0° $\underline{\mathbf{A}}$		evening set	1809 May 18 06:25	6° \mathbb{H} 20'46		
	1806 Nov 05 23:45	0° \mathbb{M}		inferior conj	1809 May 24 08:05	2° \mathbb{H} 40'33	1°49'05	
morning set	1806 Nov 17 22:33	15° \mathbb{M} 00'08		minimum elong	1809 May 24 12:01	2° \mathbb{H} 34'23	1°47'57	
	1806 Nov 29 20:51	0° \mathbb{Z}		min. Earth dist.	1809 May 24 08:55	2° \mathbb{H} 39'15	0.28821 AU	
desc. node	1806 Dec 15 06:50	19° \mathbb{Z} 24'07			1809 May 28 16:07	30° \mathbb{R} \mathbb{B}		
	1806 Dec 23 16:54	0° \mathbb{Z}		morning rise	1809 May 30 17:45	28° \mathbb{B} 49'01		
				desc. node	1809 Jun 01 01:41	28° \mathbb{B} 06'30		
superior conj	1806 Dec 28 23:52	6° \mathbb{Z} 39'25	0°-32'-3	direct	1809 Jun 14 20:00	24° \mathbb{B} 25'14		
minimum elong	1806 Dec 28 15:44	6° \mathbb{Z} 13'49	0°31'41	greatest brilliancy	1809 Jun 27 22:37	27° \mathbb{B} 25'06	-4.5m	
max. Earth dist.	1806 Dec 30 07:10	8° \mathbb{Z} 17'54	1.71070 AU		1809 Jul 03 03:28	0° \mathbb{H}		
	1807 Jan 16 13:16	0° \approx		morning max el	1809 Aug 02 13:08	24° \mathbb{H} 04'01	45°45'48	
evening rise	1807 Feb 08 09:34	28° \approx 39'46			1809 Aug 08 15:06	0° \mathbb{G}		
	1807 Feb 09 11:12	0° \mathbb{H}			1809 Sep 05 20:26	0° \mathbb{Q}		
	1807 Mar 05 12:21	0° \mathbb{Y}		asc. node	1809 Sep 22 05:15	18° \mathbb{Q} 40'00		
	1807 Mar 29 18:45	0° \mathbb{B}			1809 Oct 01 21:23	0° \mathbb{M}		
asc. node	1807 Apr 07 10:13	10° \mathbb{B} 36'08			1809 Oct 26 20:10	0° $\underline{\mathbf{A}}$		
	1807 Apr 23 08:32	0° \mathbb{H}			1809 Nov 20 04:33	0° \mathbb{M}		
	1807 May 18 08:20	0° \mathbb{G}			1809 Dec 14 05:45	0° \mathbb{Z}		
	1807 Jun 12 22:49	0° \mathbb{Q}			1810 Jan 07 04:09	0° \mathbb{Z}		
	1807 Jul 09 14:50	0° \mathbb{M}		desc. node	1810 Jan 11 18:36	5° \mathbb{Z} 46'26		
desc. node	1807 Jul 27 23:28	19° \mathbb{M} 24'25			1810 Jan 31 02:10	0° \approx		
evening max el	1807 Aug 06 23:14	29° \mathbb{M} 17'01	45°48'50	morning set	1810 Feb 02 19:49	3° \approx 25'49		
	1807 Aug 07 17:14	0° $\underline{\mathbf{A}}$			1810 Feb 24 01:11	0° \mathbb{H}		
greatest brilliancy	1807 Sep 14 06:42	27° $\underline{\mathbf{A}}$ 15'53	-4.6m					
retrograde	1807 Sep 24 22:00	29° $\underline{\mathbf{A}}$ 17'58		superior conj	1810 Mar 15 12:06	24° \mathbb{H} 16'52	-1°-24'-46	
evening set	1807 Oct 11 18:50	23° $\underline{\mathbf{A}}$ 57'17		minimum elong	1810 Mar 15 15:50	24° \mathbb{H} 28'27	1°24'45	
inferior conj	1807 Oct 15 19:43	21° $\underline{\mathbf{A}}$ 31'50	-7°-12'-45	max. Earth dist.	1810 Mar 19 11:55	29° \mathbb{H} 15'01	1.72176 AU	
minimum elong	1807 Oct 16 05:42	21° $\underline{\mathbf{A}}$ 16'31	7°10'59		1810 Mar 20 02:23	0° \mathbb{Y}		
min. Earth dist.	1807 Oct 16 18:04	20° $\underline{\mathbf{A}}$ 57'33	0.27433 AU		1810 Apr 13 06:48	0° \mathbb{B}		
morning rise	1807 Oct 20 16:06	18° $\underline{\mathbf{A}}$ 37'28		evening rise	1810 Apr 23 13:54	12° \mathbb{B} 42'40		
direct	1807 Nov 05 18:22	13° $\underline{\mathbf{A}}$ 36'24		asc. node	1810 May 04 22:11	26° \mathbb{B} 40'41		
asc. node	1807 Nov 18 02:51	16° $\underline{\mathbf{A}}$ 25'58			1810 May 07 15:04	0° \mathbb{H}		
greatest brilliancy	1807 Nov 19 15:41	17° $\underline{\mathbf{A}}$ 08'00	-4.6m		1810 Jun 01 03:25	0° \mathbb{G}		
	1807 Dec 08 10:50	0° \mathbb{M}			1810 Jun 25 20:18	0° \mathbb{Q}		
morning max el	1807 Dec 26 11:46	17° \mathbb{M} 00'09	46°56'09		1810 Jul 20 19:16	0° \mathbb{M}		
	1808 Jan 07 19:11	0° \mathbb{Z}			1810 Aug 15 03:40	0° $\underline{\mathbf{A}}$		
	1808 Feb 03 07:35	0° \mathbb{Z}		desc. node	1810 Aug 24 11:12	10° $\underline{\mathbf{A}}$ 51'04		

	1810 Sep 10 03:55	0°♌			1813 Apr 03 17:10	0°♑		
	1810 Oct 07 11:44	0°♊		morning set	1813 Apr 17 23:54	17°♑38'26		
evening max el	1810 Oct 19 03:38	11°♊56'59	46°57'24		1813 Apr 28 00:23	0°♋		
	1810 Nov 07 23:16	0°♎			1813 May 22 09:16	0°♌		
greatest brilliancy	1810 Nov 26 23:58	12°♎02'18	-4.7m					
retrograde	1810 Dec 08 14:08	14°♎33'44		superior conj	1813 May 25 10:27	3°♌44'58	0°-16'-31	
asc. node	1810 Dec 15 14:44	13°♎32'27		minimum elong	1813 May 25 13:55	3°♌55'36	0°16'22	
evening set	1810 Dec 23 00:26	10°♎24'44		max. Earth dist.	1813 May 26 10:00	4°♌57'20	1.73477 AU	
min. Earth dist.	1810 Dec 28 15:34	7°♎07'52	0.26476 AU	asc. node	1813 Jun 01 09:59	12°♌19'51		
inferior conj	1810 Dec 29 03:22	6°♎49'53	3°26'10		1813 Jun 15 19:10	0°♍		
minimum elong	1810 Dec 28 20:01	7°♎01'06	3°23'57	evening rise	1813 Jun 30 20:23	18°♍29'06		
morning rise	1811 Jan 03 15:47	3°♎35'00			1813 Jul 10 05:27	0°♎		
	1811 Jan 12 06:58	30°♋♊			1813 Aug 03 16:15	0°♎		
direct	1811 Jan 18 11:12	29°♊12'28			1813 Aug 28 04:35	0°♏		
	1811 Jan 24 19:53	0°♎		desc. node	1813 Sep 20 23:18	28°♏57'31		
greatest brilliancy	1811 Jan 29 22:05	1°♎39'49	-4.7m		1813 Sep 21 19:54	0°♌		
	1811 Mar 08 00:49	0°♏			1813 Oct 16 15:54	0°♊		
morning max el	1811 Mar 09 15:08	1°♏34'41	46°39'26		1813 Nov 10 19:58	0°♎		
	1811 Apr 05 11:04	0°♋			1813 Dec 06 17:49	0°♏		
desc. node	1811 Apr 06 04:11	0°♋47'23		evening max el	1813 Dec 30 14:53	25°♏50'22	47°14'20	
	1811 May 01 21:28	0°♑			1814 Jan 03 18:07	0°♋		
	1811 May 27 13:13	0°♋		asc. node	1814 Jan 12 02:34	7°♋58'12		
	1811 Jun 21 19:03	0°♌		greatest brilliancy	1814 Feb 06 01:06	26°♋06'15	-4.6m	
	1811 Jul 16 17:21	0°♍		retrograde	1814 Feb 19 11:54	29°♋26'37		
asc. node	1811 Jul 28 07:35	14°♍04'40		evening set	1814 Mar 09 11:10	23°♋09'56		
	1811 Aug 10 08:26	0°♎		inferior conj	1814 Mar 12 11:21	21°♋17'06	8°43'09	
	1811 Sep 03 16:45	0°♎		minimum elong	1814 Mar 12 13:59	21°♋12'58	8°43'03	
morning set	1811 Sep 04 20:37	1°♎26'19		min. Earth dist.	1814 Mar 11 22:36	21°♋37'11	0.27921 AU	
	1811 Sep 27 19:45	0°♏		morning rise	1814 Mar 15 17:02	19°♋16'33		
max. Earth dist.	1811 Oct 09 09:29	14°♏27'13	1.71858 AU	direct	1814 Apr 02 09:28	13°♋18'08		
				greatest brilliancy	1814 Apr 13 08:35	15°♋30'42	-4.5m	
superior conj	1811 Oct 12 04:47	17°♏57'39	1°11'42	desc. node	1814 May 03 15:56	27°♋59'57		
minimum elong	1811 Oct 12 13:58	18°♏26'23	1°11'28		1814 May 06 03:22	0°♑		
	1811 Oct 21 19:35	0°♌		morning max el	1814 May 21 13:00	13°♑51'54	45°56'18	
	1811 Nov 14 18:00	0°♊			1814 Jun 06 13:06	0°♋		
desc. node	1811 Nov 16 21:07	2°♊40'15			1814 Jul 04 01:20	0°♌		
evening rise	1811 Nov 20 21:50	7°♊43'33			1814 Jul 30 04:07	0°♍		
	1811 Dec 08 16:10	0°♎			1814 Aug 24 11:13	0°♎		
	1812 Jan 01 15:05	0°♏		asc. node	1814 Aug 24 19:24	0°♎24'36		
	1812 Jan 25 16:35	0°♋			1814 Sep 18 04:04	0°♎		
	1812 Feb 19 00:00	0°♑			1814 Oct 12 10:42	0°♏		
asc. node	1812 Mar 09 00:18	23°♑05'50			1814 Nov 05 10:57	0°♌		
	1812 Mar 14 18:20	0°♋		morning set	1814 Nov 15 11:04	12°♌33'32		
	1812 Apr 09 07:29	0°♌			1814 Nov 29 08:03	0°♊		
	1812 May 06 08:05	0°♍		desc. node	1814 Dec 14 08:49	18°♊55'08		
evening max el	1812 May 23 23:58	17°♍56'43	45°24'35		1814 Dec 23 04:07	0°♎		
	1812 Jun 06 08:36	0°♎						
greatest brilliancy	1812 Jun 27 22:57	14°♎24'01	-4.5m	superior conj	1814 Dec 26 09:45	4°♎04'13	0°-28'-18	
desc. node	1812 Jun 28 13:42	14°♎40'07		minimum elong	1814 Dec 26 02:27	3°♎41'17	0°27'58	
retrograde	1812 Jul 11 14:01	17°♎37'41		max. Earth dist.	1814 Dec 27 09:32	5°♎19'02	1.71066 AU	
evening set	1812 Jul 27 22:32	12°♎32'37			1815 Jan 16 00:31	0°♏		
inferior conj	1812 Aug 02 00:13	9°♎28'27	-6°-58'-17	evening rise	1815 Feb 05 19:55	26°♏06'34		
minimum elong	1812 Aug 01 14:39	9°♎43'19	6°56'39		1815 Feb 08 22:29	0°♋		
min. Earth dist.	1812 Aug 02 01:38	9°♎26'14	0.28921 AU		1815 Mar 04 23:42	0°♑		
morning rise	1812 Aug 06 06:40	6°♎51'57			1815 Mar 29 06:13	0°♋		
direct	1812 Aug 23 15:32	1°♎12'01		asc. node	1815 Apr 06 12:21	10°♋07'16		
greatest brilliancy	1812 Sep 06 23:29	4°♎49'04	-4.5m		1815 Apr 22 20:19	0°♌		
	1812 Oct 09 18:17	0°♎			1815 May 17 20:46	0°♍		
morning max el	1812 Oct 12 09:11	2°♎34'07	46°19'52		1815 Jun 12 12:32	0°♎		
asc. node	1812 Oct 19 17:09	10°♎00'56			1815 Jul 09 07:18	0°♎		
	1812 Nov 07 02:22	0°♏		desc. node	1815 Jul 27 01:25	18°♎38'12		
	1812 Dec 02 21:14	0°♌		evening max el	1815 Aug 04 11:52	26°♎56'06	45°46'52	
	1812 Dec 27 16:22	0°♊			1815 Aug 07 17:41	0°♏		
	1813 Jan 21 01:32	0°♎		greatest brilliancy	1815 Sep 11 19:26	24°♏54'56	-4.5m	
desc. node	1813 Feb 08 06:26	22°♎32'14		retrograde	1815 Sep 22 10:41	26°♏57'23		
	1813 Feb 14 06:57	0°♏		evening set	1815 Oct 09 11:19	21°♏31'45		
	1813 Mar 10 11:37	0°♋		inferior conj	1815 Oct 13 09:23	19°♏10'31	-7°-25'-1	

minimum elong	1815 Oct 13 19:02	18° Ω 55'42	7°23'24			1818 Mar 19 13:19	0° Υ	
min. Earth dist.	1815 Oct 14 08:11	18° Ω 35'33	0.27502 AU			1818 Apr 12 17:43	0° \mathcal{B}	
morning rise	1815 Oct 18 02:16	16° Ω 21'00		evening rise		1818 Apr 21 05:17	10° \mathcal{B} 28'27	
direct	1815 Nov 03 08:06	11° Ω 13'46		asc. node		1818 May 04 00:12	26° \mathcal{B} 13'09	
asc. node	1815 Nov 17 04:50	14° Ω 43'53				1818 May 07 02:03	0° Π	
greatest brilliancy	1815 Nov 17 08:23	14° Ω 48'08	-4.6m			1818 May 31 14:35	0° \mathcal{B}	
	1815 Dec 08 19:31	0° \mathcal{M}				1818 Jun 25 07:49	0° Ω	
morning max el	1815 Dec 24 01:11	14° \mathcal{M} 34'14	46°55'46			1818 Jul 20 07:25	0° \mathcal{M}	
	1816 Jan 07 13:58	0° \mathcal{A}				1818 Aug 14 16:58	0° Ω	
	1816 Feb 02 22:44	0° \mathcal{B}		desc. node		1818 Aug 23 13:22	10° Ω 17'09	
	1816 Feb 28 06:13	0° \approx				1818 Sep 09 19:19	0° \mathcal{M}	
desc. node	1816 Mar 07 18:22	10° \approx 12'53				1818 Oct 07 07:50	0° \mathcal{A}	
	1816 Mar 24 03:38	0° \mathcal{K}		evening max el		1818 Oct 16 17:53	9° \mathcal{A} 34'59	46°55'21
	1816 Apr 17 20:51	0° Υ				1818 Nov 08 15:39	0° \mathcal{B}	
	1816 May 12 12:20	0° \mathcal{B}		greatest brilliancy		1818 Nov 24 12:52	9° \mathcal{B} 33'13	-4.7m
	1816 Jun 06 02:41	0° Π		retrograde		1818 Dec 06 03:05	12° \mathcal{B} 04'02	
morning set	1816 Jun 25 12:10	23° Π 42'51		asc. node		1818 Dec 14 16:44	10° \mathcal{B} 32'55	
asc. node	1816 Jun 28 21:45	27° Π 52'46		evening set		1818 Dec 20 11:28	7° \mathcal{B} 56'57	
	1816 Jun 30 15:16	0° \mathcal{B}		min. Earth dist.		1818 Dec 26 04:36	4° \mathcal{B} 37'13	0.26455 AU
	1816 Jul 25 01:10	0° Ω		inferior conj		1818 Dec 26 15:30	4° \mathcal{B} 20'38	3°03'07
max. Earth dist.	1816 Jul 29 00:00	4° Ω 52'16	1.73285 AU	minimum elong		1818 Dec 26 08:51	4° \mathcal{B} 30'46	3°01'06
				morning rise		1819 Jan 01 06:30	1° \mathcal{B} 02'44	
superior conj	1816 Jul 31 21:20	8° Ω 26'05	1°07'47			1819 Jan 03 06:58	30° \mathcal{R} \mathcal{A}	
minimum elong	1816 Jul 31 12:50	7° Ω 59'53	1°07'32	direct		1819 Jan 15 23:57	26° \mathcal{A} 43'36	
	1816 Aug 18 08:10	0° \mathcal{M}		greatest brilliancy		1819 Jan 27 11:24	29° \mathcal{A} 12'16	-4.7m
evening rise	1816 Sep 06 01:18	23° \mathcal{M} 11'25				1819 Jan 29 07:17	0° \mathcal{B}	
	1816 Sep 11 13:05	0° Ω		morning max el		1819 Mar 07 05:15	29° \mathcal{B} 12'50	46°40'55
	1816 Oct 05 17:13	0° \mathcal{M}				1819 Mar 08 00:09	0° \approx	
desc. node	1816 Oct 18 11:15	15° \mathcal{M} 49'09		desc. node		1819 Apr 05 06:18	0° \mathcal{K} 07'59	
	1816 Oct 29 21:42	0° \mathcal{A}				1819 Apr 05 03:27	0° \mathcal{K}	
	1816 Nov 23 03:28	0° \mathcal{B}				1819 May 01 11:13	0° Υ	
	1816 Dec 17 12:21	0° \approx				1819 May 27 01:40	0° \mathcal{B}	
	1817 Jan 11 04:55	0° \mathcal{K}				1819 Jun 21 06:44	0° Π	
	1817 Feb 05 15:24	0° Υ				1819 Jul 16 04:34	0° \mathcal{B}	
asc. node	1817 Feb 08 14:24	3° Υ 23'30		asc. node		1819 Jul 27 09:38	13° \mathcal{B} 37'14	
	1817 Mar 04 20:26	0° \mathcal{B}				1819 Aug 09 19:22	0° Ω	
evening max el	1817 Mar 11 23:10	7° \mathcal{B} 14'01	46°14'15	morning set		1819 Sep 02 13:22	29° Ω 16'07	
	1817 Apr 07 11:53	0° Π				1819 Sep 03 03:33	0° \mathcal{M}	
greatest brilliancy	1817 Apr 15 21:28	4° Π 54'48	-4.5m			1819 Sep 27 06:34	0° Ω	
retrograde	1817 Apr 30 14:16	8° Π 45'39		max. Earth dist.		1819 Oct 06 21:40	12° Ω 01'23	1.71906 AU
evening set	1817 May 16 00:24	4° Π 08'07						
inferior conj	1817 May 22 00:27	0° Π 30'24	2°08'39	superior conj		1819 Oct 09 19:27	15° Ω 39'31	1°13'32
minimum elong	1817 May 22 05:03	0° Π 23'10	2°07'19	minimum elong		1819 Oct 10 04:12	16° Ω 06'50	1°13'18
min. Earth dist.	1817 May 22 01:26	0° Π 28'51	0.28807 AU			1819 Oct 21 06:28	0° \mathcal{M}	
	1817 May 22 19:48	30° \mathcal{R} \mathcal{B}				1819 Nov 14 05:02	0° \mathcal{A}	
morning rise	1817 May 28 09:50	26° \mathcal{B} 39'29		desc. node		1819 Nov 15 23:04	2° \mathcal{A} 11'46	
desc. node	1817 May 31 03:42	25° \mathcal{B} 15'00		evening rise		1819 Nov 18 09:13	5° \mathcal{A} 14'05	
direct	1817 Jun 12 11:46	22° \mathcal{B} 15'07				1819 Dec 08 03:21	0° \mathcal{B}	
greatest brilliancy	1817 Jun 25 14:39	25° \mathcal{B} 15'29	-4.5m			1820 Jan 01 02:25	0° \approx	
	1817 Jul 04 10:41	0° Π				1820 Jan 25 04:09	0° \mathcal{K}	
morning max el	1817 Jul 31 05:29	21° Π 54'54	45°45'21			1820 Feb 18 11:54	0° Υ	
	1817 Aug 08 11:08	0° \mathcal{B}		asc. node		1820 Mar 08 02:29	22° Υ 35'14	
	1817 Sep 05 11:26	0° Ω				1820 Mar 14 06:54	0° \mathcal{B}	
asc. node	1817 Sep 21 07:25	18° Ω 06'44				1820 Apr 08 21:25	0° Π	
	1817 Oct 01 10:29	0° \mathcal{M}				1820 May 06 01:25	0° \mathcal{B}	
	1817 Oct 26 08:22	0° Ω		evening max el		1820 May 21 16:17	15° \mathcal{B} 47'35	45°25'03
	1817 Nov 19 16:17	0° \mathcal{M}				1820 Jun 06 15:48	0° Ω	
	1817 Dec 13 17:14	0° \mathcal{A}		greatest brilliancy		1820 Jun 25 13:55	12° Ω 13'52	-4.5m
	1818 Jan 06 15:28	0° \mathcal{B}		desc. node		1820 Jun 27 15:40	13° Ω 05'54	
desc. node	1818 Jan 10 20:37	5° \mathcal{B} 17'24		retrograde		1820 Jul 09 05:42	15° Ω 28'14	
	1818 Jan 30 13:19	0° \approx		evening set		1820 Jul 25 11:37	10° Ω 27'37	
morning set	1818 Jan 31 06:03	0° \approx 52'27		inferior conj		1820 Jul 30 16:18	7° Ω 18'45	-6°-46'-1
	1818 Feb 23 12:12	0° \mathcal{K}		minimum elong		1820 Jul 30 06:35	7° Ω 33'55	6°44'17
				min. Earth dist.		1820 Jul 30 17:08	7° Ω 17'27	0.28937 AU
superior conj	1818 Mar 13 01:08	21° \mathcal{K} 53'48	-1°-25'-20	morning rise		1820 Aug 04 01:28	4° Ω 38'00	
minimum elong	1818 Mar 13 03:57	22° \mathcal{K} 02'36	1°25'20			1820 Aug 14 08:39	30° \mathcal{R} \mathcal{B}	
max. Earth dist.	1818 Mar 16 23:42	26° \mathcal{K} 48'19	1.72123 AU	direct		1820 Aug 21 08:03	29° \mathcal{B} 02'21	

	1820 Aug 28 12:22	0°♈		asc. node	1823 Apr 05 14:21	9°♊38'56	
greatest brilliancy	1820 Sep 04 13:51	2°♈36'28	-4.5m		1823 Apr 22 07:50	0°♊	
	1820 Oct 09 16:39	0°♎			1823 May 17 08:57	0°♊	
morning max el	1820 Oct 09 23:40	0°♎17'21	46°18'12		1823 Jun 12 02:01	0°♈	
asc. node	1820 Oct 18 19:08	9°♎15'57			1823 Jul 08 23:37	0°♎	
	1820 Nov 06 18:12	0°♊		desc. node	1823 Jul 26 03:35	17°♎53'02	
	1820 Dec 02 10:51	0°♍		evening max el	1823 Aug 02 00:40	24°♎36'59	45°44'59
	1820 Dec 27 04:56	0°♊			1823 Aug 07 18:51	0°♊	
	1821 Jan 20 13:28	0°♊		greatest brilliancy	1823 Sep 09 06:52	22°♊33'57	-4.5m
desc. node	1821 Feb 07 08:31	22°♊02'39		retrograde	1823 Sep 19 23:48	24°♊38'11	
	1821 Feb 13 18:28	0°♊		evening set	1823 Oct 07 03:42	19°♊07'23	
	1821 Mar 09 22:50	0°♋		inferior conj	1823 Oct 10 23:03	16°♊50'14	-7°-36'-20
	1821 Apr 03 04:08	0°♎		minimum elong	1823 Oct 11 08:19	16°♊36'01	7°34'53
morning set	1821 Apr 15 15:31	15°♎25'06		min. Earth dist.	1823 Oct 11 22:00	16°♊15'05	0.27575 AU
	1821 Apr 27 11:09	0°♊		morning rise	1823 Oct 15 12:28	14°♊05'49	
	1821 May 21 19:54	0°♊		direct	1823 Oct 31 22:15	8°♊52'06	
				greatest brilliancy	1823 Nov 15 01:32	12°♊29'56	-4.6m
superior conj	1821 May 23 03:52	1°♊38'16	0°-19'-41	asc. node	1823 Nov 16 06:51	13°♊06'27	
minimum elong	1821 May 23 07:58	1°♊50'53	0°19'30		1823 Dec 09 01:29	0°♍	
max. Earth dist.	1821 May 24 08:01	3°♊04'49	1.73449 AU	morning max el	1823 Dec 21 15:38	12°♍11'47	46°55'19
asc. node	1821 May 31 11:59	11°♊53'22			1824 Jan 07 08:03	0°♊	
	1821 Jun 15 05:46	0°♊			1824 Feb 02 13:25	0°♊	
evening rise	1821 Jun 28 15:24	16°♊27'21			1824 Feb 27 19:18	0°♊	
	1821 Jul 09 16:10	0°♈		desc. node	1824 Mar 06 20:31	9°♊41'07	
	1821 Aug 03 03:14	0°♎			1824 Mar 23 15:47	0°♋	
	1821 Aug 27 15:57	0°♊			1824 Apr 17 08:22	0°♎	
desc. node	1821 Sep 20 01:22	28°♊27'40			1824 May 11 23:26	0°♊	
	1821 Sep 21 07:50	0°♍			1824 Jun 05 13:30	0°♊	
	1821 Oct 16 04:41	0°♊		morning set	1824 Jun 23 06:14	21°♊38'31	
	1821 Nov 10 10:06	0°♊		asc. node	1824 Jun 27 23:53	27°♊26'41	
	1821 Dec 06 10:36	0°♊			1824 Jun 30 01:55	0°♊	
evening max el	1821 Dec 28 04:53	23°♊27'09	47°15'12		1824 Jul 24 11:45	0°♈	
	1822 Jan 03 18:25	0°♋		max. Earth dist.	1824 Jul 26 22:18	3°♈00'28	1.73316 AU
asc. node	1822 Jan 11 04:39	6°♋57'18					
greatest brilliancy	1822 Feb 03 18:47	23°♋49'26	-4.6m	superior conj	1824 Jul 29 15:44	6°♈22'12	1°05'51
retrograde	1822 Feb 17 02:22	27°♋06'30		minimum elong	1824 Jul 29 07:06	5°♈55'34	1°05'35
evening set	1822 Mar 07 02:16	20°♋49'58			1824 Aug 17 18:46	0°♎	
min. Earth dist.	1822 Mar 09 12:39	19°♋18'50	0.27870 AU	evening rise	1824 Sep 03 18:27	21°♎02'39	
inferior conj	1822 Mar 10 01:56	18°♋57'53	8°45'57		1824 Sep 10 23:49	0°♊	
minimum elong	1822 Mar 10 03:43	18°♋55'04	8°45'55		1824 Oct 05 04:13	0°♍	
morning rise	1822 Mar 13 05:24	17°♋00'33		desc. node	1824 Oct 17 13:14	15°♍20'41	
direct	1822 Mar 30 23:07	10°♋59'52			1824 Oct 29 09:03	0°♊	
greatest brilliancy	1822 Apr 10 21:30	13°♋11'19	-4.6m		1824 Nov 22 15:15	0°♊	
desc. node	1822 May 02 17:52	26°♋54'43			1824 Dec 17 00:40	0°♊	
	1822 May 06 10:44	0°♎			1825 Jan 10 18:07	0°♋	
morning max el	1822 May 19 02:21	11°♎33'37	45°57'35		1825 Feb 05 06:22	0°♎	
	1822 Jun 06 06:49	0°♊		asc. node	1825 Feb 07 16:33	2°♎46'11	
	1822 Jul 03 15:22	0°♊			1825 Mar 04 16:01	0°♊	
	1822 Jul 29 16:32	0°♊		evening max el	1825 Mar 09 14:22	4°♊59'09	46°16'48
asc. node	1822 Aug 23 21:34	29°♊56'19			1825 Apr 08 13:46	0°♊	
	1822 Aug 23 22:48	0°♈		greatest brilliancy	1825 Apr 13 13:21	2°♊43'54	-4.5m
	1822 Sep 17 15:15	0°♎		retrograde	1825 Apr 28 07:17	6°♊35'54	
	1822 Oct 11 21:42	0°♊		evening set	1825 May 13 18:24	1°♊55'34	
	1822 Nov 04 21:52	0°♍			1825 May 17 00:42	30°♊	
morning set	1822 Nov 12 23:34	10°♍07'45		inferior conj	1825 May 19 16:39	28°♊20'19	2°28'04
	1822 Nov 28 18:56	0°♊		minimum elong	1825 May 19 21:54	28°♊12'04	2°26'34
desc. node	1822 Dec 13 10:53	18°♊27'16		min. Earth dist.	1825 May 19 17:29	28°♊19'00	0.28792 AU
	1822 Dec 22 15:00	0°♊		morning rise	1825 May 26 01:36	24°♊30'21	
				desc. node	1825 May 30 05:47	22°♊27'15	
superior conj	1822 Dec 23 19:30	1°♊29'40	0°-24'-28	direct	1825 Jun 10 03:50	20°♊05'11	
minimum elong	1822 Dec 23 13:07	1°♊09'35	0°24'11	greatest brilliancy	1825 Jun 23 05:46	23°♊05'12	-4.5m
max. Earth dist.	1822 Dec 24 11:39	2°♊20'28	1.71063 AU		1825 Jul 05 08:55	0°♊	
	1823 Jan 15 11:25	0°♊		morning max el	1825 Jul 28 22:22	19°♊47'42	45°45'02
evening rise	1823 Feb 03 06:11	23°♊34'07			1825 Aug 08 06:19	0°♊	
	1823 Feb 08 09:26	0°♋			1825 Sep 05 01:58	0°♈	
	1823 Mar 04 10:43	0°♎		asc. node	1825 Sep 20 09:23	17°♈33'48	
	1823 Mar 28 17:24	0°♊			1825 Sep 30 23:13	0°♎	

	1825 Oct 25 20:14	0°♄	evening max el	1828 May 19 07:45	13°♄35'52	45°25'39
	1825 Nov 19 03:45	0°♍		1828 Jun 07 01:58	0°♌	
	1825 Dec 13 04:29	0°♎	greatest brilliancy	1828 Jun 23 04:44	10°♌02'59	-4.5m
	1826 Jan 06 02:35	0°♏	desc. node	1828 Jun 26 17:49	11°♌28'00	
desc. node	1826 Jan 09 22:46	4°♏49'20	retrograde	1828 Jul 06 21:01	13°♌18'27	
morning set	1826 Jan 28 15:50	28°♏18'07	evening set	1828 Jul 23 00:42	8°♌21'59	
	1826 Jan 30 00:20	0°♐	inferior conj	1828 Jul 28 08:23	5°♌08'46	-6°-33'-14
	1826 Feb 22 23:06	0°♑	minimum elong	1828 Jul 27 22:32	5°♌24'09	6°31'23
			min. Earth dist.	1828 Jul 28 08:58	5°♌07'50	0.28950 AU
superior conj	1826 Mar 10 13:29	19°♑28'53	morning rise	1828 Aug 01 20:13	2°♌23'44	
minimum elong	1826 Mar 10 15:23	19°♑34'48		1828 Aug 06 07:22	30°♌♊	
max. Earth dist.	1826 Mar 14 12:26	24°♑24'45	direct	1828 Aug 19 00:00	26°♌52'11	
	1826 Mar 19 00:07	0°♒		1828 Sep 01 07:34	0°♌	
	1826 Apr 12 04:30	0°♓	greatest brilliancy	1828 Sep 02 04:36	0°♌23'57	-4.5m
evening rise	1826 Apr 18 20:08	8°♓12'59	morning max el	1828 Oct 07 13:41	27°♌59'03	46°16'41
asc. node	1826 May 03 02:11	25°♓45'59		1828 Oct 09 14:20	0°♎	
	1826 May 06 12:54	0°♈	asc. node	1828 Oct 17 21:09	8°♎31'18	
	1826 May 31 01:38	0°♉		1828 Nov 06 09:55	0°♎	
	1826 Jun 24 19:15	0°♊		1828 Dec 02 00:26	0°♍	
	1826 Jul 19 19:31	0°♋		1828 Dec 26 17:28	0°♎	
	1826 Aug 14 06:13	0°♌		1829 Jan 20 01:24	0°♏	
desc. node	1826 Aug 22 15:27	9°♌43'15	desc. node	1829 Feb 06 10:37	21°♏33'06	
	1826 Sep 09 10:45	0°♍		1829 Feb 13 05:59	0°♐	
	1826 Oct 07 04:19	0°♎		1829 Mar 09 10:04	0°♑	
evening max el	1826 Oct 14 08:31	7°♎14'49		1829 Apr 02 15:10	0°♒	
	1826 Nov 09 13:04	0°♏	morning set	1829 Apr 13 06:57	13°♒10'45	
greatest brilliancy	1826 Nov 22 02:25	7°♏05'58		1829 Apr 26 22:02	0°♓	
retrograde	1826 Dec 03 15:56	9°♏35'04				
asc. node	1826 Dec 13 18:49	7°♏28'45	superior conj	1829 May 20 21:02	29°♓30'18	0°-22'-50
evening set	1826 Dec 17 22:54	5°♏29'54	minimum elong	1829 May 21 01:46	29°♓44'53	0°22'38
min. Earth dist.	1826 Dec 23 17:53	2°♏07'17		1829 May 21 06:41	0°♈	
inferior conj	1826 Dec 24 03:44	1°♏52'17	max. Earth dist.	1829 May 22 03:39	1°♈04'28	1.73423 AU
minimum elong	1826 Dec 23 21:51	2°♏01'15	asc. node	1829 May 30 14:08	11°♈26'47	
	1826 Dec 27 06:21	30°♒♊		1829 Jun 14 16:33	0°♉	
morning rise	1826 Dec 29 21:06	28°♒31'19	evening rise	1829 Jun 26 10:05	14°♉24'06	
direct	1827 Jan 13 12:47	24°♒15'39		1829 Jul 09 03:05	0°♊	
greatest brilliancy	1827 Jan 25 00:32	26°♒44'51		1829 Aug 02 14:24	0°♋	
	1827 Jan 31 12:55	0°♓		1829 Aug 27 03:33	0°♌	
morning max el	1827 Mar 04 18:47	26°♓49'32	desc. node	1829 Sep 19 03:20	27°♌56'47	
	1827 Mar 07 22:30	0°♐		1829 Sep 20 20:02	0°♍	
desc. node	1827 Apr 04 08:15	29°♐28'22		1829 Oct 15 17:46	0°♎	
	1827 Apr 04 19:33	0°♑		1829 Nov 10 00:36	0°♏	
	1827 May 01 00:53	0°♒		1829 Dec 06 03:53	0°♐	
	1827 May 26 14:03	0°♓	evening max el	1829 Dec 25 18:27	21°♐02'24	47°16'12
	1827 Jun 20 18:21	0°♈		1830 Jan 03 20:05	0°♑	
	1827 Jul 15 15:44	0°♉	asc. node	1830 Jan 10 06:47	5°♑54'50	
asc. node	1827 Jul 26 11:44	13°♉10'05	greatest brilliancy	1830 Feb 01 11:49	21°♑31'39	-4.7m
	1827 Aug 09 06:16	0°♊	retrograde	1830 Feb 14 16:58	24°♑46'46	
morning set	1827 Aug 31 06:06	27°♊05'56	evening set	1830 Mar 04 17:07	18°♑30'44	
	1827 Sep 02 14:21	0°♋	min. Earth dist.	1830 Mar 07 02:53	17°♑00'41	0.27818 AU
	1827 Sep 26 17:22	0°♌	inferior conj	1830 Mar 07 16:41	16°♑38'56	8°47'55
max. Earth dist.	1827 Oct 04 08:00	9°♌29'58	minimum elong	1830 Mar 07 17:37	16°♑37'28	8°47'54
			morning rise	1830 Mar 10 18:19	14°♑44'23	
superior conj	1827 Oct 07 10:28	13°♌22'35	direct	1830 Mar 28 12:38	8°♑41'38	
minimum elong	1827 Oct 07 18:43	13°♌48'20	greatest brilliancy	1830 Apr 08 11:13	10°♑52'53	-4.6m
	1827 Oct 20 17:21	0°♍	desc. node	1830 May 01 20:01	25°♑51'28	
	1827 Nov 13 16:01	0°♎		1830 May 06 15:59	0°♒	
desc. node	1827 Nov 15 01:08	1°♎43'49	morning max el	1830 May 16 16:18	9°♒16'16	45°58'45
evening rise	1827 Nov 15 20:59	2°♎46'02		1830 Jun 06 00:20	0°♓	
	1827 Dec 07 14:27	0°♏		1830 Jul 03 05:31	0°♈	
	1827 Dec 31 13:42	0°♐		1830 Jul 29 05:09	0°♉	
	1828 Jan 24 15:41	0°♑	asc. node	1830 Aug 22 23:33	29°♉26'42	
	1828 Feb 17 23:51	0°♒		1830 Aug 23 10:38	0°♊	
asc. node	1828 Mar 07 04:25	22°♒03'41		1830 Sep 17 02:40	0°♋	
	1828 Mar 13 19:35	0°♓		1830 Oct 11 08:55	0°♌	
	1828 Apr 08 11:37	0°♈		1830 Nov 04 09:01	0°♍	
	1828 May 05 19:19	0°♉	morning set	1830 Nov 10 12:06	7°♍41'24	

	1830 Nov 28 06:04	0°♊		minimum elong	1833 May 17 14:51	26°♊00'43	2°45'31
desc. node	1830 Dec 12 13:00	17°♊58'49		min. Earth dist.	1833 May 17 09:29	26°♊09'09	0.28772 AU
				morning rise	1833 May 23 17:19	22°♊21'04	
superior conj	1830 Dec 21 05:17	28°♊54'17	0°-20'-35	desc. node	1833 May 29 07:51	19°♊43'34	
minimum elong	1830 Dec 20 23:52	28°♊37'13	0°20'20	direct	1833 Jun 07 20:19	17°♊55'14	
max. Earth dist.	1830 Dec 21 15:58	29°♊27'54	1.71063 AU	greatest brilliancy	1833 Jun 20 19:40	20°♊53'11	-4.5m
	1830 Dec 22 02:10	0°♊			1833 Jul 06 01:33	0°♊	
	1831 Jan 14 22:36	0°♊		morning max el	1833 Jul 26 15:10	17°♊39'50	45°44'33
evening rise	1831 Jan 31 16:37	21°♊01'29			1833 Aug 08 01:13	0°♊	
	1831 Feb 07 20:36	0°♊			1833 Sep 04 16:38	0°♊	
	1831 Mar 03 21:55	0°♊		asc. node	1833 Sep 19 11:26	17°♊00'17	
	1831 Mar 28 04:45	0°♊			1833 Sep 30 12:12	0°♊	
asc. node	1831 Apr 04 16:23	9°♊10'06			1833 Oct 25 08:26	0°♊	
	1831 Apr 21 19:34	0°♊			1833 Nov 18 15:31	0°♊	
	1831 May 16 21:25	0°♊			1833 Dec 12 16:02	0°♊	
	1831 Jun 11 15:54	0°♊			1834 Jan 05 13:59	0°♊	
	1831 Jul 08 16:37	0°♊		desc. node	1834 Jan 09 00:46	4°♊19'52	
desc. node	1831 Jul 25 05:39	17°♊05'57		morning set	1834 Jan 26 01:33	25°♊42'39	
evening max el	1831 Jul 30 14:36	22°♊19'50	45°43'12		1834 Jan 29 11:37	0°♊	
	1831 Aug 07 21:53	0°♊			1834 Feb 22 10:17	0°♊	
greatest brilliancy	1831 Sep 06 17:28	20°♊11'34	-4.5m				
retrograde	1831 Sep 17 13:31	22°♊18'27		superior conj	1834 Mar 08 01:44	17°♊02'34	-1°-26'00
evening set	1831 Oct 04 20:03	16°♊42'42		minimum elong	1834 Mar 08 02:39	17°♊05'27	1°26'00
inferior conj	1831 Oct 08 12:48	14°♊29'20	-7°-46'-41	max. Earth dist.	1834 Mar 12 02:13	22°♊03'25	1.72015 AU
minimum elong	1831 Oct 08 21:37	14°♊15'50	7°45'27		1834 Mar 18 11:15	0°♊	
min. Earth dist.	1831 Oct 09 11:26	13°♊54'41	0.27648 AU		1834 Apr 11 15:36	0°♊	
morning rise	1831 Oct 12 22:45	11°♊50'04		evening rise	1834 Apr 16 10:57	5°♊56'22	
direct	1831 Oct 29 12:59	6°♊30'02		asc. node	1834 May 02 04:23	25°♊18'32	
greatest brilliancy	1831 Nov 12 18:02	10°♊10'24	-4.6m		1834 May 06 00:03	0°♊	
asc. node	1831 Nov 15 09:01	11°♊32'01			1834 May 30 12:55	0°♊	
	1831 Dec 09 05:52	0°♊			1834 Jun 24 06:54	0°♊	
morning max el	1831 Dec 19 07:03	9°♊51'02	46°54'41		1834 Jul 19 07:53	0°♊	
	1832 Jan 07 02:03	0°♊			1834 Aug 13 19:51	0°♊	
	1832 Feb 02 04:15	0°♊		desc. node	1834 Aug 21 17:22	9°♊07'59	
	1832 Feb 27 08:36	0°♊			1834 Sep 09 02:44	0°♊	
desc. node	1832 Mar 05 22:24	9°♊07'46			1834 Oct 07 01:56	0°♊	
	1832 Mar 23 04:09	0°♊		evening max el	1834 Oct 11 22:50	4°♊52'52	46°50'58
	1832 Apr 16 20:06	0°♊			1834 Nov 10 19:14	0°♊	
	1832 May 11 10:44	0°♊		greatest brilliancy	1834 Nov 19 16:54	4°♊38'33	-4.7m
	1832 Jun 05 00:32	0°♊		retrograde	1834 Dec 01 04:10	7°♊04'39	
morning set	1832 Jun 21 00:35	19°♊34'17		asc. node	1834 Dec 12 20:54	4°♊17'59	
asc. node	1832 Jun 27 01:58	26°♊59'36		evening set	1834 Dec 15 10:30	3°♊01'16	
	1832 Jun 29 12:48	0°♊			1834 Dec 20 15:30	30°♊	
	1832 Jul 23 22:37	0°♊		inferior conj	1834 Dec 21 15:53	29°♊22'47	2°16'09
max. Earth dist.	1832 Jul 24 20:58	1°♊08'51	1.73349 AU	minimum elong	1834 Dec 21 10:49	29°♊30'32	2°14'32
				min. Earth dist.	1834 Dec 21 07:33	29°♊35'32	0.26426 AU
superior conj	1832 Jul 27 10:13	4°♊17'40	1°03'50	morning rise	1834 Dec 27 11:24	25°♊58'42	
minimum elong	1832 Jul 27 01:30	3°♊50'46	1°03'32	direct	1835 Jan 11 01:10	21°♊46'28	
	1832 Aug 17 05:42	0°♊		greatest brilliancy	1835 Jan 22 14:12	24°♊16'44	-4.7m
evening rise	1832 Sep 01 11:39	18°♊52'59			1835 Feb 02 00:44	0°♊	
	1832 Sep 10 10:55	0°♊		morning max el	1835 Mar 02 07:16	24°♊22'30	46°43'16
	1832 Oct 04 15:33	0°♊			1835 Mar 07 20:20	0°♊	
desc. node	1832 Oct 16 15:18	14°♊51'27		desc. node	1835 Apr 03 10:23	28°♊48'55	
	1832 Oct 28 20:44	0°♊			1835 Apr 04 11:40	0°♊	
	1832 Nov 22 03:22	0°♊			1835 Apr 30 14:41	0°♊	
	1832 Dec 16 13:23	0°♊			1835 May 26 02:36	0°♊	
	1833 Jan 10 07:47	0°♊			1835 Jun 20 06:09	0°♊	
	1833 Feb 04 21:55	0°♊			1835 Jul 15 03:02	0°♊	
asc. node	1833 Feb 06 18:31	2°♊06'56		asc. node	1835 Jul 25 13:45	12°♊42'10	
	1833 Mar 04 12:36	0°♊			1835 Aug 08 17:18	0°♊	
evening max el	1833 Mar 07 06:41	2°♊46'02	46°19'24	morning set	1835 Aug 28 23:10	24°♊56'23	
	1833 Apr 10 03:20	0°♊			1835 Sep 02 01:16	0°♊	
greatest brilliancy	1833 Apr 11 06:23	0°♊33'57	-4.5m		1835 Sep 26 04:20	0°♊	
retrograde	1833 Apr 26 00:31	4°♊25'38		max. Earth dist.	1835 Oct 01 19:51	7°♊02'50	1.72007 AU
	1833 May 11 00:19	30°♊					
evening set	1833 May 11 12:43	29°♊42'43		superior conj	1835 Oct 05 01:46	11°♊06'06	1°16'45
inferior conj	1833 May 17 09:00	26°♊09'54	2°47'09	minimum elong	1835 Oct 05 09:29	11°♊30'13	1°16'36

	1835 Oct 20 04:26	0°♍		desc. node	1838 Apr 30 22:07	24°♋49'03	
evening rise	1835 Nov 13 08:45	0°♊17'19			1838 May 06 19:38	0°♑	
	1835 Nov 13 03:14	0°♊		morning max el	1838 May 14 06:44	6°♑59'38	46°00'06
desc. node	1835 Nov 14 03:18	1°♊15'26			1838 Jun 05 17:31	0°♌	
	1835 Dec 07 01:49	0°♊			1838 Jul 02 19:29	0°♍	
	1835 Dec 31 01:15	0°♋			1838 Jul 28 17:38	0°♎	
	1836 Jan 24 03:29	0°♋		asc. node	1838 Aug 22 01:35	28°♎57'31	
	1836 Feb 17 12:04	0°♑			1838 Aug 22 22:20	0°♏	
asc. node	1836 Mar 06 06:29	21°♑31'45			1838 Sep 16 13:56	0°♐	
	1836 Mar 13 08:34	0°♌		greatest brilliancy	1838 Oct 07 09:56	25°♐44'54	-3.9m
	1836 Apr 08 02:10	0°♍			1838 Oct 10 19:58	0°♑	
	1836 May 05 13:50	0°♎			1838 Nov 03 19:58	0°♒	
evening max el	1836 May 16 22:42	11°♎22'27	45°26'26	morning set	1838 Nov 08 01:16	5°♒17'43	
	1836 Jun 07 15:49	0°♏			1838 Nov 27 17:00	0°♊	
greatest brilliancy	1836 Jun 20 18:54	7°♏51'12	-4.5m	desc. node	1838 Dec 11 15:01	17°♊30'38	
desc. node	1836 Jun 25 19:51	9°♏46'27					
retrograde	1836 Jul 04 12:34	11°♏09'09		superior conj	1838 Dec 18 15:22	26°♊20'29	0°-16'-42
evening set	1836 Jul 20 14:04	6°♏16'20		minimum elong	1838 Dec 18 10:57	26°♊06'32	0°16'29
inferior conj	1836 Jul 26 00:38	2°♏59'14	-6°-20'00	max. Earth dist.	1838 Dec 19 00:33	26°♊49'22	1.71070 AU
minimum elong	1836 Jul 25 14:43	3°♏14'43	6°18'02		1838 Dec 21 13:08	0°♊	
min. Earth dist.	1836 Jul 26 01:10	2°♏58'23	0.28960 AU		1839 Jan 14 09:37	0°♋	
morning rise	1836 Jul 30 15:09	0°♏10'05		evening rise	1839 Jan 29 03:02	18°♋29'08	
	1836 Jul 30 22:04	30°♋			1839 Feb 07 07:41	0°♌	
direct	1836 Aug 16 15:46	24°♋42'24			1839 Mar 03 09:04	0°♑	
greatest brilliancy	1836 Aug 30 20:15	28°♋13'02	-4.5m		1839 Mar 27 16:05	0°♌	
	1836 Sep 03 08:16	0°♏		asc. node	1839 Apr 03 18:32	8°♌41'46	
morning max el	1836 Oct 05 03:52	25°♏41'32	46°15'10		1839 Apr 21 07:16	0°♍	
	1836 Oct 09 11:10	0°♐			1839 May 16 09:52	0°♎	
asc. node	1836 Oct 16 23:20	7°♐47'52			1839 Jun 11 05:49	0°♏	
	1836 Nov 06 01:23	0°♑			1839 Jul 08 09:50	0°♐	
	1836 Dec 01 13:58	0°♒		desc. node	1839 Jul 24 07:36	16°♐18'11	
	1836 Dec 26 06:04	0°♊		evening max el	1839 Jul 28 05:22	20°♐05'14	45°41'32
	1837 Jan 19 13:26	0°♊			1839 Aug 08 02:25	0°♑	
desc. node	1837 Feb 05 12:37	21°♊02'46		greatest brilliancy	1839 Sep 04 04:12	17°♑50'15	-4.5m
	1837 Feb 12 17:39	0°♋		retrograde	1839 Sep 15 03:24	19°♑59'28	
	1837 Mar 08 21:27	0°♋		evening set	1839 Oct 02 12:23	14°♑19'16	
	1837 Apr 02 02:18	0°♑		inferior conj	1839 Oct 06 02:35	12°♑09'25	-7°-56'-23
morning set	1837 Apr 10 21:53	10°♑54'27		minimum elong	1839 Oct 06 10:53	11°♑56'43	7°55'18
	1837 Apr 26 08:59	0°♌		min. Earth dist.	1839 Oct 07 00:38	11°♑35'41	0.27714 AU
				morning rise	1839 Oct 10 09:02	9°♑35'16	
superior conj	1837 May 18 13:58	27°♌21'25	0°-26'00	direct	1839 Oct 27 04:03	4°♑09'17	
minimum elong	1837 May 18 19:20	27°♌37'54	0°25'46	greatest brilliancy	1839 Nov 10 09:17	7°♑50'27	-4.6m
max. Earth dist.	1837 May 19 21:59	28°♌59'53	1.73395 AU	asc. node	1839 Nov 14 11:00	10°♑01'38	
	1837 May 20 17:32	0°♍			1839 Dec 09 08:09	0°♒	
asc. node	1837 May 29 16:10	10°♍59'43		morning max el	1839 Dec 16 22:28	7°♒31'39	46°54'03
	1837 Jun 14 03:25	0°♎			1840 Jan 06 19:15	0°♊	
evening rise	1837 Jun 24 04:46	12°♎20'43			1840 Feb 01 18:33	0°♋	
	1837 Jul 08 14:02	0°♏			1840 Feb 26 21:30	0°♌	
	1837 Aug 02 01:35	0°♐		desc. node	1840 Mar 05 00:33	8°♌36'10	
	1837 Aug 26 15:06	0°♑			1840 Mar 22 16:13	0°♑	
desc. node	1837 Sep 18 05:29	27°♑26'44			1840 Apr 16 07:36	0°♑	
	1837 Sep 20 08:11	0°♒			1840 May 10 21:51	0°♌	
	1837 Oct 15 06:49	0°♊			1840 Jun 04 11:22	0°♍	
	1837 Nov 09 15:12	0°♊		morning set	1840 Jun 18 18:30	17°♍29'23	
	1837 Dec 05 21:35	0°♋		asc. node	1840 Jun 26 03:56	26°♍32'52	
evening max el	1837 Dec 23 07:54	18°♋37'04	47°16'51		1840 Jun 28 23:30	0°♎	
	1838 Jan 03 23:26	0°♌		max. Earth dist.	1840 Jul 22 18:35	29°♎14'50	1.73377 AU
asc. node	1838 Jan 09 08:44	4°♌49'43			1840 Jul 23 09:15	0°♏	
greatest brilliancy	1838 Jan 30 03:37	19°♌10'54	-4.7m				
retrograde	1838 Feb 12 07:28	22°♌25'16		superior conj	1840 Jul 25 04:21	2°♏12'48	1°01'42
evening set	1838 Mar 02 07:01	16°♌10'11		minimum elong	1840 Jul 24 19:34	1°♏45'45	1°01'24
min. Earth dist.	1838 Mar 04 16:37	14°♌40'40	0.27769 AU		1840 Aug 16 16:24	0°♐	
inferior conj	1838 Mar 05 07:00	14°♌18'04	8°48'55	evening rise	1840 Aug 30 04:42	16°♐43'41	
minimum elong	1838 Mar 05 07:03	14°♌17'58	8°48'54		1840 Sep 09 21:46	0°♑	
morning rise	1838 Mar 08 07:16	12°♌25'46			1840 Oct 04 02:40	0°♒	
direct	1838 Mar 26 01:44	6°♌21'23		desc. node	1840 Oct 15 17:25	14°♒23'10	
greatest brilliancy	1838 Apr 06 00:48	8°♌33'05	-4.6m		1840 Oct 28 08:10	0°♊	

	1840 Nov 21 15:11	0°☾			1843 Apr 30 03:53	0°☿		
	1840 Dec 16 01:45	0°♊			1843 May 25 14:39	0°♋		
	1841 Jan 09 21:06	0°♌			1843 Jun 19 17:31	0°♍		
	1841 Feb 04 13:13	0°☿			1843 Jul 14 14:00	0°♎		
asc. node	1841 Feb 05 20:35	1°☿28'55		asc. node	1843 Jul 24 15:49	12°♎15'20		
	1841 Mar 04 09:28	0°♋			1843 Aug 08 04:02	0°♏		
evening max el	1841 Mar 04 23:01	0°♋33'51	46°21'41	morning set	1843 Aug 26 15:57	22°♏46'53		
greatest brilliancy	1841 Apr 09 00:12	28°♋25'27	-4.5m		1843 Sep 01 11:56	0°♐		
	1841 Apr 12 14:38	0°♌			1843 Sep 25 15:01	0°♑		
retrograde	1841 Apr 23 17:07	2°♌15'15		max. Earth dist.	1843 Sep 29 09:24	4°♑41'59	1.72062 AU	
	1841 May 04 06:33	30°♌♋						
evening set	1841 May 09 06:59	27°♌29'51		superior conj	1843 Oct 02 16:53	8°♑50'04	1°18'11	
inferior conj	1841 May 15 01:09	23°♌59'35	3°06'15	minimum elong	1843 Oct 03 00:02	9°♑12'22	1°18'02	
minimum elong	1841 May 15 07:35	23°♌49'28	3°04'28		1843 Oct 19 15:12	0°♒		
min. Earth dist.	1841 May 15 01:27	23°♌59'07	0.28754 AU	evening rise	1843 Nov 10 20:30	27°♒49'35		
morning rise	1841 May 21 08:36	20°♌11'53			1843 Nov 12 14:08	0°♓		
desc. node	1841 May 28 09:51	17°♌04'06		desc. node	1843 Nov 13 05:14	0°♓47'16		
direct	1841 Jun 05 12:39	15°♌45'26			1843 Dec 06 12:53	0°☾		
greatest brilliancy	1841 Jun 18 08:45	18°♌40'19	-4.5m		1843 Dec 30 12:31	0°♊		
	1841 Jul 06 13:45	0°♌			1844 Jan 23 15:00	0°♋		
morning max el	1841 Jul 24 07:07	15°♌30'32	45°44'07		1844 Feb 16 23:59	0°☿		
	1841 Aug 07 19:22	0°♎		asc. node	1844 Mar 05 08:38	21°☿01'09		
	1841 Sep 04 06:49	0°♏			1844 Mar 12 21:13	0°♋		
asc. node	1841 Sep 18 13:37	16°♏28'16			1844 Apr 07 16:25	0°♌		
	1841 Sep 30 00:47	0°♐			1844 May 05 08:20	0°♍		
	1841 Oct 24 20:14	0°♑		evening max el	1844 May 14 13:26	9°♍09'47	45°27'15	
	1841 Nov 18 02:56	0°♒			1844 Jun 08 09:43	0°♎		
	1841 Dec 12 03:13	0°♓		greatest brilliancy	1844 Jun 18 07:52	5°♎39'01	-4.5m	
desc. node	1842 Jan 05 01:00	0°☾		desc. node	1844 Jun 24 21:50	8°♎02'08		
	1842 Jan 08 02:47	3°☾51'40		retrograde	1844 Jul 02 04:27	9°♎00'58		
morning set	1842 Jan 23 11:37	23°☾09'29		evening set	1844 Jul 18 03:31	4°♏11'15		
	1842 Jan 28 22:28	0°♊		inferior conj	1844 Jul 23 16:52	0°♏50'27	-6°-6'-4	
	1842 Feb 21 21:02	0°♋		minimum elong	1844 Jul 23 06:57	1°♏05'55	6°04'02	
				min. Earth dist.	1844 Jul 23 17:13	0°♏49'55	0.28976 AU	
superior conj	1842 Mar 05 14:13	14°♋38'20	-1°-26'-5		1844 Jul 25 01:13	30°♏♎		
minimum elong	1842 Mar 05 14:08	14°♋38'06	1°26'06	morning rise	1844 Jul 28 10:08	27°♎57'21		
max. Earth dist.	1842 Mar 09 17:34	19°♋48'15	1.71960 AU	direct	1844 Aug 14 07:38	22°♎33'11		
	1842 Mar 17 21:56	0°☿		greatest brilliancy	1844 Aug 28 13:11	26°♎04'28	-4.5m	
	1842 Apr 11 02:17	0°♋			1844 Sep 04 16:22	0°♏		
evening rise	1842 Apr 14 01:45	3°♋40'52		morning max el	1844 Oct 02 18:55	23°♏26'47	46°13'42	
asc. node	1842 May 01 06:22	24°♋51'39			1844 Oct 09 07:10	0°♐		
	1842 May 05 10:48	0°♌		asc. node	1844 Oct 16 01:18	7°♐04'50		
	1842 May 29 23:54	0°♎			1844 Nov 05 16:27	0°♑		
	1842 Jun 23 18:18	0°♏			1844 Dec 01 03:12	0°♒		
	1842 Jul 18 20:01	0°♐			1844 Dec 25 18:22	0°♓		
	1842 Aug 13 09:17	0°♑			1845 Jan 19 01:12	0°☾		
desc. node	1842 Aug 20 19:32	8°♑34'03		desc. node	1845 Feb 04 14:42	20°☾33'29		
	1842 Sep 08 18:40	0°♒			1845 Feb 12 05:03	0°♊		
	1842 Oct 07 00:00	0°♓			1845 Mar 08 08:34	0°♋		
evening max el	1842 Oct 09 12:07	2°♓29'21	46°48'37		1845 Apr 01 13:11	0°☿		
	1842 Nov 12 14:07	0°☾		morning set	1845 Apr 08 12:54	8°☿39'00		
greatest brilliancy	1842 Nov 17 07:47	2°☾12'29	-4.7m		1845 Apr 25 19:40	0°♋		
retrograde	1842 Nov 28 15:42	4°☾35'10						
asc. node	1842 Dec 11 22:54	1°☾03'16		superior conj	1845 May 16 07:08	25°♋14'02	0°-29'-6	
evening set	1842 Dec 12 22:13	0°☾33'03		minimum elong	1845 May 16 13:05	25°♋32'21	0°28'49	
	1842 Dec 13 22:33	30°♌♋		max. Earth dist.	1845 May 17 17:01	26°♋58'15	1.73364 AU	
inferior conj	1842 Dec 19 03:59	26°♓54'16	1°52'01		1845 May 20 04:07	0°♌		
minimum elong	1842 Dec 18 23:46	27°♓00'42	1°50'40	asc. node	1845 May 28 18:10	10°♌33'20		
min. Earth dist.	1842 Dec 18 21:31	27°♓04'09	0.26414 AU		1845 Jun 13 13:59	0°♎		
morning rise	1842 Dec 25 01:26	23°♓27'14		evening rise	1845 Jun 21 23:45	10°♎19'06		
direct	1843 Jan 08 12:58	19°♓17'57			1845 Jul 08 00:46	0°♏		
greatest brilliancy	1843 Jan 20 04:48	21°♓50'35	-4.7m		1845 Aug 01 12:36	0°♐		
	1843 Feb 03 01:40	0°☾			1845 Aug 26 02:34	0°♑		
morning max el	1843 Feb 27 19:12	21°☾55'08	46°44'42	desc. node	1845 Sep 17 07:31	26°♑56'30		
	1843 Mar 07 16:54	0°♊			1845 Sep 19 20:17	0°♒		
desc. node	1843 Apr 02 12:29	28°♊11'07			1845 Oct 14 19:55	0°♓		
	1843 Apr 04 03:02	0°♋			1845 Nov 09 05:55	0°☾		

	1845 Dec 05 15:35	0°♊				1848 Jun 03 22:21	0°♊		
evening max el	1845 Dec 20 22:08	16°♊14'07	47°17'36		morning set	1848 Jun 16 12:40	15°♊24'49		
	1846 Jan 04 04:24	0°♋			asc. node	1848 Jun 25 06:03	26°♊06'10		
asc. node	1846 Jan 08 10:50	3°♋43'31				1848 Jun 28 10:19	0°♌		
greatest brilliancy	1846 Jan 27 18:27	16°♋49'12	-4.7m		max. Earth dist.	1848 Jul 20 14:58	27°♌16'44	1.73399 AU	
retrograde	1846 Feb 09 22:25	20°♋03'59							
evening set	1846 Feb 27 20:27	13°♋50'20			superior conj	1848 Jul 22 22:54	0°♍08'57	0°59'30	
min. Earth dist.	1846 Mar 02 05:59	12°♋21'09	0.27716 AU		minimum elong	1848 Jul 22 14:08	29°♌41'56	0°59'12	
inferior conj	1846 Mar 02 21:15	11°♋57'13	8°48'59			1848 Jul 22 20:00	0°♍		
minimum elong	1846 Mar 02 20:27	11°♋58'29	8°48'58			1848 Aug 16 03:11	0°♎		
morning rise	1846 Mar 05 20:37	10°♋06'35			evening rise	1848 Aug 27 22:16	14°♎35'44		
direct	1846 Mar 23 15:15	4°♋01'13				1848 Sep 09 08:44	0°♏		
greatest brilliancy	1846 Apr 03 13:51	6°♋12'56	-4.6m			1848 Oct 03 13:55	0°♐		
desc. node	1846 Apr 30 00:03	23°♋48'10			desc. node	1848 Oct 14 19:23	13°♐53'58		
	1846 May 06 21:32	0°♑				1848 Oct 27 19:48	0°♑		
morning max el	1846 May 11 22:02	4°♑45'33	46°01'34			1848 Nov 21 03:18	0°♒		
	1846 Jun 05 10:10	0°♒				1848 Dec 15 14:30	0°♓		
	1846 Jul 02 09:08	0°♊				1849 Jan 09 10:55	0°♋		
	1846 Jul 28 05:53	0°♌				1849 Feb 04 05:11	0°♑		
asc. node	1846 Aug 21 03:44	28°♌29'11			asc. node	1849 Feb 04 22:43	0°♑49'30		
	1846 Aug 22 09:52	0°♍			evening max el	1849 Mar 02 14:37	28°♑18'30	46°24'10	
	1846 Sep 16 01:08	0°♎				1849 Mar 04 07:34	0°♒		
	1846 Oct 10 07:00	0°♏			greatest brilliancy	1849 Apr 06 18:40	26°♒16'44	-4.5m	
greatest brilliancy	1846 Oct 16 13:32	7°♏49'09	-3.9m			1849 Apr 19 13:05	0°♊		
	1846 Nov 03 06:58	0°♐			retrograde	1849 Apr 21 09:17	0°♊03'59		
morning set	1846 Nov 05 14:19	2°♐53'35				1849 Apr 23 05:03	30°♒♌		
	1846 Nov 27 04:01	0°♑			evening set	1849 May 07 01:25	25°♒16'01		
desc. node	1846 Dec 10 17:03	17°♑02'23			inferior conj	1849 May 12 17:22	21°♒48'33	3°25'03	
					minimum elong	1849 May 13 00:21	21°♒37'34	3°23'07	
superior conj	1846 Dec 16 01:09	23°♑45'28	0°-12'-44		min. Earth dist.	1849 May 12 17:45	21°♒47'58	0.28730 AU	
minimum elong	1846 Dec 15 21:46	23°♑34'47	0°12'35		morning rise	1849 May 18 23:41	18°♒02'02		
behind sun begin	1846 Dec 15 04:42	22°♑41'04			desc. node	1849 May 27 11:57	14°♒28'16		
behind sun end	1846 Dec 16 14:50	24°♑28'30			direct	1849 Jun 03 04:43	13°♒34'55		
max. Earth dist.	1846 Dec 16 09:25	24°♑11'27	1.71074 AU		greatest brilliancy	1849 Jun 15 21:57	16°♒26'40	-4.5m	
	1846 Dec 21 00:10	0°♒				1849 Jul 06 23:06	0°♊		
	1847 Jan 13 20:41	0°♓			morning max el	1849 Jul 21 22:20	13°♊18'42	45°43'51	
evening rise	1847 Jan 26 13:10	15°♓55'45				1849 Aug 07 13:19	0°♌		
	1847 Feb 06 18:46	0°♋				1849 Sep 03 21:03	0°♍		
	1847 Mar 02 20:14	0°♑			asc. node	1849 Sep 17 15:32	15°♍55'02		
	1847 Mar 27 03:27	0°♒				1849 Sep 29 13:29	0°♎		
asc. node	1847 Apr 02 20:30	8°♒12'52				1849 Oct 24 08:12	0°♏		
	1847 Apr 20 19:02	0°♊				1849 Nov 17 14:33	0°♐		
	1847 May 15 22:22	0°♌				1849 Dec 11 14:40	0°♑		
	1847 Jun 10 19:49	0°♍				1850 Jan 04 12:21	0°♒		
	1847 Jul 08 03:19	0°♎			desc. node	1850 Jan 07 04:56	3°♒22'48		
desc. node	1847 Jul 23 09:46	15°♎30'28			morning set	1850 Jan 20 21:14	20°♒33'39		
evening max el	1847 Jul 25 20:34	17°♎52'06	45°39'50			1850 Jan 28 09:44	0°♓		
	1847 Aug 08 08:48	0°♏				1850 Feb 21 08:13	0°♋		
greatest brilliancy	1847 Sep 01 15:26	15°♏30'11	-4.5m						
retrograde	1847 Sep 12 17:00	17°♏41'02			superior conj	1850 Mar 03 02:04	12°♋10'44	-1°-25'-59	
evening set	1847 Sep 30 04:43	11°♏56'48			minimum elong	1850 Mar 03 00:59	12°♋07'21	1°26'01	
inferior conj	1847 Oct 03 16:34	9°♏50'05	-8°-5'-3		max. Earth dist.	1850 Mar 07 06:14	17°♋23'21	1.71903 AU	
minimum elong	1847 Oct 04 00:18	9°♏38'14	8°04'08			1850 Mar 17 09:03	0°♑		
min. Earth dist.	1847 Oct 04 13:56	9°♏17'20	0.27785 AU			1850 Apr 10 13:22	0°♒		
morning rise	1847 Oct 07 19:35	7°♏20'43			evening rise	1850 Apr 11 15:53	1°♒21'58		
direct	1847 Oct 24 19:29	1°♏49'08			asc. node	1850 Apr 30 08:22	24°♒23'40		
greatest brilliancy	1847 Nov 08 00:09	5°♏29'52	-4.6m			1850 May 04 21:57	0°♊		
asc. node	1847 Nov 13 13:02	8°♏34'07				1850 May 29 11:15	0°♌		
	1847 Dec 09 09:21	0°♐				1850 Jun 23 06:05	0°♍		
morning max el	1847 Dec 14 13:16	5°♐10'00	46°53'10			1850 Jul 18 08:34	0°♎		
	1848 Jan 06 12:24	0°♑				1850 Aug 12 23:10	0°♏		
	1848 Feb 01 08:59	0°♒			desc. node	1850 Aug 19 21:36	7°♏58'42		
	1848 Feb 26 10:33	0°♓				1850 Sep 08 11:08	0°♐		
desc. node	1848 Mar 04 02:39	8°♓03'54				1850 Oct 06 23:11	0°♑		
	1848 Mar 22 04:24	0°♋			evening max el	1850 Oct 07 00:36	0°♑03'29	46°46'19	
	1848 Apr 15 19:13	0°♑			greatest brilliancy	1850 Nov 14 22:21	29°♑45'54	-4.7m	
	1848 May 10 09:04	0°♒				1850 Nov 15 12:53	0°♒		

retrograde	1850 Nov 26 03:17	2°☾06'00		superior conj	1853 May 13 23:50	23°♄04'01	0°-32'-11
	1850 Dec 06 07:58	30°♁♂		minimum elong	1853 May 14 06:22	23°♄24'06	0°31'54
evening set	1850 Dec 10 10:21	28°♂04'17		max. Earth dist.	1853 May 15 12:19	24°♄56'17	1.73337 AU
asc. node	1850 Dec 11 00:59	27°♂44'39			1853 May 19 15:04	0°♂	
inferior conj	1850 Dec 16 16:18	24°♂25'44	1°27'50	asc. node	1853 May 27 20:18	10°♂06'19	
minimum elong	1850 Dec 16 12:58	24°♂30'49	1°26'46		1853 Jun 13 00:57	0°☾	
min. Earth dist.	1850 Dec 16 11:46	24°♂32'39	0.26414 AU	evening rise	1853 Jun 19 18:17	8°☾15'04	
morning rise	1850 Dec 22 15:33	20°♂56'06			1853 Jul 07 11:51	0°♁	
direct	1851 Jan 06 00:50	16°♂49'02			1853 Jul 31 23:57	0°♁	
greatest brilliancy	1851 Jan 17 20:38	19°♂25'20	-4.7m		1853 Aug 25 14:21	0°♁	
	1851 Feb 03 20:29	0°☾		desc. node	1853 Sep 16 09:29	26°♁25'08	
morning max el	1851 Feb 25 07:34	19°☾27'24	46°45'52		1853 Sep 19 08:44	0°♁	
	1851 Mar 07 13:19	0°♁			1853 Oct 14 09:21	0°♂	
desc. node	1851 Apr 01 14:24	27°♁31'36			1853 Nov 08 21:02	0°☾	
	1851 Apr 03 18:43	0°♂			1853 Dec 05 10:13	0°♁	
	1851 Apr 29 17:30	0°♂		evening max el	1853 Dec 18 13:28	13°♁53'33	47°18'19
	1851 May 25 03:07	0°♂			1854 Jan 04 11:39	0°♂	
	1851 Jun 19 05:16	0°♂		asc. node	1854 Jan 07 12:56	2°♂35'11	
	1851 Jul 14 01:18	0°☾		greatest brilliancy	1854 Jan 25 09:16	14°♂27'18	-4.7m
asc. node	1851 Jul 23 17:54	11°☾47'31		retrograde	1854 Feb 07 13:46	17°♂42'25	
	1851 Aug 07 15:07	0°♁		evening set	1854 Feb 25 09:31	11°♂30'58	
morning set	1851 Aug 24 08:56	20°♁36'59		inferior conj	1854 Feb 28 11:34	9°♂36'08	8°48'07
	1851 Aug 31 22:55	0°♁		minimum elong	1854 Feb 28 09:54	9°♂38'44	8°48'05
	1851 Sep 25 02:02	0°♁		min. Earth dist.	1854 Feb 27 19:04	10°♂01'57	0.27663 AU
max. Earth dist.	1851 Sep 27 01:14	2°♁27'14	1.72112 AU	morning rise	1854 Mar 03 10:28	7°♂46'27	
				direct	1854 Mar 21 05:23	1°♂41'03	
superior conj	1851 Sep 30 08:29	6°♁34'29	1°19'27	greatest brilliancy	1854 Apr 01 02:00	3°♂51'36	-4.6m
minimum elong	1851 Sep 30 15:00	6°♁54'52	1°19'20	desc. node	1854 Apr 29 02:12	22°♂48'48	
	1851 Oct 19 02:18	0°♁			1854 May 06 22:18	0°♂	
evening rise	1851 Nov 08 08:55	25°♁23'12		morning max el	1854 May 09 13:37	2°♂31'35	46°02'45
desc. node	1851 Nov 12 07:20	0°♂18'46			1854 Jun 05 02:45	0°♂	
	1851 Nov 12 01:20	0°♂			1854 Jul 01 22:57	0°♂	
	1851 Dec 06 00:14	0°☾			1854 Jul 27 18:22	0°☾	
	1851 Dec 30 00:04	0°♁		asc. node	1854 Aug 20 05:43	27°☾59'34	
	1852 Jan 23 02:52	0°♂			1854 Aug 21 21:39	0°♁	
	1852 Feb 16 12:18	0°♂			1854 Sep 15 12:30	0°♁	
asc. node	1852 Mar 04 10:33	20°♂28'25			1854 Oct 09 18:11	0°♁	
	1852 Mar 12 10:23	0°♂		greatest brilliancy	1854 Oct 21 05:42	14°♁19'34	-3.9m
	1852 Apr 07 07:23	0°♂			1854 Nov 02 18:04	0°♁	
	1852 May 05 04:00	0°☾		morning set	1854 Nov 03 03:32	0°♁29'38	
evening max el	1852 May 12 04:37	6°☾56'43	45°28'18		1854 Nov 26 15:08	0°♂	
	1852 Jun 09 11:12	0°♁		desc. node	1854 Dec 09 19:11	16°♂34'03	
greatest brilliancy	1852 Jun 15 20:42	3°♁25'16	-4.5m				
desc. node	1852 Jun 23 23:58	6°♁12'37		superior conj	1854 Dec 13 11:10	21°♂10'52	0°-8'-46
retrograde	1852 Jun 29 20:53	6°♁51'26		minimum elong	1854 Dec 13 08:50	21°♂03'30	0°08'41
evening set	1852 Jul 15 17:04	2°♁04'38		behind sun begin	1854 Dec 12 10:14	19°♂52'23	
	1852 Jul 19 05:37	30°♁☾		behind sun end	1854 Dec 14 07:26	22°♂14'37	
inferior conj	1852 Jul 21 09:03	28°☾40'19	-5°-51'-38	max. Earth dist.	1854 Dec 13 17:07	21°♂29'34	1.71078 AU
minimum elong	1852 Jul 20 23:11	28°☾55'41	5°49'32		1854 Dec 20 11:20	0°☾	
min. Earth dist.	1852 Jul 21 08:53	28°☾40'34	0.28986 AU		1855 Jan 13 07:51	0°♁	
morning rise	1852 Jul 26 05:04	25°☾43'27		evening rise	1855 Jan 23 23:25	13°♁22'20	
direct	1852 Aug 11 23:45	20°☾22'43			1855 Feb 06 05:57	0°♂	
greatest brilliancy	1852 Aug 26 06:03	23°☾54'56	-4.5m		1855 Mar 02 07:29	0°♂	
	1852 Sep 05 15:55	0°♁			1855 Mar 26 14:54	0°♂	
morning max el	1852 Sep 30 10:49	21°♁13'24	46°12'15	asc. node	1855 Apr 01 22:33	7°♂43'57	
	1852 Oct 09 02:55	0°♁			1855 Apr 20 06:54	0°♂	
asc. node	1852 Oct 15 03:20	6°♁21'36			1855 May 15 11:03	0°☾	
	1852 Nov 05 07:38	0°♁			1855 Jun 10 10:08	0°♁	
	1852 Nov 30 16:36	0°♁			1855 Jul 07 21:27	0°♁	
	1852 Dec 25 06:52	0°♂		desc. node	1855 Jul 22 11:49	14°♁40'52	
	1853 Jan 18 13:10	0°☾		evening max el	1855 Jul 23 11:24	15°♁37'24	45°38'06
desc. node	1853 Feb 03 16:47	20°☾03'31			1855 Aug 08 18:01	0°♁	
	1853 Feb 11 16:40	0°♁		greatest brilliancy	1855 Aug 30 03:55	13°♁11'01	-4.5m
	1853 Mar 07 19:56	0°♂		retrograde	1855 Sep 10 06:14	15°♁22'14	
	1853 Apr 01 00:21	0°♂		evening set	1855 Sep 27 20:53	9°♁34'34	
morning set	1853 Apr 06 03:36	6°♂21'34		inferior conj	1855 Oct 01 06:35	7°♁30'41	-8°-12'-49
	1853 Apr 25 06:42	0°♂		minimum elong	1855 Oct 01 13:40	7°♁19'47	8°12'04

min. Earth dist.	1855 Oct 02 03:27	6° Ω 58'37	0.27849 AU	evening rise	1858 Apr 09 05:59	29° Υ 03'33	
morning rise	1855 Oct 05 06:12	5° Ω 05'56			1858 Apr 10 00:15	0° \mathcal{B}	
	1855 Oct 17 09:18	30° \mathcal{R} \mathcal{M}		asc. node	1858 Apr 29 10:32	23° \mathcal{B} 56'52	
direct	1855 Oct 22 10:26	29° \mathcal{M} 29'02			1858 May 04 08:53	0° Π	
	1855 Oct 27 13:48	0° Ω			1858 May 28 22:22	0° \mathcal{E}	
greatest brilliancy	1855 Nov 05 14:38	3° Ω 08'44	-4.6m		1858 Jun 22 17:37	0° Ω	
asc. node	1855 Nov 12 15:12	7° Ω 09'30			1858 Jul 17 20:54	0° \mathcal{M}	
	1855 Dec 09 09:22	0° \mathcal{M}			1858 Aug 12 12:56	0° Ω	
morning max el	1855 Dec 12 02:58	2° \mathcal{M} 45'34	46°52'15	desc. node	1858 Aug 18 23:33	7° Ω 23'25	
	1856 Jan 06 05:13	0° \mathcal{J}			1858 Sep 08 03:44	0° \mathcal{M}	
	1856 Jan 31 23:14	0° \mathcal{Z}		evening max el	1858 Oct 04 12:42	27° \mathcal{M} 37'12	46°43'54
	1856 Feb 25 23:28	0° \approx			1858 Oct 06 23:18	0° \mathcal{J}	
desc. node	1856 Mar 03 04:34	7° \approx 31'16		greatest brilliancy	1858 Nov 12 12:07	27° \mathcal{J} 18'21	-4.6m
	1856 Mar 21 16:30	0° \mathcal{H}		retrograde	1858 Nov 23 15:02	29° \mathcal{J} 36'49	
	1856 Apr 15 06:46	0° Υ		evening set	1858 Dec 07 22:28	25° \mathcal{J} 34'51	
	1856 May 09 20:13	0° \mathcal{B}		asc. node	1858 Dec 10 03:03	24° \mathcal{J} 22'15	
	1856 Jun 03 09:15	0° Π		inferior conj	1858 Dec 14 04:22	21° \mathcal{J} 56'59	1°03'20
morning set	1856 Jun 14 06:53	13° Π 20'33		minimum elong	1858 Dec 14 01:57	22° \mathcal{J} 00'40	1°02'32
asc. node	1856 Jun 24 08:08	25° Π 39'29		min. Earth dist.	1858 Dec 14 01:39	22° \mathcal{J} 01'08	0.26415 AU
	1856 Jun 27 21:05	0° \mathcal{E}		morning rise	1858 Dec 20 05:17	18° \mathcal{J} 25'18	
max. Earth dist.	1856 Jul 18 09:58	25° \mathcal{E} 14'22	1.73428 AU	direct	1859 Jan 03 12:37	14° \mathcal{J} 19'48	
				greatest brilliancy	1859 Jan 15 12:24	17° \mathcal{J} 00'20	-4.7m
superior conj	1856 Jul 20 17:25	28° \mathcal{E} 05'05	0°57'14		1859 Feb 04 10:19	0° \mathcal{Z}	
minimum elong	1856 Jul 20 08:43	27° \mathcal{E} 38'16	0°56'55	morning max el	1859 Feb 22 20:31	17° \mathcal{Z} 01'49	46°47'09
	1856 Jul 22 06:44	0° Ω			1859 Mar 07 08:48	0° \approx	
	1856 Aug 15 14:01	0° \mathcal{M}		desc. node	1859 Mar 31 16:36	26° \approx 54'11	
evening rise	1856 Aug 25 15:43	12° \mathcal{M} 27'26			1859 Apr 03 09:50	0° \mathcal{H}	
	1856 Sep 08 19:45	0° Ω			1859 Apr 29 06:40	0° Υ	
	1856 Oct 03 01:12	0° \mathcal{M}			1859 May 24 15:12	0° \mathcal{B}	
desc. node	1856 Oct 13 21:29	13° \mathcal{M} 25'10			1859 Jun 18 16:40	0° Π	
	1856 Oct 27 07:25	0° \mathcal{J}			1859 Jul 13 12:17	0° \mathcal{E}	
	1856 Nov 20 15:22	0° \mathcal{Z}		asc. node	1859 Jul 22 19:54	11° \mathcal{E} 20'28	
	1856 Dec 15 03:13	0° \approx			1859 Aug 07 01:51	0° Ω	
	1857 Jan 09 00:43	0° \mathcal{H}		morning set	1859 Aug 22 02:11	18° Ω 29'02	
	1857 Feb 03 21:17	0° Υ			1859 Aug 31 09:35	0° \mathcal{M}	
asc. node	1857 Feb 04 00:40	0° Υ 09'32			1859 Sep 24 12:44	0° Ω	
evening max el	1857 Feb 28 05:21	26° Υ 01'12	46°26'36	max. Earth dist.	1859 Sep 24 18:51	0° Ω 19'05	1.72167 AU
	1857 Mar 04 06:24	0° \mathcal{B}					
greatest brilliancy	1857 Apr 04 12:57	24° \mathcal{B} 08'04	-4.6m	superior conj	1859 Sep 28 00:10	4° Ω 20'13	1°20'35
retrograde	1857 Apr 19 01:13	27° \mathcal{B} 53'20		minimum elong	1859 Sep 28 06:04	4° Ω 38'36	1°20'30
evening set	1857 May 04 19:57	23° \mathcal{B} 02'31			1859 Oct 18 13:07	0° \mathcal{M}	
inferior conj	1857 May 10 09:39	19° \mathcal{B} 38'12	3°43'25	evening rise	1859 Nov 05 21:15	22° \mathcal{M} 57'18	
minimum elong	1857 May 10 17:08	19° \mathcal{B} 26'24	3°41'25	desc. node	1859 Nov 11 09:28	29° \mathcal{M} 51'06	
min. Earth dist.	1857 May 10 10:18	19° \mathcal{B} 37'11	0.28708 AU		1859 Nov 11 12:19	0° \mathcal{J}	
morning rise	1857 May 16 14:39	15° \mathcal{B} 53'05			1859 Dec 05 11:23	0° \mathcal{Z}	
desc. node	1857 May 26 14:01	11° \mathcal{B} 57'45			1859 Dec 29 11:26	0° \approx	
direct	1857 May 31 20:21	11° \mathcal{B} 24'59			1860 Jan 22 14:29	0° \mathcal{H}	
greatest brilliancy	1857 Jun 13 12:01	14° \mathcal{B} 14'39	-4.5m		1860 Feb 16 00:22	0° Υ	
	1857 Jul 07 05:35	0° Π		asc. node	1860 Mar 03 12:38	19° Υ 57'01	
morning max el	1857 Jul 19 12:59	11° Π 05'59	45°43'36		1860 Mar 11 23:18	0° \mathcal{B}	
	1857 Aug 07 06:40	0° \mathcal{E}			1860 Apr 06 22:10	0° Π	
	1857 Sep 03 11:01	0° Ω			1860 May 04 23:50	0° \mathcal{E}	
asc. node	1857 Sep 16 17:37	15° Ω 22'44		evening max el	1860 May 09 20:40	4° \mathcal{E} 46'55	45°29'25
	1857 Sep 29 02:01	0° \mathcal{M}			1860 Jun 10 22:20	0° Ω	
	1857 Oct 23 20:04	0° Ω		greatest brilliancy	1860 Jun 13 10:15	1° Ω 13'43	-4.5m
	1857 Nov 17 02:04	0° \mathcal{M}		desc. node	1860 Jun 23 02:01	4° Ω 20'18	
	1857 Dec 11 01:57	0° \mathcal{J}		retrograde	1860 Jun 27 13:39	4° Ω 43'10	
	1858 Jan 03 23:28	0° \mathcal{Z}		evening set	1860 Jul 13 06:54	29° \mathcal{E} 59'18	
desc. node	1858 Jan 06 06:56	2° \mathcal{Z} 54'11			1860 Jul 13 06:24	30° \mathcal{R} \mathcal{E}	
morning set	1858 Jan 18 06:45	17° \mathcal{Z} 58'07		inferior conj	1860 Jul 19 01:17	26° \mathcal{Z} 31'30	-5°-36'-46
	1858 Jan 27 20:45	0° \approx		minimum elong	1860 Jul 18 15:31	26° \mathcal{Z} 46'41	5°34'36
	1858 Feb 20 19:09	0° \mathcal{H}		min. Earth dist.	1860 Jul 19 00:22	26° \mathcal{Z} 32'55	0.28993 AU
				morning rise	1860 Jul 24 00:01	23° \mathcal{Z} 30'58	
superior conj	1858 Feb 28 13:54	9° \mathcal{H} 43'43	-1°-25'-45	direct	1860 Aug 09 16:26	18° \mathcal{Z} 13'49	
minimum elong	1858 Feb 28 11:48	9° \mathcal{H} 37'11	1°25'46	greatest brilliancy	1860 Aug 23 22:11	21° \mathcal{Z} 45'58	-4.5m
max. Earth dist.	1858 Mar 04 16:43	14° \mathcal{H} 52'13	1.71848 AU		1860 Sep 06 08:37	0° Ω	
	1858 Mar 16 19:56	0° Υ		morning max el	1860 Sep 28 03:02	19° Ω 02'23	46°10'45

	1860 Oct 08 21:38	0°♎			1863 Mar 01 18:35	0°♑	
asc. node	1860 Oct 14 05:31	5°♎40'29			1863 Mar 26 02:12	0°♎	
	1860 Nov 04 22:14	0°♏		asc. node	1863 Apr 01 00:42	7°♎15'46	
	1860 Nov 30 05:35	0°♎			1863 Apr 19 18:38	0°♏	
	1860 Dec 24 19:03	0°♐			1863 May 14 23:37	0°♑	
	1861 Jan 18 00:52	0°♑			1863 Jun 10 00:22	0°♒	
desc. node	1861 Feb 02 18:47	19°♑34'01			1863 Jul 07 15:45	0°♎	
	1861 Feb 11 04:02	0°♒		evening max el	1863 Jul 21 01:27	13°♎21'38	45°36'28
	1861 Mar 07 07:01	0°♐		desc. node	1863 Jul 21 13:48	13°♎51'02	
	1861 Mar 31 11:12	0°♑			1863 Aug 09 05:56	0°♏	
morning set	1861 Apr 03 18:02	4°♑04'07		greatest brilliancy	1863 Aug 27 17:14	10°♏53'54	-4.5m
	1861 Apr 24 17:23	0°♎		retrograde	1863 Sep 07 19:22	13°♏05'03	
				evening set	1863 Sep 25 13:02	7°♏14'13	
superior conj	1861 May 11 16:26	20°♎54'35	0°-35'-14	inferior conj	1863 Sep 28 20:51	5°♏12'54	-8°-19'-44
minimum elong	1861 May 11 23:31	21°♎16'23	0°34'56	minimum elong	1863 Sep 29 03:14	5°♏03'04	8°19'09
max. Earth dist.	1861 May 13 09:34	23°♎01'13	1.73306 AU	min. Earth dist.	1863 Sep 29 17:30	4°♏41'05	0.27912 AU
	1861 May 19 01:40	0°♏		morning rise	1863 Oct 02 17:10	2°♏52'37	
asc. node	1861 May 26 22:19	9°♏39'56			1863 Oct 08 02:58	30°♎	
	1861 Jun 12 11:35	0°♑		direct	1863 Oct 20 01:00	27°♎10'20	
evening rise	1861 Jun 17 12:56	6°♑12'23			1863 Nov 01 10:28	0°♏	
	1861 Jul 06 22:37	0°♒		greatest brilliancy	1863 Nov 03 05:53	0°♏49'48	-4.6m
	1861 Jul 31 10:58	0°♎		asc. node	1863 Nov 11 17:10	5°♏48'17	
	1861 Aug 25 01:47	0°♏			1863 Dec 09 08:00	0°♎	
desc. node	1861 Sep 15 11:40	25°♏55'30		morning max el	1863 Dec 09 16:06	0°♎20'36	46°51'28
	1861 Sep 18 20:50	0°♎			1864 Jan 05 21:25	0°♐	
	1861 Oct 13 22:31	0°♐			1864 Jan 31 13:04	0°♑	
	1861 Nov 08 12:00	0°♑			1864 Feb 25 12:06	0°♒	
	1861 Dec 05 05:02	0°♒		desc. node	1864 Mar 02 06:44	7°♒00'07	
evening max el	1861 Dec 16 05:07	11°♒34'23	47°18'38		1864 Mar 21 04:23	0°♐	
	1862 Jan 04 21:21	0°♐			1864 Apr 14 18:10	0°♑	
asc. node	1862 Jan 06 14:54	1°♐24'57			1864 May 09 07:17	0°♎	
greatest brilliancy	1862 Jan 23 00:56	12°♐06'24	-4.7m		1864 Jun 02 20:03	0°♏	
retrograde	1862 Feb 05 04:47	15°♐20'08		morning set	1864 Jun 12 00:52	11°♏15'51	
evening set	1862 Feb 22 21:55	9°♐11'52		asc. node	1864 Jun 23 10:07	25°♏12'54	
min. Earth dist.	1862 Feb 25 07:57	7°♐42'09	0.27607 AU		1864 Jun 27 07:44	0°♑	
inferior conj	1862 Feb 26 01:36	7°♐14'32	8°46'23	max. Earth dist.	1864 Jul 16 04:58	23°♑12'33	1.73452 AU
minimum elong	1862 Feb 25 23:04	7°♐18'30	8°46'17				
morning rise	1862 Mar 01 00:27	5°♐25'06		superior conj	1864 Jul 18 11:52	26°♑01'28	0°54'53
	1862 Mar 13 03:44	30°♎		minimum elong	1864 Jul 18 03:14	25°♑34'56	0°54'34
direct	1862 Mar 18 19:31	29°♒20'40			1864 Jul 21 17:21	0°♒	
	1862 Mar 24 15:08	0°♐			1864 Aug 15 00:43	0°♎	
greatest brilliancy	1862 Mar 29 13:26	1°♐29'15	-4.6m	evening rise	1864 Aug 23 09:20	10°♎20'09	
desc. node	1862 Apr 28 04:18	21°♐51'04			1864 Sep 08 06:39	0°♏	
	1862 May 06 21:42	0°♑			1864 Oct 02 12:23	0°♎	
morning max el	1862 May 07 04:21	0°♑16'05	46°04'04	desc. node	1864 Oct 12 23:35	12°♎56'41	
	1862 Jun 04 18:45	0°♎			1864 Oct 26 18:58	0°♐	
	1862 Jul 01 12:19	0°♏			1864 Nov 20 03:21	0°♑	
	1862 Jul 27 06:29	0°♑			1864 Dec 14 15:51	0°♒	
asc. node	1862 Aug 19 07:45	27°♑31'10			1865 Jan 08 14:30	0°♐	
	1862 Aug 21 09:04	0°♒		asc. node	1865 Feb 03 02:47	29°♐30'06	
	1862 Sep 14 23:33	0°♎			1865 Feb 03 13:29	0°♑	
	1862 Oct 09 05:03	0°♏		evening max el	1865 Feb 25 19:12	23°♑41'55	46°28'55
greatest brilliancy	1862 Oct 25 07:22	20°♏06'17	-3.9m		1865 Mar 04 06:08	0°♎	
morning set	1862 Oct 31 17:16	28°♏08'24		greatest brilliancy	1865 Apr 02 06:15	21°♎58'00	-4.6m
	1862 Nov 02 04:53	0°♎		retrograde	1865 Apr 16 17:11	25°♎42'41	
	1862 Nov 26 01:58	0°♐		evening set	1865 May 02 14:29	20°♎48'31	
desc. node	1862 Dec 08 21:11	16°♐06'16		inferior conj	1865 May 08 01:54	17°♎27'38	4°01'36
				minimum elong	1865 May 08 09:49	17°♎15'07	3°59'30
superior conj	1862 Dec 10 21:40	18°♐38'47	0°-4'-51	min. Earth dist.	1865 May 08 02:53	17°♎26'04	0.28689 AU
minimum elong	1862 Dec 10 20:23	18°♐34'44	0°04'48	morning rise	1865 May 14 05:26	13°♎44'19	
behind sun begin	1862 Dec 09 19:03	17°♐15'03		desc. node	1865 May 25 16:01	9°♎31'46	
behind sun end	1862 Dec 11 21:43	19°♐54'26		direct	1865 May 29 11:35	9°♎14'36	
max. Earth dist.	1862 Dec 10 23:22	18°♐44'08	1.71087 AU	greatest brilliancy	1865 Jun 11 03:10	12°♎03'38	-4.5m
	1862 Dec 19 22:12	0°♑			1865 Jul 07 10:06	0°♏	
	1863 Jan 12 18:46	0°♒		morning max el	1865 Jul 17 04:03	8°♏54'06	45°43'31
evening rise	1863 Jan 21 09:41	10°♒49'35			1865 Aug 06 23:40	0°♑	
	1863 Feb 05 16:56	0°♐			1865 Sep 03 00:49	0°♒	

asc. node	1865 Sep 15 19:47	14°Ω50'54	evening max el	1868 May 07 13:22	2°☾38'06	45°30'34
	1865 Sep 28 14:28	0°♊	greatest brilliancy	1868 Jun 11 00:47	29°☾02'56	-4.5m
	1865 Oct 23 07:51	0°♊		1868 Jun 13 05:24	0°Ω	
	1865 Nov 16 13:32	0°♊	desc. node	1868 Jun 22 04:01	2°Ω23'16	
	1865 Dec 10 13:14	0°♊	retrograde	1868 Jun 25 06:23	2°Ω34'16	
	1866 Jan 03 10:36	0°☾		1868 Jul 06 16:17	30°☾	
desc. node	1866 Jan 05 08:58	2°☾25'38	evening set	1868 Jul 10 21:00	27°☾53'25	
morning set	1866 Jan 15 16:32	15°☾23'16	inferior conj	1868 Jul 16 17:34	24°☾22'07	-5°-21'-29
	1866 Jan 27 07:46	0°≈	minimum elong	1868 Jul 16 08:00	24°☾37'02	5°19'18
	1866 Feb 20 06:05	0°♋	min. Earth dist.	1868 Jul 16 15:55	24°☾24'42	0.28999 AU
			morning rise	1868 Jul 21 18:59	21°☾17'50	
superior conj	1866 Feb 26 01:56	7°♋17'20	direct	1868 Aug 07 09:26	16°☾04'32	
minimum elong	1866 Feb 25 22:49	7°♋07'37	greatest brilliancy	1868 Aug 21 13:25	19°☾35'10	-4.5m
max. Earth dist.	1866 Mar 02 01:40	12°♋16'21		1868 Sep 06 21:28	0°Ω	
	1866 Mar 16 06:49	0°♊	morning max el	1868 Sep 25 19:12	16°Ω50'23	46°09'12
evening rise	1866 Apr 06 20:15	26°♊45'37		1868 Oct 08 16:14	0°♊	
	1866 Apr 09 11:07	0°♋	asc. node	1868 Oct 13 07:29	4°♊58'17	
asc. node	1866 Apr 28 12:32	23°♋29'26		1868 Nov 04 12:59	0°♊	
	1866 May 03 19:51	0°♋		1868 Nov 29 18:46	0°♊	
	1866 May 28 09:35	0°☾		1868 Dec 24 07:26	0°♊	
	1866 Jun 22 05:18	0°Ω		1869 Jan 17 12:48	0°☾	
	1866 Jul 17 09:25	0°♊	desc. node	1869 Feb 01 20:54	19°☾04'13	
	1866 Aug 12 02:56	0°♊		1869 Feb 10 15:40	0°≈	
desc. node	1866 Aug 18 01:43	6°♊48'17		1869 Mar 06 18:24	0°♋	
	1866 Sep 07 20:43	0°♊		1869 Mar 30 22:22	0°♊	
evening max el	1866 Oct 02 01:23	25°♊12'31	morning set	1869 Apr 01 08:24	1°♊45'25	
	1866 Oct 07 00:41	0°♊		1869 Apr 24 04:23	0°♋	
greatest brilliancy	1866 Nov 10 01:00	24°♊49'56				
retrograde	1866 Nov 21 03:21	27°♊07'52	superior conj	1869 May 09 09:01	18°♋44'09	0°-38'-15
evening set	1866 Dec 05 10:54	23°♊05'06	minimum elong	1869 May 09 16:36	19°♋07'31	0°37'55
asc. node	1866 Dec 09 05:05	20°♊57'38	max. Earth dist.	1869 May 11 07:34	21°♋07'30	1.73269 AU
inferior conj	1866 Dec 11 16:30	19°♊28'04		1869 May 18 12:35	0°♋	
minimum elong	1866 Dec 11 15:01	19°♊30'19	asc. node	1869 May 26 00:22	9°♋12'42	
min. Earth dist.	1866 Dec 11 15:16	19°♊29'55		1869 Jun 11 22:31	0°☾	
morning rise	1866 Dec 17 18:56	15°♊54'46	evening rise	1869 Jun 15 07:37	4°☾08'52	
direct	1867 Jan 01 01:01	11°♊50'22		1869 Jul 06 09:41	0°Ω	
greatest brilliancy	1867 Jan 13 03:40	14°♊34'30		1869 Jul 30 22:20	0°♊	
	1867 Feb 04 20:48	0°☾		1869 Aug 24 13:37	0°♊	
morning max el	1867 Feb 20 10:39	14°☾38'47	desc. node	1869 Sep 14 13:40	25°♊24'02	
	1867 Mar 07 03:53	0°≈		1869 Sep 18 09:24	0°♊	
desc. node	1867 Mar 30 18:39	26°≈16'23		1869 Oct 13 12:12	0°♊	
	1867 Apr 03 00:51	0°♋		1869 Nov 08 03:35	0°☾	
	1867 Apr 28 19:50	0°♊		1869 Dec 05 00:48	0°≈	
	1867 May 24 03:20	0°♋	evening max el	1869 Dec 13 20:22	9°≈13'00	47°18'53
	1867 Jun 18 04:11	0°♋		1870 Jan 05 10:59	0°♋	
	1867 Jul 12 23:25	0°☾	asc. node	1870 Jan 05 17:01	0°♋11'51	
asc. node	1867 Jul 21 22:01	10°☾53'10	greatest brilliancy	1870 Jan 20 17:21	9°♋45'10	-4.7m
	1867 Aug 06 12:48	0°Ω	retrograde	1870 Feb 02 19:19	12°♋56'12	
morning set	1867 Aug 19 19:27	16°Ω20'35	evening set	1870 Feb 20 09:51	6°♋52'01	
	1867 Aug 30 20:28	0°♊	min. Earth dist.	1870 Feb 22 21:02	5°♋20'27	0.27550 AU
max. Earth dist.	1867 Sep 22 11:34	28°♊07'32	inferior conj	1870 Feb 23 15:32	4°♋51'30	8°43'42
	1867 Sep 23 23:39	0°♊	minimum elong	1870 Feb 23 12:10	4°♋56'45	8°43'32
			morning rise	1870 Feb 26 14:45	3°♋01'28	
superior conj	1867 Sep 25 15:54	2°♊05'31		1870 Mar 04 03:09	30°≈	
minimum elong	1867 Sep 25 21:07	2°♊21'48	direct	1870 Mar 16 09:21	26°≈58'51	
	1867 Oct 18 00:07	0°♊	greatest brilliancy	1870 Mar 27 01:03	29°≈05'29	-4.6m
evening rise	1867 Nov 03 09:40	20°♊31'09		1870 Mar 29 06:20	0°♋	
desc. node	1867 Nov 10 11:25	29°♊22'16	desc. node	1870 Apr 27 06:15	20°♋53'03	
	1867 Nov 10 23:28	0°♊	morning max el	1870 May 04 18:10	27°♋56'54	46°05'26
	1867 Dec 04 22:45	0°☾		1870 May 06 20:37	0°♊	
	1867 Dec 28 23:02	0°≈		1870 Jun 04 10:54	0°♋	
	1868 Jan 22 02:23	0°♋		1870 Jul 01 01:57	0°♋	
	1868 Feb 15 12:44	0°♊		1870 Jul 26 18:52	0°☾	
asc. node	1868 Mar 02 14:48	19°♊24'56	asc. node	1870 Aug 18 09:56	27°☾02'16	
	1868 Mar 11 12:34	0°♋		1870 Aug 20 20:47	0°Ω	
	1868 Apr 06 13:22	0°♋		1870 Sep 14 10:55	0°♊	
	1868 May 04 20:32	0°☾		1870 Oct 08 16:16	0°♊	

greatest brilliancy	1870 Oct 28 17:04	25° Ω 02'15	-3.9m		1873 Mar 04 07:31	0° \mathcal{B}	
morning set	1870 Oct 29 06:48	25° Ω 45'15		greatest brilliancy	1873 Mar 30 22:25	19° \mathcal{B} 45'14	-4.6m
	1870 Nov 01 16:04	0° \mathcal{M}		retrograde	1873 Apr 14 09:23	23° \mathcal{B} 30'47	
	1870 Nov 25 13:11	0° \mathcal{J}		evening set	1873 Apr 30 08:57	18° \mathcal{B} 32'49	
desc. node	1870 Dec 07 23:15	15° \mathcal{J} 37'26		inferior conj	1873 May 05 17:57	15° \mathcal{B} 15'40	4°19'32
				minimum elong	1873 May 06 02:19	15° \mathcal{B} 02'29	4°17'22
superior conj	1870 Dec 08 07:56	16° \mathcal{J} 04'47	0°00'-52	min. Earth dist.	1873 May 05 19:06	15° \mathcal{B} 13'52	0.28670 AU
minimum elong	1870 Dec 08 07:43	16° \mathcal{J} 04'04	0°00'52	morning rise	1873 May 11 19:54	11° \mathcal{B} 34'37	
behind sun begin	1870 Dec 07 05:35	14° \mathcal{J} 41'52		desc. node	1873 May 24 18:07	7° \mathcal{B} 09'16	
behind sun end	1870 Dec 09 09:50	17° \mathcal{J} 26'15		direct	1873 May 27 02:40	7° \mathcal{B} 02'44	
max. Earth dist.	1870 Dec 08 02:30	15° \mathcal{J} 47'38	1.71096 AU	greatest brilliancy	1873 Jun 08 18:32	9° \mathcal{B} 51'55	-4.5m
	1870 Dec 19 09:27	0° \mathcal{C}			1873 Jul 07 13:14	0° \mathcal{H}	
	1871 Jan 12 06:02	0° \approx		morning max el	1873 Jul 14 19:52	6° \mathcal{H} 43'19	45°43'32
evening rise	1871 Jan 18 19:35	8° \approx 14'36			1873 Aug 06 16:33	0° \mathcal{C}	
	1871 Feb 05 04:15	0° \mathcal{H}			1873 Sep 02 14:41	0° \mathcal{Q}	
	1871 Mar 01 06:01	0° \mathcal{Y}		asc. node	1873 Sep 14 21:42	14° \mathcal{Q} 18'01	
asc. node	1871 Mar 25 13:54	0° \mathcal{B}			1873 Sep 28 03:00	0° \mathcal{M}	
	1871 Mar 31 02:40	6° \mathcal{B} 45'53			1873 Oct 22 19:44	0° \mathcal{A}	
	1871 Apr 19 06:47	0° \mathcal{H}			1873 Nov 16 01:04	0° \mathcal{M}	
	1871 May 14 12:37	0° \mathcal{C}			1873 Dec 10 00:35	0° \mathcal{J}	
	1871 Jun 09 15:08	0° \mathcal{Q}			1874 Jan 02 21:51	0° \mathcal{C}	
	1871 Jul 07 10:53	0° \mathcal{M}		desc. node	1874 Jan 04 11:07	1° \mathcal{C} 57'02	
evening max el	1871 Jul 18 14:48	11° \mathcal{M} 03'25	45°35'00	morning set	1874 Jan 13 02:07	12° \mathcal{C} 47'20	
desc. node	1871 Jul 20 15:58	12° \mathcal{M} 59'54			1874 Jan 26 18:57	0° \approx	
	1871 Aug 09 22:20	0° \mathcal{A}			1874 Feb 19 17:12	0° \mathcal{H}	
greatest brilliancy	1871 Aug 25 05:51	8° \mathcal{A} 35'24	-4.5m				
retrograde	1871 Sep 05 08:31	10° \mathcal{A} 47'33		superior conj	1874 Feb 23 13:22	4° \mathcal{H} 48'21	-1°-24'-44
evening set	1871 Sep 23 04:56	4° \mathcal{A} 53'35		minimum elong	1874 Feb 23 09:15	4° \mathcal{H} 35'26	1°24'43
inferior conj	1871 Sep 26 11:11	2° \mathcal{A} 54'38	-8°-25'-45	max. Earth dist.	1874 Feb 27 08:49	9° \mathcal{H} 34'12	1.71742 AU
minimum elong	1871 Sep 26 16:50	2° \mathcal{A} 55'55	8°25'17		1874 Mar 15 17:52	0° \mathcal{Y}	
min. Earth dist.	1871 Sep 27 07:43	2° \mathcal{A} 22'58	0.27979 AU	evening rise	1874 Apr 04 09:55	24° \mathcal{Y} 25'16	
morning rise	1871 Sep 30 04:27	0° \mathcal{A} 38'38			1874 Apr 08 22:09	0° \mathcal{B}	
	1871 Oct 01 06:56	30° \mathcal{R} \mathcal{M}		asc. node	1874 Apr 27 14:33	23° \mathcal{B} 01'35	
direct	1871 Oct 17 15:22	24° \mathcal{M} 50'53			1874 May 03 06:57	0° \mathcal{H}	
greatest brilliancy	1871 Oct 31 22:13	28° \mathcal{M} 31'35	-4.6m		1874 May 27 20:56	0° \mathcal{C}	
	1871 Nov 03 18:05	0° \mathcal{A}			1874 Jun 21 17:09	0° \mathcal{Q}	
asc. node	1871 Nov 10 19:14	4° \mathcal{A} 28'47			1874 Jul 16 22:08	0° \mathcal{M}	
morning max el	1871 Dec 07 05:29	27° \mathcal{A} 55'06	46°50'31		1874 Aug 11 17:11	0° \mathcal{A}	
	1871 Dec 09 06:14	0° \mathcal{M}		desc. node	1874 Aug 17 03:45	6° \mathcal{A} 12'08	
	1872 Jan 05 13:47	0° \mathcal{J}			1874 Sep 07 14:07	0° \mathcal{M}	
	1872 Jan 31 03:12	0° \mathcal{C}		evening max el	1874 Sep 29 15:06	22° \mathcal{M} 50'40	46°39'23
	1872 Feb 25 01:01	0° \approx			1874 Oct 07 03:25	0° \mathcal{J}	
desc. node	1872 Mar 01 08:49	6° \approx 27'47		greatest brilliancy	1874 Nov 07 13:23	22° \mathcal{J} 21'37	-4.6m
	1872 Mar 20 16:34	0° \mathcal{H}		retrograde	1874 Nov 18 16:07	24° \mathcal{J} 39'21	
	1872 Apr 14 05:50	0° \mathcal{Y}		evening set	1874 Dec 02 23:42	20° \mathcal{J} 35'45	
	1872 May 08 18:37	0° \mathcal{B}		asc. node	1874 Dec 08 07:10	17° \mathcal{J} 32'09	
	1872 Jun 02 07:09	0° \mathcal{H}		inferior conj	1874 Dec 09 04:40	16° \mathcal{J} 59'34	0°14'00
morning set	1872 Jun 09 18:43	9° \mathcal{H} 09'44		minimum elong	1874 Dec 09 04:07	17° \mathcal{J} 00'23	0°13'50
asc. node	1872 Jun 22 12:15	24° \mathcal{H} 45'52		transit middle	1874 Dec 09 04:07	17° \mathcal{J} 00'23	0°13'50
	1872 Jun 26 18:41	0° \mathcal{C}		transit begin	1874 Dec 09 01:49	17° \mathcal{J} 03'53	
max. Earth dist.	1872 Jul 14 00:47	21° \mathcal{C} 12'18	1.73474 AU	transit end	1874 Dec 09 06:26	16° \mathcal{J} 56'53	
				min. Earth dist.	1874 Dec 09 04:39	16° \mathcal{J} 59'36	0.26433 AU
superior conj	1872 Jul 16 06:21	23° \mathcal{C} 57'06	0°52'28	morning rise	1874 Dec 15 08:25	13° \mathcal{J} 24'58	
minimum elong	1872 Jul 15 21:51	23° \mathcal{C} 30'57	0°52'07	direct	1874 Dec 29 13:58	9° \mathcal{J} 21'37	
	1872 Jul 21 04:15	0° \mathcal{Q}		greatest brilliancy	1875 Jan 10 17:58	12° \mathcal{J} 07'57	-4.7m
	1872 Aug 14 11:40	0° \mathcal{M}			1875 Feb 05 04:26	0° \mathcal{C}	
evening rise	1872 Aug 21 03:13	8° \mathcal{M} 13'00		morning max el	1875 Feb 18 01:10	12° \mathcal{C} 16'50	46°49'25
	1872 Sep 07 17:47	0° \mathcal{A}			1875 Mar 06 22:29	0° \approx	
	1872 Oct 01 23:49	0° \mathcal{M}		desc. node	1875 Mar 29 20:36	25° \approx 38'27	
desc. node	1872 Oct 12 01:34	12° \mathcal{M} 27'04			1875 Apr 02 15:44	0° \mathcal{H}	
	1872 Oct 26 06:46	0° \mathcal{J}			1875 Apr 28 08:58	0° \mathcal{Y}	
	1872 Nov 19 15:40	0° \mathcal{C}			1875 May 23 15:27	0° \mathcal{B}	
	1872 Dec 14 04:53	0° \approx			1875 Jun 17 15:39	0° \mathcal{H}	
	1873 Jan 08 04:46	0° \mathcal{H}			1875 Jul 12 10:30	0° \mathcal{C}	
asc. node	1873 Feb 02 04:53	28° \mathcal{H} 49'04		asc. node	1875 Jul 21 00:05	10° \mathcal{C} 25'57	
	1873 Feb 03 06:23	0° \mathcal{Y}			1875 Aug 05 23:41	0° \mathcal{Q}	
evening max el	1873 Feb 23 08:58	21° \mathcal{Y} 21'15	46°31'28	morning set	1875 Aug 17 12:36	14° \mathcal{Q} 12'01	

	1875 Aug 30 07:18	0° $\mathring{\text{M}}$		min. Earth dist.	1878 Feb 20 10:37	2° $\mathring{\text{K}}$ 59'49	0.27488 AU
max. Earth dist.	1875 Sep 20 01:59	25° $\mathring{\text{M}}$ 49'09	1.72266 AU	inferior conj	1878 Feb 21 05:35	2° $\mathring{\text{K}}$ 30'06	8°40'04
				minimum elong	1878 Feb 21 01:23	2° $\mathring{\text{K}}$ 36'40	8°39'49
superior conj	1875 Sep 23 07:45	29° $\mathring{\text{M}}$ 51'25	1°22'28	morning rise	1878 Feb 24 05:31	0° $\mathring{\text{K}}$ 38'52	
minimum elong	1875 Sep 23 12:15	0° $\mathring{\text{A}}$ 05'28	1°22'24		1878 Feb 25 07:37	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
	1875 Sep 23 10:30	0° $\mathring{\text{A}}$		direct	1878 Mar 13 22:37	24° $\mathring{\text{A}}$ 38'40	
	1875 Oct 17 11:03	0° $\mathring{\text{M}}$		greatest brilliancy	1878 Mar 24 13:23	26° $\mathring{\text{A}}$ 43'59	-4.6m
evening rise	1875 Oct 31 22:17	18° $\mathring{\text{M}}$ 05'54			1878 Mar 31 11:51	0° $\mathring{\text{K}}$	
desc. node	1875 Nov 09 13:30	28° $\mathring{\text{M}}$ 54'13		desc. node	1878 Apr 26 08:24	19° $\mathring{\text{K}}$ 58'16	
	1875 Nov 10 10:32	0° $\mathring{\text{Z}}$		morning max el	1878 May 02 07:20	25° $\mathring{\text{K}}$ 37'27	46°06'48
	1875 Dec 04 09:59	0° $\mathring{\text{Z}}$			1878 May 06 18:02	0° $\mathring{\text{Y}}$	
	1875 Dec 28 10:28	0° $\mathring{\text{A}}$			1878 Jun 04 02:18	0° $\mathring{\text{B}}$	
	1876 Jan 21 14:07	0° $\mathring{\text{K}}$			1878 Jun 30 15:04	0° $\mathring{\text{H}}$	
	1876 Feb 15 00:58	0° $\mathring{\text{Y}}$			1878 Jul 26 06:50	0° $\mathring{\text{G}}$	
asc. node	1876 Mar 01 16:43	18° $\mathring{\text{Y}}$ 52'26		asc. node	1878 Aug 17 11:52	26° $\mathring{\text{G}}$ 33'46	
	1876 Mar 11 01:45	0° $\mathring{\text{B}}$			1878 Aug 20 08:07	0° $\mathring{\text{D}}$	
	1876 Apr 06 04:41	0° $\mathring{\text{H}}$			1878 Sep 13 21:54	0° $\mathring{\text{M}}$	
	1876 May 04 17:55	0° $\mathring{\text{G}}$			1878 Oct 08 03:05	0° $\mathring{\text{A}}$	
evening max el	1876 May 05 06:07	0° $\mathring{\text{G}}$ 29'30	45°31'44	morning set	1878 Oct 26 20:22	23° $\mathring{\text{A}}$ 23'28	
greatest brilliancy	1876 Jun 08 16:23	26° $\mathring{\text{G}}$ 53'37	-4.5m		1878 Nov 01 02:53	0° $\mathring{\text{M}}$	
	1876 Jun 18 04:46	0° $\mathring{\text{D}}$			1878 Nov 25 00:02	0° $\mathring{\text{Z}}$	
desc. node	1876 Jun 21 06:09	0° $\mathring{\text{D}}$ 22'04		max. Earth dist.	1878 Dec 05 05:41	12° $\mathring{\text{Z}}$ 52'34	1.71113 AU
retrograde	1876 Jun 22 22:44	0° $\mathring{\text{D}}$ 25'21					
	1876 Jun 27 13:47	30° $\mathring{\text{R}}$ $\mathring{\text{G}}$		superior conj	1878 Dec 05 18:20	13° $\mathring{\text{Z}}$ 32'19	0°03'08
evening set	1876 Jul 08 11:13	25° $\mathring{\text{G}}$ 47'37		minimum elong	1878 Dec 05 19:08	13° $\mathring{\text{Z}}$ 34'53	0°03'05
inferior conj	1876 Jul 14 09:50	22° $\mathring{\text{G}}$ 13'03	-5°-5'-39	behind sun begin	1878 Dec 04 17:20	12° $\mathring{\text{Z}}$ 13'43	
minimum elong	1876 Jul 14 00:30	22° $\mathring{\text{G}}$ 27'37	5°03'28	behind sun end	1878 Dec 06 20:56	14° $\mathring{\text{Z}}$ 56'02	
min. Earth dist.	1876 Jul 14 07:43	22° $\mathring{\text{G}}$ 16'20	0.29001 AU	desc. node	1878 Dec 07 01:22	15° $\mathring{\text{Z}}$ 09'57	
morning rise	1876 Jul 19 13:46	19° $\mathring{\text{G}}$ 04'54			1878 Dec 18 20:21	0° $\mathring{\text{Z}}$	
direct	1876 Aug 05 02:10	13° $\mathring{\text{G}}$ 55'40			1879 Jan 11 16:58	0° $\mathring{\text{A}}$	
greatest brilliancy	1876 Aug 19 03:25	17° $\mathring{\text{G}}$ 23'12	-4.5m	evening rise	1879 Jan 16 05:35	5° $\mathring{\text{A}}$ 40'58	
	1876 Sep 07 06:47	0° $\mathring{\text{D}}$			1879 Feb 04 15:12	0° $\mathring{\text{K}}$	
morning max el	1876 Sep 23 10:30	14° $\mathring{\text{D}}$ 36'56	46°07'36		1879 Feb 28 17:04	0° $\mathring{\text{Y}}$	
	1876 Oct 08 10:10	0° $\mathring{\text{M}}$			1879 Mar 25 01:09	0° $\mathring{\text{B}}$	
asc. node	1876 Oct 12 09:33	4° $\mathring{\text{M}}$ 17'24		asc. node	1879 Mar 30 04:44	6° $\mathring{\text{B}}$ 17'43	
	1876 Nov 04 03:20	0° $\mathring{\text{A}}$			1879 Apr 18 18:28	0° $\mathring{\text{H}}$	
	1876 Nov 29 07:38	0° $\mathring{\text{M}}$			1879 May 14 01:11	0° $\mathring{\text{G}}$	
	1876 Dec 23 19:31	0° $\mathring{\text{Z}}$			1879 Jun 09 05:35	0° $\mathring{\text{D}}$	
	1877 Jan 17 00:25	0° $\mathring{\text{Z}}$			1879 Jul 07 06:05	0° $\mathring{\text{M}}$	
desc. node	1877 Jan 31 22:56	18° $\mathring{\text{Z}}$ 35'05		evening max el	1879 Jul 16 04:15	8° $\mathring{\text{M}}$ 46'46	45°33'34
	1877 Feb 10 02:57	0° $\mathring{\text{A}}$		desc. node	1879 Jul 19 17:59	12° $\mathring{\text{M}}$ 08'36	
	1877 Mar 06 05:25	0° $\mathring{\text{K}}$			1879 Aug 10 19:37	0° $\mathring{\text{A}}$	
morning set	1877 Mar 29 22:48	29° $\mathring{\text{K}}$ 27'49		greatest brilliancy	1879 Aug 22 17:34	6° $\mathring{\text{A}}$ 17'22	-4.5m
	1877 Mar 30 09:11	0° $\mathring{\text{Y}}$		retrograde	1879 Sep 02 22:11	8° $\mathring{\text{A}}$ 31'50	
	1877 Apr 23 15:04	0° $\mathring{\text{B}}$		evening set	1879 Sep 20 20:36	2° $\mathring{\text{A}}$ 34'57	
				inferior conj	1879 Sep 24 01:39	0° $\mathring{\text{A}}$ 37'56	-8°-30'-42
superior conj	1877 May 07 01:30	16° $\mathring{\text{B}}$ 34'14	0°-41'-12	minimum elong	1879 Sep 24 06:33	0° $\mathring{\text{A}}$ 30'23	8°30'23
minimum elong	1877 May 07 09:33	16° $\mathring{\text{B}}$ 59'01	0°40'53	min. Earth dist.	1879 Sep 24 21:54	0° $\mathring{\text{A}}$ 06'43	0.28046 AU
max. Earth dist.	1877 May 09 05:07	19° $\mathring{\text{B}}$ 13'15	1.73234 AU		1879 Sep 25 02:16	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
	1877 May 17 23:13	0° $\mathring{\text{H}}$		morning rise	1879 Sep 27 16:11	28° $\mathring{\text{M}}$ 26'00	
asc. node	1877 May 25 02:29	8° $\mathring{\text{H}}$ 46'35		direct	1879 Oct 15 05:59	22° $\mathring{\text{M}}$ 32'58	
	1877 Jun 11 09:11	0° $\mathring{\text{G}}$		greatest brilliancy	1879 Oct 29 15:16	26° $\mathring{\text{M}}$ 16'00	-4.6m
evening rise	1877 Jun 13 02:00	2° $\mathring{\text{G}}$ 05'14			1879 Nov 05 05:16	0° $\mathring{\text{A}}$	
	1877 Jul 05 20:30	0° $\mathring{\text{D}}$		asc. node	1879 Nov 09 21:21	3° $\mathring{\text{A}}$ 13'07	
	1877 Jul 30 09:25	0° $\mathring{\text{M}}$		morning max el	1879 Dec 04 19:49	25° $\mathring{\text{A}}$ 33'25	46°49'32
	1877 Aug 24 01:12	0° $\mathring{\text{A}}$			1879 Dec 09 03:10	0° $\mathring{\text{M}}$	
desc. node	1877 Sep 13 15:39	24° $\mathring{\text{A}}$ 53'16			1880 Jan 05 05:28	0° $\mathring{\text{Z}}$	
	1877 Sep 17 21:44	0° $\mathring{\text{M}}$			1880 Jan 30 16:48	0° $\mathring{\text{Z}}$	
	1877 Oct 13 01:42	0° $\mathring{\text{Z}}$			1880 Feb 24 13:30	0° $\mathring{\text{A}}$	
	1877 Nov 07 19:06	0° $\mathring{\text{Z}}$		desc. node	1880 Feb 29 10:43	5° $\mathring{\text{A}}$ 56'07	
	1877 Dec 04 20:49	0° $\mathring{\text{A}}$			1880 Mar 20 04:19	0° $\mathring{\text{K}}$	
evening max el	1877 Dec 11 11:00	6° $\mathring{\text{A}}$ 50'55	47°19'04		1880 Apr 13 17:05	0° $\mathring{\text{Y}}$	
asc. node	1878 Jan 04 19:07	28° $\mathring{\text{A}}$ 57'41			1880 May 08 05:30	0° $\mathring{\text{B}}$	
	1878 Jan 06 04:29	0° $\mathring{\text{K}}$			1880 Jun 01 17:47	0° $\mathring{\text{H}}$	
greatest brilliancy	1878 Jan 18 10:36	7° $\mathring{\text{K}}$ 26'03	-4.7m	morning set	1880 Jun 07 12:50	7° $\mathring{\text{H}}$ 05'50	
retrograde	1878 Jan 31 09:34	10° $\mathring{\text{K}}$ 33'37		asc. node	1880 Jun 21 14:17	24° $\mathring{\text{H}}$ 19'55	
evening set	1878 Feb 17 21:32	4° $\mathring{\text{K}}$ 34'19			1880 Jun 26 05:10	0° $\mathring{\text{G}}$	

max. Earth dist.	1880 Jul 11 22:46	19°☿20'03	1.73500 AU	min. Earth dist.	1882 Dec 06 17:55	14°♄28'59	0.26447 AU
superior conj	1880 Jul 14 01:01	21°☿54'35	0°49'58	asc. node	1882 Dec 07 09:12	14°♄05'48	
minimum elong	1880 Jul 13 16:42	21°☿29'00	0°49'39	morning rise	1882 Dec 12 21:29	10°♄55'02	
	1880 Jul 20 14:44	0°♌		direct	1882 Dec 27 02:58	6°♄52'47	
	1880 Aug 13 22:16	0°♍		greatest brilliancy	1883 Jan 08 07:37	9°♄40'19	-4.7m
evening rise	1880 Aug 18 21:18	6°♍07'42			1883 Feb 05 09:49	0°♄	
	1880 Sep 07 04:36	0°♎		morning max el	1883 Feb 15 15:05	9°♄53'22	46°50'21
	1880 Oct 01 10:55	0°♏			1883 Mar 06 16:33	0°♅	
desc. node	1880 Oct 11 03:40	11°♏58'51		desc. node	1883 Mar 28 22:47	25°♅01'49	
	1880 Oct 25 18:16	0°♐			1883 Apr 02 06:20	0°♆	
	1880 Nov 19 03:40	0°♑			1883 Apr 27 21:54	0°♇	
	1880 Dec 13 17:40	0°♒			1883 May 23 03:25	0°♈	
	1881 Jan 07 18:51	0°♓			1883 Jun 17 03:00	0°♉	
asc. node	1881 Feb 01 06:50	28°♓08'06		asc. node	1883 Jul 11 21:28	0°♊	
	1881 Feb 02 23:16	0°♈			1883 Jul 20 02:05	9°♊58'52	
evening max el	1881 Feb 20 23:50	19°♈04'14	46°34'01		1883 Aug 05 10:26	0°♋	
	1881 Mar 04 09:54	0°♉		morning set	1883 Aug 15 06:13	12°♋05'24	
greatest brilliancy	1881 Mar 28 14:24	17°♉33'15	-4.6m		1883 Aug 29 17:59	0°♌	
retrograde	1881 Apr 12 02:07	21°♉20'01		max. Earth dist.	1883 Sep 17 15:58	23°♌29'54	1.72318 AU
evening set	1881 Apr 28 03:33	16°♉18'08					
inferior conj	1881 May 03 10:04	13°♉04'46	4°36'59	superior conj	1883 Sep 21 00:08	27°♌39'31	1°23'11
minimum elong	1881 May 03 18:48	12°♉51'00	4°34'47	minimum elong	1883 Sep 21 03:55	27°♌51'18	1°23'09
min. Earth dist.	1881 May 03 11:01	13°♉03'15	0.28646 AU		1883 Sep 22 21:14	0°♍	
morning rise	1881 May 09 10:17	9°♉26'28			1883 Oct 16 21:55	0°♎	
desc. node	1881 May 23 20:10	4°♉53'05		evening rise	1883 Oct 29 11:14	15°♎41'53	
direct	1881 May 24 18:10	4°♉52'06		desc. node	1883 Nov 08 15:39	28°♎26'21	
greatest brilliancy	1881 Jun 06 09:21	7°♉41'00	-4.5m		1883 Nov 09 21:35	0°♏	
	1881 Jul 07 14:17	0°♊			1883 Dec 03 21:16	0°♄	
morning max el	1881 Jul 12 12:33	4°♊35'59	45°43'35		1883 Dec 27 22:00	0°♅	
	1881 Aug 06 08:38	0°♋			1884 Jan 21 01:57	0°♆	
	1881 Sep 02 04:01	0°♌		asc. node	1884 Feb 14 13:19	0°♇	
asc. node	1881 Sep 13 23:47	13°♌46'48			1884 Feb 29 18:49	18°♇20'09	
	1881 Sep 27 15:10	0°♍			1884 Mar 10 15:08	0°♈	
	1881 Oct 22 07:20	0°♎			1884 Apr 05 20:19	0°♉	
	1881 Nov 15 12:22	0°♏		evening max el	1884 May 02 22:19	28°♉19'16	45°32'58
	1881 Dec 09 11:42	0°♐			1884 May 04 16:16	0°♊	
desc. node	1882 Jan 02 08:51	0°♑		greatest brilliancy	1884 Jun 06 08:32	24°♊44'44	-4.5m
morning set	1882 Jan 03 13:06	1°♑28'45		desc. node	1884 Jun 20 08:10	28°♊16'26	
	1882 Jan 10 11:41	10°♑12'05		retrograde	1884 Jun 20 14:36	28°♊16'31	
	1882 Jan 26 05:52	0°♒		evening set	1884 Jul 06 01:41	23°♊41'42	
	1882 Feb 19 04:04	0°♓		inferior conj	1884 Jul 12 02:11	20°♊04'14	-4°-49'-29
				minimum elong	1884 Jul 11 17:08	20°♊18'24	4°47'18
superior conj	1882 Feb 21 00:33	2°♓19'11	-1°-23'-58	min. Earth dist.	1884 Jul 12 00:01	20°♊07'38	0.28998 AU
minimum elong	1882 Feb 20 19:26	2°♓03'12	1°23'57	morning rise	1884 Jul 17 08:34	16°♊52'13	
max. Earth dist.	1882 Feb 24 17:29	6°♓57'20	1.71695 AU	direct	1884 Aug 02 18:34	11°♊47'01	
	1882 Mar 15 04:42	0°♈		greatest brilliancy	1884 Aug 16 17:21	15°♊11'14	-4.5m
evening rise	1882 Apr 01 23:27	22°♈05'09			1884 Sep 07 13:27	0°♋	
	1882 Apr 08 08:59	0°♉		morning max el	1884 Sep 21 00:59	12°♋21'41	46°06'11
asc. node	1882 Apr 26 16:43	22°♉34'49			1884 Oct 08 03:39	0°♌	
	1882 May 02 17:52	0°♊		asc. node	1884 Oct 11 11:42	3°♌37'21	
	1882 May 27 08:04	0°♋			1884 Nov 03 17:32	0°♍	
	1882 Jun 21 04:46	0°♌			1884 Nov 28 20:28	0°♎	
	1882 Jul 16 10:37	0°♍			1884 Dec 23 07:42	0°♏	
	1882 Aug 11 07:17	0°♎			1885 Jan 16 12:12	0°♐	
desc. node	1882 Aug 16 05:43	5°♎36'24		desc. node	1885 Jan 31 00:58	18°♐05'20	
	1882 Sep 07 07:39	0°♏			1885 Feb 09 14:27	0°♑	
evening max el	1882 Sep 27 05:35	20°♏31'20	46°36'51		1885 Mar 05 16:40	0°♒	
	1882 Oct 07 07:38	0°♐		morning set	1885 Mar 27 12:33	27°♒07'23	
greatest brilliancy	1882 Nov 05 02:00	19°♐53'45	-4.6m		1885 Mar 29 20:14	0°♓	
retrograde	1882 Nov 16 04:37	22°♐10'29			1885 Apr 23 01:59	0°♈	
evening set	1882 Nov 30 12:37	18°♐06'06		superior conj	1885 May 04 17:35	14°♈22'21	0°-44'-8
inferior conj	1882 Dec 06 16:41	14°♐30'52	0°-10'-45	minimum elong	1885 May 05 02:03	14°♈48'28	0°43'48
minimum elong	1882 Dec 06 17:06	14°♐30'14	0°10'37	max. Earth dist.	1885 May 07 01:24	17°♈14'21	1.73193 AU
transit middle	1882 Dec 06 17:06	14°♐30'14	0°10'37		1885 May 17 10:05	0°♉	
transit begin	1882 Dec 06 13:57	14°♐35'01		asc. node	1885 May 24 04:29	8°♉19'22	
transit end	1882 Dec 06 20:15	14°♐25'26		evening rise	1885 Jun 10 20:09	0°♊	

	1885 Jun 10 20:06	0°☿			1887 Nov 06 06:49	0°♊
	1885 Jul 05 07:33	0°♋		asc. node	1887 Nov 08 23:20	1°♊58'20
	1885 Jul 29 20:45	0°♌		morning max el	1887 Dec 02 10:59	23°♊13'06 46°48'45
	1885 Aug 23 13:00	0°♍			1887 Dec 08 23:46	0°♌
desc. node	1885 Sep 12 17:50	24°♍22'34			1888 Jan 04 21:11	0°♎
	1885 Sep 17 10:16	0°♌			1888 Jan 30 06:32	0°♏
	1885 Oct 12 15:26	0°♎			1888 Feb 24 02:11	0°♐
	1885 Nov 07 10:57	0°♏		desc. node	1888 Feb 28 12:55	5°♐24'40
	1885 Dec 04 17:40	0°♑			1888 Mar 19 16:21	0°♒
evening max el	1885 Dec 09 00:33	4°♑25'24 47°18'55			1888 Apr 13 04:42	0°♓
asc. node	1886 Jan 03 21:04	27°♑39'54			1888 May 07 16:48	0°♈
	1886 Jan 07 04:52	0°♒			1888 Jun 01 04:51	0°♉
greatest brilliancy	1886 Jan 16 03:18	5°♒04'38 -4.7m		morning set	1888 Jun 05 06:31	4°♉59'05
retrograde	1886 Jan 28 23:12	8°♒09'14		asc. node	1888 Jun 20 16:17	23°♉52'25
evening set	1886 Feb 15 08:32	2°♒15'13			1888 Jun 25 16:07	0°♊
min. Earth dist.	1886 Feb 18 00:20	0°♒36'44 0.27433 AU		max. Earth dist.	1888 Jul 09 21:28	17°♊28'36 1.73519 AU
inferior conj	1886 Feb 18 19:25	0°♒06'51 8°35'24				
minimum elong	1886 Feb 18 14:23	0°♒14'43 8°35'02		superior conj	1888 Jul 11 19:13	19°♊49'20 0°47'23
	1886 Feb 18 23:47	30°♒		minimum elong	1888 Jul 11 11:08	19°♊24'26 0°47'03
morning rise	1886 Feb 21 20:29	28°♒13'49			1888 Jul 20 01:39	0°♋
direct	1886 Mar 11 11:19	22°♒16'14			1888 Aug 13 09:18	0°♌
greatest brilliancy	1886 Mar 22 02:54	24°♒21'50 -4.6m		evening rise	1888 Aug 16 15:10	4°♌00'30
	1886 Apr 01 23:48	0°♒			1888 Sep 06 15:50	0°♍
desc. node	1886 Apr 25 10:29	19°♒03'02			1888 Sep 30 22:28	0°♎
morning max el	1886 Apr 29 20:14	23°♒15'43 46°08'17		desc. node	1888 Oct 10 05:44	11°♎29'08
	1886 May 06 15:15	0°♓			1888 Oct 25 06:11	0°♎
	1886 Jun 03 17:55	0°♈			1888 Nov 18 16:05	0°♏
	1886 Jun 30 04:27	0°♉			1888 Dec 13 06:49	0°♐
	1886 Jul 25 19:05	0°♊			1889 Jan 07 09:20	0°♑
asc. node	1886 Aug 16 13:56	26°♊04'49		asc. node	1889 Jan 31 08:58	27°♒26'33
	1886 Aug 19 19:44	0°♋			1889 Feb 02 16:44	0°♓
	1886 Sep 13 09:11	0°♌		evening max el	1889 Feb 18 15:29	16°♓48'28 46°36'28
	1886 Oct 07 14:13	0°♍			1889 Mar 04 14:15	0°♈
morning set	1886 Oct 24 10:28	21°♍02'36		greatest brilliancy	1889 Mar 26 06:33	15°♈20'32 -4.6m
	1886 Oct 31 13:57	0°♎		retrograde	1889 Apr 09 19:01	19°♈07'50
	1886 Nov 24 11:08	0°♎		evening set	1889 Apr 25 22:12	14°♈02'01
max. Earth dist.	1886 Dec 02 12:43	10°♎08'51 1.71132 AU		inferior conj	1889 May 01 02:05	10°♈52'21 4°54'08
				minimum elong	1889 May 01 11:09	10°♈38'05 4°51'54
superior conj	1886 Dec 03 05:16	11°♎00'55 0°07'01		min. Earth dist.	1889 May 01 02:34	10°♈51'36 0.28628 AU
minimum elong	1886 Dec 03 07:06	11°♎06'40 0°06'55		morning rise	1889 May 07 00:25	7°♈17'02
behind sun begin	1886 Dec 02 07:13	9°♎51'32		direct	1889 May 22 10:08	2°♈40'01
behind sun end	1886 Dec 04 07:00	12°♎21'49		desc. node	1889 May 22 22:12	2°♈40'19
desc. node	1886 Dec 06 03:21	14°♎41'20		greatest brilliancy	1889 Jun 03 23:26	5°♈27'41 -4.5m
	1886 Dec 18 07:29	0°♏			1889 Jul 07 14:46	0°♉
	1887 Jan 11 04:09	0°♐		morning max el	1889 Jul 10 05:33	2°♉27'58 45°43'32
evening rise	1887 Jan 13 15:55	3°♐07'36			1889 Aug 06 00:59	0°♊
	1887 Feb 04 02:29	0°♑			1889 Sep 01 17:44	0°♋
	1887 Feb 28 04:30	0°♒		asc. node	1889 Sep 13 01:57	13°♋14'41
	1887 Mar 24 12:51	0°♓			1889 Sep 27 03:41	0°♌
asc. node	1887 Mar 29 06:50	5°♓48'12			1889 Oct 21 19:15	0°♍
	1887 Apr 18 06:39	0°♔			1889 Nov 14 23:59	0°♎
	1887 May 13 14:20	0°♕			1889 Dec 08 23:08	0°♏
	1887 Jun 08 20:45	0°♋			1890 Jan 01 20:10	0°♐
	1887 Jul 07 02:28	0°♌		desc. node	1890 Jan 02 15:09	0°♑59'38
evening max el	1887 Jul 13 18:03	6°♌29'44 45°32'21		morning set	1890 Jan 07 21:33	7°♑36'49
desc. node	1887 Jul 18 19:59	11°♌14'54			1890 Jan 25 17:05	0°♒
	1887 Aug 12 02:00	0°♍				
greatest brilliancy	1887 Aug 20 04:07	3°♍56'52 -4.5m		superior conj	1890 Feb 18 11:57	29°♍49'52 -1°-23'-3
retrograde	1887 Aug 31 12:21	6°♍14'51		minimum elong	1890 Feb 18 05:54	29°♍30'54 1°22'59
evening set	1887 Sep 18 11:53	0°♍15'20			1890 Feb 18 15:12	0°♎
	1887 Sep 18 22:11	30°♍		max. Earth dist.	1890 Feb 22 05:19	4°♎29'31 1.71646 AU
inferior conj	1887 Sep 21 15:59	28°♍19'49 -8°-34'-55			1890 Mar 14 15:46	0°♏
minimum elong	1887 Sep 21 20:06	28°♍13'29 8°34'42		evening rise	1890 Mar 30 13:14	19°♏44'56
min. Earth dist.	1887 Sep 22 11:39	27°♍49'33 0.28109 AU			1890 Apr 07 20:03	0°♐
morning rise	1887 Sep 25 04:03	26°♍11'45		asc. node	1890 Apr 25 18:41	22°♐06'37
direct	1887 Oct 12 20:58	20°♍13'44			1890 May 02 05:03	0°♑
greatest brilliancy	1887 Oct 27 08:08	23°♍59'12 -4.6m			1890 May 26 19:33	0°♒

	1890 Jun 20 16:48	0°♌			1893 Feb 09 01:56	0°♊		
	1890 Jul 15 23:35	0°♍			1893 Mar 05 03:54	0°♈		
	1890 Aug 10 21:58	0°♊		morning set	1893 Mar 25 02:16	24°♈46'41		
desc. node	1890 Aug 15 07:55	4°♊59'51			1893 Mar 29 07:16	0°♍		
	1890 Sep 07 02:00	0°♍			1893 Apr 22 12:52	0°♉		
evening max el	1890 Sep 24 19:55	18°♍10'40	46°34'21					
	1890 Oct 07 14:16	0°♊		superior conj	1893 May 02 09:53	12°♉11'17	0°-47'00	
greatest brilliancy	1890 Nov 02 15:23	17°♊26'06	-4.6m	minimum elong	1893 May 02 18:44	12°♉38'35	0°46'38	
retrograde	1890 Nov 13 16:39	19°♊40'46		max. Earth dist.	1893 May 04 20:10	15°♉10'56	1.73148 AU	
evening set	1890 Nov 28 01:49	15°♊35'34			1893 May 16 20:53	0°♊		
inferior conj	1890 Dec 04 04:45	12°♊01'32	0°-35'-25	asc. node	1893 May 23 06:32	7°♊52'33		
minimum elong	1890 Dec 04 06:06	11°♊59'28	0°35'00	evening rise	1893 Jun 08 14:35	27°♊56'16		
min. Earth dist.	1890 Dec 04 07:27	11°♊57'25	0.26461 AU		1893 Jun 10 06:54	0°♊		
asc. node	1890 Dec 06 11:14	10°♊39'13			1893 Jul 04 18:30	0°♌		
morning rise	1890 Dec 10 10:18	8°♊24'29			1893 Jul 29 08:01	0°♍		
direct	1890 Dec 24 15:46	4°♊23'18			1893 Aug 23 00:49	0°♊		
greatest brilliancy	1891 Jan 05 21:26	7°♊11'55	-4.7m	desc. node	1893 Sep 11 19:50	23°♊51'09		
	1891 Feb 05 13:41	0°♉			1893 Sep 16 22:55	0°♍		
morning max el	1891 Feb 13 04:13	7°♉27'07	46°51'22		1893 Oct 12 05:21	0°♊		
	1891 Mar 06 10:25	0°♊			1893 Nov 07 03:08	0°♉		
desc. node	1891 Mar 28 00:49	24°♊24'37			1893 Dec 04 15:17	0°♊		
	1891 Apr 01 20:56	0°♈		evening max el	1893 Dec 06 13:43	1°♊58'55	47°18'54	
	1891 Apr 27 10:53	0°♍		asc. node	1894 Jan 02 23:12	26°♊20'07		
	1891 May 22 15:27	0°♉			1894 Jan 08 14:54	0°♈		
	1891 Jun 16 14:29	0°♊		greatest brilliancy	1894 Jan 13 19:01	2°♈41'56	-4.7m	
	1891 Jul 11 08:38	0°♊		retrograde	1894 Jan 26 12:53	5°♈45'04		
asc. node	1891 Jul 19 04:11	9°♊31'28		evening set	1894 Feb 12 19:13	29°♊56'20		
	1891 Aug 04 21:27	0°♌			1894 Feb 12 16:46	30°♈		
morning set	1891 Aug 12 23:39	9°♌57'26		min. Earth dist.	1894 Feb 15 13:58	28°♊13'43	0.27376 AU	
	1891 Aug 29 04:56	0°♍		inferior conj	1894 Feb 16 09:12	27°♊43'39	8°29'51	
max. Earth dist.	1891 Sep 15 04:47	21°♍06'22	1.72370 AU	minimum elong	1894 Feb 16 03:23	27°♊52'43	8°29'20	
				morning rise	1894 Feb 19 11:47	25°♊48'28		
superior conj	1891 Sep 18 16:24	25°♍26'34	1°23'47	direct	1894 Mar 08 23:55	19°♊53'40		
minimum elong	1891 Sep 18 19:28	25°♍36'05	1°23'46	greatest brilliancy	1894 Mar 19 16:57	22°♊00'31	-4.6m	
	1891 Sep 22 08:13	0°♊			1894 Apr 03 01:10	0°♈		
	1891 Oct 16 09:00	0°♍		desc. node	1894 Apr 24 12:27	18°♈09'08		
evening rise	1891 Oct 27 00:01	13°♍16'54		morning max el	1894 Apr 27 09:52	20°♈56'05	46°09'55	
desc. node	1891 Nov 07 17:35	27°♍57'13			1894 May 06 11:34	0°♍		
	1891 Nov 09 08:51	0°♊			1894 Jun 03 09:05	0°♉		
	1891 Dec 03 08:44	0°♉			1894 Jun 29 17:31	0°♊		
	1891 Dec 27 09:42	0°♊			1894 Jul 25 07:03	0°♊		
	1892 Jan 20 13:58	0°♈		asc. node	1894 Aug 15 16:05	25°♊36'52		
	1892 Feb 14 01:51	0°♍			1894 Aug 19 07:05	0°♌		
asc. node	1892 Feb 28 20:56	17°♍47'27			1894 Sep 12 20:14	0°♍		
	1892 Mar 10 04:42	0°♉			1894 Oct 07 01:10	0°♊		
	1892 Apr 05 12:14	0°♊		morning set	1894 Oct 22 00:36	18°♊42'16		
evening max el	1892 Apr 30 13:43	26°♊07'00	45°34'15		1894 Oct 31 00:55	0°♍		
	1892 May 04 15:31	0°♊			1894 Nov 23 22:08	0°♊		
greatest brilliancy	1892 Jun 04 00:03	22°♊35'14	-4.5m	max. Earth dist.	1894 Nov 29 21:01	7°♊29'21	1.71154 AU	
retrograde	1892 Jun 18 06:22	26°♊08'12						
desc. node	1892 Jun 19 10:11	26°♊06'39		superior conj	1894 Nov 30 15:55	8°♊28'47	0°10'55	
evening set	1892 Jul 03 16:25	21°♊35'43		minimum elong	1894 Nov 30 18:45	8°♊37'42	0°10'47	
inferior conj	1892 Jul 09 18:42	17°♊55'47	-4°-32'-59	behind sun begin	1894 Nov 29 22:59	7°♊35'29		
minimum elong	1892 Jul 09 09:58	18°♊09'28	4°30'49	behind sun end	1894 Dec 01 14:32	9°♊39'55		
min. Earth dist.	1892 Jul 09 16:42	17°♊58'56	0.29001 AU	desc. node	1894 Dec 05 05:28	14°♊13'19		
morning rise	1892 Jul 15 03:27	14°♊40'03			1894 Dec 17 18:31	0°♉		
direct	1892 Jul 31 10:44	9°♊38'30			1895 Jan 10 15:13	0°♊		
greatest brilliancy	1892 Aug 14 08:37	13°♊00'50	-4.5m	evening rise	1895 Jan 11 01:52	0°♊33'26		
	1892 Sep 07 18:11	0°♌			1895 Feb 03 13:37	0°♈		
morning max el	1892 Sep 18 15:21	10°♌05'43	46°04'42		1895 Feb 27 15:46	0°♍		
	1892 Oct 07 20:57	0°♍			1895 Mar 24 00:22	0°♉		
asc. node	1892 Oct 10 13:38	2°♍56'39		asc. node	1895 Mar 28 08:49	5°♉18'54		
	1892 Nov 03 07:45	0°♊			1895 Apr 17 18:40	0°♊		
	1892 Nov 28 09:22	0°♍			1895 May 13 03:19	0°♊		
	1892 Dec 22 19:54	0°♊			1895 Jun 08 11:47	0°♌		
	1893 Jan 16 00:00	0°♉			1895 Jul 06 23:03	0°♍		
desc. node	1893 Jan 30 03:06	17°♉35'54		evening max el	1895 Jul 11 09:00	4°♍16'53	45°31'18	

desc. node	1895 Jul 17 22:10	10° \mathbb{M} 21'53			1898 Jan 25 04:00	0° \approx	
	1895 Aug 13 20:53	0° $\underline{\mathbf{A}}$					
greatest brilliancy	1895 Aug 17 14:23	1° $\underline{\mathbf{A}}$ 38'06	-4.5m	superior conj	1898 Feb 15 22:53	27° \approx 19'43	-1°-21'-56
retrograde	1895 Aug 29 03:05	3° $\underline{\mathbf{A}}$ 59'59		minimum elong	1898 Feb 15 15:54	26° \approx 57'52	1°21'50
	1895 Sep 12 12:42	30° \mathbb{R} \mathbb{M}			1898 Feb 18 02:04	0° \mathbb{X}	
evening set	1895 Sep 16 03:09	27° \mathbb{M} 58'29		max. Earth dist.	1898 Feb 19 17:03	2° \mathbb{X} 02'01	1.71600 AU
inferior conj	1895 Sep 19 06:39	26° \mathbb{M} 03'48	-8°-38'-13		1898 Mar 14 02:35	0° \mathbb{Y}	
minimum elong	1895 Sep 19 09:58	25° \mathbb{M} 58'42	8°38'05	evening rise	1898 Mar 28 02:18	17° \mathbb{Y} 23'08	
min. Earth dist.	1895 Sep 20 01:12	25° \mathbb{M} 35'16	0.28174 AU		1898 Apr 07 06:51	0° \mathbb{Z}	
morning rise	1895 Sep 22 16:33	23° \mathbb{M} 59'03		asc. node	1898 Apr 24 20:44	21° \mathbb{Z} 39'29	
direct	1895 Oct 10 12:46	17° \mathbb{M} 56'52			1898 May 01 15:58	0° \mathbb{I}	
greatest brilliancy	1895 Oct 25 00:36	21° \mathbb{M} 43'40	-4.6m		1898 May 26 06:45	0° \mathbb{S}	
	1895 Nov 07 00:57	0° $\underline{\mathbf{A}}$			1898 Jun 20 04:31	0° \mathbb{Q}	
asc. node	1895 Nov 08 01:25	0° $\underline{\mathbf{A}}$ 47'09			1898 Jul 15 12:15	0° \mathbb{M}	
morning max el	1895 Nov 30 02:45	20° $\underline{\mathbf{A}}$ 55'21	46°47'31		1898 Aug 10 12:24	0° $\underline{\mathbf{A}}$	
	1895 Dec 08 19:27	0° \mathbb{L}		desc. node	1898 Aug 14 09:54	4° $\underline{\mathbf{A}}$ 23'40	
	1896 Jan 04 12:31	0° \mathbb{X}			1898 Sep 06 20:18	0° \mathbb{L}	
	1896 Jan 29 20:01	0° \mathbb{Z}		evening max el	1898 Sep 22 09:38	15° \mathbb{L} 50'06	46°31'55
	1896 Feb 23 14:38	0° \approx			1898 Oct 07 22:31	0° \mathbb{X}	
desc. node	1896 Feb 27 14:59	4° \approx 53'25		greatest brilliancy	1898 Oct 31 05:40	15° \mathbb{X} 01'42	-4.6m
	1896 Mar 19 04:09	0° \mathbb{X}		retrograde	1898 Nov 11 04:23	17° \mathbb{X} 13'42	
	1896 Apr 12 16:01	0° \mathbb{Y}		evening set	1898 Nov 25 15:30	13° \mathbb{X} 07'19	
	1896 May 07 03:47	0° \mathbb{Z}		inferior conj	1898 Dec 01 17:09	9° \mathbb{X} 34'55	0°-59'-47
	1896 May 31 15:36	0° \mathbb{I}		minimum elong	1898 Dec 01 19:27	9° \mathbb{X} 31'26	0°59'03
morning set	1896 Jun 03 00:21	2° \mathbb{I} 53'49		min. Earth dist.	1898 Dec 01 21:33	9° \mathbb{X} 28'13	0.26480 AU
asc. node	1896 Jun 19 18:26	23° \mathbb{I} 26'26		asc. node	1898 Dec 05 13:19	7° \mathbb{X} 17'01	
	1896 Jun 25 02:43	0° \mathbb{S}		morning rise	1898 Dec 07 23:11	5° \mathbb{X} 56'47	
max. Earth dist.	1896 Jul 07 20:29	15° \mathbb{S} 39'11	1.73533 AU	direct	1898 Dec 22 04:26	1° \mathbb{X} 56'19	
				greatest brilliancy	1899 Jan 03 12:15	4° \mathbb{X} 46'47	-4.7m
superior conj	1896 Jul 09 13:44	17° \mathbb{S} 46'01	0°44'46		1899 Feb 05 15:24	0° \mathbb{Z}	
minimum elong	1896 Jul 09 05:54	17° \mathbb{S} 21'55	0°44'25	morning max el	1899 Feb 10 16:29	4° \mathbb{Z} 59'49	46°52'04
	1896 Jul 19 12:14	0° \mathbb{Q}			1899 Mar 06 03:31	0° \approx	
	1896 Aug 12 19:58	0° \mathbb{M}		desc. node	1899 Mar 27 02:47	23° \approx 48'19	
evening rise	1896 Aug 14 09:31	1° \mathbb{M} 55'55			1899 Apr 01 11:05	0° \mathbb{X}	
	1896 Sep 06 02:42	0° $\underline{\mathbf{A}}$			1899 Apr 26 23:33	0° \mathbb{Y}	
	1896 Sep 30 09:37	0° \mathbb{L}			1899 May 22 03:14	0° \mathbb{Z}	
desc. node	1896 Oct 09 07:45	11° \mathbb{L} 00'28			1899 Jun 16 01:42	0° \mathbb{I}	
	1896 Oct 24 17:45	0° \mathbb{X}			1899 Jul 10 19:30	0° \mathbb{S}	
	1896 Nov 18 04:13	0° \mathbb{Z}		asc. node	1899 Jul 18 06:16	9° \mathbb{S} 04'56	
	1896 Dec 12 19:49	0° \approx			1899 Aug 04 08:07	0° \mathbb{Q}	
	1897 Jan 06 23:47	0° \mathbb{X}		morning set	1899 Aug 10 17:00	7° \mathbb{Q} 50'15	
asc. node	1897 Jan 30 11:04	26° \mathbb{X} 44'51			1899 Aug 28 15:34	0° \mathbb{M}	
	1897 Feb 02 10:27	0° \mathbb{Y}		max. Earth dist.	1899 Sep 12 19:30	18° \mathbb{M} 49'44	1.72424 AU
evening max el	1897 Feb 16 07:39	14° \mathbb{Y} 34'14	46°38'53				
	1897 Mar 04 20:26	0° \mathbb{Z}		superior conj	1899 Sep 16 08:52	23° \mathbb{M} 15'16	1°24'15
greatest brilliancy	1897 Mar 23 23:54	13° \mathbb{Z} 09'41	-4.6m	minimum elong	1899 Sep 16 11:11	23° \mathbb{M} 22'29	1°24'14
retrograde	1897 Apr 07 11:41	16° \mathbb{Z} 55'39			1899 Sep 21 18:52	0° $\underline{\mathbf{A}}$	
evening set	1897 Apr 23 16:50	11° \mathbb{Z} 46'11			1899 Oct 15 19:47	0° \mathbb{L}	
inferior conj	1897 Apr 28 17:59	8° \mathbb{Z} 40'14	5°11'00	evening rise	1899 Oct 24 13:15	10° \mathbb{L} 54'22	
minimum elong	1897 Apr 29 03:19	8° \mathbb{Z} 25'32	5°08'45	desc. node	1899 Nov 06 19:42	27° \mathbb{L} 29'42	
min. Earth dist.	1897 Apr 28 17:54	8° \mathbb{Z} 40'22	0.28602 AU		1899 Nov 08 19:47	0° \mathbb{X}	
morning rise	1897 May 04 14:11	5° \mathbb{Z} 08'01			1899 Dec 02 19:51	0° \mathbb{Z}	
direct	1897 May 20 02:09	0° \mathbb{Z} 28'31			1899 Dec 26 21:03	0° \approx	
desc. node	1897 May 22 00:18	0° \mathbb{Z} 32'49			1900 Jan 20 01:39	0° \mathbb{X}	
greatest brilliancy	1897 Jun 01 12:20	3° \mathbb{Z} 13'36	-4.5m		1900 Feb 13 14:08	0° \mathbb{Y}	
	1897 Jul 07 13:43	0° \mathbb{I}		asc. node	1900 Feb 27 22:52	17° \mathbb{Y} 14'53	
morning max el	1897 Jul 07 21:53	0° \mathbb{I} 19'27	45°43'36		1900 Mar 10 18:08	0° \mathbb{Z}	
	1897 Aug 05 16:38	0° \mathbb{S}			1900 Apr 06 04:15	0° \mathbb{I}	
	1897 Sep 01 06:54	0° \mathbb{Q}		evening max el	1900 Apr 29 04:22	23° \mathbb{I} 53'11	45°35'35
asc. node	1897 Sep 12 03:51	12° \mathbb{Q} 43'14			1900 May 05 15:46	0° \mathbb{S}	
	1897 Sep 26 15:43	0° \mathbb{M}		greatest brilliancy	1900 Jun 02 14:49	20° \mathbb{S} 24'48	-4.5m
	1897 Oct 21 06:43	0° $\underline{\mathbf{A}}$		retrograde	1900 Jun 16 22:20	24° \mathbb{S} 00'03	
	1897 Nov 14 11:08	0° \mathbb{L}		desc. node	1900 Jun 19 12:19	23° \mathbb{S} 52'13	
	1897 Dec 08 10:09	0° \mathbb{X}		evening set	1900 Jul 02 07:07	19° \mathbb{S} 29'23	
	1898 Jan 01 07:07	0° \mathbb{Z}		inferior conj	1900 Jul 08 11:05	15° \mathbb{S} 47'26	-4°-15'-58
desc. node	1898 Jan 01 17:18	0° \mathbb{Z} 32'02		minimum elong	1900 Jul 08 02:43	16° \mathbb{S} 00'31	4°13'51
morning set	1898 Jan 05 07:26	5° \mathbb{Z} 02'41		min. Earth dist.	1900 Jul 08 09:18	15° \mathbb{S} 50'13	0.29001 AU

morning rise	1900 Jul 13 22:10	12°☿28'15		evening rise	1902 Dec 18 05:32	0°☿	
direct	1900 Jul 30 02:30	7°☿30'00			1903 Jan 09 11:55	27°☿59'31	
greatest brilliancy	1900 Aug 13 00:43	10°☿51'58	-4.5m		1903 Jan 11 02:18	0°≈	
	1900 Sep 08 20:55	0°♌			1903 Feb 04 00:46	0°✠	
morning max el	1900 Sep 17 05:56	7°♌51'08	46°03'23		1903 Feb 28 03:03	0°Υ	
	1900 Oct 08 13:36	0°♍			1903 Mar 24 11:53	0°♄	
asc. node	1900 Oct 10 15:46	2°♍17'42		asc. node	1903 Mar 28 10:55	4°♄49'58	
	1900 Nov 03 21:33	0°♎			1903 Apr 18 06:41	0°♊	
	1900 Nov 28 21:55	0°♏			1903 May 13 16:23	0°☿	
	1900 Dec 23 07:48	0°♐			1903 Jun 09 03:07	0°♌	
	1901 Jan 16 11:29	0°☿			1903 Jul 07 20:36	0°♍	
desc. node	1901 Jan 30 05:07	17°☿07'02		evening max el	1903 Jul 10 00:30	2°♍04'51	45°30'06
	1901 Feb 09 13:06	0°≈		desc. node	1903 Jul 18 00:09	9°♍26'44	
	1901 Mar 05 14:51	0°✠		greatest brilliancy	1903 Aug 16 01:37	29°♍19'41	-4.5m
morning set	1901 Mar 23 15:57	22°✠26'34			1903 Aug 17 21:51	0°♎	
	1901 Mar 29 18:03	0°Υ		retrograde	1903 Aug 27 17:36	1°♎44'05	
	1901 Apr 22 23:34	0°♄			1903 Sep 06 02:29	30°♍	
				evening set	1903 Sep 14 18:00	25°♍41'28	
superior conj	1901 May 01 02:02	10°♄00'13	0°-49'-47	inferior conj	1903 Sep 17 21:12	23°♍46'59	-8°-40'-42
minimum elong	1901 May 01 11:13	10°♄28'32	0°49'25	minimum elong	1903 Sep 17 23:42	23°♍43'07	8°40'38
max. Earth dist.	1901 May 03 13:18	13°♄02'55	1.73110 AU	min. Earth dist.	1903 Sep 18 14:30	23°♍20'19	0.28233 AU
	1901 May 17 07:34	0°♊		morning rise	1903 Sep 21 05:14	21°♍44'57	
asc. node	1901 May 23 08:41	7°♊26'20		direct	1903 Oct 09 04:36	15°♍39'28	
evening rise	1901 Jun 07 08:41	25°♊51'44		greatest brilliancy	1903 Oct 23 15:47	19°♍25'54	-4.6m
	1901 Jun 10 17:37	0°☿		asc. node	1903 Nov 08 03:33	29°♍37'33	
	1901 Jul 05 05:22	0°♌			1903 Nov 08 14:43	0°♎	
	1901 Jul 29 19:13	0°♍		morning max el	1903 Nov 28 17:59	18°♎36'00	46°46'16
	1901 Aug 23 12:33	0°♎			1903 Dec 09 14:42	0°♏	
desc. node	1901 Sep 11 21:49	23°♎20'03			1904 Jan 05 03:43	0°♐	
	1901 Sep 17 11:29	0°♏			1904 Jan 30 09:28	0°☿	
	1901 Oct 12 19:15	0°♐			1904 Feb 24 03:08	0°≈	
	1901 Nov 07 19:25	0°☿		desc. node	1904 Feb 27 16:53	4°≈21'31	
evening max el	1901 Dec 05 03:22	29°☿34'09	47°18'52		1904 Mar 19 16:01	0°✠	
	1901 Dec 05 13:32	0°≈			1904 Apr 13 03:27	0°Υ	
asc. node	1902 Jan 03 01:18	24°≈58'12			1904 May 07 14:52	0°♄	
	1902 Jan 11 17:47	0°✠			1904 Jun 01 02:28	0°♊	
greatest brilliancy	1902 Jan 12 09:53	0°✠18'34	-4.7m	morning set	1904 Jun 01 18:18	0°♊48'32	
retrograde	1902 Jan 25 03:03	3°✠21'28		asc. node	1904 Jun 19 20:27	22°♊59'33	
	1902 Feb 06 22:55	30°♋≈			1904 Jun 25 13:29	0°☿	
evening set	1902 Feb 11 05:35	27°≈38'04		max. Earth dist.	1904 Jul 06 19:07	13°☿48'08	1.73549 AU
min. Earth dist.	1902 Feb 14 03:15	25°≈51'27	0.27319 AU				
inferior conj	1902 Feb 14 22:57	25°≈20'45	8°23'12	superior conj	1904 Jul 08 08:13	15°☿42'09	0°42'04
minimum elong	1902 Feb 14 16:24	25°≈30'57	8°22'32	minimum elong	1904 Jul 08 00:42	15°☿19'03	0°41'45
morning rise	1902 Feb 18 03:27	23°≈23'01			1904 Jul 19 23:01	0°♌	
direct	1902 Mar 07 12:46	17°≈31'27		evening rise	1904 Aug 13 03:44	29°♌50'17	
greatest brilliancy	1902 Mar 18 06:29	19°≈39'14	-4.6m		1904 Aug 13 06:53	0°♍	
	1902 Apr 04 19:31	0°✠			1904 Sep 06 13:50	0°♎	
desc. node	1902 Apr 24 14:37	17°✠17'19			1904 Sep 30 21:04	0°♏	
morning max el	1902 Apr 26 00:16	18°✠38'46	46°11'27	desc. node	1904 Oct 09 09:50	10°♏31'10	
	1902 May 07 07:05	0°Υ			1904 Oct 25 05:37	0°♐	
	1902 Jun 03 23:59	0°♄			1904 Nov 18 16:40	0°☿	
	1902 Jun 30 06:28	0°♊			1904 Dec 13 09:08	0°≈	
	1902 Jul 25 18:59	0°☿			1905 Jan 07 14:38	0°✠	
asc. node	1902 Aug 15 18:02	25°☿08'12		asc. node	1905 Jan 30 13:00	26°✠01'35	
	1902 Aug 19 18:28	0°♌			1905 Feb 03 04:49	0°Υ	
	1902 Sep 13 07:18	0°♍		evening max el	1905 Feb 14 23:30	12°Υ18'17	46°41'12
	1902 Oct 07 12:06	0°♎			1905 Mar 06 05:26	0°♄	
morning set	1902 Oct 20 14:43	16°♎22'06		greatest brilliancy	1905 Mar 22 18:20	10°♄59'17	-4.6m
	1902 Oct 31 11:51	0°♏		retrograde	1905 Apr 06 03:54	14°♄42'24	
	1902 Nov 24 09:06	0°♐		evening set	1905 Apr 22 11:32	9°♄29'25	
max. Earth dist.	1902 Nov 28 07:02	4°♐55'20	1.71177 AU	inferior conj	1905 Apr 27 09:50	6°♄27'15	5°27'24
				minimum elong	1905 Apr 27 19:24	6°♄12'11	5°25'10
superior conj	1902 Nov 29 02:36	5°♐56'52	0°14'48	min. Earth dist.	1905 Apr 27 09:19	6°♄28'04	0.28573 AU
minimum elong	1902 Nov 29 06:24	6°♐08'49	0°14'37	morning rise	1905 May 03 03:40	2°♄58'13	
behind sun begin	1902 Nov 28 18:44	5°♐32'08			1905 May 09 10:37	30°♋Υ	
behind sun end	1902 Nov 29 18:04	6°♐45'30		direct	1905 May 18 18:04	28°Υ16'16	
desc. node	1902 Dec 05 07:33	13°♐45'16		desc. node	1905 May 22 02:21	28°Υ29'11	

	1905 May 28 11:18	0°♄			1907 Dec 03 07:26	0°♅	
greatest brilliancy	1905 May 31 00:48	0°♄58'07	-4.5m		1907 Dec 27 08:53	0°♁	
morning max el	1905 Jul 06 13:14	28°♄07'48	45°43'42		1908 Jan 20 13:50	0°♁	
	1905 Jul 08 12:00	0°♂			1908 Feb 14 02:55	0°♂	
	1905 Aug 06 08:17	0°♄		asc. node	1908 Feb 28 01:00	16°♂41'30	
	1905 Sep 01 20:16	0°♂			1908 Mar 10 08:06	0°♄	
asc. node	1905 Sep 12 05:59	12°♂11'41			1908 Apr 05 20:57	0°♂	
	1905 Sep 27 04:02	0°♄		evening max el	1908 Apr 26 19:04	21°♂38'32	45°37'09
	1905 Oct 21 18:32	0°♄			1908 May 05 17:44	0°♄	
	1905 Nov 14 22:40	0°♄		greatest brilliancy	1908 May 31 04:50	18°♄12'36	-4.5m
	1905 Dec 08 21:31	0°♄		retrograde	1908 Jun 14 14:51	21°♄51'17	
desc. node	1906 Jan 01 19:16	0°♅02'45		desc. node	1908 Jun 18 14:19	21°♄32'31	
	1906 Jan 01 18:23	0°♅		evening set	1908 Jun 29 22:04	17°♄22'01	
morning set	1906 Jan 03 17:06	2°♅26'51		inferior conj	1908 Jul 06 03:30	13°♄38'16	-3°-58'-33
	1906 Jan 25 15:12	0°♁		minimum elong	1908 Jul 05 19:34	13°♄50'41	3°56'30
				min. Earth dist.	1908 Jul 06 01:44	13°♄41'03	0.28999 AU
superior conj	1906 Feb 14 09:38	24°♁48'11	-1°-20'-39	morning rise	1908 Jul 11 16:54	10°♄15'58	
minimum elong	1906 Feb 14 01:48	24°♁23'39	1°20'32	direct	1908 Jul 27 18:25	5°♄20'38	
max. Earth dist.	1906 Feb 18 04:21	29°♁32'16	1.71552 AU	greatest brilliancy	1908 Aug 10 17:35	8°♄43'25	-4.5m
	1906 Feb 18 13:13	0°♁			1908 Sep 08 22:32	0°♂	
	1906 Mar 14 13:42	0°♂		morning max el	1908 Sep 14 21:28	5°♂38'14	46°02'11
evening rise	1906 Mar 26 15:14	14°♂59'51			1908 Oct 08 06:13	0°♄	
	1906 Apr 07 17:59	0°♄		asc. node	1908 Oct 09 17:52	1°♄38'20	
asc. node	1906 Apr 24 22:53	21°♄11'35			1908 Nov 03 11:29	0°♄	
	1906 May 02 03:13	0°♂			1908 Nov 28 10:43	0°♄	
	1906 May 26 18:17	0°♄			1908 Dec 22 20:01	0°♄	
	1906 Jun 20 16:35	0°♂			1909 Jan 15 23:20	0°♅	
	1906 Jul 16 01:18	0°♄		desc. node	1909 Jan 29 07:07	16°♅36'54	
	1906 Aug 11 03:21	0°♄			1909 Feb 09 00:41	0°♁	
desc. node	1906 Aug 14 11:54	3°♄46'13			1909 Mar 05 02:11	0°♁	
	1906 Sep 07 15:32	0°♄		morning set	1909 Mar 21 05:03	20°♁03'20	
evening max el	1906 Sep 20 22:07	13°♄25'15	46°29'13		1909 Mar 29 05:12	0°♂	
	1906 Oct 09 10:31	0°♄			1909 Apr 22 10:35	0°♄	
greatest brilliancy	1906 Oct 29 19:55	12°♄35'17	-4.6m				
retrograde	1906 Nov 09 15:36	14°♄44'34		superior conj	1909 Apr 28 17:50	7°♄47'01	0°-52'-30
evening set	1906 Nov 24 05:05	10°♄36'22		minimum elong	1909 Apr 29 03:18	8°♄16'16	0°52'10
inferior conj	1906 Nov 30 05:18	7°♄06'06	-1°-24'-12	max. Earth dist.	1909 May 01 06:37	10°♄54'32	1.73066 AU
minimum elong	1906 Nov 30 08:31	7°♄01'12	1°23'10		1909 May 16 18:31	0°♂	
min. Earth dist.	1906 Nov 30 11:40	6°♄56'24	0.26506 AU	asc. node	1909 May 22 10:38	6°♂58'41	
asc. node	1906 Dec 05 15:23	3°♄54'30		evening rise	1909 Jun 05 02:43	23°♂46'09	
morning rise	1906 Dec 06 11:35	3°♄27'16			1909 Jun 10 04:37	0°♄	
	1906 Dec 15 11:43	30°♄			1909 Jul 04 16:32	0°♂	
direct	1906 Dec 20 16:26	29°♄26'49			1909 Jul 29 06:42	0°♄	
	1906 Dec 25 23:48	0°♄			1909 Aug 23 00:34	0°♄	
greatest brilliancy	1907 Jan 02 03:54	2°♄20'36	-4.7m	desc. node	1909 Sep 10 23:59	22°♄48'45	
	1907 Feb 06 16:28	0°♅			1909 Sep 17 00:21	0°♄	
morning max el	1907 Feb 09 04:25	2°♅29'55	46°52'59		1909 Oct 12 09:28	0°♄	
	1907 Mar 06 20:44	0°♁			1909 Nov 07 12:11	0°♅	
desc. node	1907 Mar 27 04:58	23°♁11'51		evening max el	1909 Dec 02 17:37	27°♅10'23	47°18'32
	1907 Apr 02 01:28	0°♁			1909 Dec 05 13:01	0°♁	
	1907 Apr 27 12:29	0°♂		asc. node	1910 Jan 02 03:13	23°♁32'04	
	1907 May 22 15:18	0°♄		greatest brilliancy	1910 Jan 09 23:58	27°♁52'48	-4.7m
	1907 Jun 16 13:14	0°♂			1910 Jan 15 20:55	0°♁	
	1907 Jul 11 06:42	0°♄		retrograde	1910 Jan 22 17:24	0°♁55'51	
asc. node	1907 Jul 18 08:14	8°♄37'02			1910 Jan 29 09:12	30°♄	
	1907 Aug 04 19:08	0°♂		evening set	1910 Feb 08 15:25	25°♁18'06	
morning set	1907 Aug 09 10:37	5°♂42'56		min. Earth dist.	1910 Feb 11 16:00	23°♁27'24	0.27265 AU
	1907 Aug 29 02:30	0°♄		inferior conj	1910 Feb 12 12:22	22°♁55'45	8°15'30
max. Earth dist.	1907 Sep 11 13:10	16°♄41'20	1.72478 AU	minimum elong	1910 Feb 12 05:08	23°♁07'00	8°14'41
				morning rise	1910 Feb 15 19:06	20°♁55'02	
superior conj	1907 Sep 15 01:36	21°♄03'53	1°24'35	direct	1910 Mar 05 01:55	15°♁07'12	
minimum elong	1907 Sep 15 03:10	21°♄08'46	1°24'35	greatest brilliancy	1910 Mar 15 19:14	17°♁15'17	-4.6m
	1907 Sep 22 05:52	0°♄			1910 Apr 05 09:53	0°♁	
	1907 Oct 16 06:55	0°♄		morning max el	1910 Apr 23 15:02	16°♁21'07	46°13'03
evening rise	1907 Oct 23 02:43	8°♄31'31		desc. node	1910 Apr 23 16:38	16°♁25'01	
desc. node	1907 Nov 06 21:47	27°♄00'48			1910 May 07 02:27	0°♂	
	1907 Nov 09 07:08	0°♄			1910 Jun 03 14:58	0°♄	

	1910 Jun 29 19:32	0°♊	evening max el	1913 Feb 12 14:26	10°♑00'33	46°43'26
	1910 Jul 25 07:01	0°♋		1913 Mar 06 17:09	0°♌	
asc. node	1910 Aug 14 20:07	24°♋39'33	greatest brilliancy	1913 Mar 20 13:00	8°♌49'47	-4.6m
	1910 Aug 19 05:56	0°♌	retrograde	1913 Apr 03 19:46	12°♌29'54	
	1910 Sep 12 18:29	0°♍	evening set	1913 Apr 20 06:21	7°♌13'20	
	1910 Oct 06 23:11	0°♎	inferior conj	1913 Apr 25 01:48	4°♌15'05	5°43'14
morning set	1910 Oct 18 05:20	14°♎03'15	minimum elong	1913 Apr 25 11:30	3°♌59'45	5°41'04
	1910 Oct 30 22:53	0°♏	min. Earth dist.	1913 Apr 25 01:06	4°♌16'11	0.28547 AU
	1910 Nov 23 20:09	0°♐	morning rise	1913 Apr 30 17:05	0°♌49'19	
max. Earth dist.	1910 Nov 25 17:17	2°♐21'52	1.71197 AU		1913 May 02 05:12	30°♌♑
			direct	1913 May 16 09:38	26°♑04'44	
superior conj	1910 Nov 26 13:53	3°♐26'39	0°18'36	desc. node	1913 May 21 04:21	26°♑30'45
minimum elong	1910 Nov 26 18:36	3°♐41'27	0°18'21	greatest brilliancy	1913 May 28 14:01	28°♑43'55
desc. node	1910 Dec 04 09:32	13°♐16'40			1913 May 31 09:45	0°♌
	1910 Dec 17 16:38	0°♑	morning max el	1913 Jul 04 04:00	25°♌55'03	45°43'51
evening rise	1911 Jan 06 22:16	25°♑26'15		1913 Jul 08 09:16	0°♊	
	1911 Jan 10 13:28	0°♒		1913 Aug 05 23:33	0°♋	
	1911 Feb 03 12:03	0°♈		1913 Sep 01 09:19	0°♌	
	1911 Feb 27 14:29	0°♑		asc. node	1913 Sep 11 08:06	11°♌40'54
	1911 Mar 23 23:35	0°♌			1913 Sep 26 16:04	0°♍
asc. node	1911 Mar 27 13:00	4°♌20'25			1913 Oct 21 06:02	0°♎
	1911 Apr 17 18:56	0°♊			1913 Nov 14 09:54	0°♏
	1911 May 13 05:42	0°♋			1913 Dec 08 08:38	0°♐
	1911 Jun 08 18:48	0°♌	desc. node	1913 Dec 31 21:20	29°♐34'33	
evening max el	1911 Jul 07 16:02	29°♌52'46	45°29'03	morning set	1914 Jan 01 02:58	29°♐52'16
	1911 Jul 07 19:04	0°♍			1914 Jan 01 05:25	0°♑
desc. node	1911 Jul 17 02:09	8°♍30'28			1914 Jan 25 02:09	0°♒
greatest brilliancy	1911 Aug 13 14:02	27°♍02'57	-4.5m			
retrograde	1911 Aug 25 07:54	29°♍28'40		superior conj	1914 Feb 11 20:36	22°♒18'05
evening set	1911 Sep 12 08:39	23°♍25'48		minimum elong	1914 Feb 11 11:59	21°♒51'05
inferior conj	1911 Sep 15 11:56	21°♍30'52	-8°-42'-19	max. Earth dist.	1914 Feb 15 13:03	26°♒55'08
minimum elong	1911 Sep 15 13:36	21°♍28'18	8°42'18		1914 Feb 18 00:05	0°♈
min. Earth dist.	1911 Sep 16 04:13	21°♍05'44	0.28289 AU		1914 Mar 14 00:30	0°♑
morning rise	1911 Sep 18 18:24	19°♍30'56		evening rise	1914 Mar 24 04:15	12°♑37'44
direct	1911 Oct 06 20:24	13°♍22'50			1914 Apr 07 04:48	0°♌
greatest brilliancy	1911 Oct 21 06:18	17°♍07'35	-4.6m	asc. node	1914 Apr 24 00:51	20°♌44'08
asc. node	1911 Nov 07 05:30	28°♍29'40			1914 May 01 14:11	0°♊
	1911 Nov 09 00:55	0°♎			1914 May 26 05:33	0°♋
morning max el	1911 Nov 26 08:33	16°♎15'13	46°45'05		1914 Jun 20 04:26	0°♌
	1911 Dec 09 09:23	0°♏			1914 Jul 15 14:10	0°♍
	1912 Jan 04 18:38	0°♐			1914 Aug 10 18:11	0°♎
	1912 Jan 29 22:45	0°♑		desc. node	1914 Aug 13 14:04	3°♎09'51
	1912 Feb 23 15:29	0°♒			1914 Sep 07 10:58	0°♏
desc. node	1912 Feb 26 19:05	3°♒50'47		evening max el	1914 Sep 18 10:01	11°♏00'16
	1912 Mar 19 03:48	0°♈			1914 Oct 10 01:49	0°♐
	1912 Apr 12 14:50	0°♑		greatest brilliancy	1914 Oct 27 09:39	10°♐09'47
	1912 May 07 01:57	0°♌		retrograde	1914 Nov 07 03:11	12°♐17'20
morning set	1912 May 30 12:01	28°♌42'29		evening set	1914 Nov 21 18:57	8°♐06'34
	1912 May 31 13:19	0°♊		inferior conj	1914 Nov 27 17:35	4°♐38'50
asc. node	1912 Jun 18 22:28	22°♊32'44		minimum elong	1914 Nov 27 21:41	4°♐32'36
	1912 Jun 25 00:12	0°♋		min. Earth dist.	1914 Nov 28 01:49	4°♐26'18
max. Earth dist.	1912 Jul 04 16:10	11°♋52'23	1.73558 AU	morning rise	1914 Dec 03 23:55	0°♐59'47
				asc. node	1914 Dec 04 17:23	0°♐37'01
superior conj	1912 Jul 06 02:31	13°♋37'58	0°39'18		1914 Dec 05 23:20	30°♏♌
minimum elong	1912 Jul 05 19:22	13°♋15'58	0°39'00	direct	1914 Dec 18 04:29	26°♌58'33
	1912 Jul 19 09:44	0°♌			1914 Dec 30 23:15	0°♐
evening rise	1912 Aug 10 21:56	27°♌44'54		greatest brilliancy	1914 Dec 30 20:11	29°♌56'35
	1912 Aug 12 17:43	0°♍		morning max el	1915 Feb 06 17:25	0°♑03'41
	1912 Sep 06 00:53	0°♎			1915 Feb 06 15:57	0°♑
	1912 Sep 30 08:26	0°♏			1915 Mar 06 13:15	0°♒
desc. node	1912 Oct 08 11:53	10°♏01'59		desc. node	1915 Mar 26 06:58	22°♒36'09
	1912 Oct 24 17:25	0°♐			1915 Apr 01 15:19	0°♈
	1912 Nov 18 05:03	0°♑			1915 Apr 27 00:56	0°♑
	1912 Dec 12 22:23	0°♒			1915 May 22 02:56	0°♌
	1913 Jan 07 05:27	0°♈			1915 Jun 16 00:21	0°♊
asc. node	1913 Jan 29 15:09	25°♈19'07			1915 Jul 10 17:31	0°♋
	1913 Feb 02 23:22	0°♑		asc. node	1915 Jul 17 10:21	8°♋10'42

	1915 Aug 04 05:47	0°♌		inferior conj	1918 Feb 10 01:45	20°≈31'25	8°06'58
morning set	1915 Aug 07 04:14	3°♌36'39		minimum elong	1918 Feb 09 17:53	20°≈43'38	8°05'58
	1915 Aug 28 13:06	0°♍		morning rise	1918 Feb 13 10:54	18°≈27'23	
max. Earth dist.	1915 Sep 09 07:40	14°♍36'38	1.72530 AU	direct	1918 Mar 02 15:24	12°≈43'56	
				greatest brilliancy	1918 Mar 13 06:57	14°≈51'00	-4.6m
superior conj	1915 Sep 12 18:19	18°♍53'31	1°24'46		1918 Apr 05 20:11	0°♋	
minimum elong	1915 Sep 12 19:09	18°♍56'06	1°24'47	morning max el	1918 Apr 21 05:42	14°♋04'03	46°14'31
	1915 Sep 21 16:31	0°♎		desc. node	1918 Apr 22 18:39	15°♋34'36	
	1915 Oct 15 17:42	0°♏			1918 May 06 20:58	0°♐	
evening rise	1915 Oct 20 16:19	6°♏10'17			1918 Jun 03 05:27	0°♑	
desc. node	1915 Nov 05 23:44	26°♏32'39			1918 Jun 29 08:12	0°♒	
	1915 Nov 08 18:06	0°♑			1918 Jul 24 18:43	0°♓	
	1915 Dec 02 18:38	0°♒		asc. node	1918 Aug 13 22:14	24°♓11'59	
	1915 Dec 26 20:21	0°≈			1918 Aug 18 17:06	0°♌	
	1916 Jan 20 01:40	0°♋			1918 Sep 12 05:23	0°♍	
	1916 Feb 13 15:24	0°♐			1918 Oct 06 10:00	0°♎	
asc. node	1916 Feb 27 03:04	16°♐08'58		morning set	1918 Oct 15 19:58	11°♎45'14	
	1916 Mar 09 21:49	0°♑			1918 Oct 30 09:43	0°♏	
	1916 Apr 05 13:31	0°♒		max. Earth dist.	1918 Nov 23 00:18	29°♏38'51	1.71221 AU
evening max el	1916 Apr 24 10:33	19°♒27'04	45°38'52		1918 Nov 23 07:02	0°♑	
	1916 May 05 20:37	0°♓					
greatest brilliancy	1916 May 28 18:45	16°♓01'41	-4.5m	superior conj	1918 Nov 24 01:05	0°♑56'45	0°22'21
retrograde	1916 Jun 12 07:48	19°♓43'52		minimum elong	1918 Nov 24 06:39	1°♑14'14	0°22'05
desc. node	1916 Jun 17 16:20	19°♓09'34		desc. node	1918 Dec 03 11:38	12°♑48'58	
evening set	1916 Jun 27 13:14	15°♓15'47			1918 Dec 17 03:34	0°♒	
inferior conj	1916 Jul 03 19:56	11°♓30'21	-3°-40'-56	evening rise	1919 Jan 04 08:11	22°♒52'06	
minimum elong	1916 Jul 03 12:27	11°♓42'03	3°38'57		1919 Jan 10 00:28	0°≈	
min. Earth dist.	1916 Jul 03 17:53	11°♓33'35	0.28999 AU		1919 Feb 02 23:08	0°♋	
morning rise	1916 Jul 09 11:35	8°♓05'11			1919 Feb 27 01:43	0°♐	
direct	1916 Jul 25 10:48	3°♓12'36			1919 Mar 23 11:08	0°♑	
greatest brilliancy	1916 Aug 08 10:09	6°♓35'52	-4.5m	asc. node	1919 Mar 26 14:57	3°♑51'04	
	1916 Sep 08 22:26	0°♌			1919 Apr 17 07:03	0°♒	
morning max el	1916 Sep 12 13:57	3°♌28'56	46°00'52		1919 May 12 18:59	0°♓	
	1916 Oct 07 22:11	0°♍			1919 Jun 08 10:35	0°♌	
asc. node	1916 Oct 08 19:48	0°♍59'55		evening max el	1919 Jul 05 07:08	27°♌40'13	45°28'05
	1916 Nov 03 00:59	0°♎			1919 Jul 07 18:17	0°♍	
	1916 Nov 27 23:07	0°♏		desc. node	1919 Jul 16 04:21	7°♍34'01	
	1916 Dec 22 07:50	0°♑		greatest brilliancy	1919 Aug 11 03:07	24°♍47'49	-4.5m
	1917 Jan 15 10:46	0°♒		retrograde	1919 Aug 22 21:51	27°♍14'23	
desc. node	1917 Jan 28 09:16	16°♒08'26		evening set	1919 Sep 09 23:02	21°♍11'59	
	1917 Feb 08 11:51	0°≈		inferior conj	1919 Sep 13 02:49	19°♍16'02	-8°-43'-6
	1917 Mar 04 13:09	0°♋		minimum elong	1919 Sep 13 03:38	19°♍14'47	8°43'07
morning set	1917 Mar 18 17:55	17°♋40'17		min. Earth dist.	1919 Sep 13 18:20	18°♍52'02	0.28342 AU
	1917 Mar 28 16:01	0°♐		morning rise	1919 Sep 16 08:04	17°♍17'36	
	1917 Apr 21 21:17	0°♑		direct	1919 Oct 04 11:46	11°♍07'25	
				greatest brilliancy	1919 Oct 18 20:50	14°♍50'15	-4.6m
superior conj	1917 Apr 26 09:27	5°♑34'08	0°-55'-11	asc. node	1919 Nov 06 07:35	0°♍24'33	
minimum elong	1917 Apr 26 19:11	6°♑04'11	0°54'50		1919 Nov 09 08:05	0°♎	
max. Earth dist.	1917 Apr 29 00:23	8°♑48'24	1.73022 AU	morning max el	1919 Nov 23 22:17	13°♎52'46	46°43'42
	1917 May 16 05:08	0°♒			1919 Dec 09 03:29	0°♏	
asc. node	1917 May 21 12:42	6°♒32'20			1920 Jan 04 09:20	0°♑	
evening rise	1917 Jun 02 20:42	21°♒41'30			1920 Jan 29 11:55	0°♒	
	1917 Jun 09 15:15	0°♓			1920 Feb 23 03:47	0°≈	
	1917 Jul 04 03:20	0°♌		desc. node	1920 Feb 25 21:06	3°≈19'40	
	1917 Jul 28 17:52	0°♍			1920 Mar 18 15:31	0°♋	
	1917 Aug 22 12:19	0°♎			1920 Apr 12 02:07	0°♐	
desc. node	1917 Sep 10 01:58	22°♎17'38			1920 May 06 12:55	0°♑	
	1917 Sep 16 13:00	0°♏		morning set	1920 May 28 05:32	26°♑36'01	
	1917 Oct 11 23:33	0°♑			1920 May 31 00:05	0°♒	
	1917 Nov 07 05:01	0°♒		asc. node	1920 Jun 18 00:35	22°♒06'22	
evening max el	1917 Nov 30 08:48	24°♒49'50	47°18'14		1920 Jun 24 10:53	0°♓	
	1917 Dec 05 13:14	0°≈		max. Earth dist.	1920 Jul 02 11:41	9°♓52'06	1.73567 AU
asc. node	1918 Jan 01 05:22	22°≈04'18					
greatest brilliancy	1918 Jan 07 14:22	25°≈28'22	-4.7m	superior conj	1920 Jul 03 20:51	11°♓33'59	0°36'30
retrograde	1918 Jan 20 07:51	28°≈30'51		minimum elong	1920 Jul 03 14:05	11°♓13'11	0°36'11
evening set	1918 Feb 06 01:10	22°≈59'05			1920 Jul 18 20:25	0°♌	
min. Earth dist.	1918 Feb 09 04:34	21°≈04'17	0.27208 AU	evening rise	1920 Aug 08 16:18	25°♌40'13	

	1920 Aug 12 04:30	0° \mathfrak{M}		morning max el	1923 Feb 04 07:26	27° \mathfrak{X} 39'44	46°54'38
	1920 Sep 05 11:53	0° \mathfrak{L}			1923 Feb 06 14:34	0° \mathfrak{Z}	
	1920 Sep 29 19:45	0° \mathfrak{M}			1923 Mar 06 05:38	0° \approx	
desc. node	1920 Oct 07 13:54	9° \mathfrak{M} 32'55		desc. node	1923 Mar 25 08:57	22° \approx 00'00	
	1920 Oct 24 05:11	0° \mathfrak{X}			1923 Apr 01 05:16	0° \mathfrak{K}	
	1920 Nov 17 17:28	0° \mathfrak{Z}			1923 Apr 26 13:36	0° \mathfrak{Y}	
	1920 Dec 12 11:46	0° \approx			1923 May 21 14:50	0° \mathfrak{B}	
	1921 Jan 06 20:32	0° \mathfrak{K}			1923 Jun 15 11:46	0° \mathfrak{II}	
asc. node	1921 Jan 28 17:12	24° \mathfrak{K} 35'26			1923 Jul 10 04:36	0° \mathfrak{G}	
	1921 Feb 02 18:35	0° \mathfrak{Y}		asc. node	1923 Jul 16 12:24	7° \mathfrak{G} 43'16	
evening max el	1921 Feb 10 04:28	7° \mathfrak{Y} 39'54	46°45'41		1923 Aug 03 16:42	0° \mathfrak{O}	
	1921 Mar 07 09:18	0° \mathfrak{B}		morning set	1923 Aug 04 21:44	1° \mathfrak{O} 29'15	
greatest brilliancy	1921 Mar 18 07:00	6° \mathfrak{B} 38'26	-4.6m		1923 Aug 27 23:59	0° \mathfrak{M}	
retrograde	1921 Apr 01 11:19	10° \mathfrak{B} 16'29		max. Earth dist.	1923 Sep 07 02:22	12° \mathfrak{M} 31'39	1.72581 AU
evening set	1921 Apr 18 01:01	4° \mathfrak{B} 56'05					
inferior conj	1921 Apr 22 17:37	2° \mathfrak{B} 02'01	5°58'43	superior conj	1923 Sep 10 11:01	16° \mathfrak{M} 42'13	1°24'51
minimum elong	1921 Apr 23 03:25	1° \mathfrak{B} 46'31	5°56'35	minimum elong	1923 Sep 10 11:07	16° \mathfrak{M} 42'32	1°24'51
min. Earth dist.	1921 Apr 22 16:56	2° \mathfrak{B} 03'06	0.28518 AU		1923 Sep 21 03:28	0° \mathfrak{L}	
	1921 Apr 25 23:46	30° \mathfrak{R} \mathfrak{Y}			1923 Oct 15 04:49	0° \mathfrak{M}	
morning rise	1921 Apr 28 06:09	28° \mathfrak{Y} 39'49		evening rise	1923 Oct 18 06:04	3° \mathfrak{M} 48'39	
direct	1921 May 14 00:27	23° \mathfrak{Y} 52'08		desc. node	1923 Nov 05 01:52	26° \mathfrak{M} 04'09	
desc. node	1921 May 20 06:28	24° \mathfrak{Y} 35'56			1923 Nov 08 05:23	0° \mathfrak{X}	
greatest brilliancy	1921 May 26 03:52	26° \mathfrak{Y} 29'45	-4.5m		1923 Dec 02 06:06	0° \mathfrak{Z}	
	1921 Jun 02 04:21	0° \mathfrak{B}			1923 Dec 26 08:03	0° \approx	
morning max el	1921 Jul 01 18:31	23° \mathfrak{B} 41'12	45°44'07		1924 Jan 19 13:45	0° \mathfrak{K}	
	1921 Jul 08 05:57	0° \mathfrak{II}			1924 Feb 13 04:10	0° \mathfrak{Y}	
	1921 Aug 05 14:42	0° \mathfrak{G}			1924 Feb 26 05:00	15° \mathfrak{Y} 35'11	
	1921 Aug 31 22:24	0° \mathfrak{O}		asc. node	1924 Mar 09 11:55	0° \mathfrak{B}	
asc. node	1921 Sep 10 09:59	11° \mathfrak{O} 09'13			1924 Apr 05 06:46	0° \mathfrak{II}	
	1921 Sep 26 04:08	0° \mathfrak{M}		evening max el	1924 Apr 22 02:58	17° \mathfrak{II} 16'50	45°40'30
	1921 Oct 20 17:35	0° \mathfrak{L}			1924 May 06 01:49	0° \mathfrak{G}	
	1921 Nov 13 21:11	0° \mathfrak{M}		greatest brilliancy	1924 May 26 09:38	13° \mathfrak{G} 50'48	-4.5m
	1921 Dec 07 19:47	0° \mathfrak{X}		retrograde	1924 Jun 10 00:50	17° \mathfrak{G} 35'00	
morning set	1921 Dec 29 12:59	27° \mathfrak{X} 17'55		desc. node	1924 Jun 16 18:28	16° \mathfrak{G} 40'35	
desc. node	1921 Dec 30 23:27	29° \mathfrak{X} 06'20		evening set	1924 Jun 25 04:36	13° \mathfrak{G} 08'11	
	1921 Dec 31 16:31	0° \mathfrak{Z}		inferior conj	1924 Jul 01 12:20	9° \mathfrak{G} 21'06	-3°-22'-53
	1922 Jan 24 13:13	0° \approx		minimum elong	1924 Jul 01 05:21	9° \mathfrak{G} 32'00	3°21'00
				min. Earth dist.	1924 Jul 01 09:53	9° \mathfrak{G} 24'56	0.28996 AU
superior conj	1922 Feb 09 07:16	19° \approx 46'32	-1°-17'-36	morning rise	1924 Jul 07 06:08	5° \mathfrak{G} 53'08	
minimum elong	1922 Feb 08 21:55	19° \approx 17'11	1°17'24	direct	1924 Jul 23 03:34	1° \mathfrak{G} 03'27	
max. Earth dist.	1922 Feb 12 17:50	24° \approx 05'15	1.71460 AU	greatest brilliancy	1924 Aug 06 01:34	4° \mathfrak{G} 25'49	-4.5m
	1922 Feb 17 11:06	0° \mathfrak{K}			1924 Sep 08 21:43	0° \mathfrak{O}	
	1922 Mar 13 11:30	0° \mathfrak{Y}		morning max el	1924 Sep 10 06:32	1° \mathfrak{O} 19'00	45°59'30
evening rise	1922 Mar 21 16:43	10° \mathfrak{Y} 13'12		asc. node	1924 Oct 07 21:57	0° \mathfrak{M} 21'22	
	1922 Apr 06 15:50	0° \mathfrak{B}			1924 Oct 07 14:16	0° \mathfrak{M}	
asc. node	1922 Apr 23 02:53	20° \mathfrak{B} 16'16			1924 Nov 02 14:43	0° \mathfrak{L}	
	1922 May 01 01:21	0° \mathfrak{II}			1924 Nov 27 11:48	0° \mathfrak{M}	
	1922 May 25 17:04	0° \mathfrak{G}			1924 Dec 21 19:56	0° \mathfrak{X}	
	1922 Jun 19 16:32	0° \mathfrak{O}			1925 Jan 14 22:28	0° \mathfrak{Z}	
	1922 Jul 15 03:22	0° \mathfrak{M}		desc. node	1925 Jan 27 11:16	15° \mathfrak{Z} 38'36	
	1922 Aug 10 09:30	0° \mathfrak{L}			1925 Feb 07 23:16	0° \approx	
desc. node	1922 Aug 12 16:03	2° \mathfrak{L} 31'56			1925 Mar 04 00:21	0° \mathfrak{K}	
	1922 Sep 07 07:15	0° \mathfrak{M}		morning set	1925 Mar 16 07:05	15° \mathfrak{K} 17'23	
evening max el	1922 Sep 15 22:28	8° \mathfrak{M} 36'18	46°24'22		1925 Mar 28 03:04	0° \mathfrak{Y}	
	1922 Oct 10 22:33	0° \mathfrak{X}			1925 Apr 21 08:14	0° \mathfrak{B}	
greatest brilliancy	1922 Oct 24 22:35	7° \mathfrak{X} 43'19	-4.6m				
retrograde	1922 Nov 04 15:21	9° \mathfrak{X} 50'19		superior conj	1925 Apr 24 01:11	3° \mathfrak{B} 20'43	0°-57'-46
evening set	1922 Nov 19 09:05	5° \mathfrak{X} 36'32		minimum elong	1925 Apr 24 11:06	3° \mathfrak{B} 51'19	0°57'25
inferior conj	1922 Nov 25 05:57	2° \mathfrak{X} 11'35	-2°-11'-52	max. Earth dist.	1925 Apr 26 20:05	6° \mathfrak{B} 47'19	1.72981 AU
minimum elong	1922 Nov 25 10:54	2° \mathfrak{X} 04'04	2°10'20		1925 May 15 16:04	0° \mathfrak{II}	
min. Earth dist.	1922 Nov 25 15:45	1° \mathfrak{X} 56'42	0.26571 AU	asc. node	1925 May 20 14:51	6° \mathfrak{II} 05'18	
	1922 Nov 28 21:47	30° \mathfrak{R} \mathfrak{M}		evening rise	1925 May 31 14:40	19° \mathfrak{II} 35'44	
morning rise	1922 Dec 01 12:10	28° \mathfrak{M} 32'54			1925 Jun 09 02:14	0° \mathfrak{G}	
asc. node	1922 Dec 03 19:28	27° \mathfrak{M} 23'41			1925 Jul 03 14:31	0° \mathfrak{O}	
direct	1922 Dec 15 17:08	24° \mathfrak{M} 30'20			1925 Jul 28 05:25	0° \mathfrak{M}	
greatest brilliancy	1922 Dec 28 12:08	27° \mathfrak{M} 32'22	-4.7m		1925 Aug 22 00:28	0° \mathfrak{L}	
	1923 Jan 02 07:27	0° \mathfrak{X}		desc. node	1925 Sep 09 03:59	21° \mathfrak{L} 45'30	

	1925 Sep 16 02:05	0°♌		morning set	1928 May 25 23:20	24°♄29'55	
	1925 Oct 11 14:10	0°♊			1928 May 30 11:00	0°♈	
	1925 Nov 06 22:34	0°♈		asc. node	1928 Jun 17 02:37	21°♈39'20	
evening max el	1925 Nov 28 00:19	22°♈28'58	47°17'44		1928 Jun 23 21:42	0°♄	
	1925 Dec 05 15:09	0°♊		max. Earth dist.	1928 Jun 30 07:54	7°♄53'34	1.73577 AU
asc. node	1925 Dec 31 07:26	20°♊32'10					
greatest brilliancy	1926 Jan 05 05:55	23°♊04'17	-4.7m	superior conj	1928 Jul 01 15:31	9°♄30'42	0°33'39
retrograde	1926 Jan 17 22:10	26°♊04'36		minimum elong	1928 Jul 01 09:10	9°♄11'10	0°33'22
evening set	1926 Feb 03 10:55	20°♊39'22			1928 Jul 18 07:16	0°♌	
min. Earth dist.	1926 Feb 06 17:30	18°♊39'48	0.27146 AU	evening rise	1928 Aug 06 11:00	23°♌36'12	
inferior conj	1926 Feb 07 15:08	18°♊06'12	7°57'31		1928 Aug 11 15:29	0°♍	
minimum elong	1926 Feb 07 06:43	18°♊19'17	7°56'19		1928 Sep 04 23:05	0°♎	
morning rise	1926 Feb 11 02:53	15°♊58'24			1928 Sep 29 07:18	0°♌	
direct	1926 Feb 28 04:47	10°♊20'01		desc. node	1928 Oct 06 16:01	9°♌03'29	
greatest brilliancy	1926 Mar 10 18:27	12°♊25'32	-4.6m		1928 Oct 23 17:12	0°♊	
	1926 Apr 06 03:59	0°♋			1928 Nov 17 06:09	0°♈	
morning max el	1926 Apr 18 19:38	11°♋44'30	46°16'02		1928 Dec 12 01:25	0°♊	
desc. node	1926 Apr 21 20:48	14°♋44'52			1929 Jan 06 12:01	0°♋	
	1926 May 06 15:13	0°♍		asc. node	1929 Jan 27 19:10	23°♋50'25	
	1926 Jun 02 19:59	0°♄			1929 Feb 02 14:34	0°♍	
	1926 Jun 28 21:04	0°♈		evening max el	1929 Feb 07 18:12	5°♍17'47	46°47'55
	1926 Jul 24 06:42	0°♄			1929 Mar 08 07:29	0°♄	
asc. node	1926 Aug 13 00:11	23°♄42'53		greatest brilliancy	1929 Mar 16 00:04	4°♄25'09	-4.6m
	1926 Aug 18 04:34	0°♌		retrograde	1929 Mar 30 03:03	8°♄02'37	
	1926 Sep 11 16:37	0°♍		evening set	1929 Apr 15 19:42	2°♄38'00	
	1926 Oct 05 21:07	0°♎		inferior conj	1929 Apr 20 09:25	29°♍48'24	6°13'40
morning set	1926 Oct 13 10:37	9°♎26'21		minimum elong	1929 Apr 20 19:16	29°♍32'51	6°11'37
	1926 Oct 29 20:50	0°♌			1929 Apr 20 02:05	30°♌♍	
max. Earth dist.	1926 Nov 20 05:27	26°♌49'08	1.71249 AU	min. Earth dist.	1929 Apr 20 08:46	29°♍49'26	0.28489 AU
				morning rise	1929 Apr 25 19:06	26°♍30'11	
superior conj	1926 Nov 21 12:27	28°♌26'31	0°26'03	direct	1929 May 11 15:01	21°♍38'50	
minimum elong	1926 Nov 21 18:49	28°♌46'32	0°25'45	desc. node	1929 May 19 08:31	22°♍44'56	
	1926 Nov 22 18:12	0°♊		greatest brilliancy	1929 May 23 18:23	24°♍16'00	-4.5m
desc. node	1926 Dec 02 13:43	12°♊20'16			1929 Jun 03 09:47	0°♄	
	1926 Dec 16 14:48	0°♈		morning max el	1929 Jun 29 09:45	21°♄28'57	45°44'39
evening rise	1927 Jan 01 18:08	20°♈17'02			1929 Jul 08 02:00	0°♈	
	1927 Jan 09 11:48	0°♊			1929 Aug 05 05:39	0°♄	
	1927 Feb 02 10:33	0°♋			1929 Aug 31 11:24	0°♌	
	1927 Feb 26 13:16	0°♍		asc. node	1929 Sep 09 12:10	10°♌38'27	
	1927 Mar 22 22:56	0°♄			1929 Sep 25 16:13	0°♍	
asc. node	1927 Mar 25 17:04	3°♄21'25			1929 Oct 20 05:12	0°♎	
	1927 Apr 16 19:25	0°♈			1929 Nov 13 08:35	0°♌	
	1927 May 12 08:33	0°♄			1929 Dec 07 07:03	0°♊	
evening max el	1927 Jun 08 02:51	0°♌		morning set	1929 Dec 26 22:52	24°♊42'47	
	1927 Jul 02 21:33	25°♌25'18	45°27'02	desc. node	1929 Dec 30 01:27	28°♊37'21	
	1927 Jul 07 18:54	0°♍			1929 Dec 31 03:44	0°♈	
desc. node	1927 Jul 15 06:17	6°♍34'58			1930 Jan 24 00:22	0°♊	
greatest brilliancy	1927 Aug 08 16:11	22°♍31'57	-4.5m				
retrograde	1927 Aug 20 11:42	24°♍59'46		superior conj	1930 Feb 06 17:39	17°♍13'48	-1°-15'-47
evening set	1927 Sep 07 13:07	18°♍58'14		minimum elong	1930 Feb 06 07:37	16°♍42'18	1°15'34
inferior conj	1927 Sep 10 17:51	17°♍00'51	-8°-43'-2	max. Earth dist.	1930 Feb 09 22:10	21°♍13'42	1.71420 AU
minimum elong	1927 Sep 10 17:49	17°♍00'55	8°43'03		1930 Feb 16 22:11	0°♋	
min. Earth dist.	1927 Sep 11 08:56	16°♍37'28	0.28396 AU		1930 Mar 12 22:33	0°♍	
morning rise	1927 Sep 13 22:18	15°♍03'23		evening rise	1930 Mar 19 05:08	7°♍48'14	
direct	1927 Oct 02 02:50	8°♍51'24			1930 Apr 06 02:57	0°♄	
greatest brilliancy	1927 Oct 16 12:24	12°♍33'39	-4.6m	asc. node	1930 Apr 22 05:03	19°♄48'33	
asc. node	1927 Nov 05 09:42	26°♍20'22			1930 Apr 30 12:37	0°♈	
	1927 Nov 09 13:26	0°♎			1930 May 25 04:36	0°♄	
morning max el	1927 Nov 21 11:45	11°♎28'57	46°42'23		1930 Jun 19 04:39	0°♌	
	1927 Dec 08 21:26	0°♌			1930 Jul 14 16:34	0°♍	
	1928 Jan 04 00:06	0°♊			1930 Aug 10 00:54	0°♎	
	1928 Jan 29 01:13	0°♈		desc. node	1930 Aug 11 18:05	1°♎54'12	
	1928 Feb 22 16:15	0°♊			1930 Sep 07 04:05	0°♌	
desc. node	1928 Feb 24 23:04	2°♊47'45		evening max el	1930 Sep 13 11:50	6°♌15'07	46°21'51
	1928 Mar 18 03:25	0°♋			1930 Oct 12 02:45	0°♊	
	1928 Apr 11 13:35	0°♍		greatest brilliancy	1930 Oct 22 10:24	5°♊15'54	-4.6m
	1928 May 06 00:03	0°♄		retrograde	1930 Nov 02 03:50	7°♊23'16	

evening set	1930 Nov 16 23:23	3°♊06'14		superior conj	1933 Apr 21 16:20	1°♏05'56	-1°00'-17
	1930 Nov 22 07:44	30°♋♌		minimum elong	1933 Apr 22 02:21	1°♏36'53	0°59'57
inferior conj	1930 Nov 22 18:16	29°♌44'03	-2°-35'-21	max. Earth dist.	1933 Apr 24 16:17	4°♏48'14	1.72935 AU
minimum elong	1930 Nov 23 00:02	29°♌35'18	2°33'34		1933 May 15 02:47	0°♐	
min. Earth dist.	1930 Nov 23 05:18	29°♌27'19	0.26613 AU	asc. node	1933 May 19 16:48	5°♐38'20	
morning rise	1930 Nov 29 00:08	26°♌06'09		evening rise	1933 May 29 08:12	17°♐29'13	
asc. node	1930 Dec 02 21:32	24°♌14'44			1933 Jun 08 13:01	0°♑	
direct	1930 Dec 13 06:23	22°♌01'58			1933 Jul 03 01:29	0°♒	
greatest brilliancy	1930 Dec 26 03:37	25°♌07'15	-4.7m		1933 Jul 27 16:45	0°♓	
	1931 Jan 03 20:03	0°♊			1933 Aug 21 12:23	0°♑	
morning max el	1931 Feb 01 22:10	25°♊17'24	46°55'17	desc. node	1933 Sep 08 06:09	21°♑14'42	
	1931 Feb 06 12:24	0°♋			1933 Sep 15 14:54	0°♌	
	1931 Mar 05 21:46	0°♌			1933 Oct 11 04:32	0°♍	
desc. node	1931 Mar 24 11:09	21°♌24'46			1933 Nov 06 16:02	0°♎	
	1931 Mar 31 19:04	0°♏		evening max el	1933 Nov 25 15:04	20°♎07'24	47°16'58
	1931 Apr 26 02:10	0°♐			1933 Dec 05 18:00	0°♏	
	1931 May 21 02:38	0°♑		asc. node	1933 Dec 30 09:23	18°♏57'20	
	1931 Jun 14 23:04	0°♒		greatest brilliancy	1934 Jan 02 21:46	20°♏41'17	-4.7m
	1931 Jul 09 15:35	0°♓		retrograde	1934 Jan 15 11:45	23°♏38'34	
asc. node	1931 Jul 15 14:25	7°♓16'03		evening set	1934 Jan 31 20:24	18°♏20'09	
morning set	1931 Aug 02 15:40	29°♓23'39		min. Earth dist.	1934 Feb 04 06:45	16°♏15'00	0.27091 AU
	1931 Aug 03 03:29	0°♒		inferior conj	1934 Feb 05 04:23	15°♏41'22	7°46'55
	1931 Aug 27 10:42	0°♓		minimum elong	1934 Feb 04 19:27	15°♏55'15	7°45'34
max. Earth dist.	1931 Sep 04 20:54	10°♓26'49	1.72627 AU	morning rise	1934 Feb 08 18:54	13°♏29'21	
				direct	1934 Feb 25 17:42	7°♏56'15	
superior conj	1931 Sep 08 04:11	14°♓33'02	1°24'48	greatest brilliancy	1934 Mar 08 07:05	10°♏01'17	-4.6m
minimum elong	1931 Sep 08 03:33	14°♓31'04	1°24'48		1934 Apr 06 09:22	0°♏	
	1931 Sep 20 14:15	0°♑		morning max el	1934 Apr 16 08:33	9°♏22'33	46°17'29
	1931 Oct 14 15:45	0°♌		desc. node	1934 Apr 20 22:49	13°♏56'00	
evening rise	1931 Oct 15 20:13	1°♌28'53			1934 May 06 08:54	0°♐	
desc. node	1931 Nov 04 03:57	25°♌36'00			1934 Jun 02 10:11	0°♑	
	1931 Nov 07 16:32	0°♊			1934 Jun 28 09:38	0°♒	
	1931 Dec 01 17:29	0°♋			1934 Jul 23 18:22	0°♓	
	1931 Dec 25 19:44	0°♌		asc. node	1934 Aug 12 02:18	23°♓15'11	
	1932 Jan 19 01:51	0°♏			1934 Aug 17 15:45	0°♒	
	1932 Feb 12 16:58	0°♐			1934 Sep 11 03:32	0°♓	
asc. node	1932 Feb 25 07:10	15°♐02'01			1934 Oct 05 07:56	0°♑	
	1932 Mar 09 02:07	0°♑		morning set	1934 Oct 11 01:29	7°♑09'08	
	1932 Apr 05 00:19	0°♒			1934 Oct 29 07:37	0°♌	
evening max el	1932 Apr 19 19:45	15°♒07'40	45°42'14	max. Earth dist.	1934 Nov 17 11:08	24°♌02'20	1.71276 AU
	1932 May 06 09:04	0°♓					
greatest brilliancy	1932 May 24 01:40	11°♓41'42	-4.5m	superior conj	1934 Nov 19 00:19	25°♌59'08	0°29'39
retrograde	1932 Jun 07 17:35	15°♓26'13		minimum elong	1934 Nov 19 07:25	26°♌21'26	0°29'19
desc. node	1932 Jun 15 20:28	14°♓07'15			1934 Nov 22 04:59	0°♊	
evening set	1932 Jun 22 20:06	11°♓00'49		desc. node	1934 Dec 01 15:42	11°♊52'27	
inferior conj	1932 Jun 29 04:39	7°♓12'10	-3°-4'-28		1934 Dec 16 01:39	0°♋	
minimum elong	1932 Jun 28 22:13	7°♓22'13	3°02'43	evening rise	1934 Dec 30 04:30	17°♋44'34	
min. Earth dist.	1932 Jun 29 01:55	7°♓16'27	0.28987 AU		1935 Jan 08 22:43	0°♌	
morning rise	1932 Jul 05 00:27	3°♓41'24			1935 Feb 01 21:36	0°♏	
	1932 Jul 13 10:33	30°♋♌			1935 Feb 26 00:29	0°♐	
direct	1932 Jul 20 20:22	28°♌54'48			1935 Mar 22 10:29	0°♑	
	1932 Jul 28 12:35	0°♓		asc. node	1935 Mar 24 19:09	2°♑52'26	
greatest brilliancy	1932 Aug 03 15:46	2°♓14'45	-4.5m		1935 Apr 16 07:37	0°♒	
morning max el	1932 Sep 07 22:35	29°♓08'39	45°58'20		1935 May 11 22:01	0°♓	
	1932 Sep 08 19:45	0°♒			1935 Jun 07 19:11	0°♒	
asc. node	1932 Oct 07 00:02	29°♒44'00		evening max el	1935 Jun 30 11:13	23°♒09'22	45°26'13
	1932 Oct 07 05:46	0°♓			1935 Jul 07 20:33	0°♓	
	1932 Nov 02 04:01	0°♑		desc. node	1935 Jul 14 08:20	5°♓35'26	
	1932 Nov 27 00:06	0°♌		greatest brilliancy	1935 Aug 06 04:12	20°♓15'39	-4.5m
	1932 Dec 21 07:43	0°♍		retrograde	1935 Aug 18 01:41	22°♓46'09	
	1933 Jan 14 09:56	0°♎		evening set	1935 Sep 05 02:44	16°♓45'40	
desc. node	1933 Jan 26 13:18	15°♎09'31		inferior conj	1935 Sep 08 08:48	14°♓46'25	-8°-42'-7
	1933 Feb 07 10:30	0°♏		minimum elong	1935 Sep 08 07:55	14°♓47'47	8°42'07
	1933 Mar 03 11:24	0°♏		min. Earth dist.	1935 Sep 08 23:27	14°♓23'43	0.28448 AU
morning set	1933 Mar 13 19:34	12°♏52'49		morning rise	1935 Sep 11 12:53	12°♓49'30	
	1933 Mar 27 13:58	0°♐		direct	1935 Sep 29 17:46	6°♓35'59	
	1933 Apr 20 19:00	0°♑		greatest brilliancy	1935 Oct 14 05:01	10°♓19'22	-4.6m

asc. node	1935 Nov 04 11:41	25° \cap 18'21		1938 Apr 29 23:35	0° \cap	
	1935 Nov 09 16:34	0° $\underline{\cap}$		1938 May 24 15:56	0° $\underline{\cap}$	
morning max el	1935 Nov 19 01:41	9° $\underline{\cap}$ 07'24	46°41'17	1938 Jun 18 16:37	0° \cap	
	1935 Dec 08 14:36	0° \cap		1938 Jul 14 05:44	0° \cap	
	1936 Jan 03 14:16	0° \nearrow		1938 Aug 09 16:26	0° $\underline{\cap}$	
	1936 Jan 28 14:00	0° $\overline{\cap}$		1938 Aug 10 20:15	1° $\underline{\cap}$ 16'44	
	1936 Feb 22 04:14	0° \approx		1938 Sep 07 01:36	0° \cap	
desc. node	1936 Feb 24 01:15	2° \approx 17'54		1938 Sep 11 01:53	3° \cap 56'03	46°19'25
	1936 Mar 17 14:53	0° \times		1938 Oct 13 18:49	0° \nearrow	
	1936 Apr 11 00:41	0° Υ		greatest brilliancy	1938 Oct 19 22:02	2° \nearrow 48'54 -4.6m
	1936 May 05 10:53	0° $\overline{\cap}$		retrograde	1938 Oct 30 16:22	4° \nearrow 56'24
morning set	1936 May 23 16:42	22° $\overline{\cap}$ 23'09		evening set	1938 Nov 14 13:51	0° \nearrow 36'14
	1936 May 29 21:39	0° \cap			1938 Nov 15 16:07	30° \cap
asc. node	1936 Jun 16 04:38	21° \cap 12'59		inferior conj	1938 Nov 20 06:30	27° \cap 16'46 -2°-58'-23
	1936 Jun 23 08:16	0° $\underline{\cap}$		minimum elong	1938 Nov 20 13:02	27° \cap 06'51 2°56'24
max. Earth dist.	1936 Jun 28 03:57	5° $\underline{\cap}$ 55'16	1.73586 AU	min. Earth dist.	1938 Nov 20 18:30	26° \cap 58'33 0.26655 AU
				morning rise	1938 Nov 26 11:45	23° \cap 39'52
superior conj	1936 Jun 29 09:43	7° $\underline{\cap}$ 26'42	0°30'44	asc. node	1938 Dec 01 23:33	21° \cap 11'03
minimum elong	1936 Jun 29 03:49	7° $\underline{\cap}$ 08'35	0°30'28	direct	1938 Dec 10 19:52	19° \cap 34'04
	1936 Jul 17 17:51	0° \cap		greatest brilliancy	1938 Dec 23 18:06	22° \cap 41'11 -4.7m
evening rise	1936 Aug 04 05:23	21° \cap 32'07			1939 Jan 04 21:48	0° \nearrow
	1936 Aug 11 02:11	0° \cap		morning max el	1939 Jan 30 12:43	22° \nearrow 54'55 46°55'51
	1936 Sep 04 10:02	0° $\underline{\cap}$			1939 Feb 06 09:20	0° $\overline{\cap}$
	1936 Sep 28 18:36	0° \cap			1939 Mar 05 13:29	0° \approx
desc. node	1936 Oct 05 18:02	8° \cap 34'32		desc. node	1939 Mar 23 13:06	20° \approx 49'24
	1936 Oct 23 05:00	0° \nearrow			1939 Mar 31 08:34	0° \times
	1936 Nov 16 18:36	0° $\overline{\cap}$			1939 Apr 25 14:28	0° Υ
	1936 Dec 11 14:51	0° \approx			1939 May 20 14:13	0° $\overline{\cap}$
	1937 Jan 06 03:18	0° \times			1939 Jun 14 10:11	0° \cap
asc. node	1937 Jan 26 21:21	23° \times 06'40			1939 Jul 09 02:25	0° $\underline{\cap}$
	1937 Feb 02 10:39	0° Υ		asc. node	1939 Jul 14 16:32	6° $\underline{\cap}$ 49'30
evening max el	1937 Feb 05 08:16	2° Υ 57'50	46°50'14	morning set	1939 Jul 31 09:31	27° $\underline{\cap}$ 18'07
	1937 Mar 09 13:19	0° $\overline{\cap}$			1939 Aug 02 14:11	0° \cap
greatest brilliancy	1937 Mar 13 15:53	2° $\overline{\cap}$ 11'32	-4.6m		1939 Aug 26 21:24	0° \cap
retrograde	1937 Mar 27 19:06	5° $\overline{\cap}$ 50'01		max. Earth dist.	1939 Sep 02 12:55	8° \cap 14'20 1.72677 AU
evening set	1937 Apr 13 14:21	0° $\overline{\cap}$ 20'50				
	1937 Apr 14 04:20	30° \cap Υ		superior conj	1939 Sep 05 21:14	12° \cap 23'34 1°24'36
inferior conj	1937 Apr 18 01:13	27° Υ 35'45	6°27'56	minimum elong	1939 Sep 05 19:52	12° \cap 19'22 1°24'36
minimum elong	1937 Apr 18 11:03	27° Υ 20'14	6°25'58		1939 Sep 20 01:02	0° $\underline{\cap}$
min. Earth dist.	1937 Apr 18 00:17	27° Υ 37'14	0.28465 AU	evening rise	1939 Oct 13 10:09	29° $\underline{\cap}$ 08'26
morning rise	1937 Apr 23 07:59	24° Υ 21'54			1939 Oct 14 02:41	0° \cap
direct	1937 May 09 05:56	19° Υ 26'22		desc. node	1939 Nov 03 05:53	25° \cap 07'24
desc. node	1937 May 18 10:31	20° Υ 58'54			1939 Nov 07 03:40	0° \nearrow
greatest brilliancy	1937 May 21 09:06	22° Υ 03'28	-4.5m		1939 Dec 01 04:52	0° $\overline{\cap}$
	1937 Jun 04 06:41	0° $\overline{\cap}$			1939 Dec 25 07:25	0° \approx
morning max el	1937 Jun 27 01:52	19° $\overline{\cap}$ 19'29	45°45'01		1940 Jan 18 14:00	0° \times
	1937 Jul 07 21:12	0° \cap			1940 Feb 12 05:51	0° Υ
	1937 Aug 04 20:14	0° $\underline{\cap}$		asc. node	1940 Feb 24 09:13	14° Υ 28'25
	1937 Aug 31 00:07	0° \cap			1940 Mar 08 16:25	0° $\overline{\cap}$
asc. node	1937 Sep 08 14:15	10° \cap 08'02			1940 Apr 04 18:10	0° \cap
	1937 Sep 25 04:03	0° \cap		evening max el	1940 Apr 17 12:21	12° \cap 58'14 45°44'05
	1937 Oct 19 16:33	0° $\underline{\cap}$			1940 May 06 18:47	0° $\underline{\cap}$
	1937 Nov 12 19:42	0° \cap		greatest brilliancy	1940 May 21 18:40	9° $\underline{\cap}$ 34'25 -4.5m
	1937 Dec 06 18:06	0° \nearrow		retrograde	1940 Jun 05 10:05	13° $\underline{\cap}$ 18'16
morning set	1937 Dec 24 08:52	22° \nearrow 08'44		desc. node	1940 Jun 14 22:29	11° $\underline{\cap}$ 30'22
desc. node	1937 Dec 29 03:29	28° \nearrow 09'13		evening set	1940 Jun 20 12:02	8° $\underline{\cap}$ 54'08
	1937 Dec 30 14:42	0° $\overline{\cap}$		inferior conj	1940 Jun 26 21:13	5° $\underline{\cap}$ 04'11 -2°-46'-1
	1938 Jan 23 11:16	0° \approx		minimum elong	1940 Jun 26 15:22	5° $\underline{\cap}$ 13'21 2°44'24
				min. Earth dist.	1940 Jun 26 18:22	5° $\underline{\cap}$ 08'38 0.28978 AU
superior conj	1938 Feb 04 04:04	14° \approx 41'48	-1°-13'-50	morning rise	1940 Jul 02 18:51	1° $\underline{\cap}$ 30'35
minimum elong	1938 Feb 03 17:27	14° \approx 08'29	1°13'35		1940 Jul 05 16:17	30° \cap \cap
max. Earth dist.	1938 Feb 07 04:42	18° \approx 29'37	1.71379 AU	direct	1940 Jul 18 13:13	26° \cap 47'07
	1938 Feb 16 09:00	0° \times		greatest brilliancy	1940 Aug 01 05:38	0° $\underline{\cap}$ 03'42 -4.5m
	1938 Mar 12 09:20	0° Υ			1940 Aug 01 02:20	0° $\underline{\cap}$
evening rise	1938 Mar 16 17:43	5° Υ 24'41		morning max el	1940 Sep 05 13:53	26° $\underline{\cap}$ 56'29 45°56'55
	1938 Apr 05 13:46	0° $\overline{\cap}$			1940 Sep 08 16:59	0° \cap
asc. node	1938 Apr 21 07:00	19° $\overline{\cap}$ 21'08		asc. node	1940 Oct 06 01:58	29° \cap 06'07

	1940 Oct 06 21:10	0° \mathfrak{M}		evening max el	1943 Jun 28 01:24	20° Ω 54'09	45°25'41
	1940 Nov 01 17:24	0° \mathfrak{L}			1943 Jul 07 23:56	0° \mathfrak{M}	
	1940 Nov 26 12:32	0° \mathfrak{M}		desc. node	1943 Jul 13 10:31	4° \mathfrak{M} 34'15	
	1940 Dec 20 19:36	0° \mathfrak{X}		greatest brilliancy	1943 Aug 03 15:26	17° \mathfrak{M} 58'36	-4.5m
	1941 Jan 13 21:29	0° \mathfrak{Z}		retrograde	1943 Aug 15 16:37	20° \mathfrak{M} 33'09	
desc. node	1941 Jan 25 15:26	14° \mathfrak{Z} 40'26		evening set	1943 Sep 02 16:17	14° \mathfrak{M} 34'03	
	1941 Feb 06 21:49	0° \approx		inferior conj	1943 Sep 06 00:05	12° \mathfrak{M} 32'22	-8°-40'-18
	1941 Mar 02 22:33	0° \mathfrak{H}		minimum elong	1943 Sep 05 22:22	12° \mathfrak{M} 35'02	8°40'17
morning set	1941 Mar 11 07:57	10° \mathfrak{H} 27'28		min. Earth dist.	1943 Sep 06 13:52	12° \mathfrak{M} 11'02	0.28500 AU
	1941 Mar 27 00:58	0° \mathfrak{Y}		morning rise	1943 Sep 09 04:13	10° \mathfrak{M} 35'29	
				direct	1943 Sep 27 09:15	4° \mathfrak{M} 21'04	
superior conj	1941 Apr 19 07:34	28° \mathfrak{Y} 50'59	-1°-2'-43	greatest brilliancy	1943 Oct 11 22:19	8° \mathfrak{M} 06'20	-4.6m
minimum elong	1941 Apr 19 17:38	29° \mathfrak{Y} 22'08	1°02'24	asc. node	1943 Nov 03 13:46	24° \mathfrak{M} 17'36	
	1941 Apr 20 05:53	0° \mathfrak{X}			1943 Nov 09 18:25	0° \mathfrak{L}	
max. Earth dist.	1941 Apr 22 11:58	2° \mathfrak{X} 47'09	1.72883 AU	morning max el	1943 Nov 16 16:36	6° \mathfrak{L} 47'53	46°39'52
	1941 May 14 13:36	0° \mathfrak{II}			1943 Dec 08 07:44	0° \mathfrak{M}	
asc. node	1941 May 18 18:53	5° \mathfrak{II} 11'27			1944 Jan 03 04:43	0° \mathfrak{X}	
evening rise	1941 May 27 01:50	15° \mathfrak{II} 22'42			1944 Jan 28 03:11	0° \mathfrak{Z}	
	1941 Jun 07 23:53	0° \mathfrak{S}			1944 Feb 21 16:40	0° \approx	
	1941 Jul 02 12:33	0° Ω		desc. node	1944 Feb 23 03:15	1° \approx 46'05	
	1941 Jul 27 04:12	0° \mathfrak{M}			1944 Mar 17 02:46	0° \mathfrak{H}	
	1941 Aug 21 00:29	0° \mathfrak{L}			1944 Apr 10 12:09	0° \mathfrak{Y}	
desc. node	1941 Sep 07 08:06	20° \mathfrak{L} 42'35			1944 May 04 22:04	0° \mathfrak{X}	
	1941 Sep 15 04:01	0° \mathfrak{M}		morning set	1944 May 21 09:54	20° \mathfrak{X} 14'44	
	1941 Oct 10 19:21	0° \mathfrak{X}			1944 May 29 08:39	0° \mathfrak{II}	
	1941 Nov 06 10:17	0° \mathfrak{Z}		asc. node	1944 Jun 15 06:45	20° \mathfrak{II} 45'57	
evening max el	1941 Nov 23 04:55	17° \mathfrak{Z} 42'23	47°16'05		1944 Jun 22 19:12	0° \mathfrak{S}	
	1941 Dec 05 23:04	0° \approx		max. Earth dist.	1944 Jun 26 01:27	4° \mathfrak{S} 00'23	1.73592 AU
asc. node	1941 Dec 29 11:32	17° \approx 17'56					
greatest brilliancy	1941 Dec 31 13:55	18° \approx 17'14	-4.7m	superior conj	1944 Jun 27 03:57	5° \mathfrak{S} 21'46	0°27'47
retrograde	1942 Jan 13 00:41	21° \approx 11'14		minimum elong	1944 Jun 26 22:32	5° \mathfrak{S} 05'08	0°27'31
evening set	1942 Jan 29 05:44	15° \approx 59'36			1944 Jul 17 04:47	0° Ω	
min. Earth dist.	1942 Feb 01 20:14	13° \approx 48'30	0.27034 AU	evening rise	1944 Aug 02 00:07	19° Ω 28'08	
inferior conj	1942 Feb 02 17:32	13° \approx 15'23	7°35'30		1944 Aug 10 13:13	0° \mathfrak{M}	
minimum elong	1942 Feb 02 08:08	13° \approx 29'59	7°33'56		1944 Sep 03 21:16	0° \mathfrak{L}	
morning rise	1942 Feb 06 10:54	10° \approx 59'03			1944 Sep 28 06:12	0° \mathfrak{M}	
direct	1942 Feb 23 06:02	5° \approx 31'09		desc. node	1944 Oct 04 20:03	8° \mathfrak{M} 04'46	
greatest brilliancy	1942 Mar 05 20:36	7° \approx 36'53	-4.6m		1944 Oct 22 17:07	0° \mathfrak{X}	
	1942 Apr 06 13:14	0° \mathfrak{H}			1944 Nov 16 07:26	0° \mathfrak{Z}	
morning max el	1942 Apr 13 20:54	6° \mathfrak{H} 58'17	46°19'05		1944 Dec 11 04:47	0° \approx	
desc. node	1942 Apr 20 00:50	13° \mathfrak{H} 07'12			1945 Jan 05 19:18	0° \mathfrak{H}	
	1942 May 06 02:25	0° \mathfrak{Y}		asc. node	1945 Jan 25 23:21	22° \mathfrak{H} 20'05	
	1942 Jun 02 00:26	0° \mathfrak{X}			1945 Feb 02 08:07	0° \mathfrak{Y}	
	1942 Jun 27 22:18	0° \mathfrak{II}		evening max el	1945 Feb 02 23:14	0° \mathfrak{Y} 38'23	46°52'25
	1942 Jul 23 06:10	0° \mathfrak{S}			1945 Mar 11 11:17	0° \mathfrak{X}	
asc. node	1942 Aug 11 04:24	22° \mathfrak{S} 46'57		greatest brilliancy	1945 Mar 11 07:39	29° \mathfrak{Y} 55'39	-4.6m
	1942 Aug 17 03:04	0° Ω		retrograde	1945 Mar 25 11:24	3° \mathfrak{X} 34'51	
	1942 Sep 10 14:38	0° \mathfrak{M}			1945 Apr 07 19:15	30° \mathfrak{R} \mathfrak{Y}	
	1942 Oct 04 18:57	0° \mathfrak{L}		evening set	1945 Apr 11 08:47	28° \mathfrak{Y} 01'07	
morning set	1942 Oct 08 16:31	4° \mathfrak{L} 51'49		inferior conj	1945 Apr 15 16:44	25° \mathfrak{Y} 20'33	6°41'48
	1942 Oct 28 18:40	0° \mathfrak{M}		minimum elong	1945 Apr 16 02:29	25° \mathfrak{Y} 05'12	6°39'57
max. Earth dist.	1942 Nov 14 18:24	21° \mathfrak{M} 19'30	1.71314 AU	min. Earth dist.	1945 Apr 15 15:09	25° \mathfrak{Y} 23'02	0.28435 AU
				morning rise	1945 Apr 20 20:26	22° \mathfrak{Y} 11'28	
superior conj	1942 Nov 16 12:09	23° \mathfrak{M} 30'36	0°33'12	direct	1945 May 06 21:03	17° \mathfrak{Y} 11'36	
minimum elong	1942 Nov 16 19:55	23° \mathfrak{M} 55'00	0°32'50	desc. node	1945 May 17 12:38	19° \mathfrak{Y} 14'53	
	1942 Nov 21 16:07	0° \mathfrak{X}		greatest brilliancy	1945 May 18 22:53	19° \mathfrak{Y} 48'02	-4.5m
desc. node	1942 Nov 30 17:49	11° \mathfrak{X} 24'00			1945 Jun 04 22:58	0° \mathfrak{X}	
	1942 Dec 15 12:53	0° \mathfrak{Z}		morning max el	1945 Jun 24 18:16	17° \mathfrak{X} 09'29	45°45'30
evening rise	1942 Dec 27 14:31	15° \mathfrak{Z} 09'53			1945 Jul 07 16:20	0° \mathfrak{II}	
	1943 Jan 08 10:03	0° \approx			1945 Aug 04 10:59	0° \mathfrak{S}	
	1943 Feb 01 09:01	0° \mathfrak{H}			1945 Aug 30 13:05	0° Ω	
	1943 Feb 25 12:04	0° \mathfrak{Y}		asc. node	1945 Sep 07 16:09	9° Ω 36'17	
	1943 Mar 21 22:24	0° \mathfrak{X}			1945 Sep 24 16:06	0° \mathfrak{M}	
asc. node	1943 Mar 23 21:06	2° \mathfrak{X} 22'01			1945 Oct 19 04:09	0° \mathfrak{L}	
	1943 Apr 15 20:12	0° \mathfrak{II}			1945 Nov 12 07:05	0° \mathfrak{M}	
	1943 May 11 11:56	0° \mathfrak{S}			1945 Dec 06 05:22	0° \mathfrak{X}	
	1943 Jun 07 12:08	0° Ω		morning set	1945 Dec 21 19:25	19° \mathfrak{X} 35'39	

desc. node	1945 Dec 28 05:38	27° ♁ 40'38		evening set	1948 Jun 18 03:55	6° ♁ 45'53	
	1945 Dec 30 01:56	0° ♁		inferior conj	1948 Jun 24 13:37	2° ♁ 55'04	-2°-27'-12
	1946 Jan 22 22:28	0° ♁		minimum elong	1948 Jun 24 08:23	3° ♁ 03'17	2°25'43
				min. Earth dist.	1948 Jun 24 11:05	2° ♁ 59'03	0.28968 AU
superior conj	1946 Feb 01 14:19	12° ♁ 08'10	-1°-11'-43		1948 Jun 29 07:58	30° ♁	
minimum elong	1946 Feb 01 03:14	11° ♁ 33'20	1°11'25	morning rise	1948 Jun 30 12:57	29° ♁ 18'42	
max. Earth dist.	1946 Feb 04 13:26	15° ♁ 51'20	1.71348 AU	direct	1948 Jul 16 05:25	24° ♁ 38'14	
	1946 Feb 15 20:11	0° ♁		greatest brilliancy	1948 Jul 29 19:58	27° ♁ 52'13	-4.5m
	1946 Mar 11 20:31	0° ♁			1948 Aug 03 02:15	0° ♁	
evening rise	1946 Mar 14 05:47	2° ♁ 58'11		morning max el	1948 Sep 03 04:10	24° ♁ 41'24	45°55'44
	1946 Apr 05 01:01	0° ♁			1948 Sep 08 13:40	0° ♁	
asc. node	1946 Apr 20 09:03	18° ♁ 52'44		asc. node	1948 Oct 05 04:08	28° ♁ 28'58	
	1946 Apr 29 10:59	0° ♁			1948 Oct 06 12:25	0° ♁	
	1946 May 24 03:39	0° ♁			1948 Nov 01 06:42	0° ♁	
	1946 Jun 18 05:00	0° ♁			1948 Nov 26 00:55	0° ♁	
	1946 Jul 13 19:22	0° ♁			1948 Dec 20 07:28	0° ♁	
	1946 Aug 09 08:34	0° ♁			1949 Jan 13 09:01	0° ♁	
desc. node	1946 Aug 09 22:12	0° ♁ 37'25		desc. node	1949 Jan 24 17:24	14° ♁ 10'55	
	1946 Sep 07 00:16	0° ♁			1949 Feb 06 09:05	0° ♁	
evening max el	1946 Sep 08 16:25	1° ♁ 37'36	46°17'01		1949 Mar 02 09:38	0° ♁	
	1946 Oct 16 10:45	0° ♁		morning set	1949 Mar 08 20:26	8° ♁ 02'31	
greatest brilliancy	1946 Oct 17 10:39	0° ♁ 23'11	-4.6m		1949 Mar 26 11:54	0° ♁	
retrograde	1946 Oct 28 04:52	2° ♁ 29'49					
	1946 Nov 08 08:56	30° ♁		superior conj	1949 Apr 16 22:48	26° ♁ 36'10	-1°-5'-2
evening set	1946 Nov 12 04:46	28° ♁ 06'43		minimum elong	1949 Apr 17 08:51	27° ♁ 07'15	1°04'44
inferior conj	1946 Nov 17 19:01	24° ♁ 50'05	-3°-20'-48		1949 Apr 19 16:44	0° ♁	
minimum elong	1946 Nov 18 02:16	24° ♁ 39'04	3°18'39	max. Earth dist.	1949 Apr 20 06:47	0° ♁ 43'28	1.72835 AU
min. Earth dist.	1946 Nov 18 08:00	24° ♁ 30'23	0.26695 AU		1949 May 14 00:25	0° ♁	
morning rise	1946 Nov 23 23:22	21° ♁ 14'15		asc. node	1949 May 17 20:59	4° ♁ 44'38	
asc. node	1946 Dec 01 01:38	18° ♁ 13'21		evening rise	1949 May 24 19:12	13° ♁ 15'17	
direct	1946 Dec 08 09:32	17° ♁ 06'56			1949 Jun 07 10:47	0° ♁	
greatest brilliancy	1946 Dec 21 08:11	20° ♁ 14'46	-4.7m		1949 Jul 01 23:40	0° ♁	
	1947 Jan 05 16:45	0° ♁			1949 Jul 26 15:43	0° ♁	
morning max el	1947 Jan 28 02:23	20° ♁ 29'52	46°56'11		1949 Aug 20 12:39	0° ♁	
	1947 Feb 06 05:41	0° ♁		desc. node	1949 Sep 06 10:08	20° ♁ 10'37	
	1947 Mar 05 05:09	0° ♁			1949 Sep 14 17:12	0° ♁	
desc. node	1947 Mar 22 15:07	20° ♁ 13'48			1949 Oct 10 10:18	0° ♁	
	1947 Mar 30 22:14	0° ♁			1949 Nov 06 04:53	0° ♁	
	1947 Apr 25 03:02	0° ♁		evening max el	1949 Nov 20 17:48	15° ♁ 15'18	47°15'11
	1947 May 20 02:05	0° ♁			1949 Dec 06 06:05	0° ♁	
	1947 Jun 13 21:35	0° ♁		asc. node	1949 Dec 28 13:34	15° ♁ 34'50	
	1947 Jul 08 13:30	0° ♁		greatest brilliancy	1949 Dec 29 05:43	15° ♁ 52'57	-4.7m
asc. node	1947 Jul 13 18:34	6° ♁ 21'58		retrograde	1950 Jan 10 13:35	18° ♁ 44'25	
morning set	1947 Jul 29 03:13	25° ♁ 11'30		evening set	1950 Jan 26 15:03	13° ♁ 39'08	
	1947 Aug 02 01:06	0° ♁		min. Earth dist.	1950 Jan 30 09:51	11° ♁ 22'07	0.26978 AU
	1947 Aug 26 08:17	0° ♁		inferior conj	1950 Jan 31 06:40	10° ♁ 49'48	7°23'07
max. Earth dist.	1947 Aug 31 04:26	5° ♁ 59'52	1.72725 AU	minimum elong	1950 Jan 30 20:54	11° ♁ 04'59	7°21'22
				morning rise	1950 Feb 04 03:04	8° ♁ 29'07	
superior conj	1947 Sep 03 14:23	10° ♁ 14'01	1°24'18	direct	1950 Feb 20 18:04	3° ♁ 06'14	
minimum elong	1947 Sep 03 12:21	10° ♁ 07'40	1°24'18	greatest brilliancy	1950 Mar 03 10:51	5° ♁ 13'47	-4.6m
	1947 Sep 19 12:01	0° ♁			1950 Apr 06 15:13	0° ♁	
evening rise	1947 Oct 11 00:25	26° ♁ 48'34		morning max el	1950 Apr 11 09:29	4° ♁ 35'06	46°20'47
	1947 Oct 13 13:49	0° ♁		desc. node	1950 Apr 19 02:59	12° ♁ 20'12	
desc. node	1947 Nov 02 08:02	24° ♁ 38'56			1950 May 05 19:19	0° ♁	
	1947 Nov 06 14:59	0° ♁			1950 Jun 01 14:19	0° ♁	
	1947 Nov 30 16:23	0° ♁			1950 Jun 27 10:45	0° ♁	
	1947 Dec 24 19:13	0° ♁			1950 Jul 22 17:50	0° ♁	
	1948 Jan 18 02:14	0° ♁		asc. node	1950 Aug 10 06:19	22° ♁ 18'29	
	1948 Feb 11 18:51	0° ♁			1950 Aug 16 14:17	0° ♁	
asc. node	1948 Feb 23 11:09	13° ♁ 54'07			1950 Sep 10 01:37	0° ♁	
	1948 Mar 08 06:59	0° ♁			1950 Oct 04 05:51	0° ♁	
	1948 Apr 04 12:40	0° ♁		morning set	1950 Oct 06 07:30	2° ♁ 34'50	
evening max el	1948 Apr 15 04:01	10° ♁ 45'37	45°45'42		1950 Oct 28 05:33	0° ♁	
	1948 May 07 08:27	0° ♁		max. Earth dist.	1950 Nov 12 05:10	18° ♁ 48'17	1.71350 AU
greatest brilliancy	1948 May 19 11:45	7° ♁ 25'56	-4.5m				
retrograde	1948 Jun 03 02:01	11° ♁ 09'01		superior conj	1950 Nov 13 23:59	21° ♁ 02'44	0°36'40
desc. node	1948 Jun 14 00:37	8° ♁ 47'27		minimum elong	1950 Nov 14 08:22	21° ♁ 29'05	0°36'17

	1950 Nov 21 03:03	0°♊		desc. node	1953 May 16 14:40	17°♊35'36	
desc. node	1950 Nov 29 19:53	10°♊56'01			1953 Jun 05 10:34	0°♋	
	1950 Dec 14 23:54	0°♌		morning max el	1953 Jun 22 10:39	15°♋00'37	45°46'01
evening rise	1950 Dec 25 00:41	12°♌36'21			1953 Jul 07 10:29	0°♍	
	1951 Jan 07 21:10	0°♎			1953 Aug 04 01:08	0°♎	
	1951 Jan 31 20:14	0°♏			1953 Aug 30 01:35	0°♏	
	1951 Feb 24 23:26	0°♐		asc. node	1953 Sep 06 18:19	9°♏06'33	
asc. node	1951 Mar 21 10:05	0°♑			1953 Sep 24 03:48	0°♐	
	1951 Mar 22 23:13	1°♑52'52			1953 Oct 18 15:27	0°♑	
	1951 Apr 15 08:33	0°♒			1953 Nov 11 18:12	0°♒	
	1951 May 11 01:41	0°♓			1953 Dec 05 16:24	0°♓	
	1951 Jun 07 05:10	0°♈		morning set	1953 Dec 19 05:45	17°♓02'45	
evening max el	1951 Jun 25 16:08	18°♈40'58	45°25'02	desc. node	1953 Dec 27 07:36	27°♓12'24	
	1951 Jul 08 04:54	0°♉			1953 Dec 29 12:53	0°♔	
desc. node	1951 Jul 12 12:26	3°♉31'25			1954 Jan 22 09:20	0°♕	
greatest brilliancy	1951 Aug 01 02:07	15°♉41'14	-4.5m				
retrograde	1951 Aug 13 07:51	18°♉20'05		superior conj	1954 Jan 30 00:17	9°♕34'37	-1°-9'-26
evening set	1951 Aug 31 05:20	12°♉22'55		minimum elong	1954 Jan 29 12:48	8°♕58'33	1°09'06
inferior conj	1951 Sep 03 15:08	10°♉18'17	-8°-37'-45	max. Earth dist.	1954 Feb 01 23:51	13°♕19'17	1.71312 AU
minimum elong	1951 Sep 03 12:37	10°♉22'11	8°37'41		1954 Feb 15 07:01	0°♖	
min. Earth dist.	1951 Sep 04 03:48	9°♉58'42	0.28551 AU		1954 Mar 11 07:22	0°♗	
morning rise	1951 Sep 06 19:43	8°♉20'53		evening rise	1954 Mar 11 17:43	0°♗32'14	
direct	1951 Sep 25 00:58	2°♉06'14			1954 Apr 04 11:55	0°♘	
greatest brilliancy	1951 Oct 09 15:12	5°♉53'08	-4.6m	asc. node	1954 Apr 19 11:11	18°♘25'37	
asc. node	1951 Nov 02 15:51	23°♉18'36			1954 Apr 28 22:03	0°♙	
	1951 Nov 09 18:48	0°♚			1954 May 23 15:04	0°♚	
morning max el	1951 Nov 14 08:07	4°♚30'42	46°38'33		1954 Jun 17 17:04	0°♛	
	1951 Dec 08 00:19	0°♜			1954 Jul 13 08:43	0°♜	
	1952 Jan 02 18:44	0°♝		desc. node	1954 Aug 09 00:16	29°♜59'12	
	1952 Jan 27 15:58	0°♞			1954 Aug 09 00:34	0°♞	
desc. node	1952 Feb 21 04:42	0°♟		evening max el	1954 Sep 06 06:12	29°♞18'24	46°14'22
	1952 Feb 22 05:14	1°♟15'17			1954 Sep 06 23:28	0°♟	
	1952 Mar 16 14:18	0°♠		greatest brilliancy	1954 Oct 14 23:53	27°♟58'53	-4.6m
	1952 Apr 09 23:17	0°♑			1954 Oct 23 22:07	0°♠	
	1952 May 04 08:55	0°♒		retrograde	1954 Oct 25 16:36	0°♠03'39	
morning set	1952 May 19 03:17	18°♒07'52			1954 Oct 27 10:43	30°♒♌	
	1952 May 28 19:19	0°♓		evening set	1954 Nov 09 19:41	25°♓37'25	
asc. node	1952 Jun 14 08:45	20°♓19'37		inferior conj	1954 Nov 15 07:26	22°♓23'51	-3°-42'-56
	1952 Jun 22 05:46	0°♔		minimum elong	1954 Nov 15 15:19	22°♓11'50	3°40'38
max. Earth dist.	1952 Jun 24 00:50	2°♔12'16	1.73598 AU	min. Earth dist.	1954 Nov 15 21:38	22°♓02'13	0.26742 AU
				morning rise	1954 Nov 21 10:32	18°♓49'12	
superior conj	1952 Jun 24 22:17	3°♔18'11	0°24'47	asc. node	1954 Nov 30 03:39	15°♓21'18	
minimum elong	1952 Jun 24 17:23	3°♔03'07	0°24'33	direct	1954 Dec 05 22:39	14°♓40'02	
	1952 Jul 16 15:23	0°♕		greatest brilliancy	1954 Dec 18 22:43	17°♓49'00	-4.7m
evening rise	1952 Jul 30 18:58	17°♕25'26			1955 Jan 06 06:48	0°♘	
	1952 Aug 09 23:58	0°♖		morning max el	1955 Jan 25 15:06	18°♘02'37	46°56'36
	1952 Sep 03 08:17	0°♗			1955 Feb 06 01:15	0°♙	
	1952 Sep 27 17:36	0°♘			1955 Mar 04 20:21	0°♚	
desc. node	1952 Oct 03 22:11	7°♘35'59		desc. node	1955 Mar 21 17:19	19°♘39'40	
	1952 Oct 22 05:02	0°♙			1955 Mar 30 11:30	0°♛	
	1952 Nov 15 20:03	0°♚			1955 Apr 24 15:13	0°♗	
	1952 Dec 10 18:30	0°♜			1955 May 19 13:35	0°♘	
	1953 Jan 05 11:10	0°♠			1955 Jun 13 08:38	0°♙	
asc. node	1953 Jan 25 01:19	21°♠33'53			1955 Jul 08 00:15	0°♚	
evening max el	1953 Jan 31 14:55	28°♠21'49	46°54'35	asc. node	1955 Jul 12 20:33	5°♚55'16	
	1953 Feb 02 05:54	0°♑		morning set	1955 Jul 26 21:11	23°♚06'39	
greatest brilliancy	1953 Mar 09 00:17	27°♑42'01	-4.6m		1955 Aug 01 11:43	0°♛	
	1953 Mar 14 18:58	0°♒			1955 Aug 25 18:52	0°♜	
retrograde	1953 Mar 23 03:53	1°♒20'36		max. Earth dist.	1955 Aug 28 20:42	3°♜48'43	1.72773 AU
	1953 Mar 31 05:17	30°♒♐					
evening set	1953 Apr 09 03:18	25°♐42'30		superior conj	1955 Sep 01 07:57	8°♐06'46	1°23'52
inferior conj	1953 Apr 13 08:15	23°♐06'18	6°55'09	minimum elong	1955 Sep 01 05:14	7°♐58'19	1°23'51
minimum elong	1953 Apr 13 17:52	22°♐51'09	6°53'24		1955 Sep 18 22:41	0°♑	
min. Earth dist.	1953 Apr 13 05:43	23°♐10'17	0.28404 AU	evening rise	1955 Oct 08 15:05	24°♑31'00	
morning rise	1953 Apr 18 08:45	20°♐02'08			1955 Oct 13 00:39	0°♒	
direct	1953 May 04 12:33	14°♐58'03		desc. node	1955 Nov 01 10:06	24°♒11'05	
greatest brilliancy	1953 May 16 11:41	17°♐32'33	-4.5m		1955 Nov 06 02:02	0°♓	

	1955 Nov 30 03:42	0°☾			1958 Jun 26 23:08	0°♊		
	1955 Dec 24 06:52	0°♊			1958 Jul 22 05:26	0°☾		
	1956 Jan 17 14:22	0°♋		asc. node	1958 Aug 09 08:28	21°☾50'49		
	1956 Feb 11 07:46	0°♌			1958 Aug 16 01:28	0°♎		
asc. node	1956 Feb 22 13:18	13°♌20'42			1958 Sep 09 12:35	0°♏		
	1956 Mar 07 21:31	0°♍		morning set	1958 Oct 03 22:52	0°♐19'08		
	1956 Apr 04 07:23	0°♎			1958 Oct 03 16:44	0°♑		
evening max el	1956 Apr 12 18:45	8°♎31'25	45°47'35		1958 Oct 27 16:26	0°♒		
	1956 May 08 02:17	0°☾		max. Earth dist.	1958 Nov 09 17:50	16°♒23'00	1.71382 AU	
greatest brilliancy	1956 May 17 04:02	5°☾17'21	-4.5m					
retrograde	1956 May 31 18:04	9°☾01'06		superior conj	1958 Nov 11 12:20	18°♒36'29	0°40'02	
desc. node	1956 Jun 13 02:35	6°☾01'47		minimum elong	1958 Nov 11 21:16	19°♒04'29	0°39'38	
evening set	1956 Jun 15 20:03	4°☾38'21			1958 Nov 20 13:59	0°♈		
inferior conj	1956 Jun 22 06:09	0°☾47'05	-2°-8'-8	desc. node	1958 Nov 28 21:52	10°♈27'51		
minimum elong	1956 Jun 22 01:33	0°☾54'18	2°06'50		1958 Dec 14 10:55	0°☾		
min. Earth dist.	1956 Jun 22 04:04	0°☾50'20	0.28958 AU	evening rise	1958 Dec 22 11:19	10°☾04'24		
	1956 Jun 23 12:10	30°♊			1959 Jan 07 08:16	0°♊		
morning rise	1956 Jun 28 07:04	27°♊08'11			1959 Jan 31 07:28	0°♋		
direct	1956 Jul 13 21:20	22°♊30'16			1959 Feb 24 10:53	0°♌		
greatest brilliancy	1956 Jul 27 11:28	25°♊43'05	-4.5m		1959 Mar 20 21:55	0°♍		
	1956 Aug 04 09:49	0°☾		asc. node	1959 Mar 22 01:17	1°♍23'07		
morning max el	1956 Aug 31 18:43	22°☾27'48	45°54'44		1959 Apr 14 21:08	0°♎		
	1956 Sep 08 09:23	0°♎			1959 May 10 15:45	0°☾		
asc. node	1956 Oct 04 06:10	27°♎52'33			1959 Jun 06 22:42	0°♏		
	1956 Oct 06 03:12	0°♏		evening max el	1959 Jun 23 07:50	16°♏29'55	45°24'39	
	1956 Oct 31 19:40	0°♐			1959 Jul 08 12:08	0°♐		
	1956 Nov 25 13:01	0°♑		desc. node	1959 Jul 11 14:31	2°♐27'06		
	1956 Dec 19 19:07	0°♈		greatest brilliancy	1959 Jul 29 13:23	13°♐24'44	-4.5m	
	1957 Jan 12 20:23	0°☾		retrograde	1959 Aug 10 23:16	16°♐07'16		
desc. node	1957 Jan 23 19:29	13°☾42'07		evening set	1959 Aug 28 18:20	10°♐12'37		
	1957 Feb 05 20:16	0°♊		inferior conj	1959 Sep 01 06:23	8°♐04'30	-8°-34'-28	
	1957 Mar 01 20:39	0°♋		minimum elong	1959 Sep 01 03:06	8°♐09'35	8°34'19	
morning set	1957 Mar 06 08:16	5°♋35'36		min. Earth dist.	1959 Sep 01 17:41	7°♐47'01	0.28596 AU	
	1957 Mar 25 22:46	0°♌		morning rise	1959 Sep 04 11:41	6°♐06'02		
					1959 Sep 20 03:01	30°♊		
superior conj	1957 Apr 14 13:39	24°♌20'18	-1°-7'-17	direct	1959 Sep 22 17:15	29°♊51'55		
minimum elong	1957 Apr 14 23:36	24°♌51'06	1°06'59		1959 Sep 25 08:14	0°♏		
max. Earth dist.	1957 Apr 17 23:16	28°♌32'48	1.72780 AU	greatest brilliancy	1959 Oct 07 07:10	3°♏38'55	-4.6m	
	1957 Apr 19 03:28	0°♍		asc. node	1959 Nov 01 17:51	22°♏20'29		
	1957 May 13 11:08	0°♎			1959 Nov 09 18:11	0°♐		
asc. node	1957 May 16 22:57	4°♎17'43		morning max el	1959 Nov 12 00:02	2°♐14'26	46°37'09	
evening rise	1957 May 22 12:22	11°♎07'37			1959 Dec 07 16:41	0°♑		
	1957 Jun 06 21:35	0°☾			1960 Jan 02 08:43	0°♈		
	1957 Jul 01 10:42	0°♎			1960 Jan 27 04:45	0°☾		
	1957 Jul 26 03:10	0°♏			1960 Feb 20 16:47	0°♊		
	1957 Aug 20 00:44	0°♐		desc. node	1960 Feb 21 07:26	0°♊45'00		
desc. node	1957 Sep 05 12:17	19°♐39'18			1960 Mar 16 01:53	0°♋		
	1957 Sep 14 06:20	0°♑			1960 Apr 09 10:32	0°♌		
	1957 Oct 10 01:16	0°♈			1960 May 03 19:56	0°♍		
	1957 Nov 05 23:46	0°☾		morning set	1960 May 16 20:33	15°♍59'58		
evening max el	1957 Nov 18 06:36	12°☾48'44	47°14'14		1960 May 28 06:11	0°♎		
	1957 Dec 06 15:26	0°♏		asc. node	1960 Jun 13 10:48	19°♎52'46		
greatest brilliancy	1957 Dec 26 20:24	13°♏27'35	-4.7m		1960 Jun 21 16:34	0°☾		
asc. node	1957 Dec 27 15:32	13°♏47'57		max. Earth dist.	1960 Jun 21 23:55	0°☾22'36	1.73598 AU	
retrograde	1958 Jan 08 02:47	16°♏17'59						
evening set	1958 Jan 24 00:21	11°♏18'27		superior conj	1960 Jun 22 16:24	1°☾13'15	0°21'44	
min. Earth dist.	1958 Jan 27 23:17	8°♏55'54	0.26930 AU	minimum elong	1960 Jun 22 12:04	0°☾59'54	0°21'32	
inferior conj	1958 Jan 28 19:47	8°♏24'11	7°09'41		1960 Jul 16 02:11	0°♎		
minimum elong	1958 Jan 28 09:42	8°♏39'47	7°07'46	evening rise	1960 Jul 28 13:39	15°♎21'45		
morning rise	1958 Feb 01 19:21	5°♏59'08			1960 Aug 09 10:54	0°♏		
direct	1958 Feb 18 06:17	0°♏41'02			1960 Sep 02 19:29	0°♐		
greatest brilliancy	1958 Mar 01 01:18	2°♏50'47	-4.6m		1960 Sep 27 05:13	0°♑		
	1958 Apr 06 16:00	0°♋		desc. node	1960 Oct 03 00:11	7°♑06'11		
morning max el	1958 Apr 08 23:02	2°♋13'51	46°22'26		1960 Oct 21 17:12	0°♈		
desc. node	1958 Apr 18 05:00	11°♋33'19			1960 Nov 15 08:57	0°☾		
	1958 May 05 11:59	0°♌			1960 Dec 10 08:34	0°♊		
	1958 Jun 01 04:07	0°♍			1961 Jan 05 03:31	0°♋		

asc. node	1961 Jan 24 03:31	20° H 47'04			1963 Aug 25 05:48	0° M	
evening max el	1961 Jan 29 06:53	26° H 05'17	46°56'42	max. Earth dist.	1963 Aug 26 13:57	1° M 39'33	1.72824 AU
	1961 Feb 02 04:46	0° Y					
greatest brilliancy	1961 Mar 06 17:52	25° Y 29'12	-4.6m	superior conj	1963 Aug 30 01:30	5° M 58'28	1°23'19
retrograde	1961 Mar 20 20:13	29° Y 05'45		minimum elong	1963 Aug 29 22:07	5° M 47'58	1°23'17
evening set	1961 Apr 06 21:53	23° Y 23'40			1963 Sep 18 09:43	0° L	
inferior conj	1961 Apr 10 23:51	20° Y 51'40	7°07'47	evening rise	1963 Oct 06 05:47	22° L 12'33	
minimum elong	1961 Apr 11 09:16	20° Y 36'49	7°06'09		1963 Oct 12 11:50	0° M	
min. Earth dist.	1961 Apr 10 20:22	20° Y 57'09	0.28371 AU	desc. node	1963 Oct 31 12:03	23° M 41'51	
morning rise	1961 Apr 15 21:01	17° Y 52'21			1963 Nov 05 13:25	0° J	
direct	1961 May 02 04:15	12° Y 44'15			1963 Nov 29 15:21	0° Z	
greatest brilliancy	1961 May 13 23:50	15° Y 15'40	-4.5m		1963 Dec 23 18:53	0° \approx	
desc. node	1961 May 15 16:42	15° Y 59'15			1964 Jan 17 02:53	0° H	
	1961 Jun 05 19:25	0° B			1964 Feb 10 21:09	0° Y	
morning max el	1961 Jun 20 02:27	12° B 49'31	45°46'26	asc. node	1964 Feb 21 15:21	12° Y 45'36	
	1961 Jul 07 04:32	0° II			1964 Mar 07 12:38	0° B	
	1961 Aug 03 15:28	0° S			1964 Apr 04 03:03	0° II	
	1961 Aug 29 14:18	0° Q		evening max el	1964 Apr 10 09:11	6° II 15'21	45°49'38
asc. node	1961 Sep 05 20:24	8° Q 35'41			1964 May 09 03:16	0° S	
	1961 Sep 23 15:43	0° M		greatest brilliancy	1964 May 14 19:19	3° S 06'28	-4.5m
	1961 Oct 18 02:58	0° L		retrograde	1964 May 29 10:29	6° S 52'25	
	1961 Nov 11 05:32	0° M		desc. node	1964 Jun 12 04:39	3° S 11'26	
	1961 Dec 05 03:40	0° J		evening set	1964 Jun 13 12:20	2° S 29'34	
morning set	1961 Dec 16 16:10	14° J 29'15			1964 Jun 17 18:17	30° R II	
desc. node	1961 Dec 26 09:40	26° J 43'36		inferior conj	1964 Jun 19 22:40	28° II 38'15	-1°-48'-56
	1961 Dec 29 00:07	0° Z		minimum elong	1964 Jun 19 18:43	28° II 44'27	1°47'49
	1962 Jan 21 20:31	0° \approx		min. Earth dist.	1964 Jun 19 20:59	28° II 40'53	0.28949 AU
				morning rise	1964 Jun 26 01:06	24° II 57'12	
superior conj	1962 Jan 27 10:19	7° \approx 00'18	-1°-6'-59	direct	1964 Jul 11 13:00	20° II 21'23	
minimum elong	1962 Jan 26 22:33	6° \approx 23'22	1°06'39	greatest brilliancy	1964 Jul 25 03:36	23° II 34'04	-4.5m
max. Earth dist.	1962 Jan 30 08:26	10° \approx 40'29	1.71274 AU		1964 Aug 05 08:53	0° S	
	1962 Feb 14 18:09	0° H		morning max el	1964 Aug 29 10:04	20° S 15'21	45°53'42
evening rise	1962 Mar 09 05:39	28° H 05'21			1964 Sep 08 04:53	0° Q	
	1962 Mar 10 18:28	0° Y		asc. node	1964 Oct 03 08:09	27° Q 15'14	
	1962 Apr 03 23:05	0° B			1964 Oct 05 18:10	0° M	
asc. node	1962 Apr 18 13:09	17° B 57'12			1964 Oct 31 08:54	0° L	
	1962 Apr 28 09:23	0° II			1964 Nov 25 01:25	0° M	
	1962 May 23 02:46	0° S			1964 Dec 19 07:02	0° J	
	1962 Jun 17 05:31	0° Q			1965 Jan 12 08:00	0° Z	
	1962 Jul 12 22:32	0° M		desc. node	1965 Jan 22 21:36	13° Z 12'43	
desc. node	1962 Aug 08 02:25	29° M 19'44			1965 Feb 05 07:41	0° \approx	
	1962 Aug 08 17:13	0° L			1965 Mar 01 07:55	0° H	
evening max el	1962 Sep 03 19:14	26° L 56'35	46°11'51	morning set	1965 Mar 03 19:49	3° H 06'54	
	1962 Sep 07 00:11	0° M			1965 Mar 25 09:54	0° Y	
greatest brilliancy	1962 Oct 12 13:55	25° M 35'04	-4.6m				
retrograde	1962 Oct 23 04:14	27° M 37'36		superior conj	1965 Apr 12 04:21	22° Y 03'04	-1°-9'-25
evening set	1962 Nov 07 10:55	23° M 07'49		minimum elong	1965 Apr 12 14:10	22° Y 33'28	1°09'09
inferior conj	1962 Nov 12 20:06	19° M 57'42	-4°-4'-19	max. Earth dist.	1965 Apr 15 13:37	26° Y 14'34	1.72727 AU
minimum elong	1962 Nov 13 04:35	19° M 44'47	4°01'54		1965 Apr 18 14:31	0° B	
min. Earth dist.	1962 Nov 13 11:47	19° M 33'49	0.26792 AU		1965 May 12 22:08	0° II	
morning rise	1962 Nov 18 21:43	16° M 24'30		asc. node	1965 May 16 01:03	3° II 50'21	
asc. node	1962 Nov 29 05:42	12° M 34'57		evening rise	1965 May 20 05:28	8° II 58'55	
direct	1962 Dec 03 11:26	12° M 12'56			1965 Jun 06 08:39	0° S	
greatest brilliancy	1962 Dec 16 14:10	15° M 24'03	-4.7m		1965 Jun 30 21:59	0° Q	
	1963 Jan 06 17:35	0° J			1965 Jul 25 14:51	0° M	
morning max el	1963 Jan 23 03:34	15° J 33'46	46°56'54		1965 Aug 19 13:06	0° L	
	1963 Feb 05 20:35	0° Z		desc. node	1965 Sep 04 14:14	19° L 06'24	
	1963 Mar 04 11:41	0° \approx			1965 Sep 13 19:50	0° M	
desc. node	1963 Mar 20 19:15	19° \approx 04'02			1965 Oct 09 16:46	0° J	
	1963 Mar 30 01:00	0° H			1965 Nov 05 19:36	0° Z	
	1963 Apr 24 03:39	0° Y		evening max el	1965 Nov 15 20:12	10° Z 23'16	47°13'13
	1963 May 19 01:21	0° B			1965 Dec 07 04:37	0° \approx	
	1963 Jun 12 19:57	0° II		greatest brilliancy	1965 Dec 24 10:14	10° \approx 59'49	-4.7m
	1963 Jul 07 11:18	0° S		asc. node	1965 Dec 26 17:43	11° \approx 55'36	
asc. node	1963 Jul 11 22:42	5° S 28'09		retrograde	1966 Jan 05 16:21	13° \approx 49'56	
morning set	1963 Jul 24 15:10	21° S 00'54		evening set	1966 Jan 21 09:29	8° \approx 55'56	
	1963 Jul 31 22:38	0° Q		min. Earth dist.	1966 Jan 25 12:11	6° \approx 28'23	0.26881 AU

inferior conj	1966 Jan 26 08:37	5° \approx 56'51	6°55'17	max. Earth dist.	1968 Jun 19 22:24	28° Π 31'07	1.73596 AU
minimum elong	1966 Jan 25 22:18	6° \approx 12'46	6°53'12		1968 Jun 21 03:20	0° Θ	
morning rise	1966 Jan 30 11:27	3° \approx 27'31			1968 Jul 15 12:59	0° Ω	
	1966 Feb 06 12:46	30° \mathbb{R} $\overline{\mathcal{Z}}$		evening rise	1968 Jul 26 08:20	13° Ω 18'03	
direct	1966 Feb 15 18:41	28° $\overline{\mathcal{Z}}$ 14'17			1968 Aug 08 21:49	0° \mathbb{M}	
	1966 Feb 25 10:54	0° \approx			1968 Sep 02 06:39	0° $\underline{\mathcal{A}}$	
greatest brilliancy	1966 Feb 26 14:39	0° \approx 25'24	-4.6m		1968 Sep 26 16:45	0° \mathbb{M}	
morning max el	1966 Apr 06 13:18	29° \approx 53'38	46°24'02	desc. node	1968 Oct 02 02:13	6° \mathbb{M} 36'45	
	1966 Apr 06 15:53	0° \mathbb{H}			1968 Oct 21 05:16	0° \mathcal{Z}	
desc. node	1966 Apr 17 07:02	10° \mathbb{H} 46'30			1968 Nov 14 21:47	0° $\overline{\mathcal{Z}}$	
	1966 May 05 04:33	0° \mathbb{Y}			1968 Dec 09 22:40	0° \approx	
	1966 May 31 18:00	0° \mathcal{B}			1969 Jan 04 20:07	0° \mathbb{H}	
	1966 Jun 26 11:40	0° Π		asc. node	1969 Jan 23 05:30	19° \mathbb{H} 58'45	
	1966 Jul 21 17:11	0° Θ		evening max el	1969 Jan 26 22:18	23° \mathbb{H} 47'01	46°58'31
asc. node	1966 Aug 08 10:32	21° Θ 22'29			1969 Feb 02 04:45	0° \mathbb{Y}	
	1966 Aug 15 12:47	0° Ω		greatest brilliancy	1969 Mar 04 12:08	23° \mathbb{Y} 16'24	-4.6m
	1966 Sep 08 23:40	0° \mathbb{M}		retrograde	1969 Mar 18 11:49	26° \mathbb{Y} 49'42	
morning set	1966 Oct 01 14:24	28° \mathbb{M} 03'39		evening set	1969 Apr 04 16:11	21° \mathbb{Y} 03'56	
	1966 Oct 03 03:44	0° $\underline{\mathcal{A}}$		inferior conj	1969 Apr 08 15:10	18° \mathbb{Y} 36'08	7°19'50
	1966 Oct 27 03:28	0° \mathbb{M}		minimum elong	1969 Apr 09 00:19	18° \mathbb{Y} 21'42	7°18'22
max. Earth dist.	1966 Nov 07 05:24	13° \mathbb{M} 53'52	1.71420 AU	min. Earth dist.	1969 Apr 08 11:02	18° \mathbb{Y} 42'40	0.28334 AU
				morning rise	1969 Apr 13 08:49	15° \mathbb{Y} 41'44	
superior conj	1966 Nov 09 00:40	16° \mathbb{M} 09'39	0°43'19	direct	1969 Apr 29 19:20	10° \mathbb{Y} 29'39	
minimum elong	1966 Nov 09 10:01	16° \mathbb{M} 39'02	0°42'54	greatest brilliancy	1969 May 11 11:47	12° \mathbb{Y} 57'57	-4.5m
	1966 Nov 20 01:06	0° \mathcal{Z}		desc. node	1969 May 14 18:47	14° \mathbb{Y} 25'51	
desc. node	1966 Nov 28 00:00	9° \mathcal{Z} 59'30			1969 Jun 06 01:48	0° \mathcal{B}	
	1966 Dec 13 22:09	0° $\overline{\mathcal{Z}}$		morning max el	1969 Jun 17 17:06	10° \mathcal{B} 35'38	45°46'57
evening rise	1966 Dec 19 21:33	7° $\overline{\mathcal{Z}}$ 30'29			1969 Jul 06 22:04	0° Π	
	1967 Jan 06 19:36	0° \approx			1969 Aug 03 05:30	0° Θ	
	1967 Jan 30 18:53	0° \mathbb{H}			1969 Aug 29 02:48	0° Ω	
	1967 Feb 23 22:29	0° \mathbb{Y}		asc. node	1969 Sep 04 22:18	8° Ω 04'53	
	1967 Mar 20 09:56	0° \mathcal{B}			1969 Sep 23 03:26	0° \mathbb{M}	
asc. node	1967 Mar 21 03:15	0° \mathcal{B} 52'35			1969 Oct 17 14:17	0° $\underline{\mathcal{A}}$	
	1967 Apr 14 09:54	0° Π			1969 Nov 10 16:40	0° \mathbb{M}	
	1967 May 10 06:05	0° Θ			1969 Dec 04 14:41	0° \mathcal{Z}	
	1967 Jun 06 16:48	0° Ω		morning set	1969 Dec 14 03:00	11° \mathcal{Z} 57'53	
evening max el	1967 Jun 21 00:05	14° Ω 19'54	45°24'17	desc. node	1969 Dec 25 11:47	26° \mathcal{Z} 15'48	
	1967 Jul 08 22:11	0° \mathbb{M}			1969 Dec 28 11:04	0° $\overline{\mathcal{Z}}$	
desc. node	1967 Jul 10 16:41	1° \mathbb{M} 20'58			1970 Jan 21 07:26	0° \approx	
greatest brilliancy	1967 Jul 27 01:49	11° \mathbb{M} 09'35	-4.5m				
retrograde	1967 Aug 08 14:29	13° \mathbb{M} 54'24		superior conj	1970 Jan 24 20:27	4° \approx 27'04	-1°-4'-25
evening set	1967 Aug 26 07:09	8° \mathbb{M} 03'06		minimum elong	1970 Jan 24 08:32	3° \approx 49'39	1°04'02
inferior conj	1967 Aug 29 21:40	5° \mathbb{M} 51'00	-8°-30'-22	max. Earth dist.	1970 Jan 27 14:32	7° \approx 54'36	1.71244 AU
minimum elong	1967 Aug 29 17:38	5° \mathbb{M} 57'14	8°30'09		1970 Feb 14 05:04	0° \mathbb{H}	
min. Earth dist.	1967 Aug 30 07:40	5° \mathbb{M} 35'30	0.28636 AU	evening rise	1970 Mar 06 17:15	25° \mathbb{H} 37'49	
morning rise	1967 Sep 02 04:00	3° \mathbb{M} 50'51			1970 Mar 10 05:25	0° \mathbb{Y}	
	1967 Sep 09 11:58	30° \mathbb{R} Ω			1970 Apr 03 10:05	0° \mathcal{B}	
direct	1967 Sep 20 09:34	27° Ω 38'09		asc. node	1970 Apr 17 15:14	17° \mathcal{B} 29'38	
	1967 Oct 01 18:07	0° \mathbb{M}			1970 Apr 27 20:33	0° Π	
greatest brilliancy	1967 Oct 04 21:36	1° \mathbb{M} 23'06	-4.6m		1970 May 22 14:19	0° Θ	
asc. node	1967 Oct 31 19:56	21° \mathbb{M} 23'58			1970 Jun 16 17:49	0° Ω	
morning max el	1967 Nov 09 15:17	29° \mathbb{M} 56'50	46°35'34		1970 Jul 12 12:16	0° \mathbb{M}	
	1967 Nov 09 16:32	0° $\underline{\mathcal{A}}$		desc. node	1970 Aug 07 04:21	28° \mathbb{M} 39'53	
	1967 Dec 07 08:48	0° \mathbb{M}			1970 Aug 08 09:59	0° $\underline{\mathcal{A}}$	
	1968 Jan 01 22:37	0° \mathcal{Z}		evening max el	1970 Sep 01 07:37	24° $\underline{\mathcal{A}}$ 33'59	46°09'25
	1968 Jan 26 17:35	0° $\overline{\mathcal{Z}}$			1970 Sep 07 01:54	0° \mathbb{M}	
desc. node	1968 Feb 20 09:23	0° \approx 13'43		greatest brilliancy	1970 Oct 10 03:41	23° \mathbb{M} 11'53	-4.6m
	1968 Feb 20 04:55	0° \approx		retrograde	1970 Oct 20 15:57	25° \mathbb{M} 12'53	
	1968 Mar 15 13:32	0° \mathbb{H}		evening set	1970 Nov 05 02:15	20° \mathbb{M} 39'00	
	1968 Apr 08 21:48	0° \mathbb{Y}		inferior conj	1970 Nov 10 08:49	17° \mathbb{M} 32'47	-4°-25'-5
	1968 May 03 06:56	0° \mathcal{B}		minimum elong	1970 Nov 10 17:49	17° \mathbb{M} 19'04	4°22'36
morning set	1968 May 14 13:30	13° \mathcal{B} 51'08		min. Earth dist.	1970 Nov 11 02:02	17° \mathbb{M} 06'31	0.26842 AU
	1968 May 27 17:02	0° Π		morning rise	1970 Nov 16 08:43	14° \mathbb{M} 01'32	
asc. node	1968 Jun 12 12:55	19° Π 26'10		asc. node	1970 Nov 28 07:47	9° \mathbb{M} 55'36	
				direct	1970 Dec 01 00:03	9° \mathbb{M} 46'50	
superior conj	1968 Jun 20 10:22	29° Π 07'51	0°18'39	greatest brilliancy	1970 Dec 14 06:19	13° \mathbb{M} 01'20	-4.7m
minimum elong	1968 Jun 20 06:36	28° Π 56'16	0°18'28		1971 Jan 07 01:00	0° \mathcal{Z}	

morning max el	1971 Jan 20 16:24	13° ♁ 07'03	46°57'19		1973 Aug 19 01:10	0° ♁	
	1971 Feb 05 14:57	0° ♁		desc. node	1973 Sep 03 16:17	18° ♁ 34'42	
	1971 Mar 04 02:24	0° ♁			1973 Sep 13 09:05	0° ♁	
desc. node	1971 Mar 19 21:17	18° ♁ 30'02			1973 Oct 09 08:08	0° ♁	
	1971 Mar 29 14:02	0° ♁			1973 Nov 05 15:39	0° ♁	
	1971 Apr 23 15:44	0° ♁		evening max el	1973 Nov 13 10:43	8° ♁ 01'15	47°12'04
	1971 May 18 12:48	0° ♁			1973 Dec 07 21:37	0° ♁	
	1971 Jun 12 06:58	0° ♁		greatest brilliancy	1973 Dec 21 23:54	8° ♁ 32'43	-4.7m
	1971 Jul 06 22:02	0° ♁		asc. node	1973 Dec 25 19:43	9° ♁ 59'19	
asc. node	1971 Jul 11 00:43	5° ♁ 01'33		retrograde	1974 Jan 03 06:07	11° ♁ 22'25	
morning set	1971 Jul 22 08:54	18° ♁ 55'19		evening set	1974 Jan 18 18:41	6° ♁ 33'55	
	1971 Jul 31 09:15	0° ♁		min. Earth dist.	1974 Jan 23 00:55	4° ♁ 01'30	0.26830 AU
max. Earth dist.	1971 Aug 24 09:14	29° ♁ 37'45	1.72874 AU	inferior conj	1974 Jan 23 21:20	3° ♁ 30'05	6°40'03
	1971 Aug 24 16:25	0° ♁		minimum elong	1974 Jan 23 10:52	3° ♁ 46'12	6°37'49
				morning rise	1974 Jan 28 03:27	0° ♁ 56'25	
superior conj	1971 Aug 27 18:54	3° ♁ 50'42	1°22'38		1974 Jan 29 19:51	30° ♁	
minimum elong	1971 Aug 27 14:53	3° ♁ 38'16	1°22'36	direct	1974 Feb 13 07:28	25° ♁ 48'16	
	1971 Sep 17 20:25	0° ♁		greatest brilliancy	1974 Feb 24 03:08	27° ♁ 59'49	-4.6m
evening rise	1971 Oct 03 20:36	19° ♁ 55'32			1974 Feb 28 14:25	0° ♁	
	1971 Oct 11 22:43	0° ♁		morning max el	1974 Apr 04 03:49	27° ♁ 35'13	46°25'46
desc. node	1971 Oct 30 14:11	23° ♁ 14'07			1974 Apr 06 14:17	0° ♁	
	1971 Nov 05 00:30	0° ♁		desc. node	1974 Apr 16 09:09	10° ♁ 01'52	
	1971 Nov 29 02:41	0° ♁			1974 May 04 20:21	0° ♁	
	1971 Dec 23 06:32	0° ♁			1974 May 31 07:19	0° ♁	
	1972 Jan 16 15:01	0° ♁			1974 Jun 25 23:44	0° ♁	
	1972 Feb 10 10:08	0° ♁			1974 Jul 21 04:34	0° ♁	
asc. node	1972 Feb 20 17:18	12° ♁ 11'30		asc. node	1974 Aug 07 12:29	20° ♁ 54'50	
	1972 Mar 07 03:25	0° ♁			1974 Aug 14 23:46	0° ♁	
	1972 Apr 03 22:48	0° ♁			1974 Sep 08 10:27	0° ♁	
evening max el	1972 Apr 08 00:08	4° ♁ 01'48	45°51'37	morning set	1974 Sep 29 05:57	25° ♁ 49'16	
	1972 May 10 13:51	0° ♁			1974 Oct 02 14:27	0° ♁	
greatest brilliancy	1972 May 12 09:53	0° ♁ 55'40	-4.5m		1974 Oct 26 14:12	0° ♁	
retrograde	1972 May 27 03:14	4° ♁ 44'38		max. Earth dist.	1974 Nov 04 15:00	11° ♁ 19'35	1.71457 AU
evening set	1972 Jun 11 04:43	0° ♁ 21'19					
desc. node	1972 Jun 11 06:45	0° ♁ 18'33		superior conj	1974 Nov 06 13:09	13° ♁ 44'21	0°46'29
	1972 Jun 11 20:09	30° ♁		minimum elong	1974 Nov 06 22:52	14° ♁ 14'50	0°46'05
inferior conj	1972 Jun 17 15:09	26° ♁ 30'09	-1°-29'-33		1974 Nov 19 11:56	0° ♁	
minimum elong	1972 Jun 17 11:53	26° ♁ 35'16	1°28'37	desc. node	1974 Nov 27 02:02	9° ♁ 31'49	
min. Earth dist.	1972 Jun 17 13:40	26° ♁ 32'29	0.28942 AU		1974 Dec 13 09:06	0° ♁	
morning rise	1972 Jun 23 19:01	22° ♁ 47'18		evening rise	1974 Dec 17 07:49	4° ♁ 57'32	
direct	1972 Jul 09 04:55	18° ♁ 13'11			1975 Jan 06 06:39	0° ♁	
greatest brilliancy	1972 Jul 22 20:03	21° ♁ 26'26	-4.5m		1975 Jan 30 06:05	0° ♁	
	1972 Aug 06 01:26	0° ♁			1975 Feb 23 09:53	0° ♁	
morning max el	1972 Aug 27 02:15	18° ♁ 06'08	45°52'41		1975 Mar 19 21:42	0° ♁	
	1972 Sep 07 23:27	0° ♁		asc. node	1975 Mar 20 05:23	0° ♁ 23'18	
asc. node	1972 Oct 02 10:19	26° ♁ 39'49			1975 Apr 13 22:26	0° ♁	
	1972 Oct 05 08:33	0° ♁			1975 May 09 20:11	0° ♁	
	1972 Oct 30 21:40	0° ♁			1975 Jun 06 10:54	0° ♁	
	1972 Nov 24 13:23	0° ♁		evening max el	1975 Jun 18 16:07	12° ♁ 10'22	45°23'52
	1972 Dec 18 18:34	0° ♁			1975 Jul 09 11:06	0° ♁	
	1973 Jan 11 19:15	0° ♁		desc. node	1975 Jul 09 18:35	0° ♁ 13'39	
desc. node	1973 Jan 21 23:33	12° ♁ 43'57		greatest brilliancy	1975 Jul 24 15:12	8° ♁ 56'38	-4.5m
	1973 Feb 04 18:43	0° ♁		retrograde	1975 Aug 06 05:21	11° ♁ 42'47	
	1973 Feb 28 18:45	0° ♁		evening set	1975 Aug 23 19:55	5° ♁ 55'20	
morning set	1973 Mar 01 07:37	0° ♁ 40'11		inferior conj	1975 Aug 27 13:11	3° ♁ 38'52	-8°-25'-33
	1973 Mar 24 20:34	0° ♁		minimum elong	1975 Aug 27 08:25	3° ♁ 46'16	8°25'15
				min. Earth dist.	1975 Aug 27 22:13	3° ♁ 24'49	0.28675 AU
superior conj	1973 Apr 09 19:13	19° ♁ 47'38	-1°-11'-26	morning rise	1975 Aug 30 20:46	1° ♁ 36'32	
minimum elong	1973 Apr 10 04:50	20° ♁ 17'25	1°11'11		1975 Sep 02 15:34	30° ♁	
max. Earth dist.	1973 Apr 13 05:00	24° ♁ 00'53	1.72677 AU	direct	1975 Sep 18 01:46	25° ♁ 25'42	
	1973 Apr 18 01:05	0° ♁		greatest brilliancy	1975 Oct 02 11:52	29° ♁ 07'52	-4.6m
	1973 May 12 08:42	0° ♁			1975 Oct 04 05:19	0° ♁	
asc. node	1973 May 15 03:09	3° ♁ 24'19		asc. node	1975 Oct 30 22:01	20° ♁ 29'08	
evening rise	1973 May 17 22:41	6° ♁ 51'49		morning max el	1975 Nov 07 05:46	27° ♁ 37'55	46°33'57
	1973 Jun 05 19:20	0° ♁			1975 Nov 09 13:52	0° ♁	
	1973 Jun 30 08:55	0° ♁			1975 Dec 07 00:29	0° ♁	
	1973 Jul 25 02:13	0° ♁			1976 Jan 01 12:14	0° ♁	

	1976 Jan 26 06:09	0°☾			1978 Aug 08 03:08	0°♊	
desc. node	1976 Feb 19 11:25	29°☾43'19		evening max el	1978 Aug 29 19:54	22°♊11'17	46°07'02
	1976 Feb 19 16:50	0°≈			1978 Sep 07 05:07	0°♋	
	1976 Mar 15 00:59	0°☿		greatest brilliancy	1978 Oct 07 16:05	20°♋47'19	-4.6m
	1976 Apr 08 08:56	0°♈		retrograde	1978 Oct 18 03:58	22°♋48'20	
	1976 May 02 17:49	0°♉		evening set	1978 Nov 02 17:42	18°♋09'45	
morning set	1976 May 12 06:38	11°♉43'16		inferior conj	1978 Nov 07 21:34	15°♋07'32	-4°-45'-12
	1976 May 27 03:43	0°♊		minimum elong	1978 Nov 08 07:01	14°♋53'09	4°42'40
asc. node	1976 Jun 11 14:55	18°♊59'44		min. Earth dist.	1978 Nov 08 16:03	14°♋39'23	0.26903 AU
				morning rise	1978 Nov 13 19:37	11°♋38'46	
superior conj	1976 Jun 18 04:36	27°♊03'55	0°15'34	asc. node	1978 Nov 27 09:48	7°♋21'45	
minimum elong	1976 Jun 18 01:25	26°♊54'10	0°15'25	direct	1978 Nov 28 13:09	7°♋20'09	
behind sun begin	1976 Jun 17 20:15	26°♊38'15		greatest brilliancy	1978 Dec 11 23:07	10°♋38'52	-4.7m
behind sun end	1976 Jun 18 06:36	27°♊10'05			1979 Jan 07 06:38	0°♌	
max. Earth dist.	1976 Jun 17 20:26	26°♊38'52	1.73588 AU	morning max el	1979 Jan 18 06:20	10°♌42'05	46°57'34
	1976 Jun 20 13:56	0°☿			1979 Feb 05 09:16	0°☾	
	1976 Jul 14 23:36	0°♈			1979 Mar 03 17:18	0°≈	
evening rise	1976 Jul 24 03:18	11°♈15'50		desc. node	1979 Mar 18 23:28	17°≈55'40	
	1976 Aug 08 08:36	0°♉			1979 Mar 29 03:18	0°☿	
	1976 Sep 01 17:44	0°♊			1979 Apr 23 04:02	0°♈	
	1976 Sep 26 04:17	0°♋			1979 May 18 00:29	0°♉	
desc. node	1976 Oct 01 04:20	6°♋07'40			1979 Jun 11 18:13	0°♊	
	1976 Oct 20 17:22	0°♌			1979 Jul 06 09:02	0°☿	
	1976 Nov 14 10:42	0°☾		asc. node	1979 Jul 10 02:43	4°☿34'06	
	1976 Dec 09 12:53	0°≈		morning set	1979 Jul 20 02:50	16°☿49'32	
	1977 Jan 04 13:01	0°☿			1979 Jul 30 20:07	0°♈	
asc. node	1977 Jan 22 07:29	19°☿09'46		max. Earth dist.	1979 Aug 22 05:51	27°♈39'23	1.72917 AU
evening max el	1977 Jan 24 12:43	21°☿26'03	47°00'17		1979 Aug 24 03:16	0°♉	
	1977 Feb 02 05:54	0°♈					
greatest brilliancy	1977 Mar 02 06:20	21°♈03'14	-4.6m	superior conj	1979 Aug 25 12:38	1°♉43'21	1°21'51
retrograde	1977 Mar 16 03:01	24°♈33'28		minimum elong	1979 Aug 25 08:02	1°♉29'05	1°21'47
evening set	1977 Apr 02 10:24	18°♈44'02			1979 Sep 17 07:21	0°♊	
inferior conj	1977 Apr 06 06:29	16°♈20'29	7°31'22	evening rise	1979 Oct 01 11:57	17°♊39'40	
minimum elong	1977 Apr 06 15:17	16°♈06'35	7°30'01		1979 Oct 11 09:48	0°♋	
min. Earth dist.	1977 Apr 06 02:01	16°♈27'33	0.28296 AU	desc. node	1979 Oct 29 16:14	22°♋45'23	
morning rise	1977 Apr 10 20:30	13°♈31'06			1979 Nov 04 11:50	0°♌	
direct	1977 Apr 27 09:49	8°♈14'45			1979 Nov 28 14:20	0°☾	
greatest brilliancy	1977 May 09 00:34	10°♈40'53	-4.5m		1979 Dec 22 18:35	0°≈	
desc. node	1977 May 13 20:50	12°♈55'28			1980 Jan 16 03:37	0°☿	
	1977 Jun 06 06:10	0°♉			1980 Feb 09 23:39	0°♈	
morning max el	1977 Jun 15 07:23	8°♉20'44	45°47'45	asc. node	1980 Feb 19 19:27	11°♈36'24	
	1977 Jul 06 15:09	0°♊			1980 Mar 06 18:54	0°♉	
	1977 Aug 02 19:19	0°☿			1980 Apr 03 19:46	0°♊	
	1977 Aug 28 15:09	0°♈		evening max el	1980 Apr 05 15:45	1°♊48'31	45°53'47
asc. node	1977 Sep 04 00:29	7°♈35'14		greatest brilliancy	1980 May 10 00:50	28°♊43'58	-4.5m
	1977 Sep 22 15:05	0°♉			1980 May 12 20:53	0°☿	
	1977 Oct 17 01:37	0°♊		retrograde	1980 May 24 20:10	2°☿35'09	
	1977 Nov 10 03:52	0°♋			1980 Jun 05 05:44	30°♋♊	
	1977 Dec 04 01:49	0°♌		evening set	1980 Jun 08 21:11	28°♋11'17	
morning set	1977 Dec 11 13:40	9°♌25'28		desc. node	1980 Jun 10 08:43	27°♋21'17	
desc. node	1977 Dec 24 13:45	25°♌47'07		inferior conj	1980 Jun 15 07:27	24°♋20'18	-1°-9'-53
	1977 Dec 27 22:09	0°☾		minimum elong	1980 Jun 15 04:53	24°♋24'18	1°09'09
	1978 Jan 20 18:29	0°≈		min. Earth dist.	1980 Jun 15 05:53	24°♋22'44	0.28932 AU
				morning rise	1980 Jun 21 12:40	20°♋35'55	
superior conj	1978 Jan 22 06:15	1°≈52'23	-1°-1'-41	direct	1980 Jul 06 21:15	16°♋03'21	
minimum elong	1978 Jan 21 18:16	1°≈14'42	1°01'17	greatest brilliancy	1980 Jul 20 11:48	19°♋16'34	-4.5m
max. Earth dist.	1978 Jan 24 17:51	4°≈59'35	1.71213 AU		1980 Aug 06 14:25	0°☿	
	1978 Feb 13 16:07	0°☿		morning max el	1980 Aug 24 19:05	15°☿57'26	45°51'50
evening rise	1978 Mar 04 04:33	23°☿08'57			1980 Sep 07 17:57	0°♈	
	1978 Mar 09 16:29	0°♈		asc. node	1980 Oct 01 12:19	26°♈03'18	
	1978 Apr 02 21:14	0°♉			1980 Oct 04 23:07	0°♉	
asc. node	1978 Apr 16 17:19	17°♉01'35			1980 Oct 30 10:38	0°♊	
	1978 Apr 27 07:53	0°♊			1980 Nov 24 01:35	0°♋	
	1978 May 22 02:03	0°☿			1980 Dec 18 06:21	0°♌	
	1978 Jun 16 06:19	0°♈			1981 Jan 11 06:48	0°☾	
	1978 Jul 12 02:14	0°♉		desc. node	1981 Jan 21 01:38	12°☾14'33	
desc. node	1978 Aug 06 06:26	27°♉59'56			1981 Feb 04 06:07	0°≈	

morning set	1981 Feb 26 18:52	28° \approx 10'12		evening set	1983 Aug 21 08:24	3° \cap 46'23	
	1981 Feb 28 06:01	0° \times		inferior conj	1983 Aug 25 04:35	1° \cap 25'26	-8°-20'-2
	1981 Mar 24 07:43	0° Υ		minimum elong	1983 Aug 24 23:08	1° \cap 33'55	8°19'36
				min. Earth dist.	1983 Aug 25 12:59	1° \cap 12'20	0.28712 AU
superior conj	1981 Apr 07 09:22	17° Υ 28'20	-1°-13'-22		1983 Aug 27 11:44	30° \mathbb{R} Ω	
minimum elong	1981 Apr 07 18:41	17° Υ 57'14	1°13'08	morning rise	1983 Aug 28 13:41	29° Ω 20'34	
max. Earth dist.	1981 Apr 10 20:39	21° Υ 46'26	1.72626 AU	direct	1983 Sep 15 17:22	23° Ω 11'49	
	1981 Apr 17 12:08	0° \mathcal{B}		greatest brilliancy	1983 Sep 30 02:41	26° Ω 52'06	-4.6m
	1981 May 11 19:45	0° Π			1983 Oct 05 19:35	0° \cap	
asc. node	1981 May 14 05:05	2° Π 56'19		asc. node	1983 Oct 30 00:00	19° \cap 34'04	
evening rise	1981 May 15 15:18	4° Π 41'28		morning max el	1983 Nov 04 19:22	25° \cap 15'47	46°32'29
	1981 Jun 05 06:29	0° \mathfrak{S}			1983 Nov 09 10:52	0° \mathfrak{L}	
	1981 Jun 29 20:20	0° Ω			1983 Dec 06 16:15	0° \mathbb{M}	
	1981 Jul 24 14:04	0° \cap			1984 Jan 01 02:00	0° \mathcal{A}	
	1981 Aug 18 13:44	0° \mathfrak{L}			1984 Jan 25 18:51	0° \mathfrak{Z}	
desc. node	1981 Sep 02 18:25	18° \mathfrak{L} 01'55		desc. node	1984 Feb 18 13:34	29° \mathfrak{Z} 12'53	
	1981 Sep 12 22:51	0° \mathbb{M}			1984 Feb 19 04:52	0° \approx	
	1981 Oct 09 00:04	0° \mathcal{A}			1984 Mar 14 12:35	0° \times	
	1981 Nov 05 12:39	0° \mathfrak{Z}			1984 Apr 07 20:13	0° Υ	
evening max el	1981 Nov 11 01:55	5° \mathfrak{Z} 40'20	47°10'52		1984 May 02 04:53	0° \mathcal{B}	
	1981 Dec 08 20:52	0° \approx		morning set	1984 May 09 23:33	9° \mathcal{B} 33'55	
greatest brilliancy	1981 Dec 19 13:49	6° \approx 05'29	-4.7m		1984 May 26 14:40	0° Π	
asc. node	1981 Dec 24 21:40	7° \approx 57'42		asc. node	1984 Jun 10 16:57	18° Π 32'36	
retrograde	1981 Dec 31 19:45	8° \approx 54'05					
evening set	1982 Jan 16 04:09	4° \approx 11'06		superior conj	1984 Jun 15 22:32	24° Π 58'13	0°12'25
min. Earth dist.	1982 Jan 20 13:48	1° \approx 33'48	0.26783 AU	minimum elong	1984 Jun 15 19:59	24° Π 50'22	0°12'18
inferior conj	1982 Jan 21 10:06	1° \approx 02'34	6°23'58	behind sun begin	1984 Jun 15 05:37	24° Π 06'14	
minimum elong	1982 Jan 20 23:36	1° \approx 18'43	6°21'37	behind sun end	1984 Jun 16 10:22	25° Π 34'31	
	1982 Jan 23 02:56	30° \mathbb{R} \mathfrak{Z}		max. Earth dist.	1984 Jun 15 16:12	24° Π 38'44	1.73583 AU
morning rise	1982 Jan 25 19:32	28° \mathfrak{Z} 24'23			1984 Jun 20 00:48	0° \mathfrak{S}	
direct	1982 Feb 10 20:38	23° \mathfrak{Z} 21'39			1984 Jul 14 10:30	0° Ω	
greatest brilliancy	1982 Feb 21 15:31	25° \mathfrak{Z} 32'56	-4.6m	evening rise	1984 Jul 21 21:56	9° Ω 11'46	
	1982 Mar 02 11:25	0° \approx			1984 Aug 07 19:40	0° \cap	
morning max el	1982 Apr 01 17:50	25° \approx 14'03	46°27'10		1984 Sep 01 05:07	0° \mathfrak{L}	
	1982 Apr 06 12:20	0° \times			1984 Sep 25 16:05	0° \mathbb{M}	
desc. node	1982 Apr 15 11:09	9° \times 16'08		desc. node	1984 Sep 30 06:19	5° \mathbb{M} 37'18	
	1982 May 04 12:27	0° Υ			1984 Oct 20 05:45	0° \mathcal{A}	
	1982 May 30 21:02	0° \mathcal{B}			1984 Nov 13 23:54	0° \mathfrak{Z}	
	1982 Jun 25 12:13	0° Π			1984 Dec 09 03:26	0° \approx	
	1982 Jul 20 16:21	0° \mathfrak{S}			1985 Jan 04 06:23	0° \times	
asc. node	1982 Aug 06 14:37	20° \mathfrak{S} 26'33		asc. node	1985 Jan 21 09:40	18° \times 20'17	
	1982 Aug 14 11:09	0° Ω		evening max el	1985 Jan 22 02:29	19° \times 03'11	47°02'12
	1982 Sep 07 21:38	0° \cap			1985 Feb 02 08:29	0° Υ	
morning set	1982 Sep 26 21:31	23° \cap 33'46		greatest brilliancy	1985 Feb 27 23:44	18° Υ 49'05	-4.6m
	1982 Oct 02 01:32	0° \mathfrak{L}		retrograde	1985 Mar 13 18:17	22° Υ 17'46	
	1982 Oct 26 01:19	0° \mathbb{M}		evening set	1985 Mar 31 04:42	16° Υ 24'32	
max. Earth dist.	1982 Nov 01 22:13	8° \mathbb{M} 36'50	1.71491 AU	inferior conj	1985 Apr 03 22:00	14° Υ 05'18	7°42'02
				minimum elong	1985 Apr 04 06:25	13° Υ 52'00	7°40'49
superior conj	1982 Nov 04 02:02	11° \mathbb{M} 19'20	0°49'33	min. Earth dist.	1985 Apr 03 17:17	14° Υ 12'47	0.28260 AU
minimum elong	1982 Nov 04 12:02	11° \mathbb{M} 50'42	0°49'08	morning rise	1985 Apr 08 08:24	11° Υ 21'03	
	1982 Nov 18 23:07	0° \mathcal{A}		direct	1985 Apr 25 00:09	6° Υ 00'06	
desc. node	1982 Nov 26 04:01	9° \mathcal{A} 02'58		greatest brilliancy	1985 May 06 14:30	8° Υ 25'20	-4.5m
	1982 Dec 12 20:20	0° \mathfrak{Z}		desc. node	1985 May 12 22:50	11° Υ 28'18	
evening rise	1982 Dec 14 18:29	2° \mathfrak{Z} 24'56			1985 Jun 06 08:53	0° \mathcal{B}	
	1983 Jan 05 17:58	0° \approx		morning max el	1985 Jun 12 21:56	6° \mathcal{B} 06'10	45°48'24
	1983 Jan 29 17:31	0° \times			1985 Jul 06 08:01	0° Π	
	1983 Feb 22 21:35	0° Υ			1985 Aug 02 09:10	0° \mathfrak{S}	
asc. node	1983 Mar 19 07:24	29° Υ 52'33			1985 Aug 28 03:39	0° Ω	
	1983 Mar 19 09:51	0° \mathcal{B}		asc. node	1985 Sep 03 02:31	7° Ω 04'39	
	1983 Apr 13 11:26	0° Π			1985 Sep 22 02:53	0° \cap	
	1983 May 09 10:56	0° \mathfrak{S}			1985 Oct 16 13:04	0° \mathfrak{L}	
	1983 Jun 06 06:04	0° Ω			1985 Nov 09 15:08	0° \mathbb{M}	
evening max el	1983 Jun 16 07:15	9° Ω 57'08	45°23'33		1985 Dec 03 13:00	0° \mathcal{A}	
desc. node	1983 Jul 08 20:41	29° Ω 03'19		morning set	1985 Dec 09 00:23	6° \mathcal{A} 53'02	
	1983 Jul 10 05:25	0° \cap		desc. node	1985 Dec 23 15:51	25° \mathcal{A} 18'37	
greatest brilliancy	1983 Jul 22 04:46	6° \cap 42'21	-4.5m		1985 Dec 27 09:17	0° \mathfrak{Z}	
retrograde	1983 Aug 03 19:44	9° \cap 29'46					

superior conj	1986 Jan 19 16:05	29°☿17'32	0°-58'-49	morning rise	1988 Jun 19 06:23	18°♄26'26	
minimum elong	1986 Jan 19 04:06	28°☿39'53	0°58'24	direct	1988 Jul 04 14:09	13°♄55'32	
	1986 Jan 20 05:36	0°≈		greatest brilliancy	1988 Jul 18 02:30	17°♄07'04	-4.5m
max. Earth dist.	1986 Jan 21 20:19	2°≈01'40	1.71185 AU		1988 Aug 06 23:24	0°☿	
	1986 Feb 13 03:11	0°✕		morning max el	1988 Aug 22 11:46	13°☿49'43	45°50'44
evening rise	1986 Mar 01 16:02	20°✕40'36			1988 Sep 07 11:37	0°♄	
	1986 Mar 09 03:32	0°♄		asc. node	1988 Sep 30 14:18	25°♄27'50	
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asc. node	1986 Apr 15 19:17	16°♄33'19			1988 Oct 29 23:20	0°♄	
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desc. node	1986 Aug 05 08:33	27°♄19'22			1989 Feb 03 17:15	0°≈	
	1986 Aug 07 20:46	0°♄		morning set	1989 Feb 24 05:58	25°≈40'45	
evening max el	1986 Aug 27 08:52	19°♄50'15	46°04'43		1989 Feb 27 16:59	0°✕	
	1986 Sep 07 10:15	0°♄			1989 Mar 23 18:32	0°♄	
greatest brilliancy	1986 Oct 05 03:33	18°♄21'48	-4.6m				
retrograde	1986 Oct 15 16:33	20°♄23'49		superior conj	1989 Apr 04 23:29	15°♄09'50	-1°-15'-11
evening set	1986 Oct 31 09:14	15°♄40'22		minimum elong	1989 Apr 05 08:27	15°♄37'39	1°14'59
inferior conj	1986 Nov 05 10:16	12°♄42'11	-5°-4'-45	max. Earth dist.	1989 Apr 08 13:57	19°♄37'56	1.72573 AU
minimum elong	1986 Nov 05 20:06	12°♄27'14	5°02'11		1989 Apr 16 22:52	0°♄	
min. Earth dist.	1986 Nov 06 05:37	12°♄12'46	0.26964 AU		1989 May 11 06:28	0°♄	
morning rise	1986 Nov 11 06:18	9°♄16'27		evening rise	1989 May 13 08:02	2°♄32'25	
direct	1986 Nov 26 02:46	4°♄53'38		asc. node	1989 May 13 07:13	2°♄29'53	
asc. node	1986 Nov 26 11:50	4°♄53'49			1989 Jun 04 17:17	0°☿	
greatest brilliancy	1986 Dec 09 15:23	8°♄16'02	-4.7m		1989 Jun 29 07:21	0°♄	
	1987 Jan 07 10:20	0°♄			1989 Jul 24 01:31	0°♄	
morning max el	1987 Jan 15 20:58	8°♄19'13	46°57'45		1989 Aug 18 01:58	0°♄	
	1987 Feb 05 03:03	0°☿		desc. node	1989 Sep 01 20:22	17°♄29'31	
	1987 Mar 03 07:55	0°≈			1989 Sep 12 12:22	0°♄	
desc. node	1987 Mar 18 01:23	17°≈21'09			1989 Oct 08 16:00	0°♄	
	1987 Mar 28 16:20	0°✕			1989 Nov 05 10:13	0°☿	
	1987 Apr 22 16:07	0°♄		evening max el	1989 Nov 08 16:49	3°☿19'13	47°09'19
	1987 May 17 11:56	0°♄			1989 Dec 10 04:54	0°≈	
	1987 Jun 11 05:15	0°♄		greatest brilliancy	1989 Dec 17 04:43	3°≈39'34	-4.7m
	1987 Jul 05 19:50	0°☿		asc. node	1989 Dec 23 23:51	5°≈51'17	
asc. node	1987 Jul 09 04:52	4°☿07'45		retrograde	1989 Dec 29 08:50	6°≈25'30	
morning set	1987 Jul 17 20:59	14°☿45'05		evening set	1990 Jan 13 13:36	1°≈48'14	
	1987 Jul 30 06:49	0°♄			1990 Jan 16 15:23	30°♄	
max. Earth dist.	1987 Aug 20 02:12	25°♄40'37	1.72964 AU	min. Earth dist.	1990 Jan 18 02:54	29°☿05'40	0.26734 AU
				inferior conj	1990 Jan 18 22:42	28°☿35'10	6°06'56
superior conj	1987 Aug 23 06:25	29°♄36'30	1°20'57	minimum elong	1990 Jan 18 12:14	28°☿51'17	6°04'30
minimum elong	1987 Aug 23 01:14	29°♄20'27	1°20'52	morning rise	1990 Jan 23 11:21	25°☿52'23	
	1987 Aug 23 14:00	0°♄		direct	1990 Feb 08 09:16	20°☿55'16	
	1987 Sep 16 18:12	0°♄		greatest brilliancy	1990 Feb 19 04:07	23°☿06'30	-4.6m
evening rise	1987 Sep 29 03:13	15°♄23'47			1990 Mar 03 17:52	0°≈	
	1987 Oct 10 20:49	0°♄		morning max el	1990 Mar 30 06:41	22°≈50'46	46°28'40
desc. node	1987 Oct 28 18:12	22°♄16'42			1990 Apr 06 09:13	0°✕	
	1987 Nov 03 23:04	0°♄		desc. node	1990 Apr 14 13:13	8°✕32'16	
	1987 Nov 28 01:51	0°☿			1990 May 04 03:52	0°♄	
	1987 Dec 22 06:29	0°≈			1990 May 30 10:13	0°♄	
	1988 Jan 15 16:04	0°✕			1990 Jun 25 00:14	0°♄	
	1988 Feb 09 13:04	0°♄			1990 Jul 20 03:41	0°☿	
asc. node	1988 Feb 18 21:27	11°♄01'15		asc. node	1990 Aug 05 16:40	19°☿59'20	
	1988 Mar 06 10:21	0°♄			1990 Aug 13 22:05	0°♄	
evening max el	1988 Apr 03 08:18	29°♄38'22	45°56'04		1990 Sep 07 08:21	0°♄	
	1988 Apr 03 17:07	0°♄		morning set	1990 Sep 24 13:32	21°♄21'01	
greatest brilliancy	1988 May 07 17:17	26°♄35'35	-4.5m		1990 Oct 01 12:13	0°♄	
	1988 May 17 16:26	0°☿			1990 Oct 25 12:03	0°♄	
retrograde	1988 May 22 13:26	0°☿27'14		max. Earth dist.	1990 Oct 30 05:53	5°♄56'42	1.71538 AU
	1988 May 27 07:36	30°♄					
evening set	1988 Jun 06 14:07	26°♄02'58		superior conj	1990 Nov 01 15:15	8°♄56'30	0°52'29
desc. node	1988 Jun 09 10:47	24°♄23'50		minimum elong	1990 Nov 02 01:27	9°♄28'28	0°52'05
inferior conj	1988 Jun 13 00:00	22°♄12'10	0°-50'-14		1990 Nov 18 09:58	0°♄	
minimum elong	1988 Jun 12 22:09	22°♄15'03	0°49'43	desc. node	1990 Nov 25 06:10	8°♄35'33	
min. Earth dist.	1988 Jun 12 22:10	22°♄15'02	0.28918 AU	evening rise	1990 Dec 12 04:57	29°♄52'35	







































































































































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	1991 Jan 29 04:44	0°♋			1993 Jul 06 00:21	0°♈		
	1991 Feb 22 09:02	0°♌			1993 Aug 01 22:38	0°♎		
asc. node	1991 Mar 18 09:23	29°♌22'34			1993 Aug 27 15:48	0°♏		
	1991 Mar 18 21:45	0°♍		asc. node	1993 Sep 02 04:27	6°♏34'42		
	1991 Apr 13 00:10	0°♎			1993 Sep 21 14:22	0°♐		
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	1991 Jun 06 01:16	0°♐			1993 Nov 09 02:07	0°♒		
evening max el	1991 Jun 13 21:50	7°♐43'55	45°23'25		1993 Dec 02 23:54	0°♓		
desc. node	1991 Jul 07 22:50	27°♐52'46		morning set	1993 Dec 06 11:47	4°♓23'44		
	1991 Jul 11 05:06	0°♑		desc. node	1993 Dec 22 17:57	24°♓51'03		
greatest brilliancy	1991 Jul 19 18:11	4°♑29'46	-4.5m		1993 Dec 26 20:09	0°☾		
retrograde	1991 Aug 01 10:35	7°♑19'26						
evening set	1991 Aug 18 21:03	1°♑40'03		superior conj	1994 Jan 17 02:04	26°☾43'52	0°-55'-49	
	1991 Aug 21 15:06	30°♒♏		minimum elong	1994 Jan 16 14:13	26°☾06'39	0°55'24	
inferior conj	1991 Aug 22 20:21	29°♏14'34	-8°-13'-42	max. Earth dist.	1994 Jan 19 01:44	29°☾13'42	1.71168 AU	
minimum elong	1991 Aug 22 14:15	29°♏24'04	8°13'10		1994 Jan 19 16:28	0°♊		
min. Earth dist.	1991 Aug 23 04:14	29°♏02'17	0.28745 AU		1994 Feb 12 14:04	0°♋		
morning rise	1991 Aug 26 07:14	27°♏06'54		evening rise	1994 Feb 27 03:22	18°♋12'11		
direct	1991 Sep 13 08:56	21°♏00'25			1994 Mar 08 14:28	0°♌		
greatest brilliancy	1991 Sep 27 18:39	24°♏40'07	-4.6m		1994 Apr 01 19:20	0°♍		
	1991 Oct 06 21:15	0°♑		asc. node	1994 Apr 14 21:23	16°♍05'39		
asc. node	1991 Oct 29 02:07	18°♑42'06			1994 Apr 26 06:24	0°♎		
morning max el	1991 Nov 02 09:08	22°♑55'46	46°30'56		1994 May 21 01:26	0°♏		
	1991 Nov 09 06:36	0°♑			1994 Jun 15 07:23	0°♐		
	1991 Dec 06 07:21	0°♓			1994 Jul 11 06:33	0°♑		
	1991 Dec 31 15:19	0°♓		desc. node	1994 Aug 04 10:30	26°♑38'23		
	1992 Jan 25 07:14	0°☾			1994 Aug 07 14:36	0°♒		
desc. node	1992 Feb 17 15:32	28°☾42'32		evening max el	1994 Aug 24 22:52	17°♒32'30	46°02'32	
	1992 Feb 18 16:40	0°♊			1994 Sep 07 17:12	0°♓		
	1992 Mar 13 23:57	0°♋		greatest brilliancy	1994 Oct 02 14:50	15°♓57'28	-4.6m	
	1992 Apr 07 07:16	0°♌		retrograde	1994 Oct 13 05:41	18°♓00'39		
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morning set	1992 May 07 16:10	7°♍24'28		inferior conj	1994 Nov 02 23:12	10°♓18'11	-5°-23'-30	
	1992 May 26 01:18	0°♎		minimum elong	1994 Nov 03 09:21	10°♓02'46	5°20'57	
asc. node	1992 Jun 09 19:05	18°♎06'39		min. Earth dist.	1994 Nov 03 18:58	9°♓48'09	0.27023 AU	
				morning rise	1994 Nov 08 16:58	6°♓55'45		
superior conj	1992 Jun 13 16:30	22°♎53'34	0°09'16	direct	1994 Nov 23 16:57	2°♓28'47		
minimum elong	1992 Jun 13 14:35	22°♎47'40	0°09'11	asc. node	1994 Nov 25 13:57	2°♓33'03		
behind sun begin	1992 Jun 12 19:57	21°♎50'27		greatest brilliancy	1994 Dec 07 06:47	5°♓53'21	-4.7m	
behind sun end	1992 Jun 14 09:13	23°♎44'53			1995 Jan 07 12:07	0°♓		
max. Earth dist.	1992 Jun 13 11:35	22°♎38'26	1.73575 AU	morning max el	1995 Jan 13 11:55	5°♓58'05	46°57'49	
	1992 Jun 19 11:22	0°♏			1995 Feb 04 20:12	0°☾		
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evening rise	1992 Jul 19 16:53	7°♐09'43		desc. node	1995 Mar 17 03:27	16°♊47'44		
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	1992 Sep 25 03:31	0°♓			1995 May 16 23:22	0°♍		
desc. node	1992 Sep 29 08:23	5°♓08'22			1995 Jun 10 16:18	0°♎		
	1992 Oct 19 17:47	0°♓			1995 Jul 05 06:39	0°♏		
	1992 Nov 13 12:48	0°☾		asc. node	1995 Jul 08 06:51	3°☾40'51		
	1992 Dec 08 17:49	0°♊		morning set	1995 Jul 15 14:55	12°☾39'56		
	1993 Jan 03 23:54	0°♋			1995 Jul 29 17:32	0°♌		
evening max el	1993 Jan 19 16:06	16°♋40'12	47°03'49	max. Earth dist.	1995 Aug 17 21:49	23°♌39'47	1.73005 AU	
asc. node	1993 Jan 20 11:39	17°♋29'49						
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greatest brilliancy	1993 Feb 25 16:07	16°♌33'06	-4.6m	minimum elong	1995 Aug 20 18:21	27°♌11'45	1°19'50	
retrograde	1993 Mar 11 09:28	20°♌01'23			1995 Aug 23 00:43	0°♑		
evening set	1993 Mar 28 22:31	14°♌04'11			1995 Sep 16 05:01	0°♒		
inferior conj	1993 Apr 01 13:11	11°♌49'15	7°51'58	evening rise	1995 Sep 26 18:35	13°♒08'21		
minimum elong	1993 Apr 01 21:09	11°♌36'42	7°50'56		1995 Oct 10 07:48	0°♓		
min. Earth dist.	1993 Apr 01 08:04	11°♌57'20	0.28224 AU	desc. node	1995 Oct 27 20:21	21°♓48'34		
morning rise	1993 Apr 05 19:59	9°♌10'27			1995 Nov 03 10:18	0°♔		
direct	1993 Apr 22 14:13	3°♌44'27			1995 Nov 27 13:23	0°☾		
greatest brilliancy	1993 May 04 04:46	6°♌09'51	-4.5m		1995 Dec 21 18:23	0°♊		
desc. node	1993 May 12 00:58	10°♌04'02			1996 Jan 15 04:30	0°♋		

	1996 Feb 09 02:30	0°♈			1998 Aug 13 09:19	0°♏		
asc. node	1996 Feb 17 23:28	10°♈26'05			1998 Sep 06 19:24	0°♐		
	1996 Mar 06 02:01	0°♉		morning set	1998 Sep 22 05:18	19°♐06'29		
evening max el	1996 Apr 01 00:47	27°♉27'41	45°58'03		1998 Sep 30 23:13	0°♑		
	1996 Apr 03 15:26	0°♊			1998 Oct 24 23:06	0°♒		
greatest brilliancy	1996 May 05 10:35	24°♊27'24	-4.5m	max. Earth dist.	1998 Oct 27 15:53	3°♒22'57	1.71582 AU	
retrograde	1996 May 20 06:08	28°♊17'53						
evening set	1996 Jun 04 07:00	23°♊53'18		superior conj	1998 Oct 30 04:22	6°♒32'32	0°55'20	
desc. node	1996 Jun 08 12:53	21°♊23'03		minimum elong	1998 Oct 30 14:42	7°♒04'53	0°54'56	
inferior conj	1996 Jun 10 16:19	20°♊02'46	0°-30'-23		1998 Nov 17 21:06	0°♓		
minimum elong	1996 Jun 10 15:11	20°♊04'32	0°30'04	desc. node	1998 Nov 24 08:11	8°♓06'51		
min. Earth dist.	1996 Jun 10 14:24	20°♊05'46	0.28906 AU	evening rise	1998 Dec 09 15:26	27°♓19'34		
morning rise	1996 Jun 16 23:40	16°♊15'39			1998 Dec 11 18:33	0°♈		
direct	1996 Jul 02 06:51	11°♊46'33			1999 Jan 04 16:25	0°♉		
greatest brilliancy	1996 Jul 15 16:24	14°♊55'26	-4.5m		1999 Jan 28 16:17	0°♊		
	1996 Aug 07 06:15	0°♋			1999 Feb 21 20:49	0°♋		
morning max el	1996 Aug 20 03:28	11°♋38'57	45°49'48	asc. node	1999 Mar 17 11:32	28°♋52'03		
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asc. node	1996 Sep 29 16:29	24°♌52'46			1999 Apr 12 13:17	0°♊		
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	1996 Nov 23 01:34	0°♏		evening max el	1999 Jun 11 11:54	5°♌28'36	45°23'18	
	1996 Dec 17 05:34	0°♐		desc. node	1999 Jul 07 00:44	26°♌38'36		
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	1997 Feb 03 04:28	0°♒		retrograde	1999 Jul 30 01:42	5°♐07'48		
morning set	1997 Feb 21 17:16	23°♒11'32			1999 Aug 15 14:12	30°♑♏		
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	1997 Mar 23 05:26	0°♈		inferior conj	1999 Aug 20 11:58	27°♌02'08	-8°-6'-35	
				minimum elong	1999 Aug 20 05:14	27°♌12'36	8°05'55	
superior conj	1997 Apr 02 13:45	12°♈51'24	-1°-16'-51	min. Earth dist.	1999 Aug 20 19:15	26°♌50'48	0.28782 AU	
minimum elong	1997 Apr 02 22:18	13°♈17'55	1°16'41	morning rise	1999 Aug 24 00:52	24°♌51'30		
max. Earth dist.	1997 Apr 06 09:07	17°♈34'52	1.72520 AU	direct	1999 Sep 11 00:23	18°♌47'17		
	1997 Apr 16 09:43	0°♉		greatest brilliancy	1999 Sep 25 11:43	22°♌28'08	-4.6m	
	1997 May 10 17:20	0°♊			1999 Oct 07 16:51	0°♐		
evening rise	1997 May 11 00:42	0°♊22'38		asc. node	1999 Oct 28 04:11	17°♐49'32		
asc. node	1997 May 12 09:18	2°♊02'54		morning max el	1999 Oct 30 23:35	20°♐36'12	46°29'30	
	1997 Jun 04 04:18	0°♋			1999 Nov 09 02:19	0°♑		
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greatest brilliancy	1997 Dec 14 20:18	1°♒13'50	-4.7m		2000 May 25 12:15	0°♊		
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retrograde	1997 Dec 26 21:21	3°♒56'17						
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evening set	1998 Jan 10 23:14	29°♒24'24		minimum elong	2000 Jun 11 09:15	20°♊44'07	0°06'03	
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inferior conj	1998 Jan 16 11:18	26°♒07'14	5°49'11	behind sun end	2000 Jun 12 06:22	21°♊49'02		
minimum elong	1998 Jan 16 00:58	26°♒23'10	5°46'39	max. Earth dist.	2000 Jun 11 07:54	20°♊39'59	1.73566 AU	
morning rise	1998 Jan 21 03:08	23°♒19'46			2000 Jun 18 22:15	0°♋		
direct	1998 Feb 05 21:26	18°♒28'03			2000 Jul 13 08:02	0°♌		
greatest brilliancy	1998 Feb 16 17:48	20°♒40'22	-4.6m	evening rise	2000 Jul 17 11:57	5°♌07'05		
	1998 Mar 04 16:14	0°♍			2000 Aug 06 17:32	0°♍		
morning max el	1998 Mar 27 18:39	20°♍24'27	46°30'18		2000 Aug 31 03:35	0°♎		
	1998 Apr 06 05:38	0°♈			2000 Sep 24 15:26	0°♏		
desc. node	1998 Apr 13 15:19	7°♈48'34		desc. node	2000 Sep 28 10:29	4°♏38'07		
	1998 May 03 19:16	0°♈			2000 Oct 19 06:18	0°♐		
	1998 May 29 23:32	0°♉			2000 Nov 13 02:14	0°♑		
	1998 Jun 24 12:27	0°♊			2000 Dec 08 08:48	0°♒		
	1998 Jul 19 15:17	0°♋			2001 Jan 03 18:14	0°♈		
asc. node	1998 Aug 04 18:38	19°♋30'55		evening max el	2001 Jan 17 06:09	14°♈17'16	47°05'36	

asc. node	2001 Jan 19 13:39	16° Υ 37'30		superior conj	2003 Aug 18 18:05	25° Ω 23'02	1°18'47
	2001 Feb 02 19:14	0° Υ		minimum elong	2003 Aug 18 11:53	25° Ω 03'53	1°18'41
greatest brilliancy	2001 Feb 23 07:43	14° Υ 14'59	-4.6m		2003 Aug 22 11:36	0° η	
retrograde	2001 Mar 09 01:07	17° Υ 43'46			2003 Sep 15 15:58	0° Ω	
evening set	2001 Mar 26 16:11	11° Υ 42'31		evening rise	2003 Sep 24 10:22	10° Ω 53'51	
inferior conj	2001 Mar 30 04:17	9° Υ 31'43	8°01'17		2003 Oct 09 18:56	0° \mathcal{M}	
minimum elong	2001 Mar 30 11:43	9° Υ 19'59	8°00'24	desc. node	2003 Oct 26 22:22	21° \mathcal{M} 19'37	
min. Earth dist.	2001 Mar 29 22:20	9° Υ 41'04	0.28187 AU		2003 Nov 02 21:42	0° \mathcal{Z}	
morning rise	2001 Apr 03 07:29	6° Υ 58'33			2003 Nov 27 01:07	0° \mathcal{Z}	
direct	2001 Apr 20 04:34	1° Υ 27'23			2003 Dec 21 06:32	0° \approx	
greatest brilliancy	2001 May 01 18:30	3° Υ 52'36	-4.5m		2004 Jan 14 17:16	0° Υ	
desc. node	2001 May 11 03:00	8° Υ 41'20			2004 Feb 08 16:20	0° Υ	
	2001 Jun 06 10:25	0° \mathcal{Z}		asc. node	2004 Feb 17 01:36	9° Υ 50'16	
morning max el	2001 Jun 08 04:41	1° \mathcal{Z} 40'35	45°50'18		2004 Mar 05 18:12	0° \mathcal{Z}	
	2001 Jul 05 16:44	0° \mathcal{I}		evening max el	2004 Mar 29 16:40	25° \mathcal{Z} 14'45	46°00'16
	2001 Aug 01 12:18	0° \mathcal{Z}			2004 Apr 03 14:57	0° \mathcal{I}	
	2001 Aug 27 04:12	0° Ω		greatest brilliancy	2004 May 03 04:32	22° \mathcal{I} 19'38	-4.5m
asc. node	2001 Sep 01 06:39	6° Ω 04'47		retrograde	2004 May 17 22:28	26° \mathcal{I} 08'18	
	2001 Sep 21 02:09	0° η		evening set	2004 Jun 02 00:07	21° \mathcal{I} 43'16	
	2001 Oct 15 11:42	0° Ω		desc. node	2004 Jun 07 14:51	18° \mathcal{I} 21'26	
	2001 Nov 08 13:28	0° \mathcal{M}		inferior conj	2004 Jun 08 08:43	17° \mathcal{I} 53'21	0°-10'-33
	2001 Dec 02 11:11	0° \mathcal{Z}		minimum elong	2004 Jun 08 08:20	17° \mathcal{I} 53'57	0°10'27
morning set	2001 Dec 03 22:56	1° \mathcal{Z} 52'22		transit middle	2004 Jun 08 08:20	17° \mathcal{I} 53'57	0°10'27
desc. node	2001 Dec 21 19:55	24° \mathcal{Z} 21'47		transit begin	2004 Jun 08 05:14	17° \mathcal{I} 58'50	
	2001 Dec 26 07:25	0° \mathcal{Z}		transit end	2004 Jun 08 11:26	17° \mathcal{I} 49'05	
				min. Earth dist.	2004 Jun 08 06:58	17° \mathcal{I} 56'06	0.28888 AU
superior conj	2002 Jan 14 11:32	24° \mathcal{Z} 07'22	0°-52'-41	morning rise	2004 Jun 14 16:52	14° \mathcal{I} 04'50	
minimum elong	2002 Jan 13 23:57	23° \mathcal{Z} 30'55	0°52'14	direct	2004 Jun 29 23:15	9° \mathcal{I} 37'32	
max. Earth dist.	2002 Jan 16 09:00	26° \mathcal{Z} 30'18	1.71147 AU	greatest brilliancy	2004 Jul 13 06:12	12° \mathcal{I} 43'26	-4.5m
	2002 Jan 19 03:42	0° \approx			2004 Aug 07 11:02	0° \mathcal{Z}	
	2002 Feb 12 01:18	0° Υ		morning max el	2004 Aug 17 18:31	9° \mathcal{Z} 26'32	45°48'58
evening rise	2002 Feb 24 14:23	15° Υ 41'48			2004 Sep 06 22:16	0° Ω	
	2002 Mar 08 01:42	0° Υ		asc. node	2004 Sep 28 18:28	24° Ω 17'26	
	2002 Apr 01 06:39	0° \mathcal{Z}			2004 Oct 03 17:20	0° η	
asc. node	2002 Apr 13 23:28	15° \mathcal{Z} 36'58			2004 Oct 29 00:39	0° Ω	
	2002 Apr 25 17:57	0° \mathcal{I}			2004 Nov 22 13:31	0° \mathcal{M}	
	2002 May 20 13:27	0° \mathcal{Z}			2004 Dec 16 17:10	0° \mathcal{Z}	
	2002 Jun 14 20:16	0° Ω			2005 Jan 09 16:56	0° \mathcal{Z}	
	2002 Jul 10 21:09	0° η		desc. node	2005 Jan 18 07:48	10° \mathcal{Z} 47'54	
desc. node	2002 Aug 03 12:37	25° η 56'42			2005 Feb 02 15:42	0° \approx	
	2002 Aug 07 09:09	0° Ω		morning set	2005 Feb 19 04:05	20° \approx 40'30	
evening max el	2002 Aug 22 13:18	15° Ω 15'19	46°00'16		2005 Feb 26 15:07	0° Υ	
	2002 Sep 08 03:05	0° \mathcal{M}			2005 Mar 22 16:25	0° Υ	
greatest brilliancy	2002 Sep 30 02:22	13° \mathcal{M} 32'58	-4.6m				
retrograde	2002 Oct 10 18:35	15° \mathcal{M} 36'35		superior conj	2005 Mar 31 03:30	10° Υ 31'04	-1°-18'-26
evening set	2002 Oct 26 17:04	10° \mathcal{M} 43'53		minimum elong	2005 Mar 31 11:32	10° Υ 56'00	1°18'16
inferior conj	2002 Oct 31 12:06	7° \mathcal{M} 53'26	-5°-41'-31	max. Earth dist.	2005 Apr 04 02:17	15° Υ 25'15	1.72462 AU
minimum elong	2002 Oct 31 22:27	7° \mathcal{M} 37'40	5°39'01		2005 Apr 15 20:37	0° \mathcal{Z}	
min. Earth dist.	2002 Nov 01 08:07	7° \mathcal{M} 22'57	0.27088 AU	evening rise	2005 May 08 16:49	28° \mathcal{Z} 11'02	
morning rise	2002 Nov 06 03:21	4° \mathcal{M} 34'19			2005 May 10 04:14	0° \mathcal{I}	
direct	2002 Nov 21 07:13	0° \mathcal{M} 03'13		asc. node	2005 May 11 11:15	1° \mathcal{I} 35'21	
asc. node	2002 Nov 24 15:57	0° \mathcal{M} 16'50			2005 Jun 03 15:18	0° \mathcal{Z}	
greatest brilliancy	2002 Dec 04 21:21	3° \mathcal{M} 28'28	-4.7m		2005 Jun 28 05:53	0° Ω	
	2003 Jan 07 13:07	0° \mathcal{Z}			2005 Jul 23 01:01	0° η	
morning max el	2003 Jan 11 02:27	3° \mathcal{Z} 34'33	46°57'41		2005 Aug 17 03:05	0° Ω	
	2003 Feb 04 13:27	0° \mathcal{Z}		desc. node	2005 Aug 31 00:33	16° Ω 23'55	
	2003 Mar 02 12:40	0° \approx			2005 Sep 11 16:14	0° \mathcal{M}	
desc. node	2003 Mar 16 05:37	16° \approx 13'47			2005 Oct 08 01:00	0° \mathcal{Z}	
	2003 Mar 27 18:14	0° Υ		evening max el	2005 Nov 03 19:34	28° \mathcal{Z} 28'48	47°06'10
	2003 Apr 21 16:18	0° Υ			2005 Nov 05 08:11	0° \mathcal{Z}	
	2003 May 16 10:58	0° \mathcal{Z}		greatest brilliancy	2005 Dec 12 11:44	28° \mathcal{Z} 48'35	-4.7m
	2003 Jun 10 03:32	0° \mathcal{I}			2005 Dec 15 15:58	0° \approx	
	2003 Jul 04 17:39	0° \mathcal{Z}		asc. node	2005 Dec 22 03:50	1° \approx 21'58	
asc. node	2003 Jul 07 08:53	3° \mathcal{Z} 13'28		retrograde	2005 Dec 24 09:36	1° \approx 28'01	
morning set	2003 Jul 13 09:02	10° \mathcal{Z} 34'52			2006 Jan 01 20:18	30° \mathcal{R} \mathcal{Z}	
	2003 Jul 29 04:25	0° Ω		evening set	2006 Jan 08 09:05	27° \mathcal{Z} 00'49	
max. Earth dist.	2003 Aug 15 16:06	21° Ω 34'19	1.73042 AU	inferior conj	2006 Jan 13 23:59	23° \mathcal{Z} 40'06	5°30'44

minimum elong	2006 Jan 13 13:50	23°☾55'44	5°28'08	behind sun end	2008 Jun 10 02:05	19°♊49'42	
min. Earth dist.	2006 Jan 13 06:16	24°☾07'23	0.26649 AU	max. Earth dist.	2008 Jun 09 04:51	18°♊44'27	1.73558 AU
morning rise	2006 Jan 18 18:57	20°☾48'06			2008 Jun 18 08:48	0°☾	
direct	2006 Feb 03 09:19	16°☾01'19			2008 Jul 12 18:39	0°♏	
greatest brilliancy	2006 Feb 14 08:27	18°☾15'53	-4.6m	evening rise	2008 Jul 15 06:49	3°♏04'56	
	2006 Mar 05 08:39	0°≈			2008 Aug 06 04:20	0°♐	
morning max el	2006 Mar 25 06:45	17°≈58'28	46°31'49		2008 Aug 30 14:41	0°♑	
	2006 Apr 06 01:21	0°♒			2008 Sep 24 02:59	0°♒	
desc. node	2006 Apr 12 17:19	7°♒05'21		desc. node	2008 Sep 27 12:27	4°♒08'37	
	2006 May 03 10:25	0°♑			2008 Oct 18 18:31	0°♒	
	2006 May 29 12:41	0°♑			2008 Nov 12 15:25	0°☾	
	2006 Jun 24 00:31	0°♊			2008 Dec 07 23:37	0°≈	
	2006 Jul 19 02:41	0°☾			2009 Jan 03 12:35	0°♒	
asc. node	2006 Aug 03 20:48	19°☾03'40		evening max el	2009 Jan 14 21:24	11°♒58'34	47°07'21
	2006 Aug 12 20:21	0°♏		asc. node	2009 Jan 18 15:51	15°♒45'58	
	2006 Sep 06 06:15	0°♐			2009 Feb 03 03:41	0°♑	
morning set	2006 Sep 19 21:10	16°♐53'01		greatest brilliancy	2009 Feb 20 23:28	11°♑58'26	-4.6m
	2006 Sep 30 10:02	0°♑		retrograde	2009 Mar 06 17:17	15°♑27'27	
	2006 Oct 24 09:58	0°♒		evening set	2009 Mar 24 09:45	9°♑22'31	
max. Earth dist.	2006 Oct 25 04:00	0°♒56'31	1.71626 AU	inferior conj	2009 Mar 27 19:24	7°♑15'33	8°09'51
				minimum elong	2009 Mar 28 02:18	7°♑04'41	8°09'05
superior conj	2006 Oct 27 17:50	4°♒10'16	0°58'03	min. Earth dist.	2009 Mar 27 12:19	7°♑26'41	0.28147 AU
minimum elong	2006 Oct 28 04:14	4°♒42'50	0°57'40	morning rise	2009 Mar 31 19:05	4°♑47'57	
	2006 Nov 17 08:02	0°♒			2009 Apr 11 12:47	30°♒♒	
desc. node	2006 Nov 23 10:11	7°♒38'43		direct	2009 Apr 17 19:24	29°♒11'57	
evening rise	2006 Dec 07 02:24	24°♒48'50			2009 Apr 24 07:18	0°♑	
	2006 Dec 11 05:33	0°☾		greatest brilliancy	2009 Apr 29 07:08	1°♑35'42	-4.5m
	2007 Jan 04 03:31	0°≈		desc. node	2009 May 10 05:00	7°♑22'48	
	2007 Jan 28 03:32	0°♒		morning max el	2009 Jun 05 20:51	29°♑30'33	45°51'07
	2007 Feb 21 08:21	0°♑			2009 Jun 06 09:07	0°♑	
asc. node	2007 Mar 16 13:32	28°♑21'50			2009 Jul 05 08:23	0°♊	
	2007 Mar 17 22:00	0°♑			2009 Aug 01 01:28	0°☾	
	2007 Apr 12 02:15	0°♊			2009 Aug 26 16:12	0°♏	
	2007 May 08 07:28	0°☾		asc. node	2009 Aug 31 08:38	5°♏35'21	
	2007 Jun 05 17:59	0°♏			2009 Sep 20 13:32	0°♐	
evening max el	2007 Jun 09 02:45	3°♏15'54	45°23'27		2009 Oct 14 22:46	0°♑	
desc. node	2007 Jul 06 02:52	25°♏23'30			2009 Nov 08 00:23	0°♒	
greatest brilliancy	2007 Jul 14 17:41	29°♏59'15	-4.5m	morning set	2009 Dec 01 10:19	29°♒23'07	
	2007 Jul 14 18:23	0°♐			2009 Dec 01 22:04	0°♒	
retrograde	2007 Jul 27 17:28	2°♐57'23		desc. node	2009 Dec 20 22:01	23°♒54'09	
	2007 Aug 09 01:10	30°♒♏			2009 Dec 25 18:17	0°☾	
evening set	2007 Aug 13 21:45	27°♏25'46					
inferior conj	2007 Aug 18 03:41	24°♏50'52	-7°-58'-53	superior conj	2010 Jan 11 21:06	21°☾32'15	0°-49'-26
minimum elong	2007 Aug 17 20:23	25°♏02'13	7°58'04	minimum elong	2010 Jan 11 09:52	20°☾56'55	0°48'59
min. Earth dist.	2007 Aug 18 10:03	24°♏40'59	0.28816 AU	max. Earth dist.	2010 Jan 13 17:06	23°☾50'37	1.71129 AU
morning rise	2007 Aug 21 18:48	22°♏37'06			2010 Jan 18 14:35	0°≈	
direct	2007 Sep 08 16:14	16°♏35'27			2010 Feb 11 12:10	0°♒	
greatest brilliancy	2007 Sep 23 04:52	20°♏17'45	-4.6m	evening rise	2010 Feb 22 01:26	13°♒12'28	
	2007 Oct 08 06:53	0°♐			2010 Mar 07 12:33	0°♑	
asc. node	2007 Oct 27 06:11	16°♐58'56			2010 Mar 31 17:35	0°♑	
morning max el	2007 Oct 28 15:05	18°♐20'38	46°27'59	asc. node	2010 Apr 13 01:27	15°♑09'13	
	2007 Nov 08 21:05	0°♑			2010 Apr 25 05:05	0°♊	
	2007 Dec 05 13:29	0°♒			2010 May 20 01:05	0°☾	
	2007 Dec 30 18:02	0°♒			2010 Jun 14 08:50	0°♏	
	2008 Jan 24 08:06	0°☾			2010 Jul 10 11:32	0°♐	
desc. node	2008 Feb 15 19:44	27°☾42'12		desc. node	2010 Aug 02 14:43	25°♐15'32	
	2008 Feb 17 16:22	0°≈			2010 Aug 07 03:47	0°♑	
	2008 Mar 12 22:51	0°♒		evening max el	2010 Aug 20 03:48	12°♑59'17	45°57'59
	2008 Apr 06 05:35	0°♑			2010 Sep 08 15:44	0°♒	
	2008 Apr 30 13:34	0°♑		greatest brilliancy	2010 Sep 27 15:05	11°♒11'08	-4.6m
morning set	2008 May 03 01:17	3°♑03'50		retrograde	2010 Oct 08 07:05	13°♒13'58	
	2008 May 24 22:52	0°♊		evening set	2010 Oct 24 09:12	8°♒16'58	
asc. node	2008 Jun 07 23:08	17°♊13'08		inferior conj	2010 Oct 29 01:10	5°♒30'25	-5°-58'-47
				minimum elong	2010 Oct 29 11:39	5°♒14'25	5°56'22
superior conj	2008 Jun 09 04:20	18°♊42'50	0°02'56	min. Earth dist.	2010 Oct 29 21:39	4°♒59'11	0.27150 AU
minimum elong	2008 Jun 09 03:42	18°♊40'54	0°02'54	morning rise	2010 Nov 03 13:38	2°♒14'42	
behind sun begin	2008 Jun 08 05:18	17°♊32'06			2010 Nov 08 03:06	30°♒♑	

direct	2010 Nov 18 21:18	27° Ω 39'26		evening rise	2013 May 06 08:47	25° Υ 59'11	
asc. node	2010 Nov 23 17:59	28° Ω 07'29			2013 May 09 15:03	0° Π	
	2010 Nov 30 00:33	0° \mathbb{M}		asc. node	2013 May 10 13:22	1° Π 08'36	
greatest brilliancy	2010 Dec 02 11:36	1° \mathbb{M} 04'37	-4.7m		2013 Jun 03 02:13	0° \mathfrak{S}	
	2011 Jan 07 12:30	0° \mathcal{A}			2013 Jun 27 17:03	0° Ω	
morning max el	2011 Jan 08 16:02	1° \mathcal{A} 09'49	46°57'24		2013 Jul 22 12:41	0° \mathfrak{M}	
	2011 Feb 04 05:58	0° \mathfrak{C}			2013 Aug 16 15:37	0° \mathfrak{A}	
	2011 Mar 02 02:39	0° \approx		desc. node	2013 Aug 30 02:30	15° \mathfrak{A} 50'53	
desc. node	2011 Mar 15 07:30	15° \approx 40'14			2013 Sep 11 06:16	0° \mathbb{M}	
	2011 Mar 27 06:53	0° \mathcal{H}			2013 Oct 07 17:54	0° \mathcal{A}	
	2011 Apr 21 04:06	0° Υ		evening max el	2013 Nov 01 07:59	26° \mathcal{A} 01'29	47°04'26
	2011 May 15 22:12	0° \mathcal{B}			2013 Nov 05 08:43	0° \mathfrak{C}	
	2011 Jun 09 14:23	0° Π		greatest brilliancy	2013 Dec 10 02:30	26° \mathfrak{C} 21'40	-4.7m
	2011 Jul 04 04:17	0° \mathfrak{S}		asc. node	2013 Dec 21 06:00	28° \mathfrak{C} 58'24	
asc. node	2011 Jul 06 11:01	2° \mathfrak{S} 47'30		retrograde	2013 Dec 21 21:53	28° \mathfrak{C} 58'57	
morning set	2011 Jul 11 03:13	8° \mathfrak{S} 31'05		evening set	2014 Jan 05 18:49	24° \mathfrak{C} 35'46	
	2011 Jul 28 14:59	0° Ω		min. Earth dist.	2014 Jan 10 19:54	21° \mathfrak{C} 37'22	0.26612 AU
max. Earth dist.	2011 Aug 13 09:24	19° Ω 26'53	1.73085 AU	inferior conj	2014 Jan 11 12:24	21° \mathfrak{C} 11'59	5°11'17
				minimum elong	2014 Jan 11 02:32	21° \mathfrak{C} 27'09	5°08'40
superior conj	2011 Aug 16 12:08	23° Ω 17'47	1°17'33	morning rise	2014 Jan 16 10:32	18° \mathfrak{C} 15'43	
minimum elong	2011 Aug 16 05:29	22° Ω 57'15	1°17'25	direct	2014 Jan 31 20:49	13° \mathfrak{C} 33'23	
	2011 Aug 21 22:11	0° \mathfrak{M}		greatest brilliancy	2014 Feb 11 23:13	15° \mathfrak{C} 50'55	-4.6m
	2011 Sep 15 02:40	0° \mathfrak{A}			2014 Mar 05 21:03	0° \approx	
evening rise	2011 Sep 22 02:08	8° \mathfrak{A} 40'10		morning max el	2014 Mar 22 19:31	15° \approx 33'55	46°33'26
	2011 Oct 09 05:50	0° \mathbb{M}			2014 Apr 05 20:31	0° \mathcal{H}	
desc. node	2011 Oct 26 00:22	20° \mathbb{M} 51'20		desc. node	2014 Apr 11 19:23	6° \mathcal{H} 22'53	
	2011 Nov 02 08:51	0° \mathcal{A}			2014 May 03 01:21	0° Υ	
	2011 Nov 26 12:36	0° \mathfrak{C}			2014 May 29 01:45	0° \mathcal{B}	
	2011 Dec 20 18:26	0° \approx			2014 Jun 23 12:33	0° Π	
	2012 Jan 14 05:47	0° \mathcal{H}			2014 Jul 18 14:06	0° \mathfrak{S}	
	2012 Feb 08 06:01	0° Υ		asc. node	2014 Aug 02 22:48	18° \mathfrak{S} 35'53	
asc. node	2012 Feb 16 03:35	9° Υ 14'32			2014 Aug 12 07:24	0° Ω	
	2012 Mar 05 10:25	0° \mathcal{B}			2014 Sep 05 17:07	0° \mathfrak{M}	
evening max el	2012 Mar 27 07:44	23° \mathcal{B} 00'19	46°02'27	morning set	2014 Sep 17 13:24	14° \mathfrak{M} 40'36	
	2012 Apr 03 15:18	0° Π			2014 Sep 29 20:52	0° \mathfrak{A}	
greatest brilliancy	2012 Apr 30 22:07	20° Π 11'55	-4.5m	max. Earth dist.	2014 Oct 22 18:18	28° \mathfrak{A} 36'47	1.71673 AU
retrograde	2012 May 15 14:33	23° Π 59'32			2014 Oct 23 20:52	0° \mathbb{M}	
evening set	2012 May 30 17:21	19° Π 33'39					
inferior conj	2012 Jun 06 01:09	15° Π 44'46	0°09'21	superior conj	2014 Oct 25 07:31	1° \mathbb{M} 48'31	1°00'39
minimum elong	2012 Jun 06 01:30	15° Π 44'14	0°09'14	minimum elong	2014 Oct 25 17:53	2° \mathbb{M} 21'00	1°00'17
transit middle	2012 Jun 06 01:30	15° Π 44'14	0°09'14		2014 Nov 16 19:03	0° \mathcal{A}	
transit begin	2012 Jun 05 22:10	15° Π 49'29		desc. node	2014 Nov 22 12:20	7° \mathcal{A} 10'47	
transit end	2012 Jun 06 04:50	15° Π 38'59		evening rise	2014 Dec 04 13:19	22° \mathcal{A} 17'36	
min. Earth dist.	2012 Jun 05 23:53	15° Π 46'46	0.28870 AU		2014 Dec 10 16:42	0° \mathfrak{C}	
desc. node	2012 Jun 06 16:56	15° Π 19'56			2015 Jan 03 14:48	0° \approx	
morning rise	2012 Jun 12 09:53	11° Π 55'01			2015 Jan 27 15:00	0° \mathcal{H}	
direct	2012 Jun 27 15:07	7° Π 29'16			2015 Feb 20 20:05	0° Υ	
greatest brilliancy	2012 Jul 10 20:26	10° Π 32'46	-4.5m	asc. node	2015 Mar 15 15:31	27° Υ 50'58	
	2012 Aug 07 13:43	0° \mathfrak{S}			2015 Mar 17 10:15	0° \mathcal{B}	
morning max el	2012 Aug 15 09:07	7° \mathfrak{S} 13'45	45°48'10		2015 Apr 11 15:28	0° Π	
	2012 Sep 06 14:48	0° Ω			2015 May 07 22:52	0° \mathfrak{S}	
asc. node	2012 Sep 27 20:28	23° Ω 42'56			2015 Jun 05 15:33	0° Ω	
	2012 Oct 03 06:59	0° \mathfrak{M}		evening max el	2015 Jun 06 18:29	1° Ω 04'50	45°23'40
	2012 Oct 28 13:04	0° \mathfrak{A}		desc. node	2015 Jul 05 04:59	24° Ω 05'29	
	2012 Nov 22 01:20	0° \mathbb{M}		greatest brilliancy	2015 Jul 12 05:23	27° Ω 43'58	-4.5m
	2012 Dec 16 04:38	0° \mathcal{A}			2015 Jul 18 22:38	0° \mathfrak{M}	
	2013 Jan 09 04:11	0° \mathfrak{C}		retrograde	2015 Jul 25 09:29	0° \mathfrak{M} 46'23	
desc. node	2013 Jan 17 09:55	10° \mathfrak{C} 19'30			2015 Jul 31 15:27	30° \mathcal{R} Ω	
	2013 Feb 02 02:47	0° \approx		evening set	2015 Aug 11 10:06	25° Ω 18'53	
morning set	2013 Feb 16 14:36	18° \approx 08'55		inferior conj	2015 Aug 15 19:22	22° Ω 39'06	-7°-50'-25
	2013 Feb 26 02:03	0° \mathcal{H}		minimum elong	2015 Aug 15 11:34	22° Ω 51'12	7°49'28
	2013 Mar 22 03:15	0° Υ		min. Earth dist.	2015 Aug 16 00:36	22° Ω 30'58	0.28844 AU
				morning rise	2015 Aug 19 12:50	20° Ω 21'57	
superior conj	2013 Mar 28 17:05	8° Υ 10'36	-1°-19'-52	direct	2015 Sep 06 08:29	14° Ω 23'18	
minimum elong	2013 Mar 29 00:31	8° Υ 33'43	1°19'44	greatest brilliancy	2015 Sep 20 20:59	18° Ω 05'49	-4.5m
max. Earth dist.	2013 Apr 01 17:14	13° Υ 09'10	1.72406 AU		2015 Oct 08 17:29	0° \mathfrak{M}	
	2013 Apr 15 07:25	0° \mathcal{B}		asc. node	2015 Oct 26 08:17	16° \mathfrak{M} 09'08	

morning max el	2015 Oct 26 07:11	16°  06'25	46°26'29	asc. node	2018 Apr 12 03:32	14°  40'34	
	2015 Nov 08 15:31	0°  ♁			2018 Apr 24 16:40	0°  ♁	
	2015 Dec 05 04:15	0°  ♁			2018 May 19 13:11	0°  ♁	
	2015 Dec 30 07:16	0°  ♁			2018 Jun 13 21:54	0°  ♁	
	2016 Jan 23 20:32	0°  ♁			2018 Jul 10 02:32	0°  ♁	
desc. node	2016 Feb 14 21:40	27°  ♁11'17		desc. node	2018 Aug 01 16:39	24°  ♁32'10	
	2016 Feb 17 04:17	0°  ♁			2018 Aug 06 23:27	0°  ♁	
	2016 Mar 12 10:24	0°  ♁		evening max el	2018 Aug 17 17:31	10°  ♁40'09	45°55'40
	2016 Apr 05 16:50	0°  ♁			2018 Sep 09 09:25	0°  ♁	
	2016 Apr 30 00:36	0°  ♁		greatest brilliancy	2018 Sep 25 04:25	8°  ♁48'50	-4.6m
morning set	2016 Apr 30 17:26	0°  ♁51'51		retrograde	2018 Oct 05 19:04	10°  ♁50'22	
	2016 May 24 09:45	0°  ♁		evening set	2018 Oct 22 01:22	5°  ♁48'55	
				inferior conj	2018 Oct 26 14:16	3°  ♁06'30	-6°-15'-22
superior conj	2016 Jun 06 21:49	16°  ♁35'44	0°00'-20	minimum elong	2018 Oct 27 00:48	2°  ♁50'22	6°13'01
minimum elong	2016 Jun 06 21:54	16°  ♁35'59	0°00'20	min. Earth dist.	2018 Oct 27 11:31	2°  ♁33'59	0.27212 AU
behind sun begin	2016 Jun 05 23:15	15°  ♁26'25		morning rise	2018 Oct 31 23:44	29°  ♁54'23	
behind sun end	2016 Jun 07 20:32	17°  ♁45'33			2018 Oct 31 19:42	30°  ♁  ♁	
max. Earth dist.	2016 Jun 07 03:29	16°  ♁53'12	1.73547 AU	direct	2018 Nov 16 10:51	25°  ♁14'32	
asc. node	2016 Jun 07 01:14	16°  ♁46'16		asc. node	2018 Nov 22 20:05	26°  ♁02'09	
	2016 Jun 17 19:39	0°  ♁		greatest brilliancy	2018 Nov 30 02:31	28°  ♁40'30	-4.7m
	2016 Jul 12 05:34	0°  ♁			2018 Dec 02 17:02	0°  ♁	
evening rise	2016 Jul 13 01:40	1°  ♁01'47		morning max el	2019 Jan 06 04:54	28°  ♁42'12	46°57'22
	2016 Aug 05 15:27	0°  ♁			2019 Jan 07 11:18	0°  ♁	
	2016 Aug 30 02:07	0°  ♁			2019 Feb 03 22:29	0°  ♁	
	2016 Sep 23 14:51	0°  ♁			2019 Mar 01 16:45	0°  ♁	
desc. node	2016 Sep 26 14:31	3°  ♁38'31		desc. node	2019 Mar 14 09:37	15°  ♁  ♁06'41	
	2016 Oct 18 07:01	0°  ♁			2019 Mar 26 19:43	0°  ♁	
	2016 Nov 12 04:54	0°  ♁			2019 Apr 20 16:11	0°  ♁	
	2016 Dec 07 14:51	0°  ♁			2019 May 15 09:46	0°  ♁	
	2017 Jan 03 07:47	0°  ♁			2019 Jun 09 01:37	0°  ♁	
evening max el	2017 Jan 12 13:18	9°  ♁40'27	47°08'46		2019 Jul 03 15:18	0°  ♁	
asc. node	2017 Jan 17 17:46	14°  ♁51'40		asc. node	2019 Jul 05 13:00	2°  ♁19'53	
	2017 Feb 03 15:51	0°  ♁		morning set	2019 Jul 08 21:14	6°  ♁25'38	
greatest brilliancy	2017 Feb 18 15:51	9°  ♁41'01	-4.6m		2019 Jul 28 01:54	0°  ♁	
retrograde	2017 Mar 04 09:09	13°  ♁08'50		max. Earth dist.	2019 Aug 11 03:11	17°  ♁19'55	1.73127 AU
evening set	2017 Mar 22 02:59	7°  ♁00'44					
inferior conj	2017 Mar 25 10:17	4°  ♁57'13	8°17'38	superior conj	2019 Aug 14 06:07	21°  ♁11'22	1°16'12
minimum elong	2017 Mar 25 16:36	4°  ♁47'18	8°17'01	minimum elong	2019 Aug 13 23:03	20°  ♁49'32	1°16'03
min. Earth dist.	2017 Mar 25 01:59	5°  ♁10'17	0.28105 AU		2019 Aug 21 09:06	0°  ♁	
morning rise	2017 Mar 29 06:29	2°  ♁34'58			2019 Sep 14 13:43	0°  ♁	
	2017 Apr 03 00:25	30°  ♁  ♁		evening rise	2019 Sep 19 18:02	6°  ♁25'58	
direct	2017 Apr 15 10:18	26°  ♁54'34			2019 Oct 08 17:06	0°  ♁	
greatest brilliancy	2017 Apr 26 18:44	29°  ♁15'42	-4.5m	desc. node	2019 Oct 25 02:30	20°  ♁22'21	
	2017 Apr 28 13:13	0°  ♁			2019 Nov 01 20:25	0°  ♁	
desc. node	2017 May 09 07:08	6°  ♁05'22			2019 Nov 26 00:28	0°  ♁	
morning max el	2017 Jun 03 12:30	27°  ♁17'53	45°51'59		2019 Dec 20 06:41	0°  ♁	
	2017 Jun 06 07:27	0°  ♁			2020 Jan 13 18:39	0°  ♁	
	2017 Jul 05 00:11	0°  ♁			2020 Feb 07 20:02	0°  ♁	
	2017 Jul 31 14:54	0°  ♁		asc. node	2020 Feb 15 05:37	8°  ♁38'09	
	2017 Aug 26 04:30	0°  ♁			2020 Mar 05 03:07	0°  ♁	
asc. node	2017 Aug 30 10:36	5°  ♁04'50		evening max el	2020 Mar 24 22:13	20°  ♁43'48	46°04'39
	2017 Sep 20 01:15	0°  ♁			2020 Apr 03 17:11	0°  ♁	
	2017 Oct 14 10:11	0°  ♁		greatest brilliancy	2020 Apr 28 14:35	18°  ♁02'07	-4.5m
	2017 Nov 07 11:38	0°  ♁		retrograde	2020 May 13 06:45	21°  ♁50'25	
morning set	2017 Nov 28 22:13	26°  ♁54'32		evening set	2020 May 28 10:49	17°  ♁23'05	
	2017 Dec 01 09:14	0°  ♁		inferior conj	2020 Jun 03 17:44	13°  ♁35'40	0°29'12
desc. node	2017 Dec 20 00:06	23°  ♁25'36		minimum elong	2020 Jun 03 18:48	13°  ♁33'59	0°28'52
	2017 Dec 25 05:26	0°  ♁		min. Earth dist.	2020 Jun 03 17:05	13°  ♁36'41	0.28858 AU
				desc. node	2020 Jun 05 19:02	12°  ♁18'24	
superior conj	2018 Jan 09 07:02	18°  ♁57'28	0°-46'-5	morning rise	2020 Jun 10 02:55	9°  ♁44'59	
minimum elong	2018 Jan 08 20:15	18°  ♁23'35	0°45'40	direct	2020 Jun 25 06:48	5°  ♁20'12	
max. Earth dist.	2018 Jan 11 01:45	21°  ♁11'49	1.71112 AU	greatest brilliancy	2020 Jul 08 12:01	8°  ♁22'55	-4.5m
	2018 Jan 18 01:44	0°  ♁			2020 Aug 07 15:21	0°  ♁	
	2018 Feb 10 23:20	0°  ♁		morning max el	2020 Aug 13 00:14	5°  ♁01'18	45°47'28
evening rise	2018 Feb 19 12:30	10°  ♁42'04			2020 Sep 06 07:22	0°  ♁	
	2018 Mar 06 23:45	0°  ♁		asc. node	2020 Sep 26 22:39	23°  ♁08'22	
	2018 Mar 31 04:54	0°  ♁			2020 Oct 02 20:48	0°  ♁	

	2020 Oct 28 01:41	0°♄		desc. node	2023 Jul 04 06:53	22°♄45'22	
	2020 Nov 21 13:22	0°♍		greatest brilliancy	2023 Jul 09 17:59	25°♄30'37	-4.5m
	2020 Dec 15 16:21	0°♎		retrograde	2023 Jul 23 01:33	28°♄36'12	
	2021 Jan 08 15:41	0°♏		evening set	2023 Aug 08 22:41	23°♄13'05	
desc. node	2021 Jan 16 11:50	9°♏49'42		inferior conj	2023 Aug 13 11:15	20°♄28'14	-7°-41'-17
	2021 Feb 01 14:05	0°♐		minimum elong	2023 Aug 13 03:01	20°♄41'02	7°40'13
morning set	2021 Feb 14 01:14	15°♐36'53		min. Earth dist.	2023 Aug 13 15:17	20°♄21'59	0.28871 AU
	2021 Feb 25 13:11	0°♑		morning rise	2023 Aug 17 07:12	18°♄07'25	
	2021 Mar 21 14:16	0°♒		direct	2023 Sep 04 01:20	12°♄12'14	
				greatest brilliancy	2023 Sep 18 12:20	15°♄53'26	-4.5m
superior conj	2021 Mar 26 06:58	5°♒50'28	-1°-21'-8		2023 Oct 09 01:11	0°♓	
minimum elong	2021 Mar 26 13:47	6°♒11'40	1°21'03	morning max el	2023 Oct 23 23:14	13°♓52'22	46°24'47
max. Earth dist.	2021 Mar 30 06:51	10°♒48'20	1.72346 AU	asc. node	2023 Oct 25 10:20	15°♓20'10	
	2021 Apr 14 18:22	0°♓			2023 Nov 08 09:30	0°♄	
evening rise	2021 May 04 01:01	23°♓47'44			2023 Dec 04 18:51	0°♍	
	2021 May 09 02:01	0°♔			2023 Dec 29 20:24	0°♎	
asc. node	2021 May 09 15:27	0°♔41'18			2024 Jan 23 08:50	0°♏	
	2021 Jun 02 13:19	0°♕		desc. node	2024 Feb 13 23:46	26°♏41'10	
	2021 Jun 27 04:27	0°♌			2024 Feb 16 16:05	0°♐	
	2021 Jul 22 00:37	0°♍			2024 Mar 11 21:50	0°♑	
	2021 Aug 16 04:27	0°♎			2024 Apr 05 04:00	0°♒	
desc. node	2021 Aug 29 04:36	15°♎17'28		morning set	2024 Apr 28 09:39	28°♒40'19	
	2021 Sep 10 20:39	0°♏			2024 Apr 29 11:31	0°♓	
	2021 Oct 07 11:21	0°♐			2024 May 23 20:30	0°♔	
evening max el	2021 Oct 29 20:52	23°♐35'03	47°02'42				
	2021 Nov 05 10:44	0°♑		superior conj	2024 Jun 04 15:34	14°♔29'51	0°-3'-33
greatest brilliancy	2021 Dec 07 16:16	23°♑53'05	-4.7m	minimum elong	2024 Jun 04 16:18	14°♔32'07	0°03'32
retrograde	2021 Dec 19 10:36	26°♑29'25		behind sun begin	2024 Jun 03 17:58	13°♔23'28	
asc. node	2021 Dec 20 07:58	26°♑28'27		behind sun end	2024 Jun 05 14:38	15°♔40'45	
evening set	2022 Jan 03 04:45	22°♑09'38		max. Earth dist.	2024 Jun 05 03:00	15°♔05'01	1.73528 AU
min. Earth dist.	2022 Jan 08 09:19	19°♑06'51	0.26579 AU	asc. node	2024 Jun 06 03:13	16°♔19'23	
inferior conj	2022 Jan 09 00:47	18°♑43'08	4°51'07		2024 Jun 17 06:20	0°♕	
minimum elong	2022 Jan 08 15:16	18°♑57'44	4°48'32	evening rise	2024 Jul 10 20:50	29°♕00'10	
morning rise	2022 Jan 14 02:03	15°♑42'54			2024 Jul 11 16:19	0°♌	
direct	2022 Jan 29 08:46	11°♑04'37			2024 Aug 05 02:23	0°♍	
greatest brilliancy	2022 Feb 09 13:48	13°♑25'07	-4.6m		2024 Aug 29 13:23	0°♎	
	2022 Mar 06 06:30	0°♐			2024 Sep 23 02:36	0°♏	
morning max el	2022 Mar 20 09:25	13°♐11'39	46°35'11	desc. node	2024 Sep 25 16:39	3°♏08'57	
	2022 Apr 05 15:18	0°♑			2024 Oct 17 19:28	0°♐	
desc. node	2022 Apr 10 21:30	5°♑40'44			2024 Nov 11 18:26	0°♑	
	2022 May 02 16:10	0°♒			2024 Dec 07 06:13	0°♒	
	2022 May 28 14:46	0°♓			2025 Jan 03 03:24	0°♓	
	2022 Jun 23 00:34	0°♔		evening max el	2025 Jan 10 05:01	7°♓21'57	47°10'07
	2022 Jul 18 01:32	0°♕		asc. node	2025 Jan 16 19:50	13°♓57'01	
asc. node	2022 Aug 02 00:48	18°♕07'51			2025 Feb 04 07:57	0°♔	
	2022 Aug 11 18:30	0°♌		greatest brilliancy	2025 Feb 16 09:07	7°♔24'55	-4.6m
	2022 Sep 05 04:05	0°♍		retrograde	2025 Mar 02 00:36	10°♔50'09	
morning set	2022 Sep 15 05:45	12°♍28'22		evening set	2025 Mar 19 19:58	4°♔39'32	
	2022 Sep 29 07:49	0°♎		min. Earth dist.	2025 Mar 22 15:48	2°♔53'47	0.28060 AU
max. Earth dist.	2022 Oct 20 08:15	26°♎15'47	1.71718 AU	inferior conj	2025 Mar 23 01:07	2°♔39'06	8°24'41
				minimum elong	2025 Mar 23 06:46	2°♔30'13	8°24'12
superior conj	2022 Oct 22 21:17	29°♎26'53	1°03'07	morning rise	2025 Mar 26 17:51	0°♔21'57	
minimum elong	2022 Oct 23 07:33	29°♎59'00	1°02'46		2025 Mar 27 08:40	30°♓♑	
	2022 Oct 23 07:52	0°♏		direct	2025 Apr 13 01:02	24°♓37'30	
	2022 Nov 16 06:08	0°♐		greatest brilliancy	2025 Apr 24 06:10	26°♓55'38	-4.5m
desc. node	2022 Nov 21 14:21	6°♐42'11			2025 Apr 30 17:16	0°♒	
evening rise	2022 Dec 02 00:16	19°♐46'20		desc. node	2025 May 08 09:10	4°♒50'31	
	2022 Dec 10 03:54	0°♑		morning max el	2025 Jun 01 03:28	25°♒04'00	45°52'59
	2023 Jan 03 02:09	0°♒			2025 Jun 06 04:42	0°♓	
	2023 Jan 27 02:33	0°♓			2025 Jul 04 15:31	0°♔	
	2023 Feb 20 07:55	0°♔			2025 Jul 31 03:57	0°♕	
asc. node	2023 Mar 14 17:40	27°♔20'23			2025 Aug 25 16:27	0°♌	
	2023 Mar 16 22:34	0°♕		asc. node	2025 Aug 29 12:48	4°♌36'03	
	2023 Apr 11 04:47	0°♍			2025 Sep 19 12:39	0°♎	
	2023 May 07 14:25	0°♎			2025 Oct 13 21:19	0°♏	
evening max el	2023 Jun 04 11:01	28°♏56'08	45°23'57		2025 Nov 06 22:39	0°♐	
	2023 Jun 05 13:46	0°♌		morning set	2025 Nov 26 10:00	24°♏26'10	

	2025 Nov 30 20:13	0°♊		inferior conj	2028 Jun 01 10:00	11°♊26'19	0°49'06
desc. node	2025 Dec 19 02:05	22°♊57'14		minimum elong	2028 Jun 01 11:48	11°♊23'30	0°48'34
	2025 Dec 24 16:26	0°♋		min. Earth dist.	2028 Jun 01 09:48	11°♊26'38	0.28843 AU
				desc. node	2028 Jun 04 20:59	9°♊17'28	
superior conj	2026 Jan 06 16:36	16°♋22'03	0°-42'-38	morning rise	2028 Jun 07 19:34	7°♊35'09	
minimum elong	2026 Jan 06 06:24	15°♋49'58	0°42'12	direct	2028 Jun 22 22:12	3°♊10'47	
max. Earth dist.	2026 Jan 08 06:38	18°♋21'39	1.71096 AU	greatest brilliancy	2028 Jul 06 03:58	6°♊13'48	-4.5m
	2026 Jan 17 12:43	0°♌			2028 Aug 07 15:26	0°♌	
	2026 Feb 10 10:18	0°♍		morning max el	2028 Aug 10 16:03	2°♌51'20	45°46'57
evening rise	2026 Feb 16 23:02	8°♍10'33			2028 Sep 05 23:18	0°♎	
	2026 Mar 06 10:46	0°♎		asc. node	2028 Sep 26 00:36	22°♎34'19	
	2026 Mar 30 16:01	0°♏			2028 Oct 02 10:08	0°♏	
asc. node	2026 Apr 11 05:37	14°♏12'35			2028 Oct 27 13:52	0°♐	
	2026 Apr 24 04:03	0°♑			2028 Nov 21 00:58	0°♑	
	2026 May 19 01:05	0°♒			2028 Dec 15 03:39	0°♒	
	2026 Jun 13 10:47	0°♓			2029 Jan 08 02:47	0°♋	
	2026 Jul 09 17:22	0°♑		desc. node	2029 Jan 15 13:58	9°♋21'44	
desc. node	2026 Jul 31 18:48	23°♑50'05			2029 Feb 01 01:03	0°♌	
	2026 Aug 06 19:13	0°♒		morning set	2029 Feb 11 11:32	13°♌04'38	
evening max el	2026 Aug 15 06:31	8°♒20'48	45°53'32		2029 Feb 25 00:03	0°♍	
	2026 Sep 10 08:07	0°♓			2029 Mar 21 01:03	0°♎	
greatest brilliancy	2026 Sep 22 17:39	6°♓28'33	-4.6m				
retrograde	2026 Oct 03 07:16	8°♓29'28		superior conj	2029 Mar 23 20:12	3°♎28'53	-1°-22'-18
evening set	2026 Oct 19 17:48	3°♓23'11		minimum elong	2029 Mar 24 02:20	3°♎47'58	1°22'14
inferior conj	2026 Oct 24 03:44	0°♓45'03	-6°-30'-49	max. Earth dist.	2029 Mar 27 17:43	8°♎19'37	1.72292 AU
minimum elong	2026 Oct 24 14:14	0°♓28'57	6°28'36		2029 Apr 14 05:06	0°♏	
min. Earth dist.	2026 Oct 25 01:48	0°♓11'15	0.27280 AU	evening rise	2029 May 01 16:35	21°♏34'50	
	2026 Oct 25 09:10	30°♒♐		asc. node	2029 May 08 17:24	0°♑14'15	
morning rise	2026 Oct 29 10:06	27°♐36'49			2029 May 08 12:46	0°♑	
direct	2026 Nov 14 00:27	22°♐51'49			2029 Jun 02 00:11	0°♒	
asc. node	2026 Nov 21 22:05	24°♐03'38			2029 Jun 26 15:37	0°♓	
greatest brilliancy	2026 Nov 27 18:46	26°♐19'56	-4.7m		2029 Jul 21 12:20	0°♑	
	2026 Dec 04 08:12	0°♑			2029 Aug 15 17:06	0°♒	
morning max el	2027 Jan 03 17:58	26°♑15'57	46°57'01	desc. node	2029 Aug 28 06:42	14°♒44'44	
	2027 Jan 07 08:53	0°♊			2029 Sep 10 10:54	0°♑	
	2027 Feb 03 14:30	0°♋			2029 Oct 07 04:47	0°♊	
	2027 Mar 01 06:32	0°♌		evening max el	2029 Oct 27 10:52	21°♊12'55	47°01'08
desc. node	2027 Mar 13 11:45	14°♌33'57			2029 Nov 05 13:39	0°♋	
	2027 Mar 26 08:16	0°♍		greatest brilliancy	2029 Dec 05 05:11	21°♋25'19	-4.7m
	2027 Apr 20 03:57	0°♎		retrograde	2029 Dec 16 23:47	24°♋01'42	
	2027 May 14 21:01	0°♏		asc. node	2029 Dec 19 09:59	23°♋54'25	
	2027 Jun 08 12:32	0°♑		evening set	2029 Dec 31 15:06	19°♋44'57	
	2027 Jul 03 02:01	0°♒		min. Earth dist.	2030 Jan 05 22:29	16°♋38'33	0.26550 AU
asc. node	2027 Jul 04 15:03	1°♒53'22		inferior conj	2030 Jan 06 13:17	16°♋15'55	4°30'31
morning set	2027 Jul 06 15:14	4°♒20'58		minimum elong	2030 Jan 06 04:12	16°♋29'48	4°27'57
	2027 Jul 27 12:31	0°♓		morning rise	2030 Jan 11 17:35	13°♓11'57	
max. Earth dist.	2027 Aug 08 22:02	15°♓17'14	1.73164 AU	direct	2030 Jan 26 21:33	8°♓37'41	
				greatest brilliancy	2030 Feb 07 03:37	11°♓00'01	-4.7m
superior conj	2027 Aug 12 00:21	19°♓06'40	1°14'45		2030 Mar 06 12:51	0°♌	
minimum elong	2027 Aug 11 16:55	18°♓43'42	1°14'35	morning max el	2030 Mar 17 23:55	10°♌51'53	46°36'30
	2027 Aug 20 19:43	0°♑			2030 Apr 05 09:18	0°♍	
	2027 Sep 14 00:24	0°♒		desc. node	2030 Apr 09 23:29	4°♍59'31	
evening rise	2027 Sep 17 10:27	4°♒14'36			2030 May 02 06:37	0°♎	
	2027 Oct 08 03:59	0°♓			2030 May 28 03:32	0°♏	
desc. node	2027 Oct 24 04:31	19°♓54'18			2030 Jun 22 12:23	0°♑	
	2027 Nov 01 07:34	0°♊			2030 Jul 17 12:46	0°♒	
	2027 Nov 25 11:59	0°♋		asc. node	2030 Aug 01 02:58	17°♒40'57	
	2027 Dec 19 18:40	0°♌			2030 Aug 11 05:24	0°♓	
	2028 Jan 13 07:20	0°♍			2030 Sep 04 14:50	0°♑	
	2028 Feb 07 10:01	0°♎		morning set	2030 Sep 12 21:57	10°♑16'27	
asc. node	2028 Feb 14 07:46	8°♎02'22			2030 Sep 28 18:33	0°♒	
	2028 Mar 04 20:01	0°♏		max. Earth dist.	2030 Oct 17 19:59	23°♒48'36	1.71760 AU
evening max el	2028 Mar 22 12:27	18°♏26'54	46°07'00				
	2028 Apr 03 20:27	0°♑		superior conj	2030 Oct 20 11:12	27°♒06'24	1°05'28
greatest brilliancy	2028 Apr 26 06:08	15°♑51'09	-4.5m	minimum elong	2030 Oct 20 21:17	27°♒37'57	1°05'10
retrograde	2028 May 10 23:03	19°♑41'12			2030 Oct 22 18:39	0°♓	
evening set	2028 May 26 04:09	15°♑11'59			2030 Nov 15 17:00	0°♊	

desc. node	2030 Nov 20 16:21	6°♌14'17			2033 May 02 03:12	0°♍	
evening rise	2030 Nov 29 11:25	17°♌16'28		desc. node	2033 May 07 11:11	3°♍38'19	
	2030 Dec 09 14:51	0°♌		morning max el	2033 May 29 17:31	22°♍47'59	45°53'53
	2031 Jan 02 13:14	0°♌			2033 Jun 06 01:08	0°♌	
	2031 Jan 26 13:48	0°♌			2033 Jul 04 06:37	0°♌	
	2031 Feb 19 19:30	0°♍			2033 Jul 30 16:59	0°♌	
asc. node	2031 Mar 13 19:40	26°♍50'03			2033 Aug 25 04:29	0°♌	
	2031 Mar 16 10:42	0°♌		asc. node	2033 Aug 28 14:47	4°♌06'15	
	2031 Apr 10 18:01	0°♌			2033 Sep 19 00:09	0°♌	
	2031 May 07 06:06	0°♌			2033 Oct 13 08:32	0°♌	
evening max el	2031 Jun 02 03:33	26°♌47'28	45°24'11		2033 Nov 06 09:45	0°♌	
	2031 Jun 05 12:57	0°♌		morning set	2033 Nov 23 21:40	21°♌57'15	
desc. node	2031 Jul 03 09:02	21°♌22'49			2033 Nov 30 07:17	0°♌	
greatest brilliancy	2031 Jul 07 07:52	23°♌18'35	-4.5m	desc. node	2033 Dec 18 04:11	22°♌28'58	
retrograde	2031 Jul 20 17:08	26°♌25'37			2033 Dec 24 03:30	0°♌	
evening set	2031 Aug 06 11:10	21°♌07'13					
inferior conj	2031 Aug 11 03:01	18°♌17'13	-7°-31'-35	superior conj	2034 Jan 04 02:10	13°♌46'23	0°-39'-5
minimum elong	2031 Aug 10 18:21	18°♌30'41	7°30'21	minimum elong	2034 Jan 03 16:36	13°♌16'17	0°38'39
min. Earth dist.	2031 Aug 11 06:01	18°♌12'32	0.28893 AU	max. Earth dist.	2034 Jan 05 08:27	15°♌21'36	1.71083 AU
morning rise	2031 Aug 15 01:26	15°♌52'32			2034 Jan 16 23:48	0°♌	
direct	2031 Sep 01 17:57	10°♌01'11			2034 Feb 09 21:23	0°♌	
greatest brilliancy	2031 Sep 16 02:35	13°♌39'43	-4.5m	evening rise	2034 Feb 14 09:36	5°♌38'45	
	2031 Oct 09 06:32	0°♌			2034 Mar 05 21:51	0°♍	
morning max el	2031 Oct 21 14:12	11°♌35'59	46°23'07		2034 Mar 30 03:12	0°♌	
asc. node	2031 Oct 24 12:22	14°♌32'11		asc. node	2034 Apr 10 07:35	13°♌44'05	
	2031 Nov 08 02:59	0°♌			2034 Apr 23 15:30	0°♌	
	2031 Dec 04 09:09	0°♌			2034 May 18 13:04	0°♌	
	2031 Dec 29 09:17	0°♌			2034 Jun 12 23:49	0°♌	
	2032 Jan 22 20:56	0°♌			2034 Jul 09 08:34	0°♌	
desc. node	2032 Feb 13 01:53	26°♌11'40		desc. node	2034 Jul 30 20:52	23°♌06'28	
	2032 Feb 16 03:40	0°♌			2034 Aug 06 15:54	0°♌	
	2032 Mar 11 09:04	0°♌		evening max el	2034 Aug 12 19:00	5°♌59'32	45°51'21
	2032 Apr 04 14:58	0°♍			2034 Sep 11 16:18	0°♌	
morning set	2032 Apr 26 01:55	26°♍29'20		greatest brilliancy	2034 Sep 20 06:06	4°♌06'25	-4.6m
	2032 Apr 28 22:17	0°♌		retrograde	2034 Sep 30 19:36	6°♌07'43	
	2032 May 23 07:10	0°♌		evening set	2034 Oct 17 10:04	0°♌56'15	
					2034 Oct 19 00:40	30°♌	
superior conj	2032 Jun 02 09:07	12°♌23'32	0°-6'-46	inferior conj	2034 Oct 21 17:04	28°♌22'30	-6°-45'-33
minimum elong	2032 Jun 02 10:33	12°♌27'56	0°06'43	minimum elong	2034 Oct 22 03:27	28°♌06'36	6°43'29
behind sun begin	2032 Jun 01 13:40	11°♌23'45		min. Earth dist.	2034 Oct 22 15:50	27°♌47'40	0.27350 AU
behind sun end	2032 Jun 03 07:26	13°♌32'06		morning rise	2034 Oct 26 20:15	25°♌18'41	
max. Earth dist.	2032 Jun 03 01:27	13°♌13'45	1.73513 AU	direct	2034 Nov 11 14:01	20°♌27'53	
asc. node	2032 Jun 05 05:18	15°♌53'03		asc. node	2034 Nov 21 00:09	22°♌08'45	
	2032 Jun 16 16:59	0°♌		greatest brilliancy	2034 Nov 25 11:43	23°♌59'33	-4.6m
evening rise	2032 Jul 08 15:38	26°♌57'28			2034 Dec 05 12:04	0°♌	
	2032 Jul 11 03:03	0°♌		morning max el	2035 Jan 01 07:27	23°♌50'05	46°56'45
	2032 Aug 04 13:19	0°♌			2035 Jan 07 05:59	0°♌	
	2032 Aug 29 00:39	0°♌			2035 Feb 03 06:28	0°♌	
	2032 Sep 22 14:23	0°♌			2035 Feb 28 20:22	0°♌	
desc. node	2032 Sep 24 18:36	2°♌38'50		desc. node	2035 Mar 12 13:39	14°♌00'07	
	2032 Oct 17 07:59	0°♌			2035 Mar 25 20:56	0°♌	
	2032 Nov 11 08:04	0°♌			2035 Apr 19 15:51	0°♍	
	2032 Dec 06 21:48	0°♌			2035 May 14 08:25	0°♌	
	2033 Jan 02 23:34	0°♌			2035 Jun 07 23:36	0°♌	
evening max el	2033 Jan 07 20:05	5°♌01'47	47°11'27		2035 Jul 02 12:53	0°♌	
asc. node	2033 Jan 15 22:01	13°♌01'42		asc. node	2035 Jul 03 17:11	1°♌26'39	
	2033 Feb 05 05:27	0°♍		morning set	2035 Jul 04 09:29	2°♌16'36	
greatest brilliancy	2033 Feb 14 03:01	5°♍09'50	-4.6m		2035 Jul 26 23:18	0°♌	
retrograde	2033 Feb 27 15:41	8°♍31'52		max. Earth dist.	2035 Aug 06 19:09	13°♌20'56	1.73207 AU
evening set	2033 Mar 17 12:49	2°♍19'17					
inferior conj	2033 Mar 20 16:05	0°♍21'38	8°30'58	superior conj	2035 Aug 09 18:40	17°♌01'39	1°13'13
minimum elong	2033 Mar 20 21:01	0°♍13'51	8°30'36	minimum elong	2035 Aug 09 10:54	16°♌37'41	1°13'01
min. Earth dist.	2033 Mar 20 06:01	0°♍37'30	0.28011 AU		2035 Aug 20 06:32	0°♌	
	2033 Mar 21 05:49	30°♌			2035 Sep 13 11:24	0°♌	
morning rise	2033 Mar 24 05:28	28°♌09'17		evening rise	2035 Sep 15 02:55	2°♌02'36	
direct	2033 Apr 10 15:27	22°♌21'03			2035 Oct 07 15:12	0°♌	
greatest brilliancy	2033 Apr 21 18:20	24°♌36'49	-4.5m	desc. node	2035 Oct 23 06:31	19°♌25'06	

	2035 Oct 31 19:05	0°♊			2038 Jul 17 00:16	0°♎		
	2035 Nov 24 23:51	0°♋		asc. node	2038 Jul 31 04:57	17°♎12'35		
	2035 Dec 19 06:59	0°♌			2038 Aug 10 16:34	0°♏		
	2036 Jan 12 20:23	0°♍			2038 Sep 04 01:51	0°♐		
	2036 Feb 07 00:26	0°♎		morning set	2038 Sep 10 14:41	8°♐05'31		
asc. node	2036 Feb 13 09:43	7°♎24'53			2038 Sep 28 05:33	0°♑		
	2036 Mar 04 13:34	0°♏		max. Earth dist.	2038 Oct 15 07:22	21°♑19'35	1.71809 AU	
evening max el	2036 Mar 20 03:24	16°♏11'03	46°09'29					
	2036 Apr 04 01:53	0°♐		superior conj	2038 Oct 18 01:40	24°♑46'56	1°07'41	
greatest brilliancy	2036 Apr 23 21:46	13°♐39'48	-4.5m	minimum elong	2038 Oct 18 11:30	25°♑17'42	1°07'23	
retrograde	2036 May 08 15:58	17°♐31'42			2038 Oct 22 05:43	0°♒		
evening set	2036 May 23 21:46	13°♐00'22			2038 Nov 15 04:11	0°♓		
inferior conj	2036 May 30 02:25	9°♐16'35	1°08'57	desc. node	2038 Nov 19 18:30	5°♓45'52		
minimum elong	2036 May 30 04:56	9°♐12'38	1°08'13	evening rise	2038 Nov 26 22:42	14°♓45'54		
min. Earth dist.	2036 May 30 02:19	9°♐16'44	0.28826 AU		2038 Dec 09 02:12	0°♑		
desc. node	2036 Jun 03 23:06	6°♐17'53			2039 Jan 02 00:45	0°♒		
morning rise	2036 Jun 05 12:13	5°♐25'22			2039 Jan 26 01:32	0°♓		
direct	2036 Jun 20 14:11	1°♐01'07			2039 Feb 19 07:31	0°♑		
greatest brilliancy	2036 Jul 03 19:43	4°♐04'16	-4.5m	asc. node	2039 Mar 12 21:41	26°♑18'25		
	2036 Aug 07 14:37	0°♑			2039 Mar 15 23:16	0°♒		
morning max el	2036 Aug 08 08:37	0°♑42'50	45°46'23		2039 Apr 10 07:44	0°♐		
	2036 Sep 05 15:11	0°♏			2039 May 06 22:25	0°♑		
asc. node	2036 Sep 25 02:38	21°♏59'56		evening max el	2039 May 30 19:33	24°♑36'33	45°24'34	
	2036 Oct 01 23:39	0°♐			2039 Jun 05 13:35	0°♏		
	2036 Oct 27 02:21	0°♑		desc. node	2039 Jul 02 11:07	19°♏56'55		
	2036 Nov 20 12:56	0°♒		greatest brilliancy	2039 Jul 04 22:52	21°♏07'25	-4.5m	
	2036 Dec 14 15:20	0°♓		retrograde	2039 Jul 18 08:35	24°♏15'04		
	2037 Jan 07 14:16	0°♑		evening set	2039 Aug 03 23:58	19°♏01'24		
desc. node	2037 Jan 14 16:04	8°♑52'25		inferior conj	2039 Aug 08 19:02	16°♏06'26	-7°-21'-19	
	2037 Jan 31 12:22	0°♒		minimum elong	2039 Aug 08 10:02	16°♏20'27	7°19'57	
morning set	2037 Feb 08 21:37	10°♒30'32		min. Earth dist.	2039 Aug 08 21:23	16°♏02'45	0.28909 AU	
	2037 Feb 24 11:15	0°♓		morning rise	2039 Aug 12 20:00	13°♏37'41		
	2037 Mar 20 12:10	0°♑		direct	2039 Aug 30 10:14	7°♏50'23		
				greatest brilliancy	2039 Sep 13 16:49	11°♏25'53	-4.5m	
superior conj	2037 Mar 21 09:15	1°♑05'39	-1°-23'-19		2039 Oct 09 10:09	0°♐		
minimum elong	2037 Mar 21 14:37	1°♑22'21	1°23'16	morning max el	2039 Oct 19 04:21	9°♐17'23	46°21'31	
max. Earth dist.	2037 Mar 25 06:07	5°♑54'30	1.72238 AU	asc. node	2039 Oct 23 14:27	13°♐44'49		
	2037 Apr 13 16:10	0°♒			2039 Nov 07 20:12	0°♑		
evening rise	2037 Apr 29 08:12	19°♒21'03			2039 Dec 03 23:27	0°♒		
asc. node	2037 May 07 19:32	29°♒46'45			2039 Dec 28 22:18	0°♓		
	2037 May 07 23:51	0°♐			2040 Jan 22 09:16	0°♑		
	2037 Jun 01 11:22	0°♑		desc. node	2040 Feb 12 03:49	25°♑40'38		
	2037 Jun 26 03:06	0°♏			2040 Feb 15 15:34	0°♒		
	2037 Jul 21 00:22	0°♐			2040 Mar 10 20:38	0°♓		
	2037 Aug 15 06:06	0°♑			2040 Apr 04 02:15	0°♑		
desc. node	2037 Aug 27 08:39	14°♑10'37		morning set	2040 Apr 23 17:40	24°♑15'43		
	2037 Sep 10 01:37	0°♒			2040 Apr 28 09:21	0°♒		
	2037 Oct 06 23:02	0°♓			2040 May 22 18:05	0°♐		
evening max el	2037 Oct 25 01:24	18°♓50'50	46°59'07					
	2037 Nov 05 18:58	0°♑		superior conj	2040 May 31 02:25	10°♐15'40	0°-10'00	
greatest brilliancy	2037 Dec 02 18:12	18°♑55'40	-4.7m	minimum elong	2040 May 31 04:31	10°♐22'09	0°09'54	
retrograde	2037 Dec 14 12:46	21°♑31'16		behind sun begin	2040 May 30 10:27	9°♐26'36		
asc. node	2037 Dec 18 12:09	21°♑11'37		behind sun end	2040 May 31 22:35	11°♐17'41		
evening set	2037 Dec 29 01:25	17°♑17'39		max. Earth dist.	2040 May 31 22:44	11°♐18'08	1.73490 AU	
min. Earth dist.	2038 Jan 03 11:23	14°♑07'33	0.26523 AU	asc. node	2040 Jun 04 07:23	15°♐25'55		
inferior conj	2038 Jan 04 01:27	13°♑46'05	4°08'59		2040 Jun 16 03:53	0°♑		
minimum elong	2038 Jan 03 16:53	13°♑59'09	4°06'30	evening rise	2040 Jul 06 10:23	24°♑53'57		
morning rise	2038 Jan 09 08:43	10°♑38'26			2040 Jul 10 14:02	0°♏		
direct	2038 Jan 24 10:19	6°♑08'23			2040 Aug 04 00:29	0°♐		
greatest brilliancy	2038 Feb 04 16:38	8°♑31'38	-4.7m		2040 Aug 28 12:08	0°♑		
	2038 Mar 06 17:53	0°♒			2040 Sep 22 02:20	0°♒		
morning max el	2038 Mar 15 13:49	8°♒29'03	46°37'56	desc. node	2040 Sep 23 20:41	2°♒08'42		
	2038 Apr 05 03:23	0°♓			2040 Oct 16 20:40	0°♓		
desc. node	2038 Apr 09 01:34	4°♓17'45			2040 Nov 10 21:53	0°♑		
	2038 May 01 21:17	0°♑			2040 Dec 06 13:42	0°♒		
	2038 May 27 16:34	0°♒			2041 Jan 02 20:36	0°♓		
	2038 Jun 22 00:28	0°♐		evening max el	2041 Jan 05 09:57	2°♓37'50	47°12'23	

asc. node	2041 Jan 14 23:54	12° Υ 03'44		morning set	2043 Jul 02 03:24	0° \ominus 11'22	
	2041 Feb 06 11:58	0° Υ		asc. node	2043 Jul 02 19:09	0° \ominus 59'37	
greatest brilliancy	2041 Feb 11 20:28	2° Υ 52'35	-4.6m		2043 Jul 26 10:00	0° Ω	
retrograde	2041 Feb 25 06:07	6° Υ 11'48		max. Earth dist.	2043 Aug 04 17:07	11° Ω 27'34	1.73242 AU
evening set	2041 Mar 15 05:05	29° Υ 57'36					
	2041 Mar 15 03:31	30° Υ		superior conj	2043 Aug 07 12:40	14° Ω 55'59	1°11'33
inferior conj	2041 Mar 18 06:46	28° Υ 02'22	8°36'21	minimum elong	2043 Aug 07 04:36	14° Ω 31'05	1°11'20
minimum elong	2041 Mar 18 10:57	27° Υ 55'46	8°36'05		2043 Aug 19 17:15	0° Υ	
min. Earth dist.	2041 Mar 17 20:16	28° Υ 18'56	0.27967 AU	evening rise	2043 Sep 12 19:19	29° Υ 50'56	
morning rise	2041 Mar 21 17:03	25° Υ 54'33			2043 Sep 12 22:15	0° $\underline{\Omega}$	
direct	2041 Apr 08 05:08	20° Υ 02'36			2043 Oct 07 02:17	0° \mathbb{M}	
greatest brilliancy	2041 Apr 19 07:34	22° Υ 17'29	-4.5m	desc. node	2043 Oct 22 08:39	18° \mathbb{M} 56'51	
	2041 May 03 04:07	0° Υ			2043 Oct 31 06:27	0° Υ	
desc. node	2041 May 06 13:18	2° Υ 27'05			2043 Nov 24 11:33	0° \ominus	
morning max el	2041 May 27 07:03	20° Υ 29'32	45°55'01		2043 Dec 18 19:08	0° \approx	
	2041 Jun 05 21:16	0° Υ			2044 Jan 12 09:15	0° Υ	
	2041 Jul 03 21:43	0° \mathbb{M}			2044 Feb 06 14:40	0° Υ	
	2041 Jul 30 06:04	0° \ominus		asc. node	2044 Feb 12 11:47	6° Υ 48'22	
	2041 Aug 24 16:32	0° Ω			2044 Mar 04 07:08	0° Υ	
asc. node	2041 Aug 27 16:45	3° Ω 36'17		evening max el	2044 Mar 17 19:06	13° Υ 57'55	46°11'51
	2041 Sep 18 11:40	0° Υ			2044 Apr 04 09:09	0° \mathbb{M}	
	2041 Oct 12 19:46	0° $\underline{\Omega}$		greatest brilliancy	2044 Apr 21 13:44	11° \mathbb{M} 29'34	-4.5m
	2041 Nov 05 20:50	0° \mathbb{M}		retrograde	2044 May 06 09:01	15° \mathbb{M} 22'27	
morning set	2041 Nov 21 10:02	19° \mathbb{M} 30'30		evening set	2044 May 21 15:29	10° \mathbb{M} 48'58	
	2041 Nov 29 18:20	0° Υ		inferior conj	2044 May 27 18:42	7° \mathbb{M} 06'59	1°28'50
desc. node	2041 Dec 17 06:16	22° Υ 00'45		minimum elong	2044 May 27 21:56	7° \mathbb{M} 01'55	1°27'53
	2041 Dec 23 14:33	0° \ominus		min. Earth dist.	2044 May 27 18:26	7° \mathbb{M} 07'24	0.28814 AU
				morning rise	2044 Jun 03 04:37	3° \mathbb{M} 16'00	
superior conj	2042 Jan 01 12:16	11° \ominus 12'30	0°-35'-28	desc. node	2044 Jun 03 01:09	3° \mathbb{M} 20'46	
minimum elong	2042 Jan 01 03:24	10° \ominus 44'37	0°35'05		2044 Jun 10 17:14	30° Υ	
max. Earth dist.	2042 Jan 02 11:37	12° \ominus 25'56	1.71077 AU	direct	2044 Jun 18 06:36	28° Υ 51'44	
	2042 Jan 16 10:51	0° \approx			2044 Jun 26 03:21	0° \mathbb{M}	
	2042 Feb 09 08:26	0° Υ		greatest brilliancy	2044 Jul 01 10:55	1° \mathbb{M} 54'23	-4.5m
evening rise	2042 Feb 11 20:24	3° Υ 07'43		morning max el	2044 Aug 06 01:26	28° \mathbb{M} 35'24	45°45'47
	2042 Mar 05 08:58	0° Υ			2044 Aug 07 12:42	0° \ominus	
	2042 Mar 29 14:28	0° Υ			2044 Sep 05 06:39	0° Ω	
asc. node	2042 Apr 09 09:42	13° Υ 15'43		asc. node	2044 Sep 24 04:48	21° Ω 26'40	
	2042 Apr 23 03:05	0° \mathbb{M}			2044 Oct 01 12:50	0° Υ	
	2042 May 18 01:13	0° \ominus			2044 Oct 26 14:30	0° $\underline{\Omega}$	
	2042 Jun 12 13:02	0° Ω			2044 Nov 20 00:35	0° \mathbb{M}	
	2042 Jul 09 00:02	0° Υ			2044 Dec 14 02:41	0° Υ	
desc. node	2042 Jul 29 22:48	22° Υ 21'55		desc. node	2045 Jan 07 01:25	0° \ominus	
	2042 Aug 06 13:20	0° $\underline{\Omega}$			2045 Jan 13 17:59	8° \ominus 23'33	
evening max el	2042 Aug 10 07:50	3° $\underline{\Omega}$ 39'25	45°49'25		2045 Jan 30 23:22	0° \approx	
	2042 Sep 13 15:30	0° \mathbb{M}		morning set	2045 Feb 06 07:51	7° \approx 57'51	
greatest brilliancy	2042 Sep 17 17:33	1° \mathbb{M} 43'52	-4.6m		2045 Feb 23 22:07	0° Υ	
retrograde	2042 Sep 28 08:41	3° \mathbb{M} 46'49					
	2042 Oct 12 08:14	30° Υ		superior conj	2045 Mar 18 22:23	28° Υ 43'35	-1°-24'-10
evening set	2042 Oct 15 02:27	28° $\underline{\Omega}$ 29'55		minimum elong	2045 Mar 19 02:56	28° Υ 57'46	1°24'09
inferior conj	2042 Oct 19 06:29	26° $\underline{\Omega}$ 00'32	-6°-59'-34		2045 Mar 19 22:55	0° Υ	
minimum elong	2042 Oct 19 16:42	25° $\underline{\Omega}$ 44'54	6°57'37	max. Earth dist.	2045 Mar 22 21:02	3° Υ 38'12	1.72183 AU
min. Earth dist.	2042 Oct 20 05:33	25° $\underline{\Omega}$ 25'18	0.27419 AU		2045 Apr 13 02:52	0° Υ	
morning rise	2042 Oct 24 06:24	23° $\underline{\Omega}$ 01'30		evening rise	2045 Apr 26 23:51	17° Υ 08'27	
direct	2042 Nov 09 04:04	18° $\underline{\Omega}$ 04'37		asc. node	2045 May 06 21:36	29° Υ 20'09	
asc. node	2042 Nov 20 02:14	20° $\underline{\Omega}$ 18'49			2045 May 07 10:34	0° \mathbb{M}	
greatest brilliancy	2042 Nov 23 04:41	21° $\underline{\Omega}$ 39'57	-4.6m		2045 May 31 22:15	0° \ominus	
	2042 Dec 06 08:11	0° \mathbb{M}			2045 Jun 25 14:19	0° Ω	
morning max el	2042 Dec 29 22:02	21° \mathbb{M} 27'39	46°56'34		2045 Jul 20 12:12	0° Υ	
	2043 Jan 07 02:12	0° Υ			2045 Aug 14 18:56	0° $\underline{\Omega}$	
	2043 Feb 02 22:00	0° \ominus		desc. node	2045 Aug 26 10:44	13° $\underline{\Omega}$ 37'27	
	2043 Feb 28 09:54	0° \approx			2045 Sep 09 16:14	0° \mathbb{M}	
desc. node	2043 Mar 11 15:46	13° \approx 27'36			2045 Oct 06 17:24	0° Υ	
	2043 Mar 25 09:22	0° Υ		evening max el	2045 Oct 22 15:55	16° Υ 29'49	46°57'09
	2043 Apr 19 03:37	0° Υ			2045 Nov 06 01:56	0° \ominus	
	2043 May 13 19:44	0° Υ		greatest brilliancy	2045 Nov 30 08:02	16° \ominus 28'15	-4.7m
	2043 Jun 07 10:37	0° \mathbb{M}		retrograde	2045 Dec 12 01:28	19° \ominus 01'46	
	2043 Jul 01 23:41	0° \ominus		asc. node	2045 Dec 17 14:05	18° \ominus 23'51	

evening set	2045 Dec 26 12:01	14°☾51'16		max. Earth dist.	2048 May 29 18:18	9°♊18'17	1.73464 AU
min. Earth dist.	2046 Jan 01 00:30	11°☾37'23	0.26496 AU	asc. node	2048 Jun 03 09:21	14°♊59'31	
inferior conj	2046 Jan 01 13:35	11°☾17'24	3°46'54		2048 Jun 15 14:26	0°☾	
minimum elong	2046 Jan 01 05:38	11°☾29'34	3°44'33	evening rise	2048 Jul 04 05:19	22°☾52'09	
morning rise	2046 Jan 06 23:38	8°☾06'01			2048 Jul 10 00:40	0°♊	
direct	2046 Jan 21 22:57	3°☾40'18			2048 Aug 03 11:20	0°♊	
greatest brilliancy	2046 Feb 02 05:37	6°☾04'07	-4.7m		2048 Aug 27 23:21	0°♊	
	2046 Mar 06 20:42	0°♊			2048 Sep 21 14:06	0°♊	
morning max el	2046 Mar 13 02:52	6°♊05'04	46°39'23	desc. node	2048 Sep 22 22:47	1°♊39'13	
	2046 Apr 04 20:36	0°♊			2048 Oct 16 09:14	0°♊	
desc. node	2046 Apr 08 03:39	3°♊37'37			2048 Nov 10 11:41	0°☾	
	2046 May 01 11:20	0°♊			2048 Dec 06 05:42	0°♊	
	2046 May 27 05:03	0°♊			2049 Jan 02 18:09	0°♊	
	2046 Jun 21 12:04	0°♊		evening max el	2049 Jan 02 23:06	0°♊12'39	47°13'34
	2046 Jul 16 11:22	0°☾		asc. node	2049 Jan 14 02:00	11°♊05'38	
asc. node	2046 Jul 30 06:57	16°☾45'27			2049 Feb 08 08:10	0°♊	
	2046 Aug 10 03:23	0°♊		greatest brilliancy	2049 Feb 09 13:12	0°♊35'03	-4.6m
	2046 Sep 03 12:34	0°♊		retrograde	2049 Feb 22 20:42	3°♊52'43	
morning set	2046 Sep 08 07:09	5°♊54'42			2049 Mar 08 17:47	30°♊	
	2046 Sep 27 16:15	0°♊		evening set	2049 Mar 12 21:00	27°♊37'06	
max. Earth dist.	2046 Oct 12 17:10	18°♊46'39	1.71857 AU	inferior conj	2049 Mar 15 21:29	25°♊43'55	8°40'51
				minimum elong	2049 Mar 16 00:53	25°♊38'34	8°40'41
superior conj	2046 Oct 15 16:01	22°♊28'08	1°09'47	min. Earth dist.	2049 Mar 15 10:28	26°♊01'16	0.27920 AU
minimum elong	2046 Oct 16 01:32	22°♊57'52	1°09'30	morning rise	2049 Mar 19 04:57	23°♊40'26	
	2046 Oct 21 16:28	0°♊		direct	2049 Apr 05 18:36	17°♊44'46	
	2046 Nov 14 15:02	0°♊		greatest brilliancy	2049 Apr 16 21:25	19°♊59'43	-4.5m
desc. node	2046 Nov 18 20:30	5°♊18'01			2049 May 03 22:03	0°♊	
evening rise	2046 Nov 24 09:50	12°♊16'02		desc. node	2049 May 05 15:20	1°♊18'34	
	2046 Dec 08 13:11	0°☾		morning max el	2049 May 24 21:10	18°♊13'17	45°56'14
	2047 Jan 01 11:54	0°♊			2049 Jun 05 16:27	0°♊	
	2047 Jan 25 12:54	0°♊			2049 Jul 03 12:20	0°♊	
	2047 Feb 18 19:12	0°♊			2049 Jul 29 18:47	0°☾	
asc. node	2047 Mar 11 23:48	25°♊48'12			2049 Aug 24 04:18	0°♊	
	2047 Mar 15 11:31	0°♊		asc. node	2049 Aug 26 18:57	3°♊07'50	
	2047 Apr 09 21:09	0°♊			2049 Sep 17 22:55	0°♊	
	2047 May 06 14:34	0°☾			2049 Oct 12 06:47	0°♊	
evening max el	2047 May 28 10:37	22°☾24'40	45°25'00		2049 Nov 05 07:47	0°♊	
	2047 Jun 05 14:55	0°♊		morning set	2049 Nov 18 22:16	17°♊03'46	
desc. node	2047 Jul 01 13:01	18°♊29'06			2049 Nov 29 05:17	0°♊	
greatest brilliancy	2047 Jul 02 13:09	18°♊56'35	-4.5m	desc. node	2049 Dec 16 08:15	21°♊32'30	
retrograde	2047 Jul 15 23:46	22°♊05'52			2049 Dec 23 01:31	0°☾	
evening set	2047 Aug 01 12:45	16°♊56'37					
inferior conj	2047 Aug 06 11:04	13°♊56'54	-7°-10'-18	superior conj	2049 Dec 29 21:53	8°☾37'14	0°-31'-45
minimum elong	2047 Aug 06 01:47	14°♊11'24	7°08'49	minimum elong	2049 Dec 29 13:48	8°☾11'49	0°31'24
min. Earth dist.	2047 Aug 06 13:05	13°♊53'45	0.28930 AU	max. Earth dist.	2049 Dec 30 15:31	9°☾32'43	1.71073 AU
morning rise	2047 Aug 10 14:38	11°♊24'00			2050 Jan 15 21:49	0°♊	
direct	2047 Aug 28 02:07	5°♊40'33			2050 Feb 08 19:24	0°♊	
greatest brilliancy	2047 Sep 11 08:05	9°♊14'19	-4.5m	evening rise	2050 Feb 09 06:46	0°♊35'38	
	2047 Oct 09 11:55	0°♊			2050 Mar 04 19:58	0°♊	
morning max el	2047 Oct 16 18:07	6°♊58'33	46°19'55		2050 Mar 29 01:37	0°♊	
asc. node	2047 Oct 22 16:29	12°♊58'40		asc. node	2050 Apr 08 11:44	12°♊47'35	
	2047 Nov 07 12:52	0°♊			2050 Apr 22 14:32	0°♊	
	2047 Dec 03 13:22	0°♊			2050 May 17 13:15	0°☾	
	2047 Dec 28 10:58	0°♊			2050 Jun 12 02:12	0°♊	
	2048 Jan 21 21:14	0°☾			2050 Jul 08 15:33	0°♊	
desc. node	2048 Feb 11 05:57	25°☾11'22		desc. node	2050 Jul 29 00:59	21°♊37'54	
	2048 Feb 15 03:05	0°♊			2050 Aug 06 11:19	0°♊	
	2048 Mar 10 07:50	0°♊		evening max el	2050 Aug 07 21:41	1°♊22'36	45°47'35
	2048 Apr 03 13:11	0°♊		greatest brilliancy	2050 Sep 15 04:14	29°♊21'43	-4.5m
morning set	2048 Apr 21 09:20	22°♊02'48			2050 Sep 17 01:03	0°♊	
	2048 Apr 27 20:04	0°♊		retrograde	2050 Sep 25 22:19	1°♊26'57	
	2048 May 22 04:41	0°♊			2050 Oct 04 10:59	30°♊	
				evening set	2050 Oct 12 18:54	26°♊04'48	
superior conj	2048 May 28 19:51	8°♊09'16	0°-13'-12	inferior conj	2050 Oct 16 20:01	23°♊39'31	-7°-12'-32
minimum elong	2048 May 28 22:37	8°♊17'49	0°13'05	minimum elong	2050 Oct 17 06:01	23°♊24'15	7°10'45
behind sun begin	2048 May 28 09:30	7°♊37'29		min. Earth dist.	2050 Oct 17 18:55	23°♊04'33	0.27492 AU
behind sun end	2048 May 29 11:45	8°♊58'09		morning rise	2050 Oct 21 16:37	20°♊45'21	

direct	2050 Nov 06 18:44	15° Ω 42'27		asc. node	2053 May 05 23:32	28° Υ 52'24	
asc. node	2050 Nov 19 04:13	18° Ω 33'30			2053 May 06 21:32	0° Π	
greatest brilliancy	2050 Nov 20 20:53	19° Ω 20'07	-4.6m		2053 May 31 09:22	0° Θ	
	2050 Dec 06 23:01	0° \mathbb{M}			2053 Jun 25 01:47	0° Ω	
morning max el	2050 Dec 27 13:23	19° \mathbb{M} 07'17	46°56'03		2053 Jul 20 00:18	0° \mathbb{M}	
	2051 Jan 06 21:50	0° \mathcal{A}			2053 Aug 14 08:05	0° Ω	
	2051 Feb 02 13:23	0° Θ		desc. node	2053 Aug 25 12:50	13° Ω 03'27	
	2051 Feb 27 23:24	0° \approx			2053 Sep 09 07:16	0° \mathbb{M}	
desc. node	2051 Mar 10 17:53	12° \approx 54'56			2053 Oct 06 12:26	0° \mathcal{A}	
	2051 Mar 24 21:47	0° \mathcal{H}		evening max el	2053 Oct 20 06:08	14° \mathcal{A} 07'41	46°55'06
	2051 Apr 18 15:20	0° Υ			2053 Nov 06 11:37	0° Θ	
	2051 May 13 07:00	0° \mathcal{B}		greatest brilliancy	2053 Nov 27 22:54	14° Θ 02'04	-4.7m
	2051 Jun 06 21:34	0° Π		retrograde	2053 Dec 09 13:51	16° Θ 32'30	
morning set	2051 Jun 29 21:28	28° Π 06'46		asc. node	2053 Dec 16 16:08	15° Θ 30'20	
	2051 Jul 01 10:27	0° Θ		evening set	2053 Dec 23 23:06	12° Θ 24'51	
asc. node	2051 Jul 01 21:12	0° Θ 32'55		min. Earth dist.	2053 Dec 29 14:14	9° Θ 07'08	0.26472 AU
	2051 Jul 25 20:40	0° Ω		inferior conj	2053 Dec 30 01:59	8° Θ 49'09	3°24'35
max. Earth dist.	2051 Aug 02 14:53	9° Ω 33'41	1.73274 AU	minimum elong	2053 Dec 29 18:41	9° Θ 00'20	3°22'22
				morning rise	2054 Jan 04 14:36	5° Θ 34'02	
superior conj	2051 Aug 05 06:57	12° Ω 51'16	1°09'48	direct	2054 Jan 19 11:19	1° Θ 12'29	
minimum elong	2051 Aug 04 22:38	12° Ω 25'39	1°09'34	greatest brilliancy	2054 Jan 30 19:22	3° Θ 37'17	-4.7m
	2051 Aug 19 03:58	0° \mathbb{M}			2054 Mar 06 22:16	0° \approx	
evening rise	2051 Sep 10 12:11	27° \mathbb{M} 40'45		morning max el	2054 Mar 10 15:12	3° \approx 38'33	46°40'38
	2051 Sep 12 09:05	0° Ω			2054 Apr 04 13:46	0° \mathcal{H}	
	2051 Oct 06 13:21	0° \mathbb{M}		desc. node	2054 Apr 07 05:39	2° \mathcal{H} 56'53	
desc. node	2051 Oct 21 10:39	18° \mathbb{M} 28'14			2054 May 01 01:35	0° Υ	
	2051 Oct 30 17:49	0° \mathcal{A}			2054 May 26 17:50	0° \mathcal{B}	
	2051 Nov 23 23:17	0° Θ			2054 Jun 20 23:59	0° Π	
	2051 Dec 18 07:24	0° \approx			2054 Jul 15 22:45	0° Θ	
	2052 Jan 11 22:20	0° \mathcal{H}		asc. node	2054 Jul 29 09:07	16° Θ 17'54	
	2052 Feb 06 05:17	0° Υ			2054 Aug 09 14:28	0° Ω	
asc. node	2052 Feb 11 13:54	6° Υ 11'07			2054 Sep 02 23:32	0° \mathbb{M}	
	2052 Mar 04 01:22	0° \mathcal{B}		morning set	2054 Sep 05 23:45	3° \mathbb{M} 43'30	
evening max el	2052 Mar 15 11:25	11° \mathcal{B} 45'36	46°14'21		2054 Sep 27 03:13	0° Ω	
	2052 Apr 04 19:28	0° Π		max. Earth dist.	2054 Oct 10 04:15	16° Ω 16'57	1.71908 AU
greatest brilliancy	2052 Apr 19 07:05	9° Π 20'34	-4.5m				
retrograde	2052 May 04 02:06	13° Π 12'30		superior conj	2054 Oct 13 06:44	20° Ω 09'41	1°11'43
evening set	2052 May 19 09:23	8° Π 37'06		minimum elong	2054 Oct 13 15:52	20° Ω 38'14	1°11'29
inferior conj	2052 May 25 10:59	4° Π 56'56	1°48'31		2054 Oct 21 03:31	0° \mathbb{M}	
minimum elong	2052 May 25 14:55	4° Π 50'47	1°47'22		2054 Nov 14 02:11	0° \mathcal{A}	
min. Earth dist.	2052 May 25 10:26	4° Π 57'49	0.28794 AU	desc. node	2054 Nov 17 22:31	4° \mathcal{A} 49'20	
morning rise	2052 May 31 20:48	1° Π 06'17		evening rise	2054 Nov 21 21:23	9° \mathcal{A} 46'41	
desc. node	2052 Jun 02 03:08	0° Π 26'02			2054 Dec 08 00:27	0° Θ	
	2052 Jun 02 23:52	30° \mathcal{R}			2054 Dec 31 23:20	0° \approx	
direct	2052 Jun 15 23:09	26° \mathcal{B} 42'09			2055 Jan 25 00:31	0° \mathcal{H}	
greatest brilliancy	2052 Jun 29 00:50	29° \mathcal{B} 42'37	-4.5m		2055 Feb 18 17:09	0° Υ	
	2052 Jun 29 16:37	0° Π		asc. node	2055 Mar 11 01:49	25° Υ 16'42	
morning max el	2052 Aug 03 17:57	26° Π 27'03	45°45'12		2055 Mar 15 00:07	0° \mathcal{B}	
	2052 Aug 07 10:02	0° Θ			2055 Apr 09 11:02	0° Π	
	2052 Sep 04 21:58	0° Ω			2055 May 06 07:26	0° Θ	
asc. node	2052 Sep 23 06:44	20° Ω 52'42		evening max el	2055 May 26 01:22	20° Θ 10'51	45°25'31
	2052 Oct 01 02:01	0° \mathbb{M}			2055 Jun 05 18:18	0° Ω	
	2052 Oct 26 02:43	0° Ω		greatest brilliancy	2055 Jun 30 02:44	16° Ω 43'49	-4.5m
	2052 Nov 19 12:18	0° \mathbb{M}		desc. node	2055 Jun 30 15:13	16° Ω 57'30	
	2052 Dec 13 14:07	0° \mathcal{A}		retrograde	2055 Jul 13 15:17	19° Ω 56'03	
desc. node	2053 Jan 06 12:41	0° Θ		evening set	2055 Jul 30 01:40	14° Ω 50'48	
	2053 Jan 12 20:08	7° Θ 55'03		inferior conj	2055 Aug 04 03:13	11° Ω 46'39	-6°-58'-44
	2053 Jan 30 10:31	0° \approx		minimum elong	2055 Aug 03 17:41	12° Ω 01'33	6°57'07
morning set	2053 Feb 03 17:59	5° \approx 24'21		min. Earth dist.	2055 Aug 04 04:57	11° Ω 43'56	0.28947 AU
	2053 Feb 23 09:11	0° \mathcal{H}		morning rise	2055 Aug 08 09:27	9° Ω 09'44	
				direct	2055 Aug 25 17:50	3° Ω 29'56	
superior conj	2053 Mar 16 11:04	26° \mathcal{H} 19'17	-1°-24'-53	greatest brilliancy	2055 Sep 09 00:21	7° Ω 03'23	-4.5m
minimum elong	2053 Mar 16 14:46	26° \mathcal{H} 30'49	1°24'53		2055 Oct 09 12:43	0° \mathbb{M}	
	2053 Mar 19 09:56	0° Υ		morning max el	2055 Oct 14 08:26	4° \mathbb{M} 40'28	46°18'21
max. Earth dist.	2053 Mar 20 12:09	1° Υ 21'40	1.72129 AU	asc. node	2055 Oct 21 18:32	12° \mathbb{M} 12'22	
	2053 Apr 12 13:49	0° \mathcal{B}			2055 Nov 07 05:30	0° Ω	
evening rise	2053 Apr 24 14:57	14° \mathcal{B} 53'15			2055 Dec 03 03:27	0° \mathbb{M}	

	2055 Dec 27 23:52	0°♊		desc. node	2058 Jul 28 03:01	20°♎52'00	
	2056 Jan 21 09:28	0°♋		evening max el	2058 Aug 05 12:32	29°♎07'30	45°45'40
desc. node	2056 Feb 10 08:01	24°♋41'03			2058 Aug 06 10:35	0°♌	
	2056 Feb 14 14:53	0°♌		greatest brilliancy	2058 Sep 12 15:18	26°♌59'25	-4.5m
	2056 Mar 09 19:17	0°♍		retrograde	2058 Sep 23 11:58	29°♌06'21	
	2056 Apr 03 00:21	0°♎		evening set	2058 Oct 10 11:24	23°♌39'27	
morning set	2056 Apr 19 01:04	19°♎49'04		inferior conj	2058 Oct 14 09:39	21°♌18'02	-7°-24'-41
	2056 Apr 27 07:04	0°♏		minimum elong	2058 Oct 14 19:18	21°♌03'16	7°23'06
	2056 May 21 15:35	0°♐		min. Earth dist.	2058 Oct 15 08:09	20°♌43'39	0.27561 AU
				morning rise	2058 Oct 19 02:48	18°♌28'46	
superior conj	2056 May 26 13:18	6°♐01'55	0°-16'-23	direct	2058 Nov 04 09:42	13°♌20'08	
minimum elong	2056 May 26 16:45	6°♐12'31	0°16'15	asc. node	2058 Nov 18 06:18	16°♌51'38	
max. Earth dist.	2056 May 27 12:48	7°♐14'10	1.73443 AU	greatest brilliancy	2058 Nov 18 11:58	16°♌58'26	-4.6m
asc. node	2056 Jun 02 11:28	14°♐32'34			2058 Dec 07 10:20	0°♍	
	2056 Jun 15 01:21	0°♑		morning max el	2058 Dec 25 04:32	16°♍46'06	46°55'24
evening rise	2056 Jul 02 00:13	20°♑49'12			2059 Jan 06 17:05	0°♊	
	2056 Jul 09 11:40	0°♒			2059 Feb 02 04:41	0°♋	
	2056 Aug 02 22:32	0°♎			2059 Feb 27 12:56	0°♌	
	2056 Aug 27 10:54	0°♏		desc. node	2059 Mar 09 19:49	12°♌21'22	
	2056 Sep 21 02:12	0°♐			2059 Mar 24 10:19	0°♍	
desc. node	2056 Sep 22 00:45	1°♐08'22			2059 Apr 18 03:13	0°♎	
	2056 Oct 15 22:10	0°♊			2059 May 12 18:26	0°♏	
	2056 Nov 10 01:54	0°♋			2059 Jun 06 08:40	0°♐	
	2056 Dec 05 22:18	0°♌		morning set	2059 Jun 27 15:45	26°♐02'25	
evening max el	2056 Dec 31 12:50	27°♌47'58	47°14'38	asc. node	2059 Jun 30 23:21	0°♑06'10	
	2057 Jan 02 16:56	0°♍			2059 Jun 30 21:20	0°♑	
asc. node	2057 Jan 13 04:10	10°♍05'19			2059 Jul 25 07:29	0°♒	
greatest brilliancy	2057 Feb 07 05:03	28°♍15'14	-4.6m	max. Earth dist.	2059 Jul 31 12:08	7°♒37'49	1.73306 AU
	2057 Feb 11 13:30	0°♎					
retrograde	2057 Feb 20 11:44	1°♎32'39		superior conj	2059 Aug 03 01:21	10°♒46'34	1°07'58
	2057 Mar 01 02:51	30°♎		minimum elong	2059 Aug 02 16:53	10°♒20'25	1°07'43
evening set	2057 Mar 10 12:30	25°♎15'58			2059 Aug 18 14:50	0°♎	
min. Earth dist.	2057 Mar 13 00:23	23°♎42'48	0.27872 AU	evening rise	2059 Sep 08 05:06	25°♎30'16	
inferior conj	2057 Mar 13 12:09	23°♎24'19	8°44'30		2059 Sep 11 20:07	0°♏	
minimum elong	2057 Mar 13 14:43	23°♎20'16	8°44'24		2059 Oct 06 00:37	0°♐	
morning rise	2057 Mar 16 17:07	21°♎24'51		desc. node	2059 Oct 20 12:41	17°♎59'09	
direct	2057 Apr 03 08:12	15°♎25'47			2059 Oct 30 05:22	0°♊	
greatest brilliancy	2057 Apr 14 10:58	17°♎40'52	-4.6m		2059 Nov 23 11:13	0°♋	
	2057 May 04 11:45	0°♎			2059 Dec 17 19:50	0°♌	
desc. node	2057 May 04 17:20	0°♎11'04			2060 Jan 11 11:37	0°♍	
morning max el	2057 May 22 12:05	15°♎58'09	45°57'29		2060 Feb 05 20:11	0°♎	
	2057 Jun 05 11:24	0°♏		asc. node	2060 Feb 10 15:51	5°♎32'41	
	2057 Jul 03 03:04	0°♐			2060 Mar 03 20:13	0°♏	
	2057 Jul 29 07:44	0°♑		evening max el	2060 Mar 13 03:35	9°♏32'15	46°16'42
	2057 Aug 23 16:21	0°♒			2060 Apr 05 09:41	0°♐	
asc. node	2057 Aug 25 20:54	2°♒37'42		greatest brilliancy	2060 Apr 17 01:16	7°♐11'57	-4.5m
	2057 Sep 17 10:29	0°♎		retrograde	2060 May 01 18:42	11°♐01'40	
	2057 Oct 11 18:04	0°♏		evening set	2060 May 17 03:20	6°♐24'26	
	2057 Nov 04 18:59	0°♐		inferior conj	2060 May 23 03:12	2°♐46'17	2°08'09
morning set	2057 Nov 16 10:44	14°♐37'07		minimum elong	2060 May 23 07:47	2°♐39'04	2°06'50
	2057 Nov 28 16:28	0°♊		min. Earth dist.	2060 May 23 02:37	2°♐47'12	0.28772 AU
desc. node	2057 Dec 15 10:22	21°♊04'00			2060 May 27 15:29	30°♎	
	2057 Dec 22 12:43	0°♋		morning rise	2060 May 29 12:39	28°♏55'58	
				desc. node	2060 Jun 01 05:16	27°♏33'28	
superior conj	2057 Dec 27 07:31	6°♋01'13	0°-27'-58	direct	2060 Jun 13 15:25	24°♏32'04	
minimum elong	2057 Dec 27 00:18	5°♋38'31	0°27'38	greatest brilliancy	2060 Jun 26 13:51	27°♏29'16	-4.5m
max. Earth dist.	2057 Dec 27 23:07	6°♋50'21	1.71074 AU		2060 Jul 01 16:11	0°♐	
	2058 Jan 15 09:02	0°♌		morning max el	2060 Aug 01 09:32	24°♐16'20	45°44'45
evening rise	2058 Feb 06 17:10	28°♌02'40			2060 Aug 07 06:41	0°♑	
	2058 Feb 08 06:38	0°♍			2060 Sep 04 13:06	0°♒	
	2058 Mar 04 07:16	0°♎		asc. node	2060 Sep 22 08:49	20°♒19'12	
	2058 Mar 28 13:03	0°♏			2060 Sep 30 15:09	0°♎	
asc. node	2058 Apr 07 13:44	12°♏18'31			2060 Oct 25 14:57	0°♏	
	2058 Apr 22 02:15	0°♐			2060 Nov 19 00:04	0°♐	
	2058 May 17 01:34	0°♑			2060 Dec 13 01:37	0°♊	
	2058 Jun 11 15:41	0°♒			2061 Jan 05 23:59	0°♋	
	2058 Jul 08 07:36	0°♎		desc. node	2061 Jan 11 22:13	7°♋26'12	

	2061 Jan 29 21:41	0°♊		evening set	2063 Jul 27 14:34	12°♌45'10	
morning set	2061 Feb 01 03:52	2°♊49'54		inferior conj	2063 Aug 01 19:15	9°♌36'47	-6°-46'-34
	2061 Feb 22 20:15	0°♋		minimum elong	2063 Aug 01 09:31	9°♌51'57	6°44'49
				min. Earth dist.	2063 Aug 01 20:35	9°♌34'41	0.28962 AU
superior conj	2061 Mar 13 23:34	23°♋54'22	-1°-25'-27	morning rise	2063 Aug 06 04:14	6°♌55'56	
minimum elong	2061 Mar 14 02:21	24°♋03'03	1°25'27	direct	2063 Aug 23 09:29	1°♌19'39	
max. Earth dist.	2061 Mar 18 03:39	29°♋06'15	1.72074 AU	greatest brilliancy	2063 Sep 06 17:04	4°♌53'50	-4.5m
	2061 Mar 18 20:55	0°♌			2063 Oct 09 12:01	0°♍	
	2061 Apr 12 00:46	0°♍		morning max el	2063 Oct 11 23:39	2°♍25'41	46°16'59
evening rise	2061 Apr 22 05:52	12°♍37'21		asc. node	2063 Oct 20 20:38	11°♍27'46	
asc. node	2061 May 05 01:42	28°♍25'18			2063 Nov 06 21:30	0°♎	
	2061 May 06 08:31	0°♎			2063 Dec 02 17:04	0°♏	
	2061 May 30 20:31	0°♏			2063 Dec 27 12:23	0°♐	
	2061 Jun 24 13:16	0°♑			2064 Jan 20 21:23	0°♑	
	2061 Jul 19 12:22	0°♒		desc. node	2064 Feb 09 09:58	24°♑11'09	
desc. node	2061 Aug 13 21:14	0°♒			2064 Feb 14 02:24	0°♓	
	2061 Aug 24 14:48	12°♒29'08			2064 Mar 09 06:29	0°♈	
	2061 Sep 08 22:23	0°♓			2064 Apr 02 11:19	0°♉	
	2061 Oct 06 07:57	0°♈		morning set	2064 Apr 16 16:14	17°♉34'10	
evening max el	2061 Oct 17 19:12	11°♈42'48	46°52'48		2064 Apr 26 17:50	0°♊	
	2061 Nov 07 00:38	0°♉			2064 May 21 02:15	0°♋	
greatest brilliancy	2061 Nov 25 14:03	11°♉35'40	-4.7m				
retrograde	2061 Dec 07 01:32	14°♉02'35		superior conj	2064 May 24 06:19	3°♋53'58	0°-19'-36
asc. node	2061 Dec 15 18:18	12°♉29'54		minimum elong	2064 May 24 10:25	4°♋06'36	0°19'25
evening set	2061 Dec 21 10:09	9°♉57'12		max. Earth dist.	2064 May 25 08:02	5°♋13'04	1.73420 AU
min. Earth dist.	2061 Dec 27 04:12	6°♉35'32	0.26454 AU	asc. node	2064 Jun 01 13:32	14°♋06'16	
inferior conj	2061 Dec 27 14:11	6°♉20'16	3°01'35		2064 Jun 14 11:59	0°♌	
minimum elong	2061 Dec 27 07:35	6°♉30'22	2°59'33	evening rise	2064 Jun 29 18:56	18°♌46'34	
morning rise	2062 Jan 02 05:14	3°♉01'33			2064 Jul 08 22:24	0°♍	
	2062 Jan 09 01:52	30°♊♈			2064 Aug 02 09:29	0°♎	
direct	2062 Jan 16 23:01	28°♊43'41			2064 Aug 26 22:12	0°♏	
	2062 Jan 25 02:24	0°♋			2064 Sep 20 14:04	0°♐	
greatest brilliancy	2062 Jan 28 10:04	1°♋10'58	-4.7m	desc. node	2064 Sep 21 02:50	0°♐38'43	
	2062 Mar 06 22:37	0°♌			2064 Oct 15 10:50	0°♑	
morning max el	2062 Mar 08 03:02	1°♌10'31	46°42'01		2064 Nov 09 15:52	0°♒	
	2062 Apr 04 06:31	0°♍			2064 Dec 05 14:44	0°♓	
desc. node	2062 Apr 06 07:46	2°♍17'04		evening max el	2064 Dec 29 03:27	25°♓26'45	47°15'31
	2062 Apr 30 15:33	0°♎			2065 Jan 02 16:12	0°♈	
	2062 May 26 06:24	0°♏		asc. node	2065 Jan 12 06:04	9°♈04'00	
	2062 Jun 20 11:43	0°♐		greatest brilliancy	2065 Feb 04 19:57	25°♈54'53	-4.7m
	2062 Jul 15 09:59	0°♑		retrograde	2065 Feb 18 03:02	29°♈12'49	
asc. node	2062 Jul 28 11:06	15°♑50'14		evening set	2065 Mar 08 03:26	22°♈55'30	
	2062 Aug 09 01:25	0°♒		min. Earth dist.	2065 Mar 10 13:49	21°♈24'52	0.27827 AU
	2062 Sep 02 10:20	0°♓		inferior conj	2065 Mar 11 02:36	21°♈04'47	8°47'16
morning set	2062 Sep 03 16:34	1°♓33'33		minimum elong	2065 Mar 11 04:22	21°♈02'02	8°47'13
	2062 Sep 26 13:59	0°♈		morning rise	2065 Mar 14 05:28	19°♈08'48	
max. Earth dist.	2062 Oct 07 18:26	13°♈57'34	1.71960 AU	direct	2065 Mar 31 22:06	13°♈06'56	
				greatest brilliancy	2065 Apr 11 23:47	15°♈21'29	-4.6m
superior conj	2062 Oct 10 21:44	17°♈52'50	1°13'31	desc. node	2065 May 03 19:29	29°♈06'07	
minimum elong	2062 Oct 11 06:28	18°♈20'05	1°13'19		2065 May 04 21:44	0°♉	
	2062 Oct 20 14:20	0°♊		morning max el	2065 May 20 03:43	13°♉45'22	45°58'44
	2062 Nov 13 13:08	0°♋			2065 Jun 05 05:37	0°♊	
desc. node	2062 Nov 17 00:40	4°♋21'41			2065 Jul 02 17:21	0°♋	
evening rise	2062 Nov 19 09:09	7°♋18'38			2065 Jul 28 20:18	0°♌	
	2062 Dec 07 11:35	0°♍			2065 Aug 23 04:01	0°♍	
	2062 Dec 31 10:38	0°♎		asc. node	2065 Aug 24 22:55	2°♍08'50	
	2063 Jan 24 12:03	0°♏			2065 Sep 16 21:41	0°♎	
	2063 Feb 17 19:01	0°♐			2065 Oct 11 05:02	0°♏	
asc. node	2063 Mar 10 03:49	24°♐45'28			2065 Nov 04 05:51	0°♐	
	2063 Mar 14 12:37	0°♑		morning set	2065 Nov 13 23:34	12°♐12'43	
	2063 Apr 09 00:53	0°♒			2065 Nov 28 03:19	0°♑	
	2063 May 06 00:28	0°♓		desc. node	2065 Dec 14 12:25	20°♑36'24	
evening max el	2063 May 23 16:03	17°♓57'25	45°26'13		2065 Dec 21 23:33	0°♒	
	2063 Jun 05 23:14	0°♔					
greatest brilliancy	2063 Jun 27 15:16	14°♔30'15	-4.5m	superior conj	2065 Dec 24 17:32	3°♒27'38	0°-24'-10
desc. node	2063 Jun 29 17:15	15°♔22'57		minimum elong	2065 Dec 24 11:14	3°♒07'48	0°23'52
retrograde	2063 Jul 11 07:12	17°♔46'45		max. Earth dist.	2065 Dec 25 09:13	4°♒16'59	1.71071 AU

	2066 Jan 14 19:51	0°♊		morning max el	2068 Jul 30 00:37	22°♊05'04	45°44'15
evening rise	2066 Feb 04 03:52	25°♊31'51			2068 Aug 07 02:24	0°♊	
	2066 Feb 07 17:29	0°♋			2068 Sep 04 03:48	0°♋	
	2066 Mar 03 18:11	0°♌		asc. node	2068 Sep 21 10:57	19°♋46'41	
	2066 Mar 28 00:09	0°♍			2068 Sep 30 04:00	0°♌	
asc. node	2066 Apr 06 15:52	11°♍50'46			2068 Oct 25 02:54	0°♍	
	2066 Apr 21 13:41	0°♎			2068 Nov 18 11:35	0°♎	
	2066 May 16 13:37	0°♏			2068 Dec 12 12:54	0°♏	
	2066 Jun 11 04:59	0°♐			2069 Jan 05 11:06	0°♐	
	2066 Jul 07 23:35	0°♑		desc. node	2069 Jan 11 00:08	6°♑57'23	
desc. node	2066 Jul 27 04:59	20°♑06'10			2069 Jan 29 08:41	0°♒	
evening max el	2066 Aug 03 03:35	26°♑53'49	45°43'49	morning set	2069 Jan 29 13:42	0°♒15'43	
	2066 Aug 06 10:33	0°♒			2069 Feb 22 07:08	0°♋	
greatest brilliancy	2066 Sep 10 03:05	24°♒39'09	-4.5m				
retrograde	2066 Sep 21 01:10	26°♒46'50		superior conj	2069 Mar 11 12:12	21°♋30'29	-1°-25'-51
evening set	2066 Oct 08 03:54	21°♒15'27		minimum elong	2069 Mar 11 14:02	21°♋36'10	1°25'52
inferior conj	2066 Oct 11 23:18	18°♒57'47	-7°-36'-8	max. Earth dist.	2069 Mar 15 17:21	26°♋45'48	1.72012 AU
minimum elong	2066 Oct 12 08:34	18°♒43'35	7°34'42		2069 Mar 18 07:42	0°♌	
min. Earth dist.	2066 Oct 12 21:28	18°♒23'49	0.27629 AU		2069 Apr 11 11:29	0°♍	
morning rise	2066 Oct 16 12:52	16°♒13'20		evening rise	2069 Apr 19 20:54	10°♍22'29	
direct	2066 Nov 02 00:38	10°♒59'03		asc. node	2069 May 04 03:45	27°♍58'36	
greatest brilliancy	2066 Nov 16 02:22	14°♒36'46	-4.6m		2069 May 05 19:16	0°♎	
asc. node	2066 Nov 17 08:24	15°♒14'18			2069 May 30 07:26	0°♏	
	2066 Dec 07 18:18	0°♐			2069 Jun 24 00:35	0°♐	
morning max el	2066 Dec 22 19:05	14°♐24'20	46°54'52		2069 Jul 19 00:22	0°♑	
	2067 Jan 06 11:27	0°♒			2069 Aug 13 10:21	0°♒	
	2067 Feb 01 19:23	0°♓		desc. node	2069 Aug 23 16:54	11°♓55'18	
	2067 Feb 27 01:57	0°♊			2069 Sep 08 13:36	0°♓	
desc. node	2067 Mar 08 21:56	11°♊49'50			2069 Oct 06 03:56	0°♋	
	2067 Mar 23 22:22	0°♋		evening max el	2069 Oct 15 07:32	9°♋16'36	46°50'35
	2067 Apr 17 14:41	0°♌			2069 Nov 07 17:46	0°♌	
	2067 May 12 05:29	0°♍		greatest brilliancy	2069 Nov 23 04:35	9°♌08'54	-4.7m
	2067 Jun 05 19:26	0°♎		retrograde	2069 Dec 04 13:09	11°♌33'16	
morning set	2067 Jun 25 09:54	23°♌58'31		asc. node	2069 Dec 14 20:13	9°♌24'23	
asc. node	2067 Jun 30 01:18	29°♌39'40		evening set	2069 Dec 18 21:24	7°♌29'18	
	2067 Jun 30 07:56	0°♏		inferior conj	2069 Dec 25 02:22	3°♌51'41	2°38'08
	2067 Jul 24 18:01	0°♐		minimum elong	2069 Dec 24 20:33	4°♌00'35	2°36'19
max. Earth dist.	2067 Jul 29 07:34	5°♐37'22	1.73335 AU	min. Earth dist.	2069 Dec 24 18:16	4°♌04'04	0.26443 AU
				morning rise	2069 Dec 30 19:45	0°♑29'43	
superior conj	2067 Jul 31 19:37	8°♐42'24	1°06'02		2069 Dec 31 18:10	30°♒♌	
minimum elong	2067 Jul 31 11:00	8°♐15'49	1°05'46	direct	2070 Jan 14 10:37	26°♌14'47	
	2067 Aug 18 01:24	0°♑		greatest brilliancy	2070 Jan 26 01:43	28°♌45'51	-4.7m
evening rise	2067 Sep 05 21:57	23°♑20'34			2070 Jan 28 19:28	0°♓	
	2067 Sep 11 06:52	0°♒		morning max el	2070 Mar 05 15:33	28°♓44'04	46°43'30
	2067 Oct 05 11:37	0°♓			2070 Mar 06 21:52	0°♊	
desc. node	2067 Oct 19 14:48	17°♓31'08			2070 Apr 03 22:55	0°♋	
	2067 Oct 29 16:41	0°♋		desc. node	2070 Apr 05 09:49	1°♋37'38	
	2067 Nov 22 22:55	0°♌			2070 Apr 30 05:19	0°♌	
	2067 Dec 17 08:05	0°♍			2070 May 25 18:47	0°♎	
	2068 Jan 11 00:42	0°♎			2070 Jun 19 23:19	0°♏	
	2068 Feb 05 10:54	0°♏			2070 Jul 14 21:06	0°♐	
asc. node	2068 Feb 09 17:58	4°♏55'26		asc. node	2070 Jul 27 13:08	15°♏23'02	
	2068 Mar 03 15:06	0°♑			2070 Aug 08 12:18	0°♑	
evening max el	2068 Mar 10 19:05	7°♑18'21	46°19'03	morning set	2070 Sep 01 09:25	29°♑23'48	
	2068 Apr 06 03:57	0°♒			2070 Sep 01 21:08	0°♒	
greatest brilliancy	2068 Apr 14 19:27	5°♒04'34	-4.5m		2070 Sep 26 00:48	0°♓	
retrograde	2068 Apr 29 10:50	8°♒52'15		max. Earth dist.	2070 Oct 05 09:53	11°♓42'06	1.72013 AU
evening set	2068 May 14 21:33	4°♒12'57					
inferior conj	2068 May 20 19:35	0°♒37'07	2°27'36	superior conj	2070 Oct 08 12:44	15°♓35'50	1°15'13
minimum elong	2068 May 21 00:49	0°♒28'53	2°26'05	minimum elong	2070 Oct 08 20:59	16°♓01'36	1°15'01
min. Earth dist.	2068 May 20 19:16	0°♒37'37	0.28753 AU		2070 Oct 20 01:13	0°♔	
	2068 May 21 19:10	30°♒♋			2070 Nov 13 00:09	0°♌	
morning rise	2068 May 27 04:28	26°♋47'10		desc. node	2070 Nov 16 02:39	3°♌53'21	
desc. node	2068 May 31 07:17	24°♋46'13		evening rise	2070 Nov 16 20:55	4°♌50'34	
direct	2068 Jun 11 07:32	22°♋23'19			2070 Dec 06 22:46	0°♍	
greatest brilliancy	2068 Jun 24 03:34	25°♋17'39	-4.5m		2070 Dec 30 22:01	0°♎	
	2068 Jul 02 23:30	0°♎			2071 Jan 23 23:40	0°♏	

	2071 Feb 17 07:01	0°♄		asc. node	2073 Aug 24 01:07	1°♌39'46	
asc. node	2071 Mar 09 05:58	24°♄14'13			2073 Sep 16 09:05	0°♍	
	2071 Mar 14 01:18	0°♄			2073 Oct 10 16:15	0°♌	
	2071 Apr 08 14:57	0°♌		greatest brilliancy	2073 Oct 12 11:12	2°♌13'29	-3.9m
	2071 May 05 17:54	0°♍			2073 Nov 03 17:01	0°♍	
evening max el	2071 May 21 07:37	15°♍46'16	45°27'10	morning set	2073 Nov 11 12:33	9°♍47'54	
	2071 Jun 06 06:15	0°♌			2073 Nov 27 14:30	0°♍	
greatest brilliancy	2071 Jun 25 03:35	12°♌16'59	-4.5m	desc. node	2073 Dec 13 14:25	20°♍07'31	
desc. node	2071 Jun 28 19:11	13°♌45'28			2073 Dec 21 10:45	0°♎	
retrograde	2071 Jul 08 23:42	15°♌38'11					
evening set	2071 Jul 25 03:50	10°♌40'00		superior conj	2073 Dec 22 03:23	0°♎52'18	0°-20'-16
inferior conj	2071 Jul 30 11:30	7°♌27'30	-6°-33'-51	minimum elong	2073 Dec 21 22:03	0°♎35'31	0°20'02
minimum elong	2071 Jul 30 01:39	7°♌42'50	6°31'59	max. Earth dist.	2073 Dec 22 16:34	1°♎33'48	1.71073 AU
min. Earth dist.	2071 Jul 30 12:06	7°♌26'34	0.28978 AU		2074 Jan 14 07:05	0°♏	
morning rise	2071 Aug 03 23:16	4°♌42'49		evening rise	2074 Feb 01 14:02	22°♏57'57	
	2071 Aug 14 14:44	30°♏			2074 Feb 07 04:45	0°♐	
direct	2071 Aug 21 01:56	29°♏10'01			2074 Mar 03 05:32	0°♑	
	2071 Aug 27 18:30	0°♌			2074 Mar 27 11:40	0°♒	
greatest brilliancy	2071 Sep 04 09:54	2°♌44'52	-4.5m	asc. node	2074 Apr 05 17:53	11°♒21'26	
	2071 Oct 09 10:28	0°♍			2074 Apr 21 01:32	0°♌	
morning max el	2071 Oct 09 15:51	0°♍13'14	46°15'22		2074 May 16 02:08	0°♍	
asc. node	2071 Oct 19 22:40	10°♍43'13			2074 Jun 10 18:49	0°♌	
	2071 Nov 06 13:25	0°♌			2074 Jul 07 16:16	0°♍	
	2071 Dec 02 06:46	0°♍		desc. node	2074 Jul 26 07:09	19°♍19'11	
	2071 Dec 27 01:04	0°♍		evening max el	2074 Jul 31 18:11	24°♍38'15	45°42'07
	2072 Jan 20 09:28	0°♎			2074 Aug 06 12:05	0°♌	
desc. node	2072 Feb 08 12:08	23°♎41'25		greatest brilliancy	2074 Sep 07 15:51	22°♌19'49	-4.5m
	2072 Feb 13 14:05	0°♏		retrograde	2074 Sep 18 14:10	24°♌27'30	
	2072 Mar 08 17:52	0°♐		evening set	2074 Oct 05 20:33	18°♌51'58	
	2072 Apr 01 22:28	0°♑		inferior conj	2074 Oct 09 13:17	16°♌37'52	-7°-46'-33
morning set	2072 Apr 14 07:17	15°♑18'08		minimum elong	2074 Oct 09 22:05	16°♌24'21	7°45'17
	2072 Apr 26 04:49	0°♒		min. Earth dist.	2074 Oct 10 11:16	16°♌04'05	0.27695 AU
	2072 May 20 13:07	0°♌		morning rise	2074 Oct 13 23:17	13°♌58'08	
				direct	2074 Oct 30 15:25	8°♌38'19	
superior conj	2072 May 21 23:21	1°♌45'20	0°-22'-47	greatest brilliancy	2074 Nov 13 17:02	12°♌15'16	-4.6m
minimum elong	2072 May 22 04:06	1°♌59'57	0°22'34	asc. node	2074 Nov 16 10:22	13°♌39'57	
max. Earth dist.	2072 May 23 04:28	3°♌14'54	1.73391 AU		2074 Dec 08 00:15	0°♍	
asc. node	2072 May 31 15:31	13°♌39'07		morning max el	2074 Dec 20 08:39	11°♍59'10	46°53'59
	2072 Jun 13 22:50	0°♍			2075 Jan 06 05:46	0°♍	
evening rise	2072 Jun 27 13:51	16°♍44'01			2075 Feb 01 10:23	0°♎	
	2072 Jul 08 09:18	0°♌			2075 Feb 26 15:22	0°♏	
	2072 Aug 01 20:36	0°♍		desc. node	2075 Mar 08 00:01	11°♏16'46	
	2072 Aug 26 09:43	0°♌			2075 Mar 23 10:53	0°♐	
desc. node	2072 Sep 20 04:56	0°♍08'17			2075 Apr 17 02:35	0°♑	
	2072 Sep 20 02:12	0°♍			2075 May 11 16:58	0°♒	
	2072 Oct 14 23:53	0°♍			2075 Jun 05 06:37	0°♌	
	2072 Nov 09 06:20	0°♎		morning set	2075 Jun 23 03:47	21°♌52'34	
	2072 Dec 05 07:54	0°♏		asc. node	2075 Jun 29 03:22	29°♌12'19	
evening max el	2072 Dec 26 18:53	23°♏06'22	47°16'20		2075 Jun 29 18:56	0°♍	
	2073 Jan 02 17:06	0°♐			2075 Jul 24 04:57	0°♌	
asc. node	2073 Jan 11 08:10	8°♐00'22		max. Earth dist.	2075 Jul 27 01:26	3°♌30'53	1.73362 AU
greatest brilliancy	2073 Feb 02 11:03	23°♐33'21	-4.7m				
retrograde	2073 Feb 15 18:21	26°♐51'04		superior conj	2075 Jul 29 13:55	6°♌37'11	1°04'00
evening set	2073 Mar 05 17:46	20°♐33'59		minimum elong	2075 Jul 29 05:12	6°♌10'18	1°03'44
min. Earth dist.	2073 Mar 08 02:51	19°♐05'27	0.27777 AU		2075 Aug 17 12:23	0°♍	
inferior conj	2073 Mar 08 16:52	18°♐43'29	8°49'07	evening rise	2075 Sep 03 15:05	21°♍10'40	
minimum elong	2073 Mar 08 17:47	18°♐42'03	8°49'06		2075 Sep 10 17:58	0°♌	
morning rise	2073 Mar 11 17:59	16°♐50'20			2075 Oct 04 22:56	0°♍	
direct	2073 Mar 29 12:14	10°♐46'32		desc. node	2075 Oct 18 16:47	17°♍01'43	
greatest brilliancy	2073 Apr 09 11:31	12°♐59'27	-4.6m		2075 Oct 29 04:18	0°♍	
desc. node	2073 May 02 21:30	28°♐01'27			2075 Nov 22 10:57	0°♎	
	2073 May 05 05:30	0°♑			2075 Dec 16 20:42	0°♏	
morning max el	2073 May 17 19:18	11°♑31'23	45°59'59		2076 Jan 10 14:16	0°♐	
	2073 Jun 04 23:46	0°♒			2076 Feb 05 02:17	0°♑	
	2073 Jul 02 07:47	0°♌		asc. node	2076 Feb 08 20:03	4°♑16'19	
	2073 Jul 28 09:04	0°♍			2076 Mar 03 11:11	0°♒	
	2073 Aug 22 15:54	0°♌		evening max el	2076 Mar 08 09:34	5°♒00'00	46°21'22

	2076 Apr 07 06:20	0°♊			2078 Sep 01 08:04	0°♎	
greatest brilliancy	2076 Apr 12 13:07	2°♊54'19	-4.5m		2078 Sep 25 11:44	0°♎	
retrograde	2076 Apr 27 02:37	6°♊40'40		max. Earth dist.	2078 Oct 03 01:48	9°♎27'43	1.72064 AU
evening set	2076 May 12 15:37	1°♊58'53					
	2076 May 15 23:37	30°♋♌		superior conj	2078 Oct 06 03:42	13°♎18'21	1°16'46
inferior conj	2076 May 18 11:44	28°♋25'46	2°46'53	minimum elong	2078 Oct 06 11:24	13°♎42'26	1°16'37
minimum elong	2076 May 18 17:35	28°♋16'33	2°45'14		2078 Oct 19 12:14	0°♎	
min. Earth dist.	2076 May 18 11:54	28°♋25'30	0.28732 AU		2078 Nov 12 11:18	0°♎	
morning rise	2076 May 24 19:51	24°♋36'28		evening rise	2078 Nov 14 08:49	2°♎22'35	
desc. node	2076 May 30 09:16	22°♋00'32		desc. node	2078 Nov 15 04:40	3°♎24'44	
direct	2076 Jun 08 22:54	20°♋12'16			2078 Dec 06 10:03	0°♎	
greatest brilliancy	2076 Jun 21 17:53	23°♋04'55	-4.5m		2078 Dec 30 09:26	0°♎	
	2076 Jul 03 22:54	0°♊			2079 Jan 23 11:17	0°♋	
morning max el	2076 Jul 27 15:20	19°♊51'28	45°43'56		2079 Feb 16 18:59	0°♋	
	2076 Aug 06 22:02	0°♋		asc. node	2079 Mar 08 07:56	23°♋42'28	
	2076 Sep 03 18:44	0°♋			2079 Mar 13 14:00	0°♋	
asc. node	2076 Sep 20 12:53	19°♋12'42			2079 Apr 08 05:10	0°♊	
	2076 Sep 29 17:06	0°♎			2079 May 05 11:49	0°♋	
	2076 Oct 24 15:08	0°♎		evening max el	2079 May 18 23:55	13°♋36'35	45°27'58
	2076 Nov 17 23:20	0°♎			2079 Jun 06 16:13	0°♋	
	2076 Dec 12 00:22	0°♎		greatest brilliancy	2079 Jun 22 16:53	10°♋04'15	-4.5m
	2077 Jan 04 22:26	0°♎		desc. node	2079 Jun 27 21:22	12°♋03'56	
desc. node	2077 Jan 10 02:18	6°♎28'47		retrograde	2079 Jul 06 16:12	13°♋28'34	
morning set	2077 Jan 26 23:37	27°♎41'00		evening set	2079 Jul 22 17:03	8°♋34'01	
	2077 Jan 28 19:55	0°♎		inferior conj	2079 Jul 28 03:33	5°♋17'18	-6°-20'-26
	2077 Feb 21 18:17	0°♋		minimum elong	2079 Jul 27 17:39	5°♋32'44	6°18'30
				min. Earth dist.	2079 Jul 28 03:12	5°♋17'51	0.28991 AU
superior conj	2077 Mar 09 00:33	19°♋04'39	-1°-26'-5	morning rise	2079 Aug 01 18:07	2°♋28'44	
minimum elong	2077 Mar 09 01:25	19°♋07'19	1°26'07		2079 Aug 06 09:56	30°♋♌	
max. Earth dist.	2077 Mar 13 03:48	24°♋14'09	1.71958 AU	direct	2079 Aug 18 18:38	26°♋59'46	
	2077 Mar 17 18:48	0°♋			2079 Aug 31 19:21	0°♋	
	2077 Apr 10 22:33	0°♋		greatest brilliancy	2079 Sep 02 01:43	0°♋34'12	-4.5m
evening rise	2077 Apr 17 11:19	8°♋04'35		morning max el	2079 Oct 07 07:59	28°♋00'44	46°13'45
asc. node	2077 May 03 05:41	27°♋30'25			2079 Oct 09 08:07	0°♎	
	2077 May 05 06:23	0°♊		asc. node	2079 Oct 19 00:42	9°♎59'09	
	2077 May 29 18:45	0°♋			2079 Nov 06 05:06	0°♎	
	2077 Jun 23 12:17	0°♋			2079 Dec 01 20:21	0°♎	
	2077 Jul 18 12:45	0°♎			2079 Dec 26 13:38	0°♎	
	2077 Aug 12 23:55	0°♎			2080 Jan 19 21:27	0°♎	
desc. node	2077 Aug 22 18:58	11°♎20'10		desc. node	2080 Feb 07 14:10	23°♎11'40	
	2077 Sep 08 05:22	0°♎			2080 Feb 13 01:38	0°♎	
	2077 Oct 06 00:52	0°♎			2080 Mar 08 05:05	0°♋	
evening max el	2077 Oct 12 20:03	6°♎50'28	46°48'32		2080 Apr 01 09:25	0°♋	
	2077 Nov 08 17:01	0°♎		morning set	2080 Apr 11 22:32	13°♋03'16	
greatest brilliancy	2077 Nov 20 18:18	6°♎41'03	-4.7m		2080 Apr 25 15:36	0°♋	
retrograde	2077 Dec 02 01:20	9°♎04'16					
asc. node	2077 Dec 13 22:18	6°♎13'55		superior conj	2080 May 19 16:24	29°♋37'08	0°-25'-55
evening set	2077 Dec 16 09:00	5°♎01'02		minimum elong	2080 May 19 21:47	29°♋53'41	0°25'41
inferior conj	2077 Dec 22 14:40	1°♎23'09	2°14'27		2080 May 19 23:50	0°♊	
minimum elong	2077 Dec 22 09:39	1°♎30'49	2°12'52	max. Earth dist.	2080 May 21 02:40	1°♊22'34	1.73368 AU
min. Earth dist.	2077 Dec 22 08:08	1°♎33'06	0.26433 AU	asc. node	2080 May 30 17:37	13°♊12'44	
	2077 Dec 24 21:32	30°♋♌			2080 Jun 13 09:33	0°♋	
morning rise	2077 Dec 28 10:15	27°♎58'29		evening rise	2080 Jun 25 08:38	14°♋41'21	
direct	2078 Jan 11 22:35	23°♎45'57			2080 Jul 07 20:08	0°♋	
greatest brilliancy	2078 Jan 23 17:09	26°♎20'47	-4.7m		2080 Aug 01 07:40	0°♎	
	2078 Jan 30 20:24	0°♎			2080 Aug 25 21:11	0°♎	
morning max el	2078 Mar 03 04:59	26°♎19'49	46°44'48	desc. node	2080 Sep 19 06:53	29°♎37'35	
	2078 Mar 06 20:11	0°♎			2080 Sep 19 14:17	0°♎	
	2078 Apr 03 15:08	0°♋			2080 Oct 14 12:54	0°♎	
desc. node	2078 Apr 04 11:50	0°♋58'10			2080 Nov 08 20:49	0°♎	
	2078 Apr 29 19:08	0°♋			2080 Dec 05 01:15	0°♎	
	2078 May 25 07:20	0°♋		evening max el	2080 Dec 24 10:45	20°♎47'32	47°17'03
	2078 Jun 19 11:06	0°♊			2081 Jan 02 19:03	0°♋	
	2078 Jul 14 08:26	0°♋		asc. node	2081 Jan 10 10:19	6°♋55'45	
asc. node	2078 Jul 26 15:17	14°♋55'35		greatest brilliancy	2081 Jan 31 03:14	21°♋13'50	-4.7m
	2078 Aug 07 23:21	0°♋		retrograde	2081 Feb 13 09:33	24°♋29'52	
morning set	2078 Aug 30 02:06	27°♋13'06		evening set	2081 Mar 03 07:47	18°♋14'03	

min. Earth dist.	2081 Mar 05 15:58	16° 16 46'51	0.27720 AU	superior conj	2083 Jul 27 08:37	4° 0 34'34	1°01'55
inferior conj	2081 Mar 06 07:11	16° 16 23'02	8°50'08	minimum elong	2083 Jul 26 23:51	4° 0 07'34	1°01'38
minimum elong	2081 Mar 06 07:13	16° 16 22'58	8°50'09		2083 Aug 16 22:58	0° 0	
morning rise	2081 Mar 09 06:53	14° 14 32'06		evening rise	2083 Sep 01 08:36	19° 19 03'14	
direct	2081 Mar 27 02:35	8° 8 27'19			2083 Sep 10 04:44	0° 0	
greatest brilliancy	2081 Apr 06 22:45	10° 10 37'47	-4.6m		2083 Oct 04 09:57	0° 0	
desc. node	2081 May 01 23:31	26° 26 59'34		desc. node	2083 Oct 17 18:51	16° 16 33'26	
	2081 May 05 10:31	0° 0			2083 Oct 28 15:39	0° 0	
morning max el	2081 May 15 10:05	9° 9 16'29	46°01'13		2083 Nov 21 22:44	0° 0	
	2081 Jun 04 17:05	0° 0			2083 Dec 16 09:05	0° 0	
	2081 Jul 01 21:44	0° 0			2084 Jan 10 03:37	0° 0	
	2081 Jul 27 21:30	0° 0			2084 Feb 04 17:30	0° 0	
	2081 Aug 22 03:32	0° 0		asc. node	2084 Feb 07 22:00	3° 3 37'35	
asc. node	2081 Aug 23 03:02	1° 1 01'39			2084 Mar 03 07:26	0° 0	
	2081 Sep 15 20:18	0° 0		evening max el	2084 Mar 05 23:29	2° 2 41'20	46°23'49
	2081 Oct 10 03:15	0° 0			2084 Apr 08 18:51	0° 0	
greatest brilliancy	2081 Oct 18 15:00	10° 10 34'11	-3.9m	greatest brilliancy	2084 Apr 10 06:05	0° 0 44'26	-4.5m
	2081 Nov 03 03:57	0° 0		retrograde	2084 Apr 24 18:45	4° 4 30'51	
morning set	2081 Nov 09 01:29	7° 7 23'39			2084 May 09 23:59	30° 30	
	2081 Nov 27 01:25	0° 0		evening set	2084 May 10 09:55	29° 29 46'05	
desc. node	2081 Dec 12 16:32	19° 19 39'48		inferior conj	2084 May 16 04:03	26° 26 16'03	3°05'52
				minimum elong	2084 May 16 10:29	26° 26 05'56	3°04'05
superior conj	2081 Dec 19 13:14	28° 28 17'55	0°-16'-21	min. Earth dist.	2084 May 16 04:41	26° 26 15'05	0.28711 AU
minimum elong	2081 Dec 19 08:55	28° 28 04'19	0°16'10	morning rise	2084 May 22 11:16	22° 22 27'50	
behind sun begin	2081 Dec 19 05:03	27° 27 52'09		desc. node	2084 May 29 11:26	19° 19 20'56	
behind sun end	2081 Dec 19 12:48	28° 28 16'30		direct	2084 Jun 06 14:10	18° 18 02'43	
max. Earth dist.	2081 Dec 19 21:19	28° 28 43'18	1.71076 AU	greatest brilliancy	2084 Jun 19 09:16	20° 20 55'03	-4.5m
	2081 Dec 20 21:42	0° 0			2084 Jul 04 15:24	0° 0	
	2082 Jan 13 18:02	0° 0		morning max el	2084 Jul 25 06:38	17° 17 40'52	45°43'48
evening rise	2082 Jan 30 00:08	20° 20 24'38			2084 Aug 06 16:31	0° 0	
	2082 Feb 06 15:45	0° 0			2084 Sep 03 08:57	0° 0	
	2082 Mar 02 16:36	0° 0		asc. node	2084 Sep 19 14:58	18° 18 040'43	
	2082 Mar 26 22:51	0° 0			2084 Sep 29 05:40	0° 0	
asc. node	2082 Apr 04 19:53	10° 10 53'03			2084 Oct 24 02:56	0° 0	
	2082 Apr 20 13:02	0° 0			2084 Nov 17 10:45	0° 0	
	2082 May 15 14:18	0° 0			2084 Dec 11 11:34	0° 0	
	2082 Jun 10 08:20	0° 0			2085 Jan 04 09:30	0° 0	
	2082 Jul 07 08:52	0° 0		desc. node	2085 Jan 09 04:22	6° 6 00'35	
desc. node	2082 Jul 25 09:10	18° 18 22'03		morning set	2085 Jan 24 09:08	25° 25 05'46	
evening max el	2082 Jul 29 07:53	22° 22 21'29	45°40'12		2085 Jan 28 06:52	0° 0	
	2082 Aug 06 14:41	0° 0			2085 Feb 21 05:09	0° 0	
greatest brilliancy	2082 Sep 05 04:56	20° 20 01'32	-4.5m				
retrograde	2082 Sep 16 02:52	22° 22 09'08		superior conj	2085 Mar 06 12:34	16° 16 38'40	-1°-26'-10
evening set	2082 Oct 03 12:57	16° 16 29'31		minimum elong	2085 Mar 06 12:25	16° 16 38'13	1°26'11
inferior conj	2082 Oct 07 03:16	14° 14 18'52	-7°-55'-59	max. Earth dist.	2085 Mar 10 12:52	21° 21 39'10	1.71903 AU
minimum elong	2082 Oct 07 11:31	14° 14 06'10	7°54'55		2085 Mar 17 05:34	0° 0	
min. Earth dist.	2082 Oct 08 01:20	13° 13 44'54	0.27764 AU		2085 Apr 10 09:17	0° 0	
morning rise	2082 Oct 11 09:43	11° 11 43'53		evening rise	2085 Apr 15 01:41	5° 5 47'27	
direct	2082 Oct 28 05:41	6° 6 18'15		asc. node	2085 May 02 07:52	27° 27 03'55	
greatest brilliancy	2082 Nov 11 08:46	9° 9 55'56	-4.6m		2085 May 04 17:11	0° 0	
asc. node	2082 Nov 15 12:27	12° 12 09'40			2085 May 29 05:44	0° 0	
	2082 Dec 08 03:59	0° 0			2085 Jun 22 23:38	0° 0	
morning max el	2082 Dec 17 21:31	9° 9 32'58	46°53'14		2085 Jul 18 00:45	0° 0	
	2083 Jan 05 23:20	0° 0			2085 Aug 12 13:07	0° 0	
	2083 Feb 01 00:50	0° 0		desc. node	2085 Aug 21 20:58	10° 10 45'58	
	2083 Feb 26 04:20	0° 0			2085 Sep 07 20:54	0° 0	
desc. node	2083 Mar 07 01:57	10° 10 44'31			2085 Oct 05 22:04	0° 0	
	2083 Mar 22 22:58	0° 0		evening max el	2085 Oct 10 09:03	4° 4 26'52	46°46'12
	2083 Apr 16 14:05	0° 0			2085 Nov 10 00:40	0° 0	
	2083 May 11 04:01	0° 0		greatest brilliancy	2085 Nov 18 06:55	4° 4 12'32	-4.7m
	2083 Jun 04 17:21	0° 0		retrograde	2085 Nov 29 13:44	6° 6 35'26	
morning set	2083 Jun 20 22:03	19° 19 49'07		asc. node	2085 Dec 13 00:26	2° 2 58'44	
asc. node	2083 Jun 28 05:29	28° 28 46'29		evening set	2085 Dec 13 20:40	2° 2 32'30	
	2083 Jun 29 05:29	0° 0			2085 Dec 18 07:27	30° 30	
	2083 Jul 23 15:27	0° 0		inferior conj	2085 Dec 20 02:44	28° 28 54'28	1°50'19
max. Earth dist.	2083 Jul 24 20:51	1° 1 030'30	1.73392 AU	minimum elong	2085 Dec 19 22:34	29° 29 00'48	1°48'59
				min. Earth dist.	2085 Dec 19 21:33	29° 29 02'20	0.26433 AU

morning rise	2085 Dec 26 00:25	25° \mathcal{A} 27'26		evening rise	2088 Jun 23 03:12	12° \mathcal{B} 38'04	
direct	2086 Jan 09 11:03	21° \mathcal{A} 16'56			2088 Jul 07 06:57	0° \mathcal{Q}	
greatest brilliancy	2086 Jan 21 08:07	23° \mathcal{A} 55'06	-4.7m		2088 Jul 31 18:44	0° \mathcal{M}	
	2086 Feb 01 05:13	0° \mathcal{B}			2088 Aug 25 08:40	0° \mathcal{L}	
morning max el	2086 Feb 28 19:04	23° \mathcal{B} 57'23	46°46'07	desc. node	2088 Sep 18 09:00	29° \mathcal{L} 07'31	
	2086 Mar 06 17:34	0° \approx			2088 Sep 19 02:23	0° \mathcal{M}	
	2086 Apr 03 06:54	0° \mathcal{H}			2088 Oct 14 01:54	0° \mathcal{A}	
desc. node	2086 Apr 03 13:55	0° \mathcal{H} 19'51			2088 Nov 08 11:19	0° \mathcal{B}	
	2086 Apr 29 08:34	0° \mathcal{Y}			2088 Dec 04 18:49	0° \approx	
	2086 May 24 19:32	0° \mathcal{B}		evening max el	2088 Dec 22 01:56	18° \approx 27'08	47°17'25
	2086 Jun 18 22:35	0° \mathcal{I}			2089 Jan 02 22:25	0° \mathcal{H}	
	2086 Jul 13 19:27	0° \mathcal{B}		asc. node	2089 Jan 09 12:13	5° \mathcal{H} 49'07	
asc. node	2086 Jul 25 17:13	14° \mathcal{B} 28'24		greatest brilliancy	2089 Jan 28 20:01	18° \mathcal{H} 54'47	-4.7m
	2086 Aug 07 10:08	0° \mathcal{Q}		retrograde	2089 Feb 11 00:10	22° \mathcal{H} 07'58	
morning set	2086 Aug 27 19:24	25° \mathcal{Q} 05'22		evening set	2089 Feb 28 21:15	15° \mathcal{H} 54'18	
	2086 Aug 31 18:43	0° \mathcal{M}		min. Earth dist.	2089 Mar 03 05:21	14° \mathcal{H} 27'08	0.27669 AU
	2086 Sep 24 22:22	0° \mathcal{L}		inferior conj	2089 Mar 03 21:25	14° \mathcal{H} 01'58	8°50'15
max. Earth dist.	2086 Sep 30 18:07	7° \mathcal{L} 15'36	1.72112 AU	minimum elong	2089 Mar 03 20:35	14° \mathcal{H} 03'16	8°50'14
				morning rise	2089 Mar 06 20:09	12° \mathcal{H} 12'25	
superior conj	2086 Oct 03 19:21	11° \mathcal{L} 04'06	1°18'10	direct	2089 Mar 24 16:38	6° \mathcal{H} 07'23	
minimum elong	2086 Oct 04 02:30	11° \mathcal{L} 26'24	1°18'02	greatest brilliancy	2089 Apr 04 10:43	8° \mathcal{H} 15'52	-4.6m
	2086 Oct 18 22:57	0° \mathcal{M}		desc. node	2089 May 01 01:40	25° \mathcal{H} 58'40	
evening rise	2086 Nov 11 21:14	29° \mathcal{M} 57'01			2089 May 05 14:05	0° \mathcal{Y}	
	2086 Nov 11 22:11	0° \mathcal{A}		morning max el	2089 May 12 23:55	6° \mathcal{Y} 58'16	46°02'27
desc. node	2086 Nov 14 06:51	2° \mathcal{A} 57'25			2089 Jun 04 10:18	0° \mathcal{B}	
	2086 Dec 05 21:08	0° \mathcal{B}			2089 Jul 01 11:45	0° \mathcal{I}	
	2086 Dec 29 20:44	0° \approx			2089 Jul 27 10:00	0° \mathcal{B}	
	2087 Jan 22 22:50	0° \mathcal{H}			2089 Aug 21 15:14	0° \mathcal{Q}	
	2087 Feb 16 06:57	0° \mathcal{Y}		asc. node	2089 Aug 22 05:06	0° \mathcal{Q} 41'43	
asc. node	2087 Mar 07 09:59	23° \mathcal{Y} 11'01			2089 Sep 15 07:35	0° \mathcal{M}	
	2087 Mar 13 02:44	0° \mathcal{B}			2089 Oct 09 14:21	0° \mathcal{L}	
	2087 Apr 07 19:28	0° \mathcal{I}		greatest brilliancy	2089 Oct 22 08:50	15° \mathcal{L} 54'55	-3.9m
	2087 May 05 06:02	0° \mathcal{B}			2089 Nov 02 14:59	0° \mathcal{M}	
evening max el	2087 May 16 16:35	11° \mathcal{B} 28'09	45°28'58	morning set	2089 Nov 06 14:49	5° \mathcal{M} 00'25	
	2087 Jun 07 05:21	0° \mathcal{Q}			2089 Nov 26 12:26	0° \mathcal{A}	
greatest brilliancy	2087 Jun 20 07:37	7° \mathcal{Q} 54'02	-4.5m	desc. node	2089 Dec 11 18:35	19° \mathcal{A} 11'39	
desc. node	2087 Jun 26 23:23	10° \mathcal{Q} 19'26					
retrograde	2087 Jul 04 08:43	11° \mathcal{Q} 19'45		superior conj	2089 Dec 16 23:43	25° \mathcal{A} 45'16	0°-12'-28
evening set	2087 Jul 20 06:37	6° \mathcal{Q} 28'58		minimum elong	2089 Dec 16 20:25	25° \mathcal{A} 34'53	0°12'19
inferior conj	2087 Jul 25 19:45	3° \mathcal{Q} 08'06	-6°-6'-42	behind sun begin	2089 Dec 16 02:52	24° \mathcal{A} 39'41	
minimum elong	2087 Jul 25 09:51	3° \mathcal{Q} 23'32	6°04'40	behind sun end	2089 Dec 17 13:57	26° \mathcal{A} 30'04	
min. Earth dist.	2087 Jul 25 18:33	3° \mathcal{Q} 09'58	0.28996 AU	max. Earth dist.	2089 Dec 17 00:38	25° \mathcal{A} 48'10	1.71080 AU
morning rise	2087 Jul 30 13:02	0° \mathcal{Q} 15'34			2089 Dec 20 08:42	0° \mathcal{B}	
	2087 Jul 30 23:49	30° \mathcal{R} \mathcal{B}			2090 Jan 13 05:04	0° \approx	
direct	2087 Aug 16 11:34	24° \mathcal{B} 50'42		evening rise	2090 Jan 27 10:36	17° \approx 52'14	
greatest brilliancy	2087 Aug 30 16:26	28° \mathcal{B} 23'02	-4.5m		2090 Feb 06 02:50	0° \mathcal{H}	
	2087 Sep 02 21:13	0° \mathcal{Q}			2090 Mar 02 03:48	0° \mathcal{Y}	
morning max el	2087 Oct 04 23:47	25° \mathcal{Q} 48'17	46°12'16		2090 Mar 26 10:16	0° \mathcal{B}	
	2087 Oct 09 04:43	0° \mathcal{M}		asc. node	2090 Apr 03 22:01	10° \mathcal{B} 24'21	
asc. node	2087 Oct 18 02:47	9° \mathcal{M} 16'34			2090 Apr 20 00:50	0° \mathcal{I}	
	2087 Nov 05 20:17	0° \mathcal{L}			2090 May 15 02:49	0° \mathcal{B}	
	2087 Dec 01 09:36	0° \mathcal{M}			2090 Jun 09 22:19	0° \mathcal{Q}	
	2087 Dec 26 01:58	0° \mathcal{A}			2090 Jul 07 02:08	0° \mathcal{M}	
	2088 Jan 19 09:17	0° \mathcal{B}		desc. node	2090 Jul 24 11:09	17° \mathcal{M} 43'20	
desc. node	2088 Feb 06 16:08	22° \mathcal{B} 41'57		evening max el	2090 Jul 26 20:48	20° \mathcal{M} 02'11	45°38'35
	2088 Feb 12 13:07	0° \approx			2090 Aug 06 19:18	0° \mathcal{L}	
	2088 Mar 07 16:18	0° \mathcal{H}		greatest brilliancy	2090 Sep 02 17:32	17° \mathcal{L} 42'22	-4.5m
	2088 Mar 31 20:25	0° \mathcal{Y}		retrograde	2090 Sep 13 15:52	19° \mathcal{L} 50'49	
morning set	2088 Apr 09 13:13	10° \mathcal{Y} 46'24		evening set	2090 Oct 01 05:18	14° \mathcal{L} 06'58	
	2088 Apr 25 02:26	0° \mathcal{B}		inferior conj	2090 Oct 04 17:21	11° \mathcal{L} 59'42	-8°-4'-39
				minimum elong	2090 Oct 05 01:00	11° \mathcal{L} 47'55	8°03'45
superior conj	2088 May 17 09:00	27° \mathcal{B} 27'27	0°-29'-4	min. Earth dist.	2090 Oct 05 15:29	11° \mathcal{L} 25'37	0.27832 AU
minimum elong	2088 May 17 14:59	27° \mathcal{B} 45'53	0°28'48	morning rise	2090 Oct 08 20:20	9° \mathcal{L} 29'36	
max. Earth dist.	2088 May 19 01:14	29° \mathcal{B} 31'18	1.73335 AU	direct	2090 Oct 25 19:49	3° \mathcal{L} 57'49	
	2088 May 19 10:34	0° \mathcal{I}		greatest brilliancy	2090 Nov 09 01:27	7° \mathcal{L} 37'36	-4.6m
asc. node	2088 May 29 19:41	12° \mathcal{I} 46'10		asc. node	2090 Nov 14 14:34	10° \mathcal{L} 42'04	
	2088 Jun 12 20:16	0° \mathcal{B}			2090 Dec 08 06:20	0° \mathcal{M}	

morning max el	2090 Dec 15 11:02	7° \mathbb{M} 07'58	46°52'37		2093 Jul 17 13:15	0° \mathbb{M}	
	2091 Jan 05 16:42	0° \mathbb{X}			2093 Aug 12 02:54	0° \mathbb{L}	
	2091 Jan 31 15:17	0° \mathbb{Z}		desc. node	2093 Aug 20 23:04	10° \mathbb{L} 10'30	
	2091 Feb 25 17:22	0° \approx			2093 Sep 07 13:11	0° \mathbb{M}	
desc. node	2091 Mar 06 04:07	10° \approx 12'41			2093 Oct 05 20:37	0° \mathbb{X}	
	2091 Mar 22 11:10	0° \mathbb{H}		evening max el	2093 Oct 07 22:59	2° \mathbb{X} 04'32	46°44'02
	2091 Apr 16 01:44	0° \mathbb{Y}			2093 Nov 12 00:02	0° \mathbb{Z}	
	2091 May 10 15:19	0° \mathbb{B}		greatest brilliancy	2093 Nov 15 19:21	1° \mathbb{Z} 43'05	-4.6m
	2091 Jun 04 04:24	0° \mathbb{I}		retrograde	2093 Nov 27 02:27	4° \mathbb{Z} 05'38	
morning set	2091 Jun 18 15:58	17° \mathbb{I} 43'27		evening set	2093 Dec 11 08:41	0° \mathbb{Z} 02'58	
asc. node	2091 Jun 27 07:27	28° \mathbb{I} 19'07			2093 Dec 11 10:55	30° \mathbb{R} \mathbb{X}	
	2091 Jun 28 16:22	0° \mathbb{S}		asc. node	2093 Dec 12 02:22	29° \mathbb{X} 39'09	
max. Earth dist.	2091 Jul 22 16:55	29° \mathbb{S} 31'08	1.73420 AU	inferior conj	2093 Dec 17 14:48	26° \mathbb{X} 24'48	1°25'57
	2091 Jul 23 02:17	0° \mathbb{Q}		minimum elong	2093 Dec 17 11:32	26° \mathbb{X} 29'46	1°24'53
				min. Earth dist.	2093 Dec 17 10:42	26° \mathbb{X} 31'01	0.26432 AU
superior conj	2091 Jul 25 02:56	2° \mathbb{Q} 29'46	0°59'43	morning rise	2093 Dec 23 14:24	22° \mathbb{X} 55'40	
minimum elong	2091 Jul 24 18:09	2° \mathbb{Q} 02'44	0°59'24	direct	2094 Jan 06 23:56	18° \mathbb{X} 47'14	
	2091 Aug 16 09:52	0° \mathbb{M}		greatest brilliancy	2094 Jan 18 22:05	21° \mathbb{X} 27'20	-4.7m
evening rise	2091 Aug 30 01:56	16° \mathbb{M} 54'23			2094 Feb 02 05:15	0° \mathbb{Z}	
	2091 Sep 09 15:48	0° \mathbb{L}		morning max el	2094 Feb 26 09:20	21° \mathbb{Z} 34'29	46°47'17
	2091 Oct 03 21:16	0° \mathbb{M}			2094 Mar 06 14:33	0° \approx	
desc. node	2091 Oct 16 20:57	16° \mathbb{M} 04'20		desc. node	2094 Apr 02 16:00	29° \approx 40'55	
	2091 Oct 28 03:19	0° \mathbb{X}			2094 Apr 02 22:44	0° \mathbb{H}	
	2091 Nov 21 10:50	0° \mathbb{Z}			2094 Apr 28 22:13	0° \mathbb{Y}	
	2091 Dec 15 21:49	0° \approx			2094 May 24 08:00	0° \mathbb{B}	
	2092 Jan 09 17:19	0° \mathbb{H}			2094 Jun 18 10:19	0° \mathbb{I}	
	2092 Feb 04 09:11	0° \mathbb{Y}			2094 Jul 13 06:47	0° \mathbb{S}	
asc. node	2092 Feb 07 00:08	2° \mathbb{Y} 58'16		asc. node	2094 Jul 24 19:19	14° \mathbb{S} 00'42	
	2092 Mar 03 04:38	0° \mathbb{B}			2094 Aug 06 21:14	0° \mathbb{Q}	
evening max el	2092 Mar 03 13:35	0° \mathbb{B} 22'25	46°26'19	morning set	2094 Aug 25 12:34	22° \mathbb{Q} 56'08	
greatest brilliancy	2092 Apr 07 21:56	28° \mathbb{B} 32'14	-4.6m		2094 Aug 31 05:44	0° \mathbb{M}	
	2092 Apr 11 05:23	0° \mathbb{I}			2094 Sep 24 09:24	0° \mathbb{L}	
retrograde	2092 Apr 22 11:10	2° \mathbb{I} 20'04		max. Earth dist.	2094 Sep 28 07:37	4° \mathbb{L} 53'34	1.72162 AU
	2092 May 03 05:49	30° \mathbb{R} \mathbb{B}					
evening set	2092 May 08 04:14	27° \mathbb{B} 31'53		superior conj	2094 Oct 01 10:50	8° \mathbb{L} 48'06	1°19'27
inferior conj	2092 May 13 20:17	24° \mathbb{B} 05'04	3°24'41	minimum elong	2094 Oct 01 17:23	9° \mathbb{L} 08'30	1°19'20
minimum elong	2092 May 14 03:15	23° \mathbb{B} 54'06	3°22'46		2094 Oct 18 10:04	0° \mathbb{M}	
min. Earth dist.	2092 May 13 21:03	24° \mathbb{B} 03'52	0.28695 AU	evening rise	2094 Nov 09 09:19	27° \mathbb{M} 29'19	
morning rise	2092 May 20 02:29	20° \mathbb{B} 18'24			2094 Nov 11 09:26	0° \mathbb{X}	
desc. node	2092 May 28 13:26	16° \mathbb{B} 44'56		desc. node	2094 Nov 13 08:48	2° \mathbb{X} 28'16	
direct	2092 Jun 04 05:39	15° \mathbb{B} 51'45			2094 Dec 05 08:33	0° \mathbb{Z}	
greatest brilliancy	2092 Jun 17 01:08	18° \mathbb{B} 44'34	-4.5m		2094 Dec 29 08:20	0° \approx	
	2092 Jul 05 04:18	0° \mathbb{I}			2095 Jan 22 10:42	0° \mathbb{H}	
morning max el	2092 Jul 22 22:47	15° \mathbb{I} 30'59	45°43'38		2095 Feb 15 19:16	0° \mathbb{Y}	
	2092 Aug 06 11:03	0° \mathbb{S}		asc. node	2095 Mar 06 12:06	22° \mathbb{Y} 38'44	
	2092 Sep 02 23:30	0° \mathbb{Q}			2095 Mar 12 15:51	0° \mathbb{B}	
asc. node	2092 Sep 18 17:07	18° \mathbb{Q} 07'51			2095 Apr 07 10:14	0° \mathbb{I}	
	2092 Sep 28 18:36	0° \mathbb{M}			2095 May 05 01:02	0° \mathbb{S}	
	2092 Oct 23 15:04	0° \mathbb{L}		evening max el	2095 May 14 09:08	9° \mathbb{S} 18'36	45°29'59
	2092 Nov 16 22:28	0° \mathbb{M}			2095 Jun 07 23:25	0° \mathbb{Q}	
	2092 Dec 10 23:04	0° \mathbb{X}		greatest brilliancy	2095 Jun 17 23:04	5° \mathbb{Q} 44'03	-4.5m
	2093 Jan 03 20:51	0° \mathbb{Z}		desc. node	2095 Jun 26 01:21	8° \mathbb{Q} 30'32	
desc. node	2093 Jan 08 06:18	5° \mathbb{Z} 31'04		retrograde	2095 Jul 02 00:51	9° \mathbb{Q} 10'19	
morning set	2093 Jan 21 18:43	22° \mathbb{Z} 29'43		evening set	2095 Jul 17 20:24	4° \mathbb{Q} 23'18	
	2093 Jan 27 18:08	0° \approx		inferior conj	2095 Jul 23 12:01	0° \mathbb{Q} 58'30	-5°-52'-27
	2093 Feb 20 16:19	0° \mathbb{H}		minimum elong	2095 Jul 23 02:11	1° \mathbb{Q} 13'51	5°50'21
				min. Earth dist.	2095 Jul 23 10:16	1° \mathbb{Q} 01'14	0.29002 AU
					2095 Jul 25 01:34	30° \mathbb{R} \mathbb{S}	
superior conj	2093 Mar 04 00:36	14° \mathbb{H} 11'37	-1°-26'-4	morning rise	2095 Jul 28 07:57	28° \mathbb{S} 01'51	
minimum elong	2093 Mar 03 23:25	14° \mathbb{H} 07'57	1°26'05	direct	2095 Aug 14 04:17	22° \mathbb{S} 41'16	
max. Earth dist.	2093 Mar 07 21:55	19° \mathbb{H} 03'01	1.71848 AU	greatest brilliancy	2095 Aug 28 06:33	26° \mathbb{S} 10'25	-4.5m
	2093 Mar 16 16:38	0° \mathbb{Y}			2095 Sep 04 06:38	0° \mathbb{Q}	
	2093 Apr 09 20:19	0° \mathbb{B}		morning max el	2095 Oct 02 14:40	23° \mathbb{Q} 32'41	46°10'35
evening rise	2093 Apr 12 16:08	3° \mathbb{B} 29'43			2095 Oct 09 01:01	0° \mathbb{M}	
asc. node	2093 May 01 09:54	26° \mathbb{B} 36'04		asc. node	2095 Oct 17 04:51	8° \mathbb{M} 33'25	
	2093 May 04 04:17	0° \mathbb{I}			2095 Nov 05 11:39	0° \mathbb{L}	
	2093 May 28 17:03	0° \mathbb{S}			2095 Nov 30 23:08	0° \mathbb{M}	
	2093 Jun 22 11:23	0° \mathbb{Q}					

	2095 Dec 25 14:36	0°♊			2098 Jul 06 19:43	0°♎		
	2096 Jan 18 21:21	0°♋		desc. node	2098 Jul 23 13:20	16°♎54'35		
desc. node	2096 Feb 05 18:19	22°♋12'12		evening max el	2098 Jul 24 10:01	17°♎44'08	45°37'10	
	2096 Feb 12 00:48	0°♌			2098 Aug 07 01:45	0°♏		
	2096 Mar 07 03:41	0°♍		greatest brilliancy	2098 Aug 31 05:11	15°♏23'08	-4.5m	
	2096 Mar 31 07:35	0°♎		retrograde	2098 Sep 11 05:33	17°♏33'49		
morning set	2096 Apr 07 03:48	8°♎28'37		evening set	2098 Sep 28 21:36	11°♏45'48		
	2096 Apr 24 13:28	0°♏		inferior conj	2098 Oct 02 07:38	9°♏41'40	-8°-12'-20	
				minimum elong	2098 Oct 02 14:40	9°♏30'51	8°11'35	
superior conj	2096 May 15 01:40	25°♏17'19	0°-32'-11	min. Earth dist.	2098 Oct 03 05:34	9°♏07'56	0.27901 AU	
minimum elong	2096 May 15 08:13	25°♏37'30	0°31'53	morning rise	2098 Oct 06 07:22	7°♏16'26		
max. Earth dist.	2096 May 16 22:43	27°♏36'02	1.73299 AU	direct	2098 Oct 23 10:23	1°♏38'32		
	2096 May 18 21:30	0°♐		greatest brilliancy	2098 Nov 06 18:34	5°♏21'01	-4.6m	
asc. node	2096 May 28 21:40	12°♐18'45		asc. node	2098 Nov 13 16:31	9°♏17'58		
	2096 Jun 12 07:10	0°♑			2098 Dec 08 07:09	0°♐		
evening rise	2096 Jun 20 21:49	10°♑34'18		morning max el	2098 Dec 13 01:31	4°♐45'58	46°51'43	
	2096 Jul 06 17:56	0°♒			2099 Jan 05 09:38	0°♑		
	2096 Jul 31 05:58	0°♓			2099 Jan 31 05:34	0°♋		
	2096 Aug 24 20:21	0°♌			2099 Feb 25 06:20	0°♌		
desc. node	2096 Sep 17 11:05	28°♌36'35		desc. node	2099 Mar 05 06:10	9°♌40'34		
	2096 Sep 18 14:44	0°♍			2099 Mar 21 23:19	0°♍		
	2096 Oct 13 15:15	0°♎			2099 Apr 15 13:20	0°♎		
	2096 Nov 08 02:18	0°♏			2099 May 10 02:29	0°♏		
	2096 Dec 04 13:09	0°♐			2099 Jun 03 15:16	0°♐		
evening max el	2096 Dec 19 16:06	16°♐03'01	47°17'47	morning set	2099 Jun 16 09:51	15°♐38'10		
	2097 Jan 03 04:01	0°♑		asc. node	2099 Jun 26 09:33	27°♐52'39		
asc. node	2097 Jan 08 14:21	4°♑40'16			2099 Jun 28 03:05	0°♑		
greatest brilliancy	2097 Jan 26 13:21	16°♑35'12	-4.7m	max. Earth dist.	2099 Jul 20 14:41	27°♑37'32	1.73446 AU	
retrograde	2097 Feb 08 14:18	19°♑44'56						
evening set	2097 Feb 26 10:09	13°♑34'14		superior conj	2099 Jul 22 21:22	0°♒25'50	0°57'27	
inferior conj	2097 Mar 01 11:31	11°♑39'59	8°49'25	minimum elong	2099 Jul 22 12:36	29°♑58'52	0°57'08	
minimum elong	2097 Mar 01 09:49	11°♑42'39	8°49'23		2099 Jul 22 12:58	0°♒		
min. Earth dist.	2097 Feb 28 18:58	12°♑05'58	0.27612 AU		2099 Aug 15 20:37	0°♓		
morning rise	2097 Mar 04 09:43	9°♑51'08		evening rise	2099 Aug 27 19:38	14°♓47'18		
direct	2097 Mar 22 05:54	3°♑46'29			2099 Sep 09 02:41	0°♌		
greatest brilliancy	2097 Apr 01 23:18	5°♑53'54	-4.6m		2099 Oct 03 08:23	0°♍		
desc. node	2097 Apr 30 03:41	24°♑58'40		desc. node	2099 Oct 15 22:57	15°♍35'33		
	2097 May 05 16:14	0°♒			2099 Oct 27 14:46	0°♎		
morning max el	2097 May 10 12:56	4°♒37'35	46°03'48		2099 Nov 20 22:45	0°♏		
	2097 Jun 04 03:15	0°♓			2099 Dec 15 10:23	0°♐		
	2097 Jul 01 01:40	0°♐			2100 Jan 09 06:58	0°♑		
	2097 Jul 26 22:28	0°♑			2100 Feb 04 00:59	0°♒		
asc. node	2097 Aug 21 07:15	0°♒13'00		asc. node	2100 Feb 06 02:12	2°♒18'45		
	2097 Aug 21 02:56	0°♒		evening max el	2100 Mar 02 04:36	28°♒05'52	46°28'48	
	2097 Sep 14 18:52	0°♓			2100 Mar 04 02:34	0°♓		
	2097 Oct 09 01:28	0°♌		greatest brilliancy	2100 Apr 06 13:58	26°♓20'16	-4.6m	
greatest brilliancy	2097 Oct 25 04:59	20°♌08'16	-3.9m		2100 Apr 18 09:37	0°♐		
	2097 Nov 02 02:03	0°♍		retrograde	2100 Apr 21 04:02	0°♐09'05		
morning set	2097 Nov 04 04:10	2°♍37'03			2100 Apr 23 21:34	30°♒♏		
	2097 Nov 25 23:31	0°♎		evening set	2100 May 06 22:33	25°♓17'25		
desc. node	2097 Dec 10 20:36	18°♓43'00		inferior conj	2100 May 12 12:21	21°♓53'54	3°43'17	
				minimum elong	2100 May 12 19:50	21°♓42'07	3°41'16	
superior conj	2097 Dec 14 09:52	23°♓11'15	0°-8'-30	min. Earth dist.	2100 May 12 12:56	21°♓52'58	0.28675 AU	
minimum elong	2097 Dec 14 07:37	23°♓04'08	0°08'25	morning rise	2100 May 18 17:23	18°♓09'14		
behind sun begin	2097 Dec 13 08:49	21°♓52'25		desc. node	2100 May 28 15:25	14°♓13'46		
behind sun end	2097 Dec 15 06:25	24°♓15'53		direct	2100 Jun 02 21:20	13°♓40'50		
max. Earth dist.	2097 Dec 14 03:14	22°♓50'21	1.71094 AU	greatest brilliancy	2100 Jun 15 15:59	16°♓33'20	-4.5m	
	2097 Dec 19 19:49	0°♋			2100 Jul 06 13:35	0°♐		
	2098 Jan 12 16:14	0°♌		morning max el	2100 Jul 21 15:30	13°♐23'20	45°43'30	
evening rise	2098 Jan 24 20:31	15°♌17'39			2100 Aug 07 04:50	0°♑		
	2098 Feb 05 14:02	0°♍			2100 Sep 03 13:35	0°♒		
	2098 Mar 01 15:04	0°♎		asc. node	2100 Sep 18 19:02	17°♒35'26		
	2098 Mar 25 21:42	0°♏			2100 Sep 29 07:08	0°♓		
asc. node	2098 Apr 03 00:02	9°♏55'12			2100 Oct 24 02:50	0°♌		
	2098 Apr 19 12:38	0°♐			2100 Nov 17 09:50	0°♍		
	2098 May 14 15:23	0°♑			2100 Dec 11 10:12	0°♎		
	2098 Jun 09 12:24	0°♒						

superior conj	2101 Mar 02 12:26	11° ✕ 44'45	-1°-25'-48	inferior conj	2103 Jul 22 04:22	28° ☿ 50'10	-5°-37'-37
minimum elong	2101 Mar 02 10:14	11° ✕ 37'52	1°25'49	minimum elong	2103 Jul 21 18:39	29° ☿ 05'22	5°35'29
max. Earth dist.	2101 Mar 06 08:14	16° ✕ 31'36	1.71801 AU	min. Earth dist.	2103 Jul 22 02:29	28° ☿ 53'07	0.29005 AU
	2101 Mar 17 03:26	0° ☿		morning rise	2103 Jul 27 02:54	25° ☿ 49'23	
	2101 Apr 10 07:06	0° ♊		direct	2103 Aug 12 20:32	20° ☿ 33'02	
evening rise	2101 Apr 11 06:13	1° ♊ 11'28		greatest brilliancy	2103 Aug 26 20:58	23° ☿ 59'18	-4.5m
asc. node	2101 May 01 11:52	26° ♊ 08'48			2103 Sep 06 05:50	0° ♊	
	2101 May 04 15:09	0° ♊		morning max el	2103 Oct 01 04:53	21° ♊ 16'49	46°09'00
	2101 May 29 04:07	0° ☿			2103 Oct 09 20:15	0° ♊	
	2101 Jun 22 22:50	0° ♊		asc. node	2103 Oct 17 06:53	7° ♊ 52'04	
	2101 Jul 18 01:27	0° ♊			2103 Nov 06 02:22	0° ♊	
	2101 Aug 12 16:26	0° ♊			2103 Dec 01 12:09	0° ♊	
desc. node	2101 Aug 21 01:07	9° ♊ 35'44			2103 Dec 26 02:46	0° ♊	
	2101 Sep 08 05:22	0° ♊			2104 Jan 19 09:00	0° ♊	
evening max el	2101 Oct 06 13:38	29° ♊ 45'20	46°41'47	desc. node	2104 Feb 05 20:19	21° ♊ 43'05	
	2101 Oct 06 19:37	0° ♊			2104 Feb 12 12:04	0° ♊	
greatest brilliancy	2101 Nov 14 08:36	29° ♊ 16'16	-4.6m		2104 Mar 07 14:40	0° ♊	
	2101 Nov 16 08:23	0° ♊			2104 Mar 31 18:22	0° ☿	
retrograde	2101 Nov 25 15:14	1° ♊ 37'25		morning set	2104 Apr 05 18:30	6° ☿ 12'18	
	2101 Dec 04 12:46	30° ♊			2104 Apr 25 00:06	0° ♊	
evening set	2101 Dec 09 21:06	27° ♊ 35'06					
asc. node	2101 Dec 12 04:28	26° ♊ 18'15		superior conj	2104 May 13 18:26	23° ♊ 08'43	0°-35'-13
inferior conj	2101 Dec 16 03:00	23° ♊ 56'58	1°01'28	minimum elong	2104 May 14 01:32	23° ♊ 30'34	0°34'55
minimum elong	2101 Dec 16 00:39	24° ♊ 00'33	1°00'42	max. Earth dist.	2104 May 15 19:00	25° ♊ 38'14	1.73264 AU
min. Earth dist.	2101 Dec 16 00:05	24° ♊ 01'24	0.26432 AU		2104 May 19 08:03	0° ♊	
morning rise	2101 Dec 22 04:15	20° ♊ 25'47		asc. node	2104 May 28 23:49	11° ♊ 52'56	
direct	2102 Jan 05 12:54	16° ♊ 19'33			2104 Jun 12 17:44	0° ☿	
greatest brilliancy	2102 Jan 17 11:22	19° ♊ 00'18	-4.7m	evening rise	2104 Jun 19 16:24	8° ☿ 31'29	
	2102 Feb 03 22:16	0° ♊			2104 Jul 07 04:37	0° ♊	
morning max el	2102 Feb 24 23:04	19° ♊ 11'38	46°48'18		2104 Jul 31 16:55	0° ♊	
	2102 Mar 07 10:19	0° ♊			2104 Aug 25 07:45	0° ♊	
desc. node	2102 Apr 02 17:59	29° ♊ 03'25		desc. node	2104 Sep 17 13:02	28° ♊ 06'13	
	2102 Apr 03 13:52	0° ♊			2104 Sep 19 02:48	0° ♊	
	2102 Apr 29 11:21	0° ☿			2104 Oct 14 04:21	0° ♊	
	2102 May 24 20:03	0° ♊			2104 Nov 08 17:07	0° ♊	
	2102 Jun 18 21:43	0° ♊			2104 Dec 05 07:35	0° ♊	
	2102 Jul 13 17:45	0° ☿		evening max el	2104 Dec 18 05:30	13° ♊ 37'48	47°18'01
asc. node	2102 Jul 24 21:27	13° ☿ 34'16			2105 Jan 04 11:27	0° ♊	
	2102 Aug 07 07:56	0° ♊		asc. node	2105 Jan 08 16:28	3° ♊ 30'16	
morning set	2102 Aug 24 05:39	20° ♊ 48'01		greatest brilliancy	2105 Jan 25 06:13	14° ♊ 15'29	-4.7m
	2102 Aug 31 16:20	0° ♊		retrograde	2105 Feb 07 04:12	17° ♊ 22'32	
	2102 Sep 24 20:01	0° ♊		evening set	2105 Feb 24 22:27	11° ♊ 15'24	
max. Earth dist.	2102 Sep 26 20:01	2° ♊ 29'31	1.72213 AU	min. Earth dist.	2105 Feb 27 08:45	9° ♊ 45'02	0.27555 AU
				inferior conj	2105 Feb 28 01:34	9° ♊ 18'38	8°47'34
superior conj	2102 Sep 30 02:30	6° ♊ 34'04	1°20'36	minimum elong	2105 Feb 27 22:59	9° ♊ 22'42	8°47'29
minimum elong	2102 Sep 30 08:22	6° ♊ 52'23	1°20'30	morning rise	2105 Mar 02 23:42	7° ♊ 29'53	
	2102 Oct 18 20:48	0° ♊		direct	2105 Mar 20 18:43	1° ♊ 25'56	
evening rise	2102 Nov 07 21:38	25° ♊ 03'38		greatest brilliancy	2105 Mar 31 12:43	3° ♊ 33'30	-4.6m
	2102 Nov 11 20:20	0° ♊		desc. node	2105 Apr 30 05:41	24° ♊ 01'01	
desc. node	2102 Nov 13 10:51	2° ♊ 00'34			2105 May 06 16:38	0° ☿	
	2102 Dec 05 19:36	0° ♊		morning max el	2105 May 09 02:05	2° ☿ 18'03	46°05'21
	2102 Dec 29 19:33	0° ♊			2105 Jun 04 19:30	0° ♊	
	2103 Jan 22 22:10	0° ♊			2105 Jul 01 15:08	0° ♊	
	2103 Feb 16 07:09	0° ☿			2105 Jul 27 10:37	0° ☿	
asc. node	2103 Mar 06 14:05	22° ☿ 07'22		asc. node	2105 Aug 21 09:11	29° ☿ 44'23	
	2103 Mar 13 04:34	0° ♊			2105 Aug 21 14:22	0° ♊	
	2103 Apr 08 00:43	0° ♊			2105 Sep 15 05:57	0° ♊	
	2103 May 05 20:07	0° ☿			2105 Oct 09 12:22	0° ♊	
evening max el	2103 May 13 01:06	7° ☿ 08'37	45°30'54	greatest brilliancy	2105 Oct 28 20:00	24° ♊ 06'30	-3.9m
	2103 Jun 09 23:20	0° ♊		morning set	2105 Nov 02 17:39	0° ♊ 14'53	
greatest brilliancy	2103 Jun 16 14:49	3° ♊ 35'19	-4.5m		2105 Nov 02 12:54	0° ♊	
desc. node	2103 Jun 26 03:32	6° ♊ 38'49			2105 Nov 26 10:22	0° ♊	
retrograde	2103 Jun 30 16:36	7° ♊ 02'01		desc. node	2105 Dec 10 22:43	18° ♊ 15'29	
evening set	2103 Jul 16 10:20	2° ♊ 18'31					
	2103 Jul 20 07:35	30° ♊		superior conj	2105 Dec 12 20:08	20° ♊ 38'20	0°-4'-33

minimum elong	2105 Dec 12 18:55	20°♂34'31	0°04'31	morning rise	2108 May 16 07:57	15°♂59'26	
behind sun begin	2105 Dec 11 17:31	19°♂14'36		desc. node	2108 May 27 17:36	11°♂46'43	
behind sun end	2105 Dec 13 20:20	21°♂54'27		direct	2108 May 31 13:18	11°♂29'16	
max. Earth dist.	2105 Dec 12 09:52	20°♂06'00	1.71110 AU	greatest brilliancy	2108 Jun 13 05:42	14°♂20'09	-4.5m
	2105 Dec 20 06:42	0°♂			2108 Jul 06 20:30	0°♂	
	2106 Jan 13 03:11	0°♂		morning max el	2108 Jul 19 08:14	11°♂15'20	45°43'28
evening rise	2106 Jan 23 06:37	12°♂44'19			2108 Aug 06 22:19	0°♂	
	2106 Feb 06 01:03	0°♂			2108 Sep 03 03:37	0°♂	
	2106 Mar 02 02:11	0°♂		asc. node	2108 Sep 17 21:08	17°♂03'22	
	2106 Mar 26 09:00	0°♂			2108 Sep 28 19:43	0°♂	
asc. node	2106 Apr 03 02:03	9°♂26'31			2108 Oct 23 14:44	0°♂	
	2106 Apr 20 00:18	0°♂			2108 Nov 16 21:22	0°♂	
	2106 May 15 03:49	0°♂			2108 Dec 10 21:34	0°♂	
	2106 Jun 10 02:25	0°♂			2109 Jan 03 19:08	0°♂	
	2106 Jul 07 13:31	0°♂		desc. node	2109 Jan 07 10:30	4°♂34'28	
evening max el	2106 Jul 23 00:03	15°♂28'37	45°35'43	morning set	2109 Jan 17 14:15	17°♂20'06	
desc. node	2106 Jul 23 15:19	16°♂04'57			2109 Jan 27 16:14	0°♂	
	2106 Aug 08 10:33	0°♂			2109 Feb 20 14:14	0°♂	
greatest brilliancy	2106 Aug 29 15:43	13°♂03'02	-4.5m				
retrograde	2106 Sep 09 19:39	15°♂17'00		superior conj	2109 Feb 27 23:49	9°♂15'44	-1°-25'-22
evening set	2106 Sep 27 13:38	9°♂25'05		minimum elong	2109 Feb 27 20:37	9°♂05'41	1°25'22
inferior conj	2106 Sep 30 21:51	7°♂23'40	-8°-19'-6	max. Earth dist.	2109 Mar 03 20:45	14°♂06'15	1.71751 AU
minimum elong	2106 Oct 01 04:14	7°♂13'52	8°18'30		2109 Mar 16 14:26	0°♂	
min. Earth dist.	2106 Oct 01 19:14	6°♂50'48	0.27971 AU	evening rise	2109 Apr 08 19:59	28°♂51'31	
morning rise	2106 Oct 04 18:30	5°♂03'08			2109 Apr 09 18:07	0°♂	
	2106 Oct 16 07:20	30°♂		asc. node	2109 Apr 30 14:01	25°♂41'16	
direct	2106 Oct 22 01:25	29°♂19'25			2109 May 04 02:15	0°♂	
	2106 Oct 27 23:18	0°♂			2109 May 28 15:27	0°♂	
greatest brilliancy	2106 Nov 05 11:26	3°♂04'23	-4.6m		2109 Jun 22 10:36	0°♂	
asc. node	2106 Nov 13 18:39	7°♂56'56			2109 Jul 17 13:57	0°♂	
	2106 Dec 09 06:45	0°♂			2109 Aug 12 06:20	0°♂	
morning max el	2106 Dec 11 16:52	2°♂26'30	46°50'50	desc. node	2109 Aug 20 03:06	8°♂59'57	
	2107 Jan 06 02:10	0°♂			2109 Sep 07 22:04	0°♂	
	2107 Jan 31 19:37	0°♂		evening max el	2109 Oct 04 03:47	27°♂24'16	46°39'17
	2107 Feb 25 19:08	0°♂			2109 Oct 06 20:00	0°♂	
desc. node	2107 Mar 05 08:07	9°♂08'34		greatest brilliancy	2109 Nov 11 22:22	26°♂48'58	-4.6m
	2107 Mar 22 11:22	0°♂		retrograde	2109 Nov 23 03:13	29°♂07'33	
	2107 Apr 16 00:51	0°♂		evening set	2109 Dec 07 09:36	25°♂05'26	
	2107 May 10 13:37	0°♂		asc. node	2109 Dec 11 06:34	22°♂53'10	
	2107 Jun 04 02:08	0°♂		inferior conj	2109 Dec 13 15:03	21°♂27'41	0°36'47
morning set	2107 Jun 15 03:50	13°♂33'15		minimum elong	2109 Dec 13 13:38	21°♂29'50	0°36'20
asc. node	2107 Jun 26 11:39	27°♂26'15		min. Earth dist.	2109 Dec 13 13:43	21°♂29'42	0.26439 AU
	2107 Jun 28 13:47	0°♂		morning rise	2109 Dec 19 17:41	17°♂54'21	
max. Earth dist.	2107 Jul 19 14:09	25°♂49'13	1.73468 AU	direct	2110 Jan 03 01:28	13°♂50'12	
				greatest brilliancy	2110 Jan 15 01:14	16°♂32'08	-4.7m
superior conj	2107 Jul 21 15:50	28°♂22'09	0°55'06		2110 Feb 04 11:42	0°♂	
minimum elong	2107 Jul 21 07:10	27°♂55'28	0°54'47	morning max el	2110 Feb 22 11:46	16°♂44'31	46°49'19
	2107 Jul 22 23:38	0°♂			2110 Mar 07 06:01	0°♂	
	2107 Aug 16 07:21	0°♂		desc. node	2110 Apr 01 20:06	28°♂25'23	
evening rise	2107 Aug 26 13:28	12°♂40'38			2110 Apr 03 05:13	0°♂	
	2107 Sep 09 13:37	0°♂			2110 Apr 29 00:46	0°♂	
	2107 Oct 03 19:36	0°♂			2110 May 24 08:23	0°♂	
desc. node	2107 Oct 16 01:01	15°♂06'41			2110 Jun 18 09:25	0°♂	
	2107 Oct 28 02:21	0°♂			2110 Jul 13 05:02	0°♂	
	2107 Nov 21 10:49	0°♂		asc. node	2110 Jul 23 23:22	13°♂06'06	
	2107 Dec 15 23:08	0°♂			2110 Aug 06 18:59	0°♂	
	2108 Jan 09 20:49	0°♂		morning set	2110 Aug 21 22:56	18°♂39'24	
	2108 Feb 04 17:07	0°♂			2110 Aug 31 03:16	0°♂	
asc. node	2108 Feb 06 04:09	1°♂38'17			2110 Sep 24 06:57	0°♂	
evening max el	2108 Feb 28 20:23	25°♂50'56	46°31'16	max. Earth dist.	2110 Sep 24 09:03	0°♂06'32	1.72264 AU
	2108 Mar 04 01:30	0°♂					
greatest brilliancy	2108 Apr 04 06:33	24°♂08'34	-4.6m	superior conj	2110 Sep 27 18:35	4°♂20'27	1°21'36
retrograde	2108 Apr 18 20:54	27°♂57'13		minimum elong	2110 Sep 27 23:47	4°♂36'40	1°21'32
evening set	2108 May 04 16:54	23°♂02'10			2110 Oct 18 07:51	0°♂	
inferior conj	2108 May 10 04:17	19°♂41'54	4°01'38	evening rise	2110 Nov 05 10:21	22°♂38'20	
minimum elong	2108 May 10 12:16	19°♂29'22	3°59'32		2110 Nov 11 07:32	0°♂	
min. Earth dist.	2108 May 10 04:31	19°♂41'32	0.28652 AU	desc. node	2110 Nov 12 12:59	1°♂32'08	

	2110 Dec 05 06:59	0°☾			2113 May 06 16:26	0°☿		
	2110 Dec 29 07:10	0°♊			2113 Jun 04 11:55	0°♋		
	2111 Jan 22 10:05	0°♌			2113 Jul 01 04:53	0°♍		
	2111 Feb 15 19:33	0°☿			2113 Jul 26 23:03	0°♎		
asc. node	2111 Mar 05 16:07	21°☿34'37		asc. node	2113 Aug 20 11:15	29°♎15'11		
	2111 Mar 12 17:51	0°♏			2113 Aug 21 02:07	0°♐		
	2111 Apr 07 15:51	0°♑			2113 Sep 14 17:20	0°♒		
	2111 May 05 16:19	0°♓			2113 Oct 08 23:36	0°♑		
evening max el	2111 May 10 16:04	4°♓54'48	45°32'01	morning set	2113 Oct 31 07:20	27°♑52'25		
	2111 Jun 11 10:07	0°♐			2113 Nov 02 00:04	0°♒		
greatest brilliancy	2111 Jun 14 05:40	1°♐24'02	-4.5m		2113 Nov 25 21:31	0°♑		
desc. node	2111 Jun 25 05:31	4°♐41'29						
retrograde	2111 Jun 28 08:11	4°♐52'30		superior conj	2113 Dec 10 06:42	18°♑05'25	0°00'-35	
evening set	2111 Jul 14 00:18	0°♐11'58		minimum elong	2113 Dec 10 06:31	18°♑04'53	0°00'36	
	2111 Jul 14 08:50	30°♒♓		behind sun begin	2113 Dec 09 04:26	16°♑42'48		
inferior conj	2111 Jul 19 20:39	26°♓40'29	-5°-22'-20	behind sun end	2113 Dec 11 08:37	19°♑26'59		
minimum elong	2111 Jul 19 11:06	26°♓55'28	5°20'10	max. Earth dist.	2113 Dec 09 18:46	17°♑27'52	1.71122 AU	
min. Earth dist.	2111 Jul 19 18:54	26°♓43'14	0.29008 AU	desc. node	2113 Dec 10 00:44	17°♑46'37		
morning rise	2111 Jul 24 21:44	23°♓35'44			2113 Dec 19 17:52	0°☾		
direct	2111 Aug 10 12:22	18°♓23'11			2114 Jan 12 14:22	0°♊		
greatest brilliancy	2111 Aug 24 12:16	21°♓47'57	-4.5m	evening rise	2114 Jan 20 17:04	10°♊11'24		
	2111 Sep 06 23:38	0°♐			2114 Feb 05 12:17	0°♌		
morning max el	2111 Sep 28 19:09	18°♐59'50	46°07'41		2114 Mar 01 13:31	0°☿		
	2111 Oct 09 15:24	0°♒			2114 Mar 25 20:32	0°♋		
asc. node	2111 Oct 16 08:58	7°♒10'12		asc. node	2114 Apr 02 04:09	8°♋57'24		
	2111 Nov 05 17:17	0°♑			2114 Apr 19 12:16	0°♍		
	2111 Dec 01 01:25	0°♒			2114 May 14 16:37	0°♎		
	2111 Dec 25 15:13	0°♑			2114 Jun 09 16:56	0°♐		
	2112 Jan 18 20:57	0°☾			2114 Jul 07 08:07	0°♒		
desc. node	2112 Feb 04 22:17	21°☾12'45		evening max el	2114 Jul 20 14:58	13°♒14'30	45°34'24	
	2112 Feb 11 23:43	0°♊		desc. node	2114 Jul 22 17:20	15°♒13'41		
	2112 Mar 07 02:05	0°♌			2114 Aug 08 22:53	0°♑		
	2112 Mar 31 05:35	0°☿		greatest brilliancy	2114 Aug 27 02:04	10°♑42'26	-4.5m	
morning set	2112 Apr 03 08:37	3°☿52'39		retrograde	2114 Sep 07 09:59	12°♑59'40		
	2112 Apr 24 11:10	0°♋		evening set	2114 Sep 25 05:29	7°♑04'25		
				inferior conj	2114 Sep 28 12:08	5°♑05'13	-8°-25'-1	
superior conj	2112 May 11 10:46	20°♋57'23	0°-38'-15	minimum elong	2114 Sep 28 17:47	4°♑56'31	8°24'34	
minimum elong	2112 May 11 18:23	21°♋20'49	0°37'56	min. Earth dist.	2114 Sep 29 08:34	4°♑33'48	0.28039 AU	
max. Earth dist.	2112 May 13 13:18	23°♋33'01	1.73226 AU	morning rise	2114 Oct 02 05:49	2°♑49'06		
	2112 May 18 19:01	0°♑			2114 Oct 07 11:31	30°♒♒		
asc. node	2112 May 28 01:49	11°♑25'23		direct	2114 Oct 19 16:54	27°♒00'03		
	2112 Jun 12 04:42	0°♓			2114 Nov 01 11:44	0°♑		
evening rise	2112 Jun 17 10:40	6°♓26'32		greatest brilliancy	2114 Nov 03 03:21	0°♑46'05	-4.6m	
	2112 Jul 06 15:44	0°♐		asc. node	2114 Nov 12 20:42	6°♑37'46		
	2112 Jul 31 04:19	0°♒			2114 Dec 09 05:38	0°♒		
	2112 Aug 24 19:37	0°♑		morning max el	2114 Dec 09 08:40	0°♒07'42	46°49'54	
desc. node	2112 Sep 16 15:09	27°♑35'01			2115 Jan 05 18:38	0°♑		
	2112 Sep 18 15:21	0°♒			2115 Jan 31 09:42	0°☾		
	2112 Oct 13 17:55	0°♑			2115 Feb 25 07:59	0°♊		
	2112 Nov 08 08:28	0°☾		desc. node	2115 Mar 04 10:16	8°♊36'53		
	2112 Dec 05 02:48	0°♊			2115 Mar 21 23:27	0°♌		
evening max el	2112 Dec 15 18:44	11°♊11'28	47°18'15		2115 Apr 15 12:25	0°☿		
	2113 Jan 04 21:59	0°♌			2115 May 10 00:48	0°♋		
asc. node	2113 Jan 07 18:21	2°♌17'05			2115 Jun 03 13:05	0°♍		
greatest brilliancy	2113 Jan 22 21:50	11°♌53'16	-4.7m	morning set	2115 Jun 12 21:51	11°♍28'03		
retrograde	2113 Feb 04 18:17	14°♌59'20		asc. node	2115 Jun 25 13:36	26°♍58'59		
evening set	2113 Feb 22 10:19	8°♌55'56			2115 Jun 28 00:37	0°♎		
min. Earth dist.	2113 Feb 24 22:23	7°♌23'10	0.27504 AU	max. Earth dist.	2115 Jul 17 12:53	23°♎58'14	1.73488 AU	
inferior conj	2113 Feb 25 15:37	6°♌56'11	8°44'47					
minimum elong	2113 Feb 25 12:09	7°♌01'36	8°44'37	superior conj	2115 Jul 19 10:15	26°♎17'47	0°52'41	
morning rise	2113 Feb 28 14:10	5°♌06'57		minimum elong	2115 Jul 19 01:43	25°♎51'33	0°52'20	
	2113 Mar 11 13:16	30°♒♒			2115 Jul 22 10:26	0°♐		
direct	2113 Mar 18 07:34	29°♒04'03			2115 Aug 15 18:13	0°♒		
	2113 Mar 25 07:51	0°♌		evening rise	2115 Aug 24 07:16	10°♒33'30		
greatest brilliancy	2113 Mar 29 02:34	1°♌12'28	-4.6m		2115 Sep 09 00:39	0°♑		
desc. node	2113 Apr 29 07:50	23°♌03'45			2115 Oct 03 06:55	0°♒		
morning max el	2113 May 06 16:14	29°♌59'32	46°06'49	desc. node	2115 Oct 15 03:07	14°♒37'37		

	2115 Oct 27 14:04	0°♊			2118 Apr 28 13:52	0°♎		
	2115 Nov 20 23:03	0°♋			2118 May 23 20:26	0°♌		
	2115 Dec 15 12:03	0°♎			2118 Jun 17 20:48	0°♍		
	2116 Jan 09 10:52	0°♏			2118 Jul 12 16:01	0°♎		
	2116 Feb 04 09:33	0°♎		asc. node	2118 Jul 23 01:30	12°♎39'29		
asc. node	2116 Feb 05 06:18	0°♎57'55			2118 Aug 06 05:45	0°♏		
evening max el	2116 Feb 26 12:49	23°♎37'38	46°33'48	morning set	2118 Aug 19 16:24	16°♏32'15		
	2116 Mar 04 01:23	0°♌			2118 Aug 30 13:57	0°♐		
greatest brilliancy	2116 Apr 02 00:16	21°♌58'53	-4.6m	max. Earth dist.	2118 Sep 21 23:34	27°♐48'53	1.72320 AU	
retrograde	2116 Apr 16 13:44	25°♌46'00			2118 Sep 23 17:41	0°♑		
evening set	2116 May 02 11:36	20°♌47'48						
inferior conj	2116 May 07 20:28	17°♌30'46	4°19'32	superior conj	2118 Sep 25 10:49	2°♑08'05	1°22'28	
minimum elong	2116 May 08 04:52	17°♌17'33	4°17'22	minimum elong	2118 Sep 25 15:21	2°♑22'11	1°22'25	
min. Earth dist.	2116 May 07 20:16	17°♌31'05	0.28628 AU		2118 Oct 17 18:43	0°♒		
morning rise	2116 May 13 22:33	13°♌50'32		evening rise	2118 Nov 02 23:10	20°♒14'03		
desc. node	2116 May 26 19:33	9°♌25'42			2118 Nov 10 18:33	0°♊		
direct	2116 May 29 05:38	9°♌18'44		desc. node	2118 Nov 11 14:58	1°♊03'53		
greatest brilliancy	2116 Jun 10 18:43	12°♌06'40	-4.5m		2118 Dec 04 18:09	0°♋		
	2116 Jul 07 01:10	0°♍			2118 Dec 28 18:33	0°♎		
morning max el	2116 Jul 17 00:37	9°♍06'45	45°43'17		2119 Jan 21 21:47	0°♏		
	2116 Aug 06 15:25	0°♎			2119 Feb 15 07:46	0°♎		
	2116 Sep 02 17:31	0°♏		asc. node	2119 Mar 04 18:14	21°♎02'44		
asc. node	2116 Sep 16 23:15	16°♏31'29			2119 Mar 12 06:59	0°♌		
	2116 Sep 28 08:14	0°♐			2119 Apr 07 06:55	0°♍		
	2116 Oct 23 02:33	0°♑			2119 May 05 12:48	0°♎		
	2116 Nov 16 08:50	0°♒		evening max el	2119 May 08 06:55	2°♎41'40	45°33'22	
	2116 Dec 10 08:52	0°♊		greatest brilliancy	2119 Jun 11 19:46	29°♎13'15	-4.5m	
	2117 Jan 03 06:20	0°♋			2119 Jun 13 14:02	0°♏		
desc. node	2117 Jan 06 12:28	4°♋05'31		desc. node	2119 Jun 24 07:31	2°♏41'39		
morning set	2117 Jan 14 23:52	14°♋44'32		retrograde	2119 Jun 26 00:20	2°♏44'59		
	2117 Jan 27 03:21	0°♎			2119 Jul 07 21:12	30°♒♎		
	2117 Feb 20 01:15	0°♏		evening set	2119 Jul 11 14:39	28°♎06'51		
				inferior conj	2119 Jul 17 13:10	24°♎32'40	-5°-6'-46	
superior conj	2117 Feb 25 11:13	6°♏46'47	-1°-24'-46	minimum elong	2119 Jul 17 03:48	24°♎47'17	5°04'33	
minimum elong	2117 Feb 25 07:00	6°♏33'35	1°24'44	min. Earth dist.	2119 Jul 17 11:25	24°♎35'24	0.29010 AU	
max. Earth dist.	2117 Mar 01 09:07	11°♏40'31	1.71697 AU	morning rise	2119 Jul 22 16:47	21°♎24'14		
	2117 Mar 16 01:22	0°♎		direct	2119 Aug 08 04:17	16°♎15'09		
evening rise	2117 Apr 06 09:46	26°♎31'49		greatest brilliancy	2119 Aug 22 04:40	19°♎39'47	-4.5m	
	2117 Apr 09 05:01	0°♌			2119 Sep 07 12:09	0°♏		
asc. node	2117 Apr 29 16:03	25°♌13'53		morning max el	2119 Sep 26 10:06	16°♏46'01	46°06'15	
	2117 May 03 13:13	0°♍			2119 Oct 09 09:37	0°♐		
	2117 May 28 02:38	0°♎		asc. node	2119 Oct 15 11:00	6°♐29'48		
	2117 Jun 21 22:13	0°♏			2119 Nov 05 07:43	0°♑		
	2117 Jul 17 02:23	0°♐			2119 Nov 30 14:20	0°♒		
	2117 Aug 11 20:15	0°♑			2119 Dec 25 03:21	0°♊		
desc. node	2117 Aug 19 05:14	8°♑24'37			2120 Jan 18 08:37	0°♋		
	2117 Sep 07 15:00	0°♒		desc. node	2120 Feb 04 00:30	20°♋44'05		
evening max el	2117 Oct 01 17:19	25°♒02'06	46°36'46		2120 Feb 11 11:02	0°♎		
	2117 Oct 06 21:27	0°♊			2120 Mar 06 13:09	0°♏		
greatest brilliancy	2117 Nov 09 12:48	24°♊23'10	-4.6m		2120 Mar 30 16:29	0°♎		
retrograde	2117 Nov 20 14:41	26°♊38'47		morning set	2120 Mar 31 22:25	1°♎32'53		
evening set	2117 Dec 04 22:27	22°♊36'24			2120 Apr 23 21:55	0°♌		
asc. node	2117 Dec 10 08:30	19°♊28'08						
inferior conj	2117 Dec 11 03:16	18°♊59'32	0°12'14	superior conj	2120 May 09 03:02	18°♌46'45	0°-41'-14	
minimum elong	2117 Dec 11 02:48	19°♊00'15	0°12'04	minimum elong	2120 May 09 11:08	19°♌11'40	0°40'54	
transit middle	2117 Dec 11 02:48	19°♊00'15	0°12'04	max. Earth dist.	2120 May 11 06:19	21°♌24'43	1.73187 AU	
transit begin	2117 Dec 10 23:58	19°♊04'34			2120 May 18 05:40	0°♍		
transit end	2117 Dec 11 05:38	18°♊55'56		asc. node	2120 May 27 03:50	10°♍58'50		
min. Earth dist.	2117 Dec 11 03:48	18°♊58'44	0.26450 AU		2120 Jun 11 15:20	0°♎		
morning rise	2117 Dec 17 07:03	15°♊24'16		evening rise	2120 Jun 15 05:03	4°♎23'00		
direct	2117 Dec 31 13:43	11°♊21'45			2120 Jul 06 02:29	0°♏		
greatest brilliancy	2118 Jan 12 16:12	14°♊06'01	-4.7m		2120 Jul 30 15:20	0°♐		
	2118 Feb 04 21:27	0°♋			2120 Aug 24 07:05	0°♑		
morning max el	2118 Feb 19 23:56	14°♋16'24	46°50'17	desc. node	2120 Sep 15 17:14	27°♑04'52		
	2118 Mar 07 00:57	0°♎			2120 Sep 18 03:32	0°♒		
desc. node	2118 Mar 31 22:09	27°♎48'03			2120 Oct 13 07:13	0°♊		
	2118 Apr 02 20:10	0°♏			2120 Nov 07 23:42	0°♋		

	2120 Dec 04 22:18	0°♊			2123 Mar 21 11:20	0°♋		
evening max el	2120 Dec 13 08:40	8°♊47'42	47°18'21		2123 Apr 14 23:48	0°♌		
	2121 Jan 05 11:48	0°♋			2123 May 09 11:49	0°♍		
asc. node	2121 Jan 06 20:31	1°♋02'46			2123 Jun 02 23:51	0°♎		
greatest brilliancy	2121 Jan 20 12:28	9°♋30'03	-4.7m	morning set	2123 Jun 10 15:35	9°♎22'33		
retrograde	2121 Feb 02 08:41	12°♋36'13		asc. node	2123 Jun 24 15:43	26°♎32'48		
evening set	2121 Feb 19 21:34	6°♋36'57			2123 Jun 27 11:15	0°♏		
min. Earth dist.	2121 Feb 22 11:33	5°♋01'35	0.27451 AU	max. Earth dist.	2123 Jul 15 10:07	22°♏03'16	1.73505 AU	
inferior conj	2121 Feb 23 05:26	4°♋33'40	8°41'00					
minimum elong	2121 Feb 23 01:08	4°♋40'23	8°40'43	superior conj	2123 Jul 17 04:31	24°♏13'41	0°50'10	
morning rise	2121 Feb 26 04:53	2°♋43'22		minimum elong	2123 Jul 16 20:10	23°♏48'00	0°49'50	
	2121 Mar 03 02:09	30°♌♊			2123 Jul 21 21:03	0°♐		
direct	2121 Mar 15 20:36	26°♌42'11			2123 Aug 15 04:55	0°♑		
greatest brilliancy	2121 Mar 26 15:49	28°♌51'12	-4.6m	evening rise	2123 Aug 22 01:08	8°♑27'13		
	2121 Mar 29 09:40	0°♋			2123 Sep 08 11:30	0°♒		
desc. node	2121 Apr 28 09:51	22°♋08'16			2123 Oct 02 18:01	0°♓		
morning max el	2121 May 04 07:01	27°♋43'21	46°08'18	desc. node	2123 Oct 14 05:06	14°♓08'58		
	2121 May 06 14:52	0°♌			2123 Oct 27 01:31	0°♑		
	2121 Jun 04 03:42	0°♍			2123 Nov 20 11:01	0°♒		
	2121 Jun 30 18:11	0°♎			2123 Dec 15 00:44	0°♓		
	2121 Jul 26 11:05	0°♏			2124 Jan 09 00:47	0°♋		
asc. node	2121 Aug 19 13:24	28°♏47'24		asc. node	2124 Feb 04 08:21	0°♌17'19		
	2121 Aug 20 13:28	0°♐			2124 Feb 04 02:07	0°♌		
	2121 Sep 14 04:19	0°♑		evening max el	2124 Feb 24 04:33	21°♌22'27	46°36'00	
	2121 Oct 08 10:25	0°♒			2124 Mar 04 02:27	0°♍		
morning set	2121 Oct 28 21:29	25°♒32'41		greatest brilliancy	2124 Mar 30 18:43	19°♍49'27	-4.6m	
	2121 Nov 01 10:51	0°♓		retrograde	2124 Apr 14 05:46	23°♍33'37		
	2121 Nov 25 08:20	0°♑		evening set	2124 Apr 30 06:06	18°♍32'17		
max. Earth dist.	2121 Dec 07 04:35	14°♑53'36	1.71143 AU	inferior conj	2124 May 05 12:21	15°♍18'40	4°37'18	
				minimum elong	2124 May 05 21:07	15°♍04'51	4°35'04	
superior conj	2121 Dec 07 17:18	15°♑33'38	0°03'22	min. Earth dist.	2124 May 05 12:00	15°♍19'13	0.28603 AU	
minimum elong	2121 Dec 07 18:11	15°♑36'23	0°03'20	morning rise	2124 May 11 12:34	11°♍40'46		
behind sun begin	2121 Dec 06 16:29	14°♑15'34		desc. node	2124 May 25 21:36	7°♍08'26		
behind sun end	2121 Dec 08 19:52	16°♑57'12		direct	2124 May 26 21:26	7°♍07'16		
desc. node	2121 Dec 09 02:47	17°♑18'56		greatest brilliancy	2124 Jun 08 07:23	9°♍52'01	-4.5m	
	2121 Dec 19 04:45	0°♒			2124 Jul 07 04:10	0°♎		
	2122 Jan 12 01:19	0°♓		morning max el	2124 Jul 14 15:48	6°♎55'07	45°43'13	
evening rise	2122 Jan 18 03:08	7°♓37'58			2124 Aug 06 08:08	0°♏		
	2122 Feb 04 23:18	0°♋			2124 Sep 02 07:12	0°♐		
	2122 Mar 01 00:38	0°♌		asc. node	2124 Sep 16 01:11	15°♐59'30		
	2122 Mar 25 07:51	0°♍			2124 Sep 27 20:34	0°♑		
asc. node	2122 Apr 01 06:10	8°♍28'37			2124 Oct 22 14:13	0°♒		
	2122 Apr 19 00:02	0°♎			2124 Nov 15 20:09	0°♓		
	2122 May 14 05:17	0°♏			2124 Dec 09 19:59	0°♑		
	2122 Jun 09 07:21	0°♐			2125 Jan 02 17:20	0°♒		
	2122 Jul 07 02:53	0°♑		desc. node	2125 Jan 05 14:39	3°♒37'50		
evening max el	2122 Jul 18 06:32	11°♑02'57	45°33'13	morning set	2125 Jan 12 09:52	12°♒10'45		
desc. node	2122 Jul 21 19:31	14°♑22'50			2125 Jan 26 14:16	0°♓		
	2122 Aug 09 14:41	0°♒			2125 Feb 19 12:06	0°♋		
greatest brilliancy	2122 Aug 24 13:32	8°♒24'40	-4.5m					
retrograde	2122 Sep 05 00:20	10°♒44'02		superior conj	2125 Feb 22 22:40	4°♋18'28	-1°23'-59	
evening set	2122 Sep 22 21:21	4°♒46'14		minimum elong	2125 Feb 22 17:28	4°♋02'10	1°23'57	
inferior conj	2122 Sep 26 02:38	2°♒48'46	-8°-30'-10	max. Earth dist.	2125 Feb 26 20:52	9°♋13'10	1.71650 AU	
minimum elong	2122 Sep 26 07:33	2°♒41'12	8°29'50		2125 Mar 15 12:12	0°♌		
min. Earth dist.	2122 Sep 26 22:01	2°♒18'56	0.28100 AU	evening rise	2125 Apr 03 23:11	24°♌11'02		
morning rise	2122 Sep 29 17:31	0°♒36'39			2125 Apr 08 15:53	0°♍		
	2122 Sep 30 18:38	30°♓♑		asc. node	2125 Apr 28 18:01	24°♍46'18		
direct	2122 Oct 17 08:45	24°♓43'01			2125 May 03 00:12	0°♎		
greatest brilliancy	2122 Oct 31 18:09	28°♓28'08	-4.6m		2125 May 27 13:50	0°♏		
	2122 Nov 03 16:11	0°♒			2125 Jun 21 09:53	0°♐		
asc. node	2122 Nov 11 22:41	5°♒22'29			2125 Jul 16 14:54	0°♑		
morning max el	2122 Dec 06 23:46	27°♒48'35	46°48'43		2125 Aug 11 10:21	0°♒		
	2122 Dec 09 03:07	0°♓		desc. node	2125 Aug 18 07:16	7°♒48'44		
	2123 Jan 05 10:28	0°♑			2125 Sep 07 08:20	0°♓		
	2123 Jan 30 23:24	0°♒		evening max el	2125 Sep 29 05:50	22°♓37'31	46°34'20	
	2123 Feb 24 20:34	0°♓			2125 Oct 07 00:22	0°♑		
desc. node	2123 Mar 03 12:19	8°♓05'33		greatest brilliancy	2125 Nov 07 03:20	21°♑57'39	-4.6m	

retrograde	2125 Nov 18 02:09	24°♁10'36			2128 Mar 30 03:30	0°♃	
evening set	2125 Dec 02 11:31	20°♁07'17			2128 Apr 23 08:47	0°♄	
inferior conj	2125 Dec 08 15:33	16°♁31'51	0°-12'-25				
minimum elong	2125 Dec 08 16:01	16°♁31'07	0°12'16	superior conj	2128 May 06 19:30	16°♄36'12	0°-44'-8
transit middle	2125 Dec 08 16:01	16°♁31'07	0°12'16	minimum elong	2128 May 07 04:01	17°♄02'28	0°43'47
transit begin	2125 Dec 08 13:15	16°♁35'21		max. Earth dist.	2128 May 09 00:58	19°♄20'59	1.73151 AU
transit end	2125 Dec 08 18:48	16°♁26'54			2128 May 17 16:28	0°♅	
min. Earth dist.	2125 Dec 08 18:05	16°♁28'00	0.26461 AU	asc. node	2128 May 26 05:59	10°♅32'09	
asc. node	2125 Dec 09 10:39	16°♁02'45			2128 Jun 11 02:11	0°♆	
morning rise	2125 Dec 14 20:15	12°♁55'03		evening rise	2128 Jun 12 23:34	2°♆19'14	
direct	2125 Dec 29 01:39	8°♁53'31			2128 Jul 05 13:30	0°♇	
greatest brilliancy	2126 Jan 10 07:53	11°♁41'17	-4.7m		2128 Jul 30 02:40	0°♈	
	2126 Feb 05 04:21	0°♉			2128 Aug 23 18:54	0°♊	
morning max el	2126 Feb 17 12:08	11°♉48'42	46°51'20	desc. node	2128 Sep 14 19:11	26°♊33'19	
	2126 Mar 06 19:14	0°♊			2128 Sep 17 16:05	0°♋	
desc. node	2126 Mar 31 00:10	27°♊11'12			2128 Oct 12 20:56	0°♌	
	2126 Apr 02 10:50	0°♋			2128 Nov 07 15:29	0°♍	
	2126 Apr 28 02:51	0°♃			2128 Dec 04 18:44	0°♎	
	2126 May 23 08:30	0°♄		evening max el	2128 Dec 10 23:29	6°♎25'19	47°18'25
	2126 Jun 17 08:16	0°♅		asc. node	2129 Jan 05 22:37	29°♎45'03	
	2126 Jul 12 03:07	0°♆			2129 Jan 06 06:50	0°♏	
asc. node	2126 Jul 22 03:36	12°♆12'22		greatest brilliancy	2129 Jan 18 02:47	7°♏05'27	-4.7m
	2126 Aug 05 16:37	0°♇		retrograde	2129 Jan 30 23:23	10°♏11'51	
morning set	2126 Aug 17 09:33	14°♇23'46		evening set	2129 Feb 17 08:25	4°♏17'16	
	2126 Aug 30 00:44	0°♈		min. Earth dist.	2129 Feb 20 00:21	2°♏39'10	0.27394 AU
max. Earth dist.	2126 Sep 19 16:26	25°♈38'14	1.72374 AU	inferior conj	2129 Feb 20 19:09	2°♏09'54	8°36'11
				minimum elong	2129 Feb 20 14:03	2°♏17'51	8°35'48
superior conj	2126 Sep 23 02:52	29°♈54'51	1°23'12	morning rise	2129 Feb 23 19:54	0°♏17'58	
minimum elong	2126 Sep 23 06:41	0°♉06'42	1°23'10		2129 Feb 24 07:54	30°♏	
	2126 Sep 23 04:31	0°♊		direct	2129 Mar 13 10:07	24°♏19'19	
	2126 Oct 17 05:40	0°♋		greatest brilliancy	2129 Mar 24 04:07	26°♏27'55	-4.6m
evening rise	2126 Oct 31 12:01	17°♋49'41			2129 Mar 31 13:21	0°♌	
	2126 Nov 10 05:40	0°♌		desc. node	2129 Apr 27 11:53	21°♌13'22	
desc. node	2126 Nov 10 17:01	0°♌35'29		morning max el	2129 May 01 22:05	25°♌27'18	46°09'54
	2126 Dec 04 05:27	0°♍			2129 May 06 12:39	0°♃	
	2126 Dec 28 06:03	0°♎			2129 Jun 03 19:25	0°♄	
	2127 Jan 21 09:34	0°♏			2129 Jun 30 07:34	0°♅	
	2127 Feb 14 20:03	0°♃			2129 Jul 25 23:20	0°♆	
asc. node	2127 Mar 03 20:13	20°♃30'20		asc. node	2129 Aug 18 15:20	28°♆18'02	
	2127 Mar 11 20:13	0°♄			2129 Aug 20 01:06	0°♇	
	2127 Apr 06 22:14	0°♅			2129 Sep 13 15:39	0°♈	
	2127 May 05 10:09	0°♆			2129 Oct 07 21:36	0°♉	
evening max el	2127 May 05 21:56	0°♆28'35	45°34'36	morning set	2129 Oct 26 11:31	23°♉11'33	
greatest brilliancy	2127 Jun 09 09:15	27°♉00'49	-4.5m		2129 Oct 31 21:59	0°♊	
	2127 Jun 18 00:49	0°♊			2129 Nov 24 19:29	0°♋	
desc. node	2127 Jun 23 09:43	0°♊36'14		max. Earth dist.	2129 Dec 04 13:24	12°♋15'16	1.71160 AU
retrograde	2127 Jun 23 16:48	0°♊36'20					
	2127 Jun 29 05:26	30°♋		superior conj	2129 Dec 05 03:50	13°♋00'38	0°07'19
evening set	2127 Jul 09 04:57	26°♋00'16		minimum elong	2129 Dec 05 05:44	13°♋06'36	0°07'13
inferior conj	2127 Jul 15 05:29	22°♋23'30	-4°-50'-28	behind sun begin	2129 Dec 04 06:07	11°♋52'21	
minimum elong	2127 Jul 14 20:24	22°♋37'41	4°48'17	behind sun end	2129 Dec 06 05:20	14°♋20'51	
min. Earth dist.	2127 Jul 15 03:31	22°♋26'33	0.29015 AU	desc. node	2129 Dec 08 04:54	16°♋50'27	
morning rise	2127 Jul 20 11:40	19°♋11'37			2129 Dec 18 15:57	0°♌	
direct	2127 Aug 05 20:18	14°♋05'44			2130 Jan 11 12:35	0°♍	
greatest brilliancy	2127 Aug 19 21:36	17°♋31'16	-4.5m	evening rise	2130 Jan 15 13:08	5°♍03'13	
	2127 Sep 07 21:53	0°♌			2130 Feb 04 10:39	0°♎	
morning max el	2127 Sep 24 01:48	14°♌33'20	46°04'53		2130 Feb 28 12:05	0°♏	
	2127 Oct 09 03:42	0°♍			2130 Mar 24 19:31	0°♐	
asc. node	2127 Oct 14 13:04	5°♍49'09		asc. node	2130 Mar 31 08:12	7°♐58'58	
	2127 Nov 04 22:14	0°♎			2130 Apr 18 12:08	0°♑	
	2127 Nov 30 03:23	0°♏			2130 May 13 18:15	0°♒	
	2127 Dec 24 15:38	0°♐			2130 Jun 08 22:11	0°♓	
	2128 Jan 17 20:26	0°♑			2130 Jul 06 22:28	0°♔	
desc. node	2128 Feb 03 02:27	20°♑14'05		evening max el	2130 Jul 15 21:50	8°♔49'58	45°31'51
	2128 Feb 10 22:31	0°♒		desc. node	2130 Jul 20 21:28	13°♔29'38	
	2128 Mar 06 00:23	0°♓			2130 Aug 10 12:35	0°♕	
morning set	2128 Mar 29 12:27	29°♓13'16		greatest brilliancy	2130 Aug 22 01:56	6°♕07'00	-4.5m

retrograde	2130 Sep 02 14:10	8°♄27'23		superior conj	2133 Feb 20 09:41	1°♁47'46	-1°-23'-1
evening set	2130 Sep 20 12:54	2°♄27'41		minimum elong	2133 Feb 20 03:32	1°♁28'29	1°22'58
inferior conj	2130 Sep 23 17:10	0°♄31'23	-8°-34'-22	max. Earth dist.	2133 Feb 24 05:41	6°♁35'41	1.71598 AU
minimum elong	2130 Sep 23 21:19	0°♄25'00	8°34'08		2133 Mar 14 23:19	0°♁	
min. Earth dist.	2130 Sep 24 11:43	0°♄02'46	0.28163 AU	evening rise	2133 Apr 01 12:18	21°♁48'25	
	2130 Sep 24 13:31	30°♁			2133 Apr 08 03:01	0°♁	
morning rise	2130 Sep 27 05:32	28°♁22'44		asc. node	2133 Apr 27 20:12	24°♁18'36	
direct	2130 Oct 15 00:21	22°♁25'00			2133 May 02 11:25	0°♁	
greatest brilliancy	2130 Oct 29 08:51	26°♁08'44	-4.6m		2133 May 27 01:17	0°♁	
	2130 Nov 05 03:19	0°♄			2133 Jun 20 21:48	0°♁	
asc. node	2130 Nov 11 00:49	4°♄08'18			2133 Jul 16 03:39	0°♁	
morning max el	2130 Dec 04 13:54	25°♄25'39	46°47'32		2133 Aug 11 00:42	0°♄	
	2130 Dec 09 00:22	0°♁		desc. node	2133 Aug 17 09:16	7°♄12'14	
	2131 Jan 05 02:28	0°♁			2133 Sep 07 02:06	0°♁	
	2131 Jan 30 13:21	0°♁		evening max el	2133 Sep 26 17:46	20°♁11'39	46°31'50
	2131 Feb 24 09:25	0°♁			2133 Oct 07 05:02	0°♁	
desc. node	2131 Mar 02 14:18	7°♁33'09		greatest brilliancy	2133 Nov 04 16:52	19°♁30'47	-4.6m
	2131 Mar 20 23:29	0°♁		retrograde	2133 Nov 15 13:50	21°♁42'19	
	2131 Apr 14 11:27	0°♁		evening set	2133 Nov 30 00:45	17°♁37'13	
	2131 May 08 23:06	0°♁		inferior conj	2133 Dec 06 03:48	14°♁03'35	0°-36'-59
	2131 Jun 02 10:53	0°♁		minimum elong	2133 Dec 06 05:14	14°♁01'25	0°36'32
morning set	2131 Jun 08 09:37	7°♁17'10		min. Earth dist.	2133 Dec 06 08:13	13°♁56'53	0.26487 AU
asc. node	2131 Jun 23 17:49	26°♁05'46		asc. node	2133 Dec 08 12:43	12°♁37'30	
	2131 Jun 26 22:09	0°♁		morning rise	2133 Dec 12 09:18	10°♁25'45	
max. Earth dist.	2131 Jul 13 06:51	20°♁06'08	1.73519 AU	direct	2133 Dec 26 13:47	6°♁24'21	
				greatest brilliancy	2134 Jan 08 00:20	9°♁16'39	-4.7m
superior conj	2131 Jul 14 23:11	22°♁10'06	0°47'37		2134 Feb 05 09:36	0°♁	
minimum elong	2131 Jul 14 15:03	21°♁45'07	0°47'18	morning max el	2134 Feb 15 01:12	9°♁22'01	46°52'19
	2131 Jul 21 07:54	0°♁			2134 Mar 06 13:27	0°♁	
	2131 Aug 14 15:51	0°♁		desc. node	2134 Mar 30 02:17	26°♁34'00	
evening rise	2131 Aug 19 19:22	6°♁21'19			2134 Apr 02 01:38	0°♁	
	2131 Sep 07 22:38	0°♄			2134 Apr 27 16:00	0°♁	
	2131 Oct 02 05:28	0°♁			2134 May 22 20:40	0°♁	
desc. node	2131 Oct 13 07:11	13°♁39'32			2134 Jun 16 19:50	0°♁	
	2131 Oct 26 13:24	0°♁			2134 Jul 11 14:17	0°♁	
	2131 Nov 19 23:26	0°♁		asc. node	2134 Jul 21 05:32	11°♁44'32	
	2131 Dec 14 13:55	0°♁			2134 Aug 05 03:33	0°♁	
	2132 Jan 08 15:15	0°♁		morning set	2134 Aug 15 03:05	12°♁16'19	
asc. node	2132 Feb 03 10:19	29°♁34'56			2134 Aug 29 11:35	0°♁	
	2132 Feb 03 19:24	0°♁		max. Earth dist.	2134 Sep 17 11:20	23°♁33'58	1.72423 AU
evening max el	2132 Feb 21 19:14	19°♁03'25	46°38'18				
	2132 Mar 04 05:20	0°♁		superior conj	2134 Sep 20 19:26	27°♁43'10	1°23'48
greatest brilliancy	2132 Mar 28 13:15	17°♁39'04	-4.6m	minimum elong	2134 Sep 20 22:31	27°♁52'45	1°23'47
retrograde	2132 Apr 11 21:30	21°♁20'31			2134 Sep 22 15:23	0°♄	
evening set	2132 Apr 28 00:44	16°♁15'50			2134 Oct 16 16:38	0°♁	
inferior conj	2132 May 03 04:18	13°♁05'56	4°54'36	evening rise	2134 Oct 29 01:29	15°♁27'19	
minimum elong	2132 May 03 13:24	12°♁51'34	4°52'21	desc. node	2134 Nov 09 19:10	0°♁07'26	
min. Earth dist.	2132 May 03 04:05	13°♁06'17	0.28575 AU		2134 Nov 09 16:47	0°♁	
morning rise	2132 May 09 02:28	9°♁30'31			2134 Dec 03 16:47	0°♁	
direct	2132 May 24 12:51	4°♁55'05			2134 Dec 27 17:38	0°♁	
desc. node	2132 May 24 23:46	4°♁55'20			2135 Jan 20 21:31	0°♁	
greatest brilliancy	2132 Jun 05 20:55	7°♁37'35	-4.5m		2135 Feb 14 08:33	0°♁	
	2132 Jul 07 05:56	0°♁		asc. node	2135 Mar 02 22:17	19°♁57'30	
morning max el	2132 Jul 12 06:22	4°♁41'22	45°43'24		2135 Mar 11 09:43	0°♁	
	2132 Aug 06 00:43	0°♁			2135 Apr 06 13:57	0°♁	
	2132 Sep 01 20:55	0°♁		evening max el	2135 May 03 13:35	28°♁16'47	45°36'09
asc. node	2132 Sep 15 03:18	15°♁27'40			2135 May 05 08:28	0°♁	
	2132 Sep 27 09:02	0°♁		greatest brilliancy	2135 Jun 06 23:09	24°♁48'56	-4.5m
	2132 Oct 22 02:04	0°♄		retrograde	2135 Jun 21 09:43	28°♁27'42	
	2132 Nov 15 07:43	0°♁		desc. node	2135 Jun 22 11:39	28°♁26'19	
	2132 Dec 09 07:26	0°♁		evening set	2135 Jul 06 19:30	23°♁53'37	
	2133 Jan 02 04:41	0°♁		inferior conj	2135 Jul 12 21:48	20°♁14'22	-4°-33'-52
desc. node	2133 Jan 04 16:40	3°♁08'31		minimum elong	2135 Jul 12 13:02	20°♁28'03	4°31'42
morning set	2133 Jan 09 19:24	9°♁34'20		min. Earth dist.	2135 Jul 12 19:21	20°♁18'12	0.29013 AU
	2133 Jan 26 01:31	0°♁		morning rise	2135 Jul 18 06:30	16°♁59'13	
	2133 Feb 18 23:16	0°♁		direct	2135 Aug 03 12:48	11°♁56'33	
				greatest brilliancy	2135 Aug 17 13:56	15°♁22'24	-4.5m

	2135 Sep 08 04:51	0°♌			2138 Feb 03 21:38	0°♎		
morning max el	2135 Sep 21 18:14	12°♌22'58	46°03'37		2138 Feb 27 23:10	0°♎		
	2135 Oct 08 21:14	0°♎			2138 Mar 24 06:51	0°♎		
asc. node	2135 Oct 13 15:09	5°♎09'23		asc. node	2138 Mar 30 10:19	7°♎30'31		
	2135 Nov 04 12:25	0°♎			2138 Apr 17 23:59	0°♎		
	2135 Nov 29 16:10	0°♎			2138 May 13 07:04	0°♎		
	2135 Dec 24 03:42	0°♎			2138 Jun 08 13:00	0°♌		
	2136 Jan 17 08:05	0°♌			2138 Jul 06 18:25	0°♎		
desc. node	2136 Feb 02 04:28	19°♌44'36		evening max el	2138 Jul 13 12:20	6°♎35'44	45°30'39	
	2136 Feb 10 09:54	0°♎		desc. node	2138 Jul 19 23:30	12°♎36'12		
	2136 Mar 05 11:34	0°♎			2138 Aug 11 18:13	0°♎		
morning set	2136 Mar 27 01:53	26°♎51'42		greatest brilliancy	2138 Aug 19 15:10	3°♎51'12	-4.5m	
	2136 Mar 29 14:31	0°♎		retrograde	2138 Aug 31 03:46	6°♎11'58		
	2136 Apr 22 19:40	0°♎		evening set	2138 Sep 18 04:10	0°♎10'57		
					2138 Sep 18 11:30	30°♎		
superior conj	2136 May 04 11:18	14°♎23'31	0°-47'-1	inferior conj	2138 Sep 21 07:48	28°♎15'23	-8°-37'-42	
minimum elong	2136 May 04 20:13	14°♎51'01	0°46'40	minimum elong	2138 Sep 21 11:07	28°♎10'15	8°37'34	
max. Earth dist.	2136 May 06 20:03	17°♎18'33	1.73111 AU	min. Earth dist.	2138 Sep 22 01:46	27°♎47'36	0.28221 AU	
	2136 May 17 03:15	0°♎		morning rise	2138 Sep 24 17:53	26°♎09'47		
asc. node	2136 May 25 07:59	10°♎05'10		direct	2138 Oct 12 15:19	20°♎08'15		
evening rise	2136 Jun 10 17:35	0°♎14'10		greatest brilliancy	2138 Oct 26 23:47	23°♎50'54	-4.6m	
	2136 Jun 10 12:58	0°♎			2138 Nov 06 03:42	0°♎		
	2136 Jul 05 00:25	0°♌		asc. node	2138 Nov 10 02:53	2°♎57'14		
	2136 Jul 29 13:54	0°♎		morning max el	2138 Dec 02 03:22	23°♎02'07	46°46'23	
	2136 Aug 23 06:38	0°♎			2138 Dec 08 20:31	0°♎		
desc. node	2136 Sep 13 21:18	26°♎02'40			2139 Jan 04 17:50	0°♎		
	2136 Sep 17 04:33	0°♎			2139 Jan 30 02:46	0°♌		
	2136 Oct 12 10:34	0°♎			2139 Feb 23 21:47	0°♎		
	2136 Nov 07 07:13	0°♌		desc. node	2139 Mar 01 16:26	7°♎02'35		
	2136 Dec 04 15:30	0°♎			2139 Mar 20 11:10	0°♎		
evening max el	2136 Dec 08 14:49	4°♎05'14	47°18'18		2139 Apr 13 22:39	0°♎		
asc. node	2137 Jan 05 00:31	28°♎25'26			2139 May 08 09:59	0°♎		
	2137 Jan 07 08:04	0°♎			2139 Jun 01 21:34	0°♎		
greatest brilliancy	2137 Jan 15 17:29	4°♎42'14	-4.7m	morning set	2139 Jun 06 03:24	5°♎11'58		
retrograde	2137 Jan 28 14:02	7°♎47'55		asc. node	2139 Jun 22 19:45	25°♎39'14		
evening set	2137 Feb 14 18:56	1°♎58'39			2139 Jun 26 08:44	0°♎		
min. Earth dist.	2137 Feb 17 12:59	0°♎17'25	0.27341 AU	max. Earth dist.	2139 Jul 11 01:41	18°♎04'02	1.73534 AU	
inferior conj	2137 Feb 18 08:47	29°♎46'37	8°30'26					
minimum elong	2137 Feb 18 02:55	29°♎55'45	8°29'54	superior conj	2139 Jul 12 17:32	20°♎06'32	0°44'59	
	2137 Feb 18 00:11	30°♎		minimum elong	2139 Jul 12 09:41	19°♎42'24	0°44'39	
morning rise	2137 Feb 21 11:10	27°♎52'26			2139 Jul 20 18:28	0°♌		
direct	2137 Mar 10 23:56	21°♎57'06			2139 Aug 14 02:29	0°♎		
greatest brilliancy	2137 Mar 21 15:48	24°♎04'18	-4.6m	evening rise	2139 Aug 17 13:18	4°♎15'36		
	2137 Apr 01 23:15	0°♎			2139 Sep 07 09:27	0°♎		
desc. node	2137 Apr 26 14:01	20°♎20'08			2139 Oct 01 16:36	0°♎		
morning max el	2137 Apr 29 12:47	23°♎10'31	46°11'15	desc. node	2139 Oct 12 09:15	13°♎11'05		
	2137 May 06 09:33	0°♎			2139 Oct 26 00:58	0°♎		
	2137 Jun 03 10:48	0°♎			2139 Nov 19 11:32	0°♌		
	2137 Jun 29 20:43	0°♎			2139 Dec 14 02:47	0°♎		
	2137 Jul 25 11:20	0°♎			2140 Jan 08 05:27	0°♎		
asc. node	2137 Aug 17 17:26	27°♎49'56		asc. node	2140 Feb 02 12:29	28°♎53'53		
	2137 Aug 19 12:29	0°♌			2140 Feb 03 12:34	0°♎		
	2137 Sep 13 02:41	0°♎		evening max el	2140 Feb 19 09:06	16°♎43'37	46°40'42	
	2137 Oct 07 08:30	0°♎			2140 Mar 04 09:14	0°♎		
morning set	2137 Oct 24 01:42	20°♎51'52		greatest brilliancy	2140 Mar 26 06:56	15°♎28'59	-4.6m	
	2137 Oct 31 08:50	0°♎		retrograde	2140 Apr 09 13:15	19°♎09'05		
	2137 Nov 24 06:20	0°♎		evening set	2140 Apr 25 19:26	14°♎00'41		
max. Earth dist.	2137 Dec 01 19:37	9°♎29'42	1.71175 AU	inferior conj	2140 Apr 30 20:20	10°♎54'44	5°11'20	
				minimum elong	2140 May 01 05:42	10°♎39'58	5°09'06	
superior conj	2137 Dec 02 14:51	10°♎30'10	0°11'11	min. Earth dist.	2140 Apr 30 20:16	10°♎54'52	0.28550 AU	
minimum elong	2137 Dec 02 17:44	10°♎39'14	0°11'02	morning rise	2140 May 06 16:17	7°♎22'09		
behind sun begin	2137 Dec 01 22:23	9°♎38'23		direct	2140 May 22 03:54	2°♎44'15		
behind sun end	2137 Dec 03 13:05	11°♎40'04		desc. node	2140 May 24 01:42	2°♎48'27		
desc. node	2137 Dec 07 06:53	16°♎22'27		greatest brilliancy	2140 Jun 03 11:25	5°♎25'40	-4.5m	
	2137 Dec 18 02:50	0°♌			2140 Jul 07 05:56	0°♎		
	2138 Jan 10 23:31	0°♎		morning max el	2140 Jul 09 21:09	2°♎29'07	45°43'30	
evening rise	2138 Jan 12 23:28	2°♎30'38			2140 Aug 05 16:38	0°♎		

	2140 Sep 01 10:14	0°♈	evening max el	2143 May 01 06:11	26°♐07'53	45°37'46
asc. node	2140 Sep 14 05:24	14°♈56'42		2143 May 05 07:27	0°♐	
	2140 Sep 26 21:08	0°♐	greatest brilliancy	2143 Jun 04 14:08	22°♐39'14	-4.5m
	2140 Oct 21 13:34	0°♐	retrograde	2143 Jun 19 02:43	26°♐19'46	
	2140 Nov 14 18:56	0°♐	desc. node	2143 Jun 21 13:41	26°♐12'36	
	2140 Dec 08 18:29	0°♐	evening set	2143 Jul 04 10:22	21°♐47'47	
	2141 Jan 01 15:39	0°♐	inferior conj	2143 Jul 10 14:12	18°♐06'03	-4°-16'-59
desc. node	2141 Jan 03 18:37	2°♐40'13	minimum elong	2143 Jul 10 05:48	18°♐19'09	4°14'51
morning set	2141 Jan 07 04:57	6°♐59'02	min. Earth dist.	2143 Jul 10 11:08	18°♐10'50	0.29010 AU
	2141 Jan 25 12:24	0°♐	morning rise	2143 Jul 16 01:17	14°♐47'42	
			direct	2143 Aug 01 05:43	9°♐48'24	
superior conj	2141 Feb 17 20:40	29°♐17'59	greatest brilliancy	2143 Aug 15 05:06	13°♐12'54	-4.5m
minimum elong	2141 Feb 17 13:36	28°♐55'51		2143 Sep 08 09:25	0°♐	
	2141 Feb 18 10:05	0°♐	morning max el	2143 Sep 19 10:33	10°♐12'59	46°02'08
max. Earth dist.	2141 Feb 21 11:16	3°♐49'08		2143 Oct 08 14:17	0°♐	
	2141 Mar 14 10:05	0°♐	asc. node	2143 Oct 12 17:09	4°♐30'05	
evening rise	2141 Mar 30 01:24	19°♐26'53		2143 Nov 04 02:27	0°♐	
	2141 Apr 07 13:46	0°♐		2143 Nov 29 04:54	0°♐	
asc. node	2141 Apr 26 22:11	23°♐51'33		2143 Dec 23 15:45	0°♐	
	2141 May 01 22:15	0°♐		2144 Jan 16 19:42	0°♐	
	2141 May 26 12:22	0°♐	desc. node	2144 Feb 01 06:38	19°♐15'43	
	2141 Jun 20 09:23	0°♐		2144 Feb 09 21:14	0°♐	
	2141 Jul 15 16:11	0°♐		2144 Mar 04 22:41	0°♐	
	2141 Aug 10 14:58	0°♐	morning set	2144 Mar 24 15:09	24°♐29'49	
desc. node	2141 Aug 16 11:23	6°♐36'26		2144 Mar 29 01:27	0°♐	
	2141 Sep 06 20:05	0°♐		2144 Apr 22 06:27	0°♐	
evening max el	2141 Sep 24 06:17	17°♐48'01				
	2141 Oct 07 11:30	0°♐	superior conj	2144 May 02 03:04	12°♐10'48	0°-49'-51
greatest brilliancy	2141 Nov 02 05:27	17°♐03'37	minimum elong	2144 May 02 12:20	12°♐39'25	0°49'29
retrograde	2141 Nov 13 01:57	19°♐14'46	max. Earth dist.	2144 May 04 16:23	15°♐20'02	1.73070 AU
evening set	2141 Nov 27 14:07	15°♐07'30		2144 May 16 13:59	0°♐	
inferior conj	2141 Dec 03 15:57	11°♐35'50	asc. node	2144 May 24 09:59	9°♐38'18	
minimum elong	2141 Dec 03 18:18	11°♐32'16	evening rise	2144 Jun 08 11:41	28°♐09'25	
min. Earth dist.	2141 Dec 03 21:52	11°♐26'51		2144 Jun 09 23:43	0°♐	
asc. node	2141 Dec 07 14:38	9°♐14'26		2144 Jul 04 11:20	0°♐	
morning rise	2141 Dec 09 22:03	7°♐57'31		2144 Jul 29 01:06	0°♐	
direct	2141 Dec 24 02:17	3°♐55'49		2144 Aug 22 18:20	0°♐	
greatest brilliancy	2142 Jan 05 16:00	6°♐52'02	desc. node	2144 Sep 12 23:22	25°♐31'48	
	2142 Feb 05 12:40	0°♐		2144 Sep 16 17:03	0°♐	
morning max el	2142 Feb 12 15:12	6°♐58'38		2144 Oct 12 00:23	0°♐	
	2142 Mar 06 06:55	0°♐		2144 Nov 06 23:23	0°♐	
desc. node	2142 Mar 29 04:18	25°♐57'45		2144 Dec 04 13:18	0°♐	
	2142 Apr 01 15:56	0°♐	evening max el	2144 Dec 06 06:06	1°♐44'10	47°17'56
	2142 Apr 27 04:44	0°♐	asc. node	2145 Jan 04 02:41	27°♐02'34	
	2142 May 22 08:29	0°♐		2145 Jan 08 20:28	0°♐	
	2142 Jun 16 07:03	0°♐	greatest brilliancy	2145 Jan 13 09:19	2°♐19'10	-4.7m
	2142 Jul 11 01:07	0°♐	retrograde	2145 Jan 26 04:14	5°♐22'19	
asc. node	2142 Jul 20 07:39	11°♐18'06		2145 Feb 11 15:00	30°♐	
	2142 Aug 04 14:12	0°♐	evening set	2145 Feb 12 05:03	29°♐39'09	
morning set	2142 Aug 12 20:39	10°♐09'51	min. Earth dist.	2145 Feb 15 01:47	27°♐53'50	0.27281 AU
	2142 Aug 28 22:12	0°♐	inferior conj	2145 Feb 15 22:13	27°♐22'02	8°23'48
max. Earth dist.	2142 Sep 15 05:24	21°♐27'41	minimum elong	2145 Feb 15 15:37	27°♐32'19	8°23'07
			morning rise	2145 Feb 19 02:29	25°♐25'03	
superior conj	2142 Sep 18 11:52	25°♐31'42	direct	2145 Mar 08 13:19	19°♐33'50	
minimum elong	2142 Sep 18 14:13	25°♐39'00	greatest brilliancy	2145 Mar 19 03:16	21°♐39'23	-4.6m
	2142 Sep 22 02:05	0°♐		2145 Apr 02 23:46	0°♐	
	2142 Oct 16 03:28	0°♐	desc. node	2145 Apr 25 16:00	19°♐27'13	
evening rise	2142 Oct 26 14:42	13°♐04'36	morning max el	2145 Apr 27 02:21	20°♐50'29	46°12'42
desc. node	2142 Nov 08 21:06	29°♐39'07		2145 May 06 05:51	0°♐	
	2142 Nov 09 03:47	0°♐		2145 Jun 03 02:01	0°♐	
	2142 Dec 03 03:58	0°♐		2145 Jun 29 09:51	0°♐	
	2142 Dec 27 05:04	0°♐		2145 Jul 24 23:23	0°♐	
	2143 Jan 20 09:18	0°♐	asc. node	2145 Aug 16 19:32	27°♐21'34	
	2143 Feb 13 20:54	0°♐		2145 Aug 18 23:55	0°♐	
asc. node	2143 Mar 02 00:22	19°♐25'11		2145 Sep 12 13:49	0°♐	
	2143 Mar 10 23:07	0°♐		2145 Oct 06 19:29	0°♐	
	2143 Apr 06 05:41	0°♐	morning set	2145 Oct 21 16:15	18°♐33'00	

	2145 Oct 30 19:47	0°♌		retrograde	2148 Apr 07 05:08	16°♊55'39	
	2145 Nov 23 17:21	0°♊		evening set	2148 Apr 23 14:01	11°♊43'09	
max. Earth dist.	2145 Nov 29 00:23	6°♊39'11	1.71202 AU	inferior conj	2148 Apr 28 12:12	8°♊41'27	5°27'49
				minimum elong	2148 Apr 28 21:46	8°♊26'21	5°25'35
superior conj	2145 Nov 30 02:01	7°♊59'44	0°15'00	min. Earth dist.	2148 Apr 28 12:13	8°♊41'26	0.28525 AU
minimum elong	2145 Nov 30 05:51	8°♊11'47	0°14'50	morning rise	2148 May 04 05:48	5°♊12'11	
behind sun begin	2145 Nov 29 19:00	7°♊37'38		direct	2148 May 19 18:36	0°♊31'12	
behind sun end	2145 Nov 30 16:43	8°♊45'55		desc. node	2148 May 23 03:46	0°♊44'15	
desc. node	2145 Dec 06 08:57	15°♊54'08		greatest brilliancy	2148 Jun 01 02:19	3°♊12'31	-4.5m
	2145 Dec 17 13:57	0°♊			2148 Jul 07 05:22	0°♊	
evening rise	2146 Jan 10 09:26	29°♊56'00		morning max el	2148 Jul 07 12:35	0°♊17'09	45°43'47
	2146 Jan 10 10:42	0°♊			2148 Aug 05 08:40	0°♊	
	2146 Feb 03 08:53	0°♊			2148 Aug 31 23:45	0°♊	
	2146 Feb 27 10:32	0°♊		asc. node	2148 Sep 13 07:20	14°♊24'26	
	2146 Mar 23 18:28	0°♊			2148 Sep 26 09:30	0°♊	
asc. node	2146 Mar 29 12:18	7°♊00'53			2148 Oct 21 01:22	0°♊	
	2146 Apr 17 12:06	0°♊			2148 Nov 14 06:26	0°♊	
	2146 May 12 20:11	0°♊			2148 Dec 08 05:50	0°♊	
	2146 Jun 08 04:13	0°♊			2149 Jan 01 02:53	0°♊	
	2146 Jul 06 15:13	0°♊		desc. node	2149 Jan 02 20:50	2°♊11'51	
evening max el	2146 Jul 11 02:21	4°♊19'54	45°29'36	morning set	2149 Jan 04 15:05	4°♊24'41	
desc. node	2146 Jul 19 01:41	11°♊41'32			2149 Jan 24 23:33	0°♊	
	2146 Aug 13 13:29	0°♊					
greatest brilliancy	2146 Aug 17 04:16	1°♊35'13	-4.5m	superior conj	2149 Feb 15 07:46	26°♊47'30	-1°-20'-37
retrograde	2146 Aug 28 17:33	3°♊57'11		minimum elong	2149 Feb 14 23:50	26°♊22'38	1°20'29
	2146 Sep 12 02:38	30°♊			2149 Feb 17 21:12	0°♊	
evening set	2146 Sep 15 19:18	27°♊55'12		max. Earth dist.	2149 Feb 18 17:09	1°♊02'30	1.71508 AU
inferior conj	2146 Sep 18 22:43	25°♊59'56	-8°-40'-10		2149 Mar 13 21:12	0°♊	
minimum elong	2146 Sep 19 01:12	25°♊56'06	8°40'06	evening rise	2149 Mar 27 14:24	17°♊03'47	
min. Earth dist.	2146 Sep 19 16:18	25°♊32'42	0.28278 AU		2149 Apr 07 00:55	0°♊	
morning rise	2146 Sep 22 06:52	23°♊57'00		asc. node	2149 Apr 26 00:11	23°♊23'14	
direct	2146 Oct 10 06:12	17°♊51'52			2149 May 01 09:31	0°♊	
greatest brilliancy	2146 Oct 24 15:40	21°♊34'32	-4.6m		2149 May 25 23:53	0°♊	
	2146 Nov 06 21:40	0°♊			2149 Jun 19 21:24	0°♊	
asc. node	2146 Nov 09 04:50	1°♊47'45			2149 Jul 15 05:10	0°♊	
morning max el	2146 Nov 29 16:48	20°♊38'18	46°45'11		2149 Aug 10 05:46	0°♊	
	2146 Dec 08 16:12	0°♊		desc. node	2149 Aug 15 13:25	5°♊59'01	
	2147 Jan 04 09:14	0°♊			2149 Sep 06 14:54	0°♊	
	2147 Jan 29 16:24	0°♊		evening max el	2149 Sep 21 19:51	15°♊26'17	46°27'03
	2147 Feb 23 10:26	0°♊			2149 Oct 07 20:51	0°♊	
desc. node	2147 Feb 28 18:27	6°♊30'36		greatest brilliancy	2149 Oct 30 17:41	14°♊35'38	-4.6m
	2147 Mar 19 23:11	0°♊		retrograde	2149 Nov 10 14:40	16°♊46'46	
	2147 Apr 13 10:12	0°♊		evening set	2149 Nov 25 03:52	12°♊37'14	
	2147 May 07 21:12	0°♊		inferior conj	2149 Dec 01 04:12	9°♊07'35	-1°-25'-41
	2147 Jun 01 08:34	0°♊		minimum elong	2149 Dec 01 07:28	9°♊02'38	1°24'39
morning set	2147 Jun 03 20:58	3°♊05'09		min. Earth dist.	2149 Dec 01 11:23	8°♊56'42	0.26540 AU
asc. node	2147 Jun 21 21:53	25°♊12'25		asc. node	2149 Dec 06 16:48	5°♊53'11	
	2147 Jun 25 19:35	0°♊		morning rise	2149 Dec 07 10:41	5°♊29'09	
max. Earth dist.	2147 Jul 08 21:17	16°♊03'28	1.73549 AU	direct	2149 Dec 21 15:25	1°♊26'59	
				greatest brilliancy	2150 Jan 03 06:48	4°♊25'49	-4.7m
superior conj	2147 Jul 10 11:55	18°♊02'13	0°42'18		2150 Feb 05 14:32	0°♊	
minimum elong	2147 Jul 10 04:22	17°♊39'01	0°41'58	morning max el	2150 Feb 10 05:54	4°♊36'21	46°54'04
	2147 Jul 20 05:19	0°♊			2150 Mar 06 00:15	0°♊	
	2147 Aug 13 13:25	0°♊		desc. node	2150 Mar 28 06:20	25°♊21'02	
evening rise	2147 Aug 15 07:35	2°♊10'06			2150 Apr 01 06:20	0°♊	
	2147 Sep 06 20:35	0°♊			2150 Apr 26 17:42	0°♊	
	2147 Oct 01 04:02	0°♊			2150 May 21 20:35	0°♊	
desc. node	2147 Oct 11 11:14	12°♊41'32			2150 Jun 15 18:36	0°♊	
	2147 Oct 25 12:48	0°♊			2150 Jul 10 12:19	0°♊	
	2147 Nov 18 23:55	0°♊		asc. node	2150 Jul 19 09:45	10°♊50'35	
	2147 Dec 13 15:59	0°♊			2150 Aug 04 01:12	0°♊	
	2148 Jan 07 20:07	0°♊		morning set	2150 Aug 10 14:15	8°♊02'35	
asc. node	2148 Feb 01 14:29	28°♊10'45			2150 Aug 28 09:08	0°♊	
	2148 Feb 03 06:33	0°♊		max. Earth dist.	2150 Sep 12 22:29	19°♊17'36	1.72525 AU
evening max el	2148 Feb 16 22:47	14°♊21'51	46°42'55				
	2148 Mar 04 15:51	0°♊		superior conj	2150 Sep 16 04:28	23°♊19'58	1°24'36
greatest brilliancy	2148 Mar 23 23:44	13°♊15'44	-4.6m	minimum elong	2150 Sep 16 06:05	23°♊24'59	1°24'36

	2150 Sep 21 13:04	0°♄			2153 Apr 03 17:59	0°♄		
	2150 Oct 15 14:35	0°♄		morning max el	2153 Apr 24 15:12	18°♄28'18	46°14'18	
evening rise	2150 Oct 24 04:12	10°♄41'56		desc. node	2153 Apr 24 18:04	18°♄35'17		
desc. node	2150 Nov 07 23:11	29°♄10'25			2153 May 06 01:34	0°♄		
	2150 Nov 08 15:04	0°♄			2153 Jun 02 17:02	0°♄		
	2150 Dec 02 15:27	0°♄			2153 Jun 28 22:53	0°♄		
	2150 Dec 26 16:49	0°♄			2153 Jul 24 11:24	0°♄		
	2151 Jan 19 21:22	0°♄		asc. node	2153 Aug 15 21:29	26°♄52'40		
	2151 Feb 13 09:31	0°♄			2153 Aug 18 11:23	0°♄		
asc. node	2151 Mar 01 02:22	18°♄51'48			2153 Sep 12 00:59	0°♄		
	2151 Mar 10 12:50	0°♄			2153 Oct 06 06:31	0°♄		
	2151 Apr 05 21:55	0°♄		morning set	2153 Oct 19 06:44	16°♄13'49		
evening max el	2151 Apr 28 23:06	23°♄58'56	45°39'13		2153 Oct 30 06:47	0°♄		
	2151 May 05 07:51	0°♄			2153 Nov 23 04:22	0°♄		
greatest brilliancy	2151 Jun 02 06:15	20°♄30'04	-4.5m	max. Earth dist.	2153 Nov 26 05:52	3°♄50'54	1.71228 AU	
retrograde	2151 Jun 16 19:27	24°♄10'47						
desc. node	2151 Jun 20 15:52	23°♄53'10		superior conj	2153 Nov 27 13:15	5°♄29'33	0°18'48	
evening set	2151 Jul 02 01:26	19°♄41'00		minimum elong	2153 Nov 27 18:00	5°♄44'26	0°18'34	
inferior conj	2151 Jul 08 06:38	15°♄56'56	-3°-59'-39	desc. node	2153 Dec 05 11:05	15°♄26'07		
minimum elong	2151 Jul 07 22:40	16°♄09'23	3°57'35		2153 Dec 17 01:02	0°♄		
min. Earth dist.	2151 Jul 08 03:13	16°♄02'16	0.29004 AU	evening rise	2154 Jan 07 19:26	27°♄21'39		
morning rise	2151 Jul 13 20:00	12°♄35'15			2154 Jan 09 21:51	0°♄		
direct	2151 Jul 29 22:37	7°♄39'36			2154 Feb 02 20:08	0°♄		
greatest brilliancy	2151 Aug 12 19:17	11°♄01'17	-4.5m		2154 Feb 26 21:55	0°♄		
	2151 Sep 08 12:37	0°♄			2154 Mar 23 06:08	0°♄		
morning max el	2151 Sep 17 02:19	8°♄00'59	46°00'43	asc. node	2154 Mar 28 14:20	6°♄31'23		
	2151 Oct 08 07:16	0°♄			2154 Apr 17 00:17	0°♄		
asc. node	2151 Oct 11 19:14	3°♄50'41			2154 May 12 09:22	0°♄		
	2151 Nov 03 16:32	0°♄			2154 Jun 07 19:34	0°♄		
	2151 Nov 28 17:44	0°♄			2154 Jul 06 12:41	0°♄		
	2151 Dec 23 03:56	0°♄		evening max el	2154 Jul 08 15:58	2°♄03'27	45°28'36	
	2152 Jan 16 07:30	0°♄		desc. node	2154 Jul 18 03:38	10°♄45'22		
desc. node	2152 Jan 31 08:36	18°♄45'36		greatest brilliancy	2154 Aug 14 15:58	29°♄17'53	-4.5m	
	2152 Feb 09 08:45	0°♄			2154 Aug 16 14:00	0°♄		
	2152 Mar 04 09:57	0°♄		retrograde	2154 Aug 26 07:32	1°♄42'42		
morning set	2152 Mar 22 04:32	22°♄07'46			2154 Sep 04 16:03	30°♄		
	2152 Mar 28 12:32	0°♄		evening set	2154 Sep 13 09:59	25°♄39'55		
	2152 Apr 21 17:23	0°♄		inferior conj	2154 Sep 16 13:35	23°♄44'31	-8°-41'-47	
				minimum elong	2154 Sep 16 15:13	23°♄41'59	8°41'46	
superior conj	2152 Apr 29 18:58	9°♄58'04	0°-52'-35	min. Earth dist.	2154 Sep 17 06:44	23°♄17'57	0.28338 AU	
minimum elong	2152 Apr 30 04:31	10°♄27'33	0°52'13	morning rise	2154 Sep 19 20:14	21°♄43'51		
max. Earth dist.	2152 May 02 13:46	13°♄24'15	1.73026 AU	direct	2154 Oct 07 21:06	15°♄35'21		
	2152 May 16 00:50	0°♄		greatest brilliancy	2154 Oct 22 08:37	19°♄19'44	-4.6m	
asc. node	2152 May 23 12:08	9°♄11'33			2154 Nov 07 11:06	0°♄		
evening rise	2152 Jun 06 05:49	26°♄04'18		asc. node	2154 Nov 08 07:00	0°♄40'26		
	2152 Jun 09 10:38	0°♄		morning max el	2154 Nov 27 07:03	18°♄16'39	46°44'03	
	2152 Jul 03 22:25	0°♄			2154 Dec 08 11:20	0°♄		
	2152 Jul 28 12:31	0°♄			2155 Jan 04 00:21	0°♄		
	2152 Aug 22 06:15	0°♄			2155 Jan 29 05:48	0°♄		
desc. node	2152 Sep 12 01:19	25°♄00'02			2155 Feb 22 22:52	0°♄		
	2152 Sep 16 05:47	0°♄		desc. node	2155 Feb 27 20:28	5°♄59'12		
	2152 Oct 11 14:26	0°♄			2155 Mar 19 10:59	0°♄		
	2152 Nov 06 15:55	0°♄			2155 Apr 12 21:34	0°♄		
evening max el	2152 Dec 03 20:39	29°♄21'05	47°17'24		2155 May 07 08:16	0°♄		
	2152 Dec 04 12:01	0°♄			2155 May 31 19:25	0°♄		
asc. node	2153 Jan 03 04:44	25°♄36'27		morning set	2155 Jun 01 14:33	0°♄58'42		
greatest brilliancy	2153 Jan 11 01:47	29°♄56'33	-4.7m	asc. node	2155 Jun 20 23:56	24°♄45'51		
	2153 Jan 11 04:52	0°♄			2155 Jun 25 06:18	0°♄		
retrograde	2153 Jan 23 17:56	2°♄56'20		max. Earth dist.	2155 Jul 06 18:28	14°♄08'16	1.73560 AU	
	2153 Feb 04 16:48	30°♄						
evening set	2153 Feb 09 15:00	27°♄19'44		superior conj	2155 Jul 08 06:24	15°♄58'43	0°39'32	
min. Earth dist.	2153 Feb 12 15:05	25°♄29'21	0.27222 AU	minimum elong	2155 Jul 07 23:11	15°♄36'32	0°39'14	
inferior conj	2153 Feb 13 11:40	24°♄57'17	8°16'06		2155 Jul 19 15:59	0°♄		
minimum elong	2153 Feb 13 04:23	25°♄08'38	8°15'16	evening rise	2155 Aug 13 02:06	0°♄05'59		
morning rise	2153 Feb 16 18:06	22°♄56'56			2155 Aug 13 00:10	0°♄		
direct	2153 Mar 06 02:12	17°♄10'13			2155 Sep 06 07:33	0°♄		
greatest brilliancy	2153 Mar 16 15:44	19°♄15'01	-4.6m		2155 Sep 30 15:21	0°♄		

desc. node	2155 Oct 10 13:22	12°♍12'48		desc. node	2158 Mar 27 08:27	24°♊45'24	
	2155 Oct 25 00:33	0°♊			2158 Mar 31 20:22	0°♋	
	2155 Nov 18 12:15	0°♌			2158 Apr 26 06:19	0°♍	
	2155 Dec 13 05:10	0°♎			2158 May 21 08:21	0°♏	
	2156 Jan 07 10:49	0°♐			2158 Jun 15 05:48	0°♑	
asc. node	2156 Jan 31 16:29	27°♋27'31			2158 Jul 09 23:11	0°♒	
	2156 Feb 03 00:45	0°♌		asc. node	2158 Jul 18 11:41	10°♓23'29	
evening max el	2156 Feb 14 13:03	12°♌02'09	46°45'17		2158 Aug 03 11:53	0°♈	
	2156 Mar 05 00:41	0°♏		morning set	2158 Aug 08 07:52	5°♈56'23	
greatest brilliancy	2156 Mar 21 15:27	11°♏01'36	-4.6m		2158 Aug 27 19:46	0°♐	
retrograde	2156 Apr 04 21:20	14°♏42'37		max. Earth dist.	2158 Sep 10 13:38	17°♐02'32	1.72570 AU
evening set	2156 Apr 21 08:34	9°♏25'40					
inferior conj	2156 Apr 26 03:56	6°♏28'20	5°43'51	superior conj	2158 Sep 13 21:21	21°♐10'08	1°24'49
minimum elong	2156 Apr 26 13:42	6°♏12'58	5°41'38	minimum elong	2158 Sep 13 22:12	21°♐12'48	1°24'49
min. Earth dist.	2156 Apr 26 03:46	6°♏28'37	0.28502 AU		2158 Sep 20 23:44	0°♈	
morning rise	2156 May 01 19:04	3°♏02'48			2158 Oct 15 01:21	0°♍	
	2156 May 08 05:04	30°♎♌		evening rise	2158 Oct 21 18:00	8°♍21'24	
direct	2156 May 17 09:36	28°♌18'16		desc. node	2158 Nov 07 01:19	28°♍42'59	
desc. node	2156 May 22 05:56	28°♌44'57			2158 Nov 08 01:59	0°♊	
	2156 May 27 01:25	0°♏			2158 Dec 02 02:36	0°♌	
greatest brilliancy	2156 May 29 17:01	0°♏59'35	-4.5m		2158 Dec 26 04:15	0°♎	
morning max el	2156 Jul 05 04:54	28°♏08'00	45°44'12		2159 Jan 19 09:12	0°♋	
	2156 Jul 07 03:35	0°♑			2159 Feb 12 21:57	0°♌	
	2156 Aug 05 00:11	0°♓		asc. node	2159 Feb 28 04:26	18°♌19'11	
	2156 Aug 31 12:53	0°♈			2159 Mar 10 02:26	0°♏	
asc. node	2156 Sep 12 09:27	13°♈53'41			2159 Apr 05 14:11	0°♑	
	2156 Sep 25 21:32	0°♐		evening max el	2159 Apr 26 15:22	21°♑48'57	45°40'48
	2156 Oct 20 12:52	0°♈			2159 May 05 09:12	0°♓	
	2156 Nov 13 17:41	0°♍		greatest brilliancy	2159 May 30 22:48	18°♓21'59	-4.5m
	2156 Dec 07 16:58	0°♊		retrograde	2159 Jun 14 11:32	22°♓02'18	
	2156 Dec 31 13:56	0°♌		desc. node	2159 Jun 19 17:47	21°♓29'30	
desc. node	2157 Jan 01 22:49	1°♌43'23		evening set	2159 Jun 29 16:36	17°♓34'32	
morning set	2157 Jan 02 00:54	1°♌49'58		inferior conj	2159 Jul 05 22:59	13°♓48'29	-3°-41'-55
	2157 Jan 24 10:31	0°♎		minimum elong	2159 Jul 05 15:29	14°♓00'13	3°39'57
				min. Earth dist.	2159 Jul 05 19:33	13°♓53'50	0.28997 AU
superior conj	2157 Feb 12 18:17	24°♎15'46	-1°-19'-8	morning rise	2159 Jul 11 14:29	10°♓23'25	
minimum elong	2157 Feb 12 09:31	23°♎48'19	1°18'59	direct	2159 Jul 27 15:06	5°♓31'22	
max. Earth dist.	2157 Feb 16 00:13	28°♎20'06	1.71466 AU	greatest brilliancy	2159 Aug 10 09:04	8°♓49'45	-4.5m
	2157 Feb 17 08:06	0°♋			2159 Sep 08 14:02	0°♈	
	2157 Mar 13 08:03	0°♌		morning max el	2159 Sep 14 17:13	5°♈47'40	45°59'25
evening rise	2157 Mar 25 03:02	14°♌40'22			2159 Oct 07 23:36	0°♐	
	2157 Apr 06 11:48	0°♏		asc. node	2159 Oct 10 21:18	3°♐12'26	
asc. node	2157 Apr 25 02:21	22°♏56'16			2159 Nov 03 06:09	0°♈	
	2157 Apr 30 20:31	0°♑			2159 Nov 28 06:09	0°♍	
	2157 May 25 11:09	0°♓			2159 Dec 22 15:42	0°♊	
	2157 Jun 19 09:13	0°♈			2160 Jan 15 18:53	0°♌	
	2157 Jul 14 17:58	0°♐		desc. node	2160 Jan 30 10:38	18°♌16'51	
	2157 Aug 09 20:26	0°♈			2160 Feb 08 19:54	0°♎	
desc. node	2157 Aug 14 15:27	5°♈22'19			2160 Mar 03 20:56	0°♋	
	2157 Sep 06 09:48	0°♍		morning set	2160 Mar 19 17:32	19°♋45'12	
evening max el	2157 Sep 19 10:12	13°♍07'49	46°24'39		2160 Mar 27 23:20	0°♌	
	2157 Oct 08 08:44	0°♊			2160 Apr 21 04:04	0°♏	
greatest brilliancy	2157 Oct 28 05:46	12°♊09'01	-4.6m				
retrograde	2157 Nov 08 03:16	14°♊19'50		superior conj	2160 Apr 27 10:26	7°♏44'41	0°-55'-16
evening set	2157 Nov 22 17:51	10°♊08'05		minimum elong	2160 Apr 27 20:13	8°♏14'52	0°54'55
inferior conj	2157 Nov 28 16:28	6°♊40'26	-1°-49'-45	max. Earth dist.	2160 Apr 30 09:33	11°♏24'15	1.72978 AU
minimum elong	2157 Nov 28 20:37	6°♊34'07	1°48'26		2160 May 15 11:28	0°♑	
min. Earth dist.	2157 Nov 29 00:45	6°♊27'52	0.26574 AU	asc. node	2160 May 22 14:08	8°♑45'00	
morning rise	2157 Dec 04 23:03	3°♊01'59		evening rise	2160 Jun 03 23:29	23°♑58'26	
asc. node	2157 Dec 05 18:51	2°♊36'20			2160 Jun 08 21:18	0°♓	
	2157 Dec 12 05:18	30°♎♍			2160 Jul 03 09:16	0°♈	
direct	2157 Dec 19 04:52	28°♍59'22			2160 Jul 27 23:42	0°♐	
	2157 Dec 26 09:12	0°♊			2160 Aug 21 17:58	0°♈	
greatest brilliancy	2157 Dec 31 21:03	1°♊59'40	-4.7m	desc. node	2160 Sep 11 03:28	24°♈29'21	
	2158 Feb 05 14:52	0°♌			2160 Sep 15 18:21	0°♍	
morning max el	2158 Feb 07 20:16	2°♌13'50	46°54'40		2160 Oct 11 04:23	0°♊	
	2158 Mar 05 17:02	0°♎			2160 Nov 06 08:26	0°♌	

evening max el	2160 Dec 01 10:20	26°☾56'49	47°16'56		2163 May 31 06:10	0°♊	
	2160 Dec 04 11:17	0°≈		asc. node	2163 Jun 20 01:56	24°♊19'15	
asc. node	2161 Jan 02 06:40	24°≈08'25			2163 Jun 24 16:57	0°☿	
greatest brilliancy	2161 Jan 08 18:12	27°≈35'03	-4.7m	max. Earth dist.	2163 Jul 04 16:45	12°☿16'33	1.73573 AU
	2161 Jan 16 03:08	0°✕					
retrograde	2161 Jan 21 07:19	0°✕31'49		superior conj	2163 Jul 06 00:50	13°☿55'09	0°36'44
	2161 Jan 26 08:42	30°☿≈		minimum elong	2163 Jul 05 18:00	13°☿34'09	0°36'26
evening set	2161 Feb 07 00:54	25°≈01'48			2163 Jul 19 02:38	0°♊	
min. Earth dist.	2161 Feb 10 04:49	23°≈05'52	0.27167 AU	evening rise	2163 Aug 10 20:35	28°♊01'49	
inferior conj	2161 Feb 11 01:15	22°≈34'00	8°07'29		2163 Aug 12 10:55	0°♊	
minimum elong	2161 Feb 10 17:20	22°≈46'21	8°06'28		2163 Sep 05 18:32	0°♊	
morning rise	2161 Feb 14 10:04	20°≈30'00			2163 Sep 30 02:41	0°♊	
direct	2161 Mar 03 14:47	14°≈47'44		desc. node	2163 Oct 09 15:25	11°♊43'47	
greatest brilliancy	2161 Mar 14 05:24	16°≈53'04	-4.6m		2163 Oct 24 12:21	0°♊	
	2161 Apr 04 07:06	0°✕			2163 Nov 18 00:39	0°☿	
morning max el	2161 Apr 22 03:59	16°✕06'30	46°15'47		2163 Dec 12 18:29	0°≈	
desc. node	2161 Apr 23 20:12	17°✕45'15			2164 Jan 07 01:45	0°✕	
	2161 May 05 20:27	0°♊		asc. node	2164 Jan 30 18:39	26°✕44'04	
	2161 Jun 02 07:40	0°☿			2164 Feb 02 19:30	0°♊	
	2161 Jun 28 11:40	0°♊		evening max el	2164 Feb 12 04:31	9°♊45'20	46°47'43
	2161 Jul 23 23:12	0°☿			2164 Mar 05 12:37	0°☿	
asc. node	2161 Aug 14 23:37	26°☿24'57		greatest brilliancy	2164 Mar 19 07:29	8°☿48'04	-4.6m
	2161 Aug 17 22:38	0°♊		retrograde	2164 Apr 02 14:03	12°☿29'46	
	2161 Sep 11 11:57	0°♊		evening set	2164 Apr 19 03:15	7°☿08'28	
	2161 Oct 05 17:21	0°♊		inferior conj	2164 Apr 23 19:46	4°☿15'23	5°59'14
morning set	2161 Oct 16 21:13	13°♊55'14		minimum elong	2164 Apr 24 05:38	3°☿59'52	5°57'06
	2161 Oct 29 17:36	0°♊		min. Earth dist.	2164 Apr 23 18:59	4°☿16'37	0.28474 AU
	2161 Nov 22 15:15	0°♊		morning rise	2164 Apr 29 08:18	0°☿53'55	
max. Earth dist.	2161 Nov 23 12:51	1°♊07'52	1.71256 AU		2164 Apr 30 23:40	30°☿♊	
				direct	2164 May 15 01:09	26°♊05'48	
superior conj	2161 Nov 25 00:39	3°♊00'22	0°22'33	desc. node	2164 May 21 07:51	26°♊50'17	
minimum elong	2161 Nov 25 06:15	3°♊17'56	0°22'17	greatest brilliancy	2164 May 27 06:44	28°♊45'55	-4.5m
desc. node	2161 Dec 04 13:03	14°♊58'05			2164 May 30 00:55	0°☿	
	2161 Dec 16 11:57	0°☿		morning max el	2164 Jul 02 21:47	26°☿00'16	45°44'28
evening rise	2162 Jan 05 05:44	24°☿48'52			2164 Jul 07 00:55	0°♊	
	2162 Jan 09 08:49	0°≈			2164 Aug 04 15:30	0°☿	
	2162 Feb 02 07:09	0°✕			2164 Aug 31 02:01	0°♊	
	2162 Feb 26 09:05	0°♊		asc. node	2164 Sep 11 11:33	13°♊22'34	
	2162 Mar 22 17:35	0°☿			2164 Sep 25 09:39	0°♊	
asc. node	2162 Mar 27 16:28	6°☿02'45			2164 Oct 20 00:29	0°♊	
	2162 Apr 16 12:18	0°♊			2164 Nov 13 05:03	0°♊	
	2162 May 11 22:28	0°☿			2164 Dec 07 04:11	0°♊	
	2162 Jun 07 11:01	0°♊		morning set	2164 Dec 30 10:47	29°♊15'03	
	2162 Jul 06 10:51	0°♊			2164 Dec 31 01:05	0°☿	
evening max el	2162 Jul 06 06:06	29°♊48'39	45°27'47	desc. node	2165 Jan 01 00:48	1°☿14'36	
desc. node	2162 Jul 17 05:41	9°♊48'29			2165 Jan 23 21:38	0°≈	
greatest brilliancy	2162 Aug 12 02:46	27°♊00'10	-4.5m				
retrograde	2162 Aug 23 22:12	29°♊28'59		superior conj	2165 Feb 10 04:39	21°≈42'59	-1°-17'-29
evening set	2162 Sep 11 00:19	23°♊25'50		minimum elong	2165 Feb 09 19:11	21°≈13'15	1°17'18
inferior conj	2162 Sep 14 04:31	21°♊29'40	-8°-42'-27	max. Earth dist.	2165 Feb 13 09:15	25°≈43'13	1.71426 AU
minimum elong	2162 Sep 14 05:20	21°♊28'25	8°42'28		2165 Feb 16 19:10	0°✕	
min. Earth dist.	2162 Sep 14 20:53	21°♊04'22	0.28397 AU		2165 Mar 12 19:06	0°♊	
morning rise	2162 Sep 17 10:06	19°♊30'45		evening rise	2165 Mar 22 15:38	12°♊16'10	
direct	2162 Oct 05 12:28	13°♊19'30			2165 Apr 05 22:50	0°☿	
greatest brilliancy	2162 Oct 20 01:50	17°♊06'00	-4.6m	asc. node	2165 Apr 24 04:20	22°☿28'19	
asc. node	2162 Nov 07 09:02	29°♊34'57			2165 Apr 30 07:38	0°♊	
	2162 Nov 07 20:57	0°♊			2165 May 24 22:33	0°☿	
morning max el	2162 Nov 24 22:16	15°♊57'56	46°42'49		2165 Jun 18 21:11	0°♊	
	2162 Dec 08 05:52	0°♊			2165 Jul 14 06:59	0°♊	
	2163 Jan 03 15:13	0°♊			2165 Aug 09 11:29	0°♊	
	2163 Jan 28 19:02	0°☿		desc. node	2165 Aug 13 17:33	4°♊44'51	
	2163 Feb 22 11:09	0°≈			2165 Sep 06 05:32	0°♊	
desc. node	2163 Feb 26 22:36	5°≈28'33		evening max el	2165 Sep 17 00:46	10°♊49'14	46°22'06
	2163 Mar 18 22:38	0°✕			2165 Oct 09 01:04	0°♊	
	2163 Apr 12 08:48	0°♊		greatest brilliancy	2165 Oct 25 18:40	9°♊42'45	-4.6m
	2163 May 06 19:13	0°☿		retrograde	2165 Nov 05 15:26	11°♊52'09	
morning set	2163 May 30 08:16	28°☿52'52		evening set	2165 Nov 20 08:06	7°♊38'15	

inferior conj	2165 Nov 26 04:47	4°♊12'47	-2°-13'-24	max. Earth dist.	2168 Apr 28 03:27	9°♋17'14	1.72929 AU
minimum elong	2165 Nov 26 09:48	4°♊05'11	2°11'51		2168 May 14 22:28	0°♌	
min. Earth dist.	2165 Nov 26 14:18	3°♊58'20	0.26608 AU	asc. node	2168 May 21 16:09	8°♌17'22	
morning rise	2165 Dec 02 11:10	0°♊34'22		evening rise	2168 Jun 01 17:05	21°♌51'15	
	2165 Dec 03 13:52	30°♌			2168 Jun 08 08:21	0°♍	
asc. node	2165 Dec 04 20:48	29°♌22'47			2168 Jul 02 20:28	0°♎	
direct	2165 Dec 16 18:11	26°♌31'18			2168 Jul 27 11:12	0°♏	
greatest brilliancy	2165 Dec 29 11:05	29°♌32'29	-4.7m		2168 Aug 21 06:00	0°♐	
	2165 Dec 30 10:54	0°♊		desc. node	2168 Sep 10 05:30	23°♐57'26	
morning max el	2166 Feb 05 09:41	29°♊48'01	46°55'10		2168 Sep 15 07:17	0°♑	
	2166 Feb 05 14:25	0°♋			2168 Oct 10 18:49	0°♒	
	2166 Mar 05 09:47	0°♌			2168 Nov 06 01:44	0°♓	
desc. node	2166 Mar 26 10:29	24°♌09'03		evening max el	2168 Nov 28 23:17	24°♓29'10	47°16'09
	2166 Mar 31 10:33	0°♍			2168 Dec 04 12:18	0°♈	
	2166 Apr 25 19:08	0°♎		asc. node	2169 Jan 01 08:52	22°♈35'24	
	2166 May 20 20:19	0°♏		greatest brilliancy	2169 Jan 06 09:42	25°♈09'55	-4.7m
	2166 Jun 14 17:13	0°♐		retrograde	2169 Jan 18 20:20	28°♈04'40	
	2166 Jul 09 10:15	0°♑		evening set	2169 Feb 04 10:13	22°♈41'03	
asc. node	2166 Jul 17 13:51	9°♑56'32		min. Earth dist.	2169 Feb 07 18:15	20°♈39'23	0.27113 AU
	2166 Aug 02 22:47	0°♒		inferior conj	2169 Feb 08 14:28	20°♈07'57	7°57'46
morning set	2166 Aug 06 01:47	3°♒50'26		minimum elong	2169 Feb 08 05:56	20°♈21'13	7°56'33
	2166 Aug 27 06:38	0°♓		morning rise	2169 Feb 12 01:56	18°♈00'07	
max. Earth dist.	2166 Sep 08 04:19	14°♓45'21	1.72623 AU	direct	2169 Mar 01 02:52	12°♈22'16	
				greatest brilliancy	2169 Mar 11 19:34	14°♈29'22	-4.6m
superior conj	2166 Sep 11 14:27	19°♓00'18	1°24'53		2169 Apr 04 17:39	0°♉	
minimum elong	2166 Sep 11 14:35	19°♓00'42	1°24'54	morning max el	2169 Apr 19 16:51	13°♉43'18	46°17'27
	2166 Sep 20 10:41	0°♐		desc. node	2169 Apr 22 22:11	16°♉54'17	
	2166 Oct 14 12:26	0°♑			2169 May 05 15:20	0°♊	
evening rise	2166 Oct 19 07:51	6°♑00'02			2169 Jun 01 22:33	0°♋	
desc. node	2166 Nov 06 03:15	28°♑13'52			2169 Jun 28 00:45	0°♌	
	2166 Nov 07 13:16	0°♒			2169 Jul 23 11:18	0°♍	
	2166 Dec 01 14:07	0°♓		asc. node	2169 Aug 14 01:41	25°♍56'10	
	2166 Dec 25 16:03	0°♈			2169 Aug 17 10:11	0°♎	
	2167 Jan 18 21:24	0°♉			2169 Sep 10 23:10	0°♏	
	2167 Feb 12 10:48	0°♊			2169 Oct 05 04:25	0°♐	
asc. node	2167 Feb 27 06:31	17°♊45'20		morning set	2169 Oct 14 12:13	11°♐37'37	
	2167 Mar 09 16:31	0°♋			2169 Oct 29 04:40	0°♑	
	2167 Apr 05 07:10	0°♌		max. Earth dist.	2169 Nov 20 23:42	28°♑36'12	1.71291 AU
evening max el	2167 Apr 24 07:00	19°♌36'18	45°42'28		2169 Nov 22 02:23	0°♒	
	2167 May 05 12:28	0°♍					
greatest brilliancy	2167 May 28 15:25	16°♍13'12	-4.5m	superior conj	2169 Nov 22 12:21	0°♒31'22	0°26'13
retrograde	2167 Jun 12 03:29	19°♍53'33		minimum elong	2169 Nov 22 18:45	0°♒51'26	0°25'55
desc. node	2167 Jun 18 19:51	19°♍00'41		desc. node	2169 Dec 03 15:07	14°♒29'31	
evening set	2167 Jun 27 08:04	15°♍27'24			2169 Dec 15 23:11	0°♓	
inferior conj	2167 Jul 03 15:31	11°♍39'50	-3°-24'-3	evening rise	2170 Jan 02 15:59	22°♓14'54	
minimum elong	2167 Jul 03 08:31	11°♍50'49	3°22'10		2170 Jan 08 20:08	0°♈	
min. Earth dist.	2167 Jul 03 12:21	11°♍44'48	0.28986 AU		2170 Feb 01 18:33	0°♉	
morning rise	2167 Jul 09 09:02	8°♍11'35			2170 Feb 25 20:39	0°♊	
direct	2167 Jul 25 07:18	3°♍22'56			2170 Mar 22 05:27	0°♋	
greatest brilliancy	2167 Aug 07 23:35	6°♍38'44	-4.5m	asc. node	2170 Mar 26 18:26	5°♋32'21	
	2167 Sep 08 14:24	0°♎			2170 Apr 16 00:44	0°♌	
morning max el	2167 Sep 12 07:33	3°♎32'30	45°58'08		2170 May 11 12:03	0°♍	
	2167 Oct 07 15:55	0°♏			2170 Jun 07 03:06	0°♎	
asc. node	2167 Oct 09 23:20	2°♏33'45		evening max el	2170 Jul 03 21:03	27°♎35'01	45°27'08
	2167 Nov 02 19:59	0°♐			2170 Jul 06 10:23	0°♏	
	2167 Nov 27 18:52	0°♑		desc. node	2170 Jul 16 07:50	8°♏49'34	
	2167 Dec 22 03:51	0°♒		greatest brilliancy	2170 Aug 09 13:25	24°♏41'45	-4.5m
	2168 Jan 15 06:41	0°♓		retrograde	2170 Aug 21 13:20	27°♏14'42	
desc. node	2168 Jan 29 12:49	17°♓47'22		evening set	2170 Sep 08 14:23	21°♏11'53	
	2168 Feb 08 07:27	0°♈		inferior conj	2170 Sep 11 19:29	19°♏14'22	-8°-42'-23
	2168 Mar 03 08:16	0°♉		minimum elong	2170 Sep 11 19:27	19°♏14'25	8°42'25
morning set	2168 Mar 17 06:07	17°♉20'09		min. Earth dist.	2170 Sep 12 10:39	18°♏50'57	0.28448 AU
	2168 Mar 27 10:30	0°♊		morning rise	2170 Sep 15 00:20	17°♏16'43	
	2168 Apr 20 15:07	0°♋		direct	2170 Oct 03 04:17	11°♏03'31	
				greatest brilliancy	2170 Oct 17 18:15	14°♏51'12	-4.6m
superior conj	2168 Apr 25 01:46	5°♋29'41	0°-57'-52	asc. node	2170 Nov 06 11:00	28°♏30'40	
minimum elong	2168 Apr 25 11:44	6°♋00'26	0°57'32		2170 Nov 08 04:14	0°♌	

morning max el	2170 Nov 22 13:55	13° Ω 40'18	46°41'32		2173 Jun 18 09:13	0° Ω	
	2170 Dec 08 00:04	0° \mathbb{M}			2173 Jul 13 20:07	0° \mathbb{M}	
	2171 Jan 03 06:02	0° \mathcal{A}			2173 Aug 09 02:43	0° Ω	
	2171 Jan 28 08:20	0° \mathcal{C}		desc. node	2173 Aug 12 19:33	4° Ω 06'51	
	2171 Feb 21 23:37	0° \approx			2173 Sep 06 01:50	0° \mathbb{M}	
desc. node	2171 Feb 26 00:35	4° \approx 56'46		evening max el	2173 Sep 14 14:22	8° \mathbb{M} 28'30	46°19'33
	2171 Mar 18 10:33	0° \mathcal{H}			2173 Oct 09 22:47	0° \mathcal{A}	
	2171 Apr 11 20:19	0° \mathcal{Y}		greatest brilliancy	2173 Oct 23 08:28	7° \mathcal{A} 17'53	-4.6m
	2171 May 06 06:25	0° \mathcal{B}		retrograde	2173 Nov 03 03:03	9° \mathcal{A} 24'55	
morning set	2171 May 28 01:29	26° \mathcal{B} 44'41		evening set	2173 Nov 17 22:29	5° \mathcal{A} 08'39	
	2171 May 30 17:09	0° \mathbb{I}		inferior conj	2173 Nov 23 17:07	1° \mathcal{A} 45'45	-2°-36'-46
asc. node	2171 Jun 19 04:02	23° \mathbb{I} 52'21		minimum elong	2173 Nov 23 22:56	1° \mathcal{A} 36'55	2°35'00
	2171 Jun 24 03:49	0° \mathcal{C}		min. Earth dist.	2173 Nov 24 04:10	1° \mathcal{A} 28'57	0.26642 AU
max. Earth dist.	2171 Jul 02 15:48	10° \mathcal{C} 26'29	1.73581 AU		2173 Nov 26 15:14	30° \mathbb{R} \mathbb{M}	
				morning rise	2173 Nov 29 22:58	28° \mathbb{M} 07'32	
superior conj	2171 Jul 03 18:52	11° \mathcal{C} 49'40	0°33'52	asc. node	2173 Dec 03 22:58	26° \mathbb{M} 13'50	
minimum elong	2171 Jul 03 12:27	11° \mathcal{C} 29'58	0°33'34	direct	2173 Dec 14 06:59	24° \mathbb{M} 03'43	
	2171 Jul 18 13:29	0° Ω		greatest brilliancy	2173 Dec 27 01:42	27° \mathbb{M} 06'27	-4.7m
evening rise	2171 Aug 08 14:56	25° Ω 56'39			2174 Jan 01 14:08	0° \mathcal{A}	
	2171 Aug 11 21:53	0° \mathbb{M}		morning max el	2174 Feb 02 22:03	27° \mathcal{A} 20'09	46°55'50
	2171 Sep 05 05:44	0° Ω			2174 Feb 05 12:43	0° \mathcal{C}	
	2171 Sep 29 14:11	0° \mathbb{M}			2174 Mar 05 01:56	0° \approx	
desc. node	2171 Oct 08 17:22	11° \mathbb{M} 14'04		desc. node	2174 Mar 25 12:29	23° \approx 33'43	
	2171 Oct 24 00:16	0° \mathcal{A}			2174 Mar 31 00:17	0° \mathcal{H}	
	2171 Nov 17 13:09	0° \mathcal{C}			2174 Apr 25 07:36	0° \mathcal{Y}	
	2171 Dec 12 07:55	0° \approx			2174 May 20 08:01	0° \mathcal{B}	
	2172 Jan 06 16:55	0° \mathcal{H}			2174 Jun 14 04:26	0° \mathbb{I}	
asc. node	2172 Jan 29 20:38	25° \mathcal{H} 59'16			2174 Jul 08 21:09	0° \mathcal{C}	
	2172 Feb 02 14:51	0° \mathcal{Y}		asc. node	2174 Jul 16 15:53	9° \mathcal{C} 29'40	
evening max el	2172 Feb 09 20:25	7° \mathcal{Y} 29'05	46°49'47		2174 Aug 02 09:31	0° Ω	
	2172 Mar 06 05:08	0° \mathcal{B}		morning set	2174 Aug 03 19:21	1° Ω 43'55	
greatest brilliancy	2172 Mar 17 00:17	6° \mathcal{B} 34'24	-4.6m		2174 Aug 26 17:20	0° \mathbb{M}	
retrograde	2172 Mar 31 06:27	10° \mathcal{B} 15'06		max. Earth dist.	2174 Sep 05 19:53	12° \mathbb{M} 31'33	1.72674 AU
evening set	2172 Apr 16 21:44	4° \mathcal{B} 49'41					
inferior conj	2172 Apr 21 11:17	2° \mathcal{B} 00'48	6°14'19	superior conj	2174 Sep 09 07:22	16° \mathbb{M} 50'34	1°24'50
minimum elong	2172 Apr 21 21:11	1° \mathcal{B} 45'12	6°12'15	minimum elong	2174 Sep 09 06:46	16° \mathbb{M} 48'44	1°24'51
min. Earth dist.	2172 Apr 21 09:46	2° \mathcal{B} 03'11	0.28447 AU		2174 Sep 19 21:26	0° Ω	
	2172 Apr 24 17:03	30° \mathbb{R} \mathcal{Y}			2174 Oct 13 23:19	0° \mathbb{M}	
morning rise	2172 Apr 26 21:00	28° \mathcal{Y} 43'33		evening rise	2174 Oct 16 21:42	3° \mathbb{M} 39'28	
direct	2172 May 12 16:44	23° \mathcal{Y} 51'51		desc. node	2174 Nov 05 05:20	27° \mathbb{M} 45'52	
desc. node	2172 May 20 09:56	24° \mathcal{Y} 58'33			2174 Nov 07 00:20	0° \mathcal{A}	
greatest brilliancy	2172 May 24 19:26	26° \mathcal{Y} 29'44	-4.5m		2174 Dec 01 01:25	0° \mathcal{C}	
	2172 May 31 20:13	0° \mathcal{B}			2174 Dec 25 03:38	0° \approx	
morning max el	2172 Jun 30 14:00	23° \mathcal{B} 50'18	45°44'47		2175 Jan 18 09:20	0° \mathcal{H}	
	2172 Jul 06 21:45	0° \mathbb{I}			2175 Feb 11 23:20	0° \mathcal{Y}	
	2172 Aug 04 06:44	0° \mathcal{C}		asc. node	2175 Feb 26 08:30	17° \mathcal{Y} 12'09	
	2172 Aug 30 15:07	0° Ω			2175 Mar 09 06:19	0° \mathcal{B}	
asc. node	2172 Sep 10 13:28	12° Ω 50'57			2175 Apr 05 00:01	0° \mathbb{I}	
	2172 Sep 24 21:46	0° \mathbb{M}		evening max el	2175 Apr 21 21:41	17° \mathbb{I} 22'23	45°44'06
	2172 Oct 19 12:05	0° Ω			2175 May 05 16:59	0° \mathcal{C}	
	2172 Nov 12 16:23	0° \mathbb{M}		greatest brilliancy	2175 May 26 06:59	14° \mathcal{C} 03'55	-4.5m
	2172 Dec 06 15:21	0° \mathcal{A}		retrograde	2175 Jun 09 19:31	17° \mathcal{C} 45'46	
morning set	2172 Dec 27 21:12	26° \mathcal{A} 42'09		desc. node	2175 Jun 17 21:59	16° \mathcal{C} 27'54	
	2172 Dec 30 12:08	0° \mathcal{C}		evening set	2175 Jun 24 23:37	13° \mathcal{C} 20'37	
desc. node	2172 Dec 31 02:58	0° \mathcal{C} 46'39		inferior conj	2175 Jul 01 08:02	9° \mathcal{C} 31'56	-3°-5'-48
	2173 Jan 23 08:37	0° \approx		minimum elong	2175 Jul 01 01:35	9° \mathcal{C} 42'04	3°04'01
				min. Earth dist.	2175 Jul 01 05:15	9° \mathcal{C} 36'18	0.28981 AU
superior conj	2173 Feb 07 15:19	19° \approx 11'26	-1°-15'-41	morning rise	2175 Jul 07 03:30	6° \mathcal{C} 00'42	
minimum elong	2173 Feb 07 05:12	18° \approx 39'43	1°15'27	direct	2175 Jul 22 23:10	1° \mathcal{C} 14'59	
max. Earth dist.	2173 Feb 10 21:04	23° \approx 15'21	1.71388 AU	greatest brilliancy	2175 Aug 05 15:31	4° \mathcal{C} 30'06	-4.5m
	2173 Feb 16 06:08	0° \mathcal{H}			2175 Sep 08 13:25	0° Ω	
	2173 Mar 12 06:03	0° \mathcal{Y}		morning max el	2175 Sep 09 22:10	1° Ω 18'41	45°56'56
evening rise	2173 Mar 20 04:11	9° \mathcal{Y} 51'56			2175 Oct 07 07:42	0° \mathbb{M}	
	2173 Apr 05 09:50	0° \mathcal{B}		asc. node	2175 Oct 09 01:23	1° \mathbb{M} 56'10	
asc. node	2173 Apr 23 06:20	22° \mathcal{B} 00'28			2175 Nov 02 09:23	0° Ω	
	2173 Apr 29 18:46	0° \mathbb{I}			2175 Nov 27 07:13	0° \mathbb{M}	
	2173 May 24 09:59	0° \mathcal{C}			2175 Dec 21 15:37	0° \mathcal{A}	

	2176 Jan 14 18:07	0°☾		retrograde	2178 Aug 19 04:32	25°☾02'05	
desc. node	2176 Jan 28 14:43	17°☾18'08		evening set	2178 Sep 06 04:16	19°☾00'19	
	2176 Feb 07 18:38	0°≈		inferior conj	2178 Sep 09 10:37	17°☾00'44	-8°-41'-31
	2176 Mar 02 19:13	0°☿		minimum elong	2178 Sep 09 09:46	17°☾02'03	8°41'32
morning set	2176 Mar 14 18:44	14°☿56'14		min. Earth dist.	2178 Sep 10 00:21	16°☾39'30	0.28502 AU
	2176 Mar 26 21:15	0°☿		morning rise	2178 Sep 12 15:06	15°☾03'35	
	2176 Apr 20 01:44	0°♄		direct	2178 Sep 30 20:37	8°☾49'20	
				greatest brilliancy	2178 Oct 15 10:04	12°☾36'51	-4.6m
superior conj	2176 Apr 22 17:19	3°♄16'37	-1°00'-23	asc. node	2178 Nov 05 13:09	27°☾29'11	
minimum elong	2176 Apr 23 03:23	3°♄47'44	1°00'02		2178 Nov 08 09:00	0°♄	
max. Earth dist.	2176 Apr 25 20:35	7°♄09'12	1.72878 AU	morning max el	2178 Nov 20 05:40	11°♄23'48	46°40'04
	2176 May 14 09:02	0°♄			2178 Dec 07 17:38	0°♄	
asc. node	2176 May 20 18:17	7°♄51'30			2179 Jan 02 20:27	0°♄	
evening rise	2176 May 30 10:52	19°♄45'59			2179 Jan 27 21:18	0°☾	
	2176 Jun 07 18:59	0°☾			2179 Feb 21 11:44	0°≈	
	2176 Jul 02 07:17	0°♄		desc. node	2179 Feb 25 02:38	4°≈26'12	
	2176 Jul 26 22:23	0°☾			2179 Mar 17 22:07	0°☿	
	2176 Aug 20 17:47	0°♄			2179 Apr 11 07:30	0°☿	
desc. node	2176 Sep 09 07:28	23°♄26'03			2179 May 05 17:19	0°♄	
	2176 Sep 14 20:00	0°♄		morning set	2179 May 25 18:56	24°♄38'09	
	2176 Oct 10 09:05	0°♄			2179 May 30 03:50	0°♄	
	2176 Nov 05 19:00	0°☾		asc. node	2179 Jun 18 06:05	23°♄26'14	
evening max el	2176 Nov 26 12:17	22°☾02'55	47°15'25		2179 Jun 23 14:22	0°☾	
	2176 Dec 04 14:10	0°≈		max. Earth dist.	2179 Jun 30 15:10	8°☾38'26	1.73582 AU
asc. node	2176 Dec 31 10:51	20°≈59'44					
greatest brilliancy	2177 Jan 04 00:09	22°≈44'26	-4.7m	superior conj	2179 Jul 01 13:14	9°☾46'14	0°30'57
retrograde	2177 Jan 16 09:40	25°≈38'32		minimum elong	2179 Jul 01 07:17	9°☾27'56	0°30'41
evening set	2177 Feb 01 19:23	20°≈20'58			2179 Jul 18 00:00	0°♄	
min. Earth dist.	2177 Feb 05 07:21	18°≈13'57	0.27060 AU	evening rise	2179 Aug 06 09:43	23°♄53'54	
inferior conj	2177 Feb 06 03:34	17°≈42'38	7°47'07		2179 Aug 11 08:31	0°☾	
minimum elong	2177 Feb 05 18:31	17°≈56'40	7°45'42		2179 Sep 04 16:37	0°♄	
morning rise	2177 Feb 09 17:54	15°≈30'52			2179 Sep 29 01:26	0°♄	
direct	2177 Feb 26 15:07	9°≈57'28		desc. node	2179 Oct 07 19:31	10°♄45'35	
greatest brilliancy	2177 Mar 09 09:27	12°≈06'22	-4.6m		2179 Oct 23 12:01	0°♄	
	2177 Apr 05 00:52	0°☿			2179 Nov 17 01:34	0°☾	
morning max el	2177 Apr 17 06:41	11°☿23'39	46°19'17		2179 Dec 11 21:20	0°≈	
desc. node	2177 Apr 22 00:14	16°☿05'38			2180 Jan 06 08:11	0°☿	
	2177 May 05 09:14	0°☿		asc. node	2180 Jan 28 22:38	25°☿14'15	
	2177 Jun 01 12:43	0°♄			2180 Feb 02 10:38	0°☿	
	2177 Jun 27 13:14	0°♄		evening max el	2180 Feb 07 12:13	5°☿12'51	46°51'55
	2177 Jul 22 22:54	0°☾			2180 Mar 07 03:07	0°♄	
asc. node	2177 Aug 13 03:37	25°☾28'19		greatest brilliancy	2180 Mar 14 18:12	4°♄22'39	-4.6m
	2177 Aug 16 21:16	0°♄		retrograde	2180 Mar 28 22:33	8°♄00'49	
	2177 Sep 10 10:00	0°☾		evening set	2180 Apr 14 16:20	2°♄31'28	
	2177 Oct 04 15:10	0°♄			2180 Apr 18 18:27	30°☿☿	
morning set	2177 Oct 12 03:10	9°♄20'54		inferior conj	2180 Apr 19 02:50	29°☿46'47	6°28'57
	2177 Oct 28 15:26	0°♄		minimum elong	2180 Apr 19 12:44	29°☿31'11	6°26'57
max. Earth dist.	2177 Nov 18 11:13	26°♄07'37	1.71322 AU	min. Earth dist.	2180 Apr 19 00:39	29°☿50'13	0.28414 AU
				morning rise	2180 Apr 24 09:32	26°☿33'48	
superior conj	2177 Nov 19 23:57	28°♄03'01	0°29'50	direct	2180 May 10 08:24	21°☿38'38	
minimum elong	2177 Nov 20 07:05	28°♄25'25	0°29'30	desc. node	2180 May 19 12:05	23°☿11'32	
	2177 Nov 21 13:12	0°♄		greatest brilliancy	2180 May 22 07:42	24°☿13'31	-4.5m
desc. node	2177 Dec 02 17:15	14°♄02'09			2180 Jun 02 01:32	0°♄	
	2177 Dec 15 10:04	0°☾		morning max el	2180 Jun 28 05:30	21°♄39'12	45°45'14
evening rise	2177 Dec 31 02:08	19°☾41'44			2180 Jul 06 17:37	0°♄	
	2178 Jan 08 07:05	0°≈			2180 Aug 03 21:29	0°☾	
	2178 Feb 01 05:37	0°☿			2180 Aug 30 03:53	0°♄	
	2178 Feb 25 07:53	0°☿		asc. node	2180 Sep 09 15:36	12°♄20'49	
	2178 Mar 21 16:59	0°♄			2180 Sep 24 09:35	0°☾	
asc. node	2178 Mar 25 20:29	5°♄03'18			2180 Oct 18 23:28	0°♄	
	2178 Apr 15 12:49	0°♄			2180 Nov 12 03:33	0°♄	
	2178 May 11 01:16	0°☾			2180 Dec 06 02:25	0°♄	
	2178 Jun 06 18:54	0°♄		morning set	2180 Dec 25 07:24	24°♄08'35	
evening max el	2178 Jul 01 12:48	25°♄24'53	45°26'30		2180 Dec 29 23:10	0°☾	
	2178 Jul 06 10:21	0°☾		desc. node	2180 Dec 30 04:57	0°☾18'12	
desc. node	2178 Jul 15 09:47	7°☾50'26			2181 Jan 22 19:37	0°≈	
greatest brilliancy	2178 Aug 07 00:41	22°☾25'49	-4.5m				

superior conj	2181 Feb 05 01:28	16° \approx 38'15	-1°-13'-42	morning rise	2183 Jul 04 21:50	3° \approx 49'10	
minimum elong	2181 Feb 04 14:48	16° \approx 04'44	1°13'26		2183 Jul 13 20:28	30° \approx 00'00	
max. Earth dist.	2181 Feb 08 05:59	20° \approx 38'21	1.71348 AU	direct	2183 Jul 20 14:54	29° \approx 05'55	
	2181 Feb 15 17:05	0° \approx			2183 Jul 27 15:13	0° \approx	
	2181 Mar 11 16:59	0° \approx		greatest brilliancy	2183 Aug 03 08:06	2° \approx 21'34	-4.5m
evening rise	2181 Mar 17 16:09	7° \approx 25'52		morning max el	2183 Sep 07 13:35	29° \approx 06'20	45°55'54
	2181 Apr 04 20:47	0° \approx			2183 Sep 08 11:45	0° \approx	
asc. node	2181 Apr 22 08:29	21° \approx 33'09			2183 Oct 06 23:25	0° \approx	
	2181 Apr 29 05:51	0° \approx		asc. node	2183 Oct 08 03:28	1° \approx 18'29	
	2181 May 23 21:24	0° \approx			2183 Nov 01 22:51	0° \approx	
	2181 Jun 17 21:15	0° \approx			2183 Nov 26 19:38	0° \approx	
	2181 Jul 13 09:14	0° \approx			2183 Dec 21 03:30	0° \approx	
	2181 Aug 08 18:02	0° \approx			2184 Jan 14 05:41	0° \approx	
desc. node	2181 Aug 11 21:36	3° \approx 29'03		desc. node	2184 Jan 27 16:48	16° \approx 48'55	
	2181 Sep 05 22:34	0° \approx			2184 Feb 07 05:59	0° \approx	
evening max el	2181 Sep 12 03:08	6° \approx 06'28	46°17'04		2184 Mar 02 06:25	0° \approx	
	2181 Oct 11 03:57	0° \approx		morning set	2184 Mar 12 06:58	12° \approx 30'05	
greatest brilliancy	2181 Oct 20 22:29	4° \approx 54'19	-4.6m		2184 Mar 26 08:19	0° \approx	
retrograde	2181 Oct 31 14:34	6° \approx 59'09			2184 Apr 19 12:42	0° \approx	
evening set	2181 Nov 15 13:13	2° \approx 39'53					
	2181 Nov 20 03:24	30° \approx		superior conj	2184 Apr 20 08:20	1° \approx 00'44	-1°-2'-49
inferior conj	2181 Nov 21 05:44	29° \approx 19'56	-2°-59'-36	minimum elong	2184 Apr 20 18:27	1° \approx 32'00	1°02'29
minimum elong	2181 Nov 21 12:17	29° \approx 09'56	2°57'36	max. Earth dist.	2184 Apr 23 11:42	4° \approx 53'45	1.72831 AU
min. Earth dist.	2181 Nov 21 18:26	29° \approx 00'34	0.26686 AU		2184 May 13 19:59	0° \approx	
morning rise	2181 Nov 27 10:49	25° \approx 42'13		asc. node	2184 May 19 20:15	7° \approx 23'55	
asc. node	2181 Dec 03 00:58	23° \approx 11'17		evening rise	2184 May 28 04:08	17° \approx 38'02	
direct	2181 Dec 11 19:38	21° \approx 36'55			2184 Jun 07 05:59	0° \approx	
greatest brilliancy	2181 Dec 24 17:35	24° \approx 42'30	-4.7m		2184 Jul 01 18:28	0° \approx	
	2182 Jan 02 23:58	0° \approx			2184 Jul 26 09:54	0° \approx	
morning max el	2182 Jan 31 10:21	24° \approx 51'35	46°56'15		2184 Aug 20 05:55	0° \approx	
	2182 Feb 05 10:19	0° \approx		desc. node	2184 Sep 08 09:36	22° \approx 54'11	
	2182 Mar 04 18:01	0° \approx			2184 Sep 14 09:06	0° \approx	
desc. node	2182 Mar 24 14:37	22° \approx 58'27			2184 Oct 09 23:48	0° \approx	
	2182 Mar 30 14:05	0° \approx			2184 Nov 05 12:54	0° \approx	
	2182 Apr 24 20:10	0° \approx		evening max el	2184 Nov 24 02:20	19° \approx 39'01	47°14'48
	2182 May 19 19:48	0° \approx			2184 Dec 04 17:41	0° \approx	
	2182 Jun 13 15:42	0° \approx		asc. node	2184 Dec 30 12:49	19° \approx 20'27	
	2182 Jul 08 08:07	0° \approx		greatest brilliancy	2185 Jan 01 14:01	20° \approx 18'15	-4.7m
asc. node	2182 Jul 15 17:49	9° \approx 02'18		retrograde	2185 Jan 13 23:46	23° \approx 12'32	
morning set	2182 Aug 01 13:04	29° \approx 37'43		evening set	2185 Jan 30 04:47	18° \approx 00'49	
	2182 Aug 01 20:20	0° \approx		min. Earth dist.	2185 Feb 02 20:18	15° \approx 48'57	0.27010 AU
	2182 Aug 26 04:06	0° \approx		inferior conj	2185 Feb 03 16:50	15° \approx 17'13	7°35'28
max. Earth dist.	2182 Sep 03 13:34	10° \approx 24'08	1.72722 AU	minimum elong	2185 Feb 03 07:21	15° \approx 31'53	7°33'53
				morning rise	2185 Feb 07 10:13	13° \approx 01'24	
superior conj	2182 Sep 07 00:43	14° \approx 42'05	1°24'40	direct	2185 Feb 24 04:07	7° \approx 32'42	
minimum elong	2182 Sep 06 23:25	14° \approx 38'01	1°24'39	greatest brilliancy	2185 Mar 06 22:39	9° \approx 42'23	-4.6m
	2182 Sep 19 08:14	0° \approx			2185 Apr 05 06:12	0° \approx	
	2182 Oct 13 10:14	0° \approx		morning max el	2185 Apr 14 21:20	9° \approx 05'07	46°20'46
evening rise	2182 Oct 14 12:16	1° \approx 21'07		desc. node	2185 Apr 21 02:22	15° \approx 17'12	
desc. node	2182 Nov 04 07:27	27° \approx 17'50			2185 May 05 03:07	0° \approx	
	2182 Nov 06 11:27	0° \approx			2185 Jun 01 03:12	0° \approx	
	2182 Nov 30 12:48	0° \approx			2185 Jun 27 02:07	0° \approx	
	2182 Dec 24 15:19	0° \approx			2185 Jul 22 10:54	0° \approx	
	2183 Jan 17 21:28	0° \approx		asc. node	2185 Aug 12 05:46	24° \approx 59'57	
	2183 Feb 11 12:11	0° \approx			2185 Aug 16 08:45	0° \approx	
asc. node	2183 Feb 25 10:34	16° \approx 38'14			2185 Sep 09 21:12	0° \approx	
	2183 Mar 08 20:34	0° \approx			2185 Oct 04 02:15	0° \approx	
	2183 Apr 04 17:38	0° \approx		morning set	2185 Oct 09 18:14	7° \approx 03'37	
evening max el	2183 Apr 19 12:06	15° \approx 06'47	45°45'59		2185 Oct 28 02:32	0° \approx	
	2183 May 06 00:07	0° \approx		max. Earth dist.	2185 Nov 15 21:44	23° \approx 34'56	1.71352 AU
greatest brilliancy	2183 May 23 21:45	11° \approx 52'33	-4.5m				
retrograde	2183 Jun 07 11:56	15° \approx 37'05		superior conj	2185 Nov 17 11:51	25° \approx 34'39	0°33'23
desc. node	2183 Jun 16 23:55	13° \approx 49'48		minimum elong	2185 Nov 17 19:39	25° \approx 35'07	0°33'01
evening set	2183 Jun 22 15:16	11° \approx 12'28			2185 Nov 21 00:21	0° \approx	
inferior conj	2183 Jun 29 00:28	7° \approx 23'00	-2°-47'-11	desc. node	2185 Dec 01 19:12	13° \approx 33'13	
minimum elong	2183 Jun 28 18:35	7° \approx 32'13	2°45'33		2185 Dec 14 21:16	0° \approx	
min. Earth dist.	2183 Jun 28 21:56	7° \approx 26'59	0.28973 AU	evening rise	2185 Dec 28 12:35	17° \approx 08'28	

	2186 Jan 07 18:20	0°♊			2188 Aug 03 12:23	0°♋		
	2186 Jan 31 16:57	0°♋			2188 Aug 29 16:55	0°♌		
	2186 Feb 24 19:24	0°♌	asc. node		2188 Sep 08 17:40	11°♌49'32		
	2186 Mar 21 04:51	0°♍			2188 Sep 23 21:44	0°♍		
asc. node	2186 Mar 24 22:36	4°♍33'26			2188 Oct 18 11:09	0°♎		
	2186 Apr 15 01:19	0°♎			2188 Nov 11 14:59	0°♏		
	2186 May 10 15:03	0°♏			2188 Dec 05 13:43	0°♐		
	2186 Jun 06 11:32	0°♐	morning set		2188 Dec 22 17:34	21°♐34'14		
evening max el	2186 Jun 29 04:45	23°♐13'40	45°25'52	desc. node	2188 Dec 29 06:59	29°♐49'16		
	2186 Jul 06 12:18	0°♑			2188 Dec 29 10:24	0°♑		
desc. node	2186 Jul 14 11:52	6°♑48'35			2189 Jan 22 06:49	0°♒		
greatest brilliancy	2186 Aug 04 13:16	20°♑09'52	-4.5m					
retrograde	2186 Aug 16 19:23	22°♑47'50		superior conj	2189 Feb 02 11:37	14°♒04'21	-1°-11'-33	
evening set	2186 Sep 03 17:49	16°♑48'03		minimum elong	2189 Feb 02 00:29	13°♒29'23	1°11'16	
inferior conj	2186 Sep 07 01:43	14°♑45'50	-8°-39'-52	max. Earth dist.	2189 Feb 05 11:52	17°♒51'07	1.71311 AU	
minimum elong	2186 Sep 07 00:03	14°♑48'24	8°39'50		2189 Feb 15 04:16	0°♓		
min. Earth dist.	2186 Sep 07 14:13	14°♑26'28	0.28549 AU		2189 Mar 11 04:07	0°♓		
morning rise	2186 Sep 10 06:10	12°♑48'32		evening rise	2189 Mar 15 04:04	4°♓58'53		
direct	2186 Sep 28 12:44	6°♑34'05			2189 Apr 04 07:56	0°♔		
greatest brilliancy	2186 Oct 13 00:30	10°♑19'35	-4.6m	asc. node	2189 Apr 21 10:28	21°♔04'42		
asc. node	2186 Nov 04 15:11	26°♑27'47			2189 Apr 28 17:08	0°♕		
	2186 Nov 08 12:30	0°♕			2189 May 23 09:00	0°♖		
morning max el	2186 Nov 17 20:33	9°♕04'12	46°38'34		2189 Jun 17 09:29	0°♗		
	2186 Dec 07 11:11	0°♖			2189 Jul 12 22:41	0°♘		
	2187 Jan 02 11:03	0°♘			2189 Aug 08 09:51	0°♙		
	2187 Jan 27 10:30	0°♚		desc. node	2189 Aug 10 23:42	2°♙50'13		
	2187 Feb 21 00:06	0°♊			2189 Sep 05 20:27	0°♚		
desc. node	2187 Feb 24 04:45	3°♊55'02		evening max el	2189 Sep 09 15:17	3°♚42'08	46°14'32	
	2187 Mar 17 09:56	0°♋			2189 Oct 12 22:55	0°♛		
	2187 Apr 10 18:55	0°♌		greatest brilliancy	2189 Oct 18 12:08	2°♛29'17	-4.6m	
	2187 May 05 04:28	0°♍		retrograde	2189 Oct 29 02:15	4°♛32'35		
morning set	2187 May 23 12:24	22°♛30'43		evening set	2189 Nov 13 03:59	0°♛09'45		
	2187 May 29 14:49	0°♎			2189 Nov 13 11:09	30°♛		
asc. node	2187 Jun 17 08:04	22°♛58'50		inferior conj	2189 Nov 18 18:14	26°♛53'11	-3°-22'-1	
	2187 Jun 23 01:16	0°♏		minimum elong	2189 Nov 19 01:30	26°♛42'07	3°19'51	
max. Earth dist.	2187 Jun 28 12:59	6°♏44'31	1.73586 AU	min. Earth dist.	2189 Nov 19 08:38	26°♛31'15	0.26732 AU	
				morning rise	2189 Nov 24 22:23	23°♛16'31		
superior conj	2187 Jun 29 07:27	7°♏41'15	0°27'59	asc. node	2189 Dec 02 02:56	20°♛13'12		
minimum elong	2187 Jun 29 02:00	7°♏24'28	0°27'44	direct	2189 Dec 09 07:59	19°♛09'04		
	2187 Jul 17 10:56	0°♐		greatest brilliancy	2189 Dec 22 09:53	22°♛18'31	-4.7m	
evening rise	2187 Aug 04 04:13	21°♐49'05			2190 Jan 04 00:32	0°♛		
	2187 Aug 10 19:34	0°♑		morning max el	2190 Jan 28 23:16	22°♛24'08	46°56'45	
	2187 Sep 04 03:54	0°♒			2190 Feb 05 07:19	0°♜		
	2187 Sep 28 13:04	0°♓			2190 Mar 04 09:55	0°♝		
desc. node	2187 Oct 06 21:33	10°♓15'37		desc. node	2190 Mar 23 16:38	22°♝22'54		
	2187 Oct 23 00:07	0°♔			2190 Mar 30 03:51	0°♞		
	2187 Nov 16 14:21	0°♕			2190 Apr 24 08:44	0°♟		
	2187 Dec 11 11:11	0°♖			2190 May 19 07:37	0°♠		
	2188 Jan 05 23:58	0°♗			2190 Jun 13 03:02	0°♡		
asc. node	2188 Jan 28 00:48	24°♗28'13			2190 Jul 07 19:08	0°♢		
	2188 Feb 02 07:23	0°♘		asc. node	2190 Jul 14 20:01	8°♢35'33		
evening max el	2188 Feb 05 03:25	2°♘54'01	46°54'00	morning set	2190 Jul 30 06:59	27°♢31'54		
	2188 Mar 08 10:13	0°♙			2190 Aug 01 07:11	0°♣		
greatest brilliancy	2188 Mar 12 12:52	2°♙11'01	-4.6m		2190 Aug 25 14:56	0°♤		
retrograde	2188 Mar 26 14:18	5°♙45'50		max. Earth dist.	2190 Sep 01 09:05	8°♤22'11	1.72775 AU	
evening set	2188 Apr 12 10:59	0°♚						
	2188 Apr 12 19:29	30°♚		superior conj	2190 Sep 04 18:06	12°♚33'22	1°24'21	
inferior conj	2188 Apr 16 18:28	27°♚32'16	6°42'48	minimum elong	2190 Sep 04 16:05	12°♚27'07	1°24'21	
minimum elong	2188 Apr 17 04:17	27°♚16'47	6°40'56		2190 Sep 18 19:09	0°♛		
min. Earth dist.	2188 Apr 16 15:49	27°♚36'27	0.28380 AU	evening rise	2190 Oct 12 02:45	29°♛02'11		
morning rise	2188 Apr 21 21:58	24°♚23'36			2190 Oct 12 21:18	0°♜		
direct	2188 May 07 23:42	19°♚24'58		desc. node	2190 Nov 03 09:24	26°♜48'49		
desc. node	2188 May 18 13:59	21°♚27'43			2190 Nov 05 22:43	0°♞		
greatest brilliancy	2188 May 19 20:08	21°♚56'51	-4.5m		2190 Nov 30 00:19	0°♟		
	2188 Jun 02 23:04	0°♛			2190 Dec 24 03:08	0°♠		
morning max el	2188 Jun 25 20:09	19°♛25'14	45°45'36		2191 Jan 17 09:41	0°♡		
	2188 Jul 06 13:10	0°♢			2191 Feb 11 01:08	0°♢		

asc. node	2191 Feb 24 12:38	16° Υ 04'05		2193 Sep 09 08:04	0° \mathfrak{M}	
	2191 Mar 08 10:59	0° \mathfrak{B}		2193 Oct 03 13:02	0° \mathfrak{L}	
	2191 Apr 04 11:38	0° Π	morning set	2193 Oct 07 09:44	4° \mathfrak{L} 48'45	
evening max el	2191 Apr 17 03:19	12° Π 53'16	45°47'57	2193 Oct 27 13:19	0° \mathfrak{M}	
	2191 May 06 09:52	0° \mathfrak{E}	max. Earth dist.	2193 Nov 13 07:09	20° \mathfrak{M} 59'51	1.71387 AU
greatest brilliancy	2191 May 21 12:18	9° \mathfrak{E} 41'11	-4.5m			
retrograde	2191 Jun 05 04:53	13° \mathfrak{E} 28'46		superior conj	2193 Nov 15 00:09	23° \mathfrak{M} 08'33 0°36'49
desc. node	2191 Jun 16 02:01	11° \mathfrak{E} 07'47		minimum elong	2193 Nov 15 08:31	23° \mathfrak{M} 34'49 0°36'26
evening set	2191 Jun 20 07:09	9° \mathfrak{E} 04'26			2193 Nov 20 11:12	0° \mathfrak{J}
inferior conj	2191 Jun 26 16:56	5° \mathfrak{E} 14'20	-2°-28'-21	desc. node	2193 Nov 30 21:18	13° \mathfrak{J} 05'36
minimum elong	2191 Jun 26 11:39	5° \mathfrak{E} 22'37	2°26'52		2193 Dec 14 08:13	0° \mathfrak{E}
min. Earth dist.	2191 Jun 26 14:21	5° \mathfrak{E} 18'23	0.28965 AU	evening rise	2193 Dec 25 22:55	14° \mathfrak{E} 35'33
morning rise	2191 Jul 02 16:08	1° \mathfrak{E} 38'15			2194 Jan 07 05:23	0° \approx
	2191 Jul 05 19:52	30° \mathfrak{R} Π			2194 Jan 31 04:08	0° \mathfrak{K}
direct	2191 Jul 18 07:01	26° Π 57'15			2194 Feb 24 06:46	0° Υ
	2191 Jul 31 12:19	0° \mathfrak{E}			2194 Mar 20 16:31	0° \mathfrak{B}
greatest brilliancy	2191 Aug 01 00:28	0° \mathfrak{E} 13'22	-4.5m	asc. node	2194 Mar 24 00:33	4° \mathfrak{B} 03'39
morning max el	2191 Sep 05 05:54	26° \mathfrak{E} 56'42	45°54'49		2194 Apr 14 13:37	0° Π
	2191 Sep 08 09:05	0° \mathfrak{Q}			2194 May 10 04:38	0° \mathfrak{E}
	2191 Oct 06 14:49	0° \mathfrak{M}			2194 Jun 06 04:07	0° \mathfrak{Q}
asc. node	2191 Oct 07 05:29	0° \mathfrak{M} 41'13		evening max el	2194 Jun 26 20:24	21° \mathfrak{Q} 02'47 45°25'18
	2191 Nov 01 12:11	0° \mathfrak{L}			2194 Jul 06 15:12	0° \mathfrak{M}
	2191 Nov 26 08:02	0° \mathfrak{M}		desc. node	2194 Jul 13 14:00	5° \mathfrak{M} 46'34
	2191 Dec 20 15:24	0° \mathfrak{J}		greatest brilliancy	2194 Aug 02 02:48	17° \mathfrak{M} 56'28 -4.5m
	2192 Jan 13 17:16	0° \mathfrak{E}		retrograde	2194 Aug 14 09:59	20° \mathfrak{M} 35'26
desc. node	2192 Jan 26 18:59	16° \mathfrak{E} 20'05		evening set	2194 Sep 01 07:15	14° \mathfrak{M} 38'18
	2192 Feb 06 17:19	0° \approx		inferior conj	2194 Sep 04 17:03	12° \mathfrak{M} 32'59 -8°-37'-23
	2192 Mar 01 17:31	0° \mathfrak{K}		minimum elong	2194 Sep 04 14:36	12° \mathfrak{M} 36'48 8°37'20
morning set	2192 Mar 09 18:55	10° \mathfrak{K} 03'16		min. Earth dist.	2194 Sep 05 04:40	12° \mathfrak{M} 14'56 0.28591 AU
	2192 Mar 25 19:15	0° Υ		morning rise	2194 Sep 07 21:48	10° \mathfrak{M} 34'57
				direct	2194 Sep 26 04:36	4° \mathfrak{M} 20'52
superior conj	2192 Apr 17 23:14	28° Υ 44'48	-1°-5'-9	greatest brilliancy	2194 Oct 10 14:49	8° \mathfrak{M} 03'50 -4.6m
minimum elong	2192 Apr 18 09:21	29° Υ 16'06	1°04'51	asc. node	2194 Nov 03 17:10	25° \mathfrak{M} 29'11
	2192 Apr 18 23:32	0° \mathfrak{B}			2194 Nov 08 13:53	0° \mathfrak{L}
max. Earth dist.	2192 Apr 21 03:46	2° \mathfrak{B} 41'35	1.72782 AU	morning max el	2194 Nov 15 10:38	6° \mathfrak{L} 44'06 46°37'06
	2192 May 13 06:48	0° Π			2194 Dec 07 03:53	0° \mathfrak{M}
asc. node	2192 May 18 22:19	6° Π 57'01			2195 Jan 02 01:03	0° \mathfrak{J}
evening rise	2192 May 25 21:30	15° Π 30'47			2195 Jan 26 23:14	0° \mathfrak{E}
	2192 Jun 06 16:51	0° \mathfrak{E}			2195 Feb 20 12:06	0° \approx
	2192 Jul 01 05:29	0° \mathfrak{Q}		desc. node	2195 Feb 23 06:44	3° \approx 24'31
	2192 Jul 25 21:16	0° \mathfrak{M}			2195 Mar 16 21:27	0° \mathfrak{K}
	2192 Aug 19 17:54	0° \mathfrak{L}			2195 Apr 10 06:05	0° Υ
desc. node	2192 Sep 07 11:38	22° \mathfrak{L} 22'29			2195 May 04 15:20	0° \mathfrak{B}
	2192 Sep 13 22:05	0° \mathfrak{M}		morning set	2195 May 21 05:35	20° \mathfrak{B} 23'18
	2192 Oct 09 14:31	0° \mathfrak{J}			2195 May 29 01:28	0° Π
	2192 Nov 05 07:06	0° \mathfrak{E}		asc. node	2195 Jun 16 10:13	22° Π 33'02
evening max el	2192 Nov 21 17:08	17° \mathfrak{E} 17'13	47°13'48		2195 Jun 22 11:48	0° \mathfrak{E}
	2192 Dec 04 23:03	0° \approx		max. Earth dist.	2195 Jun 26 09:47	4° \mathfrak{E} 48'36 1.73585 AU
asc. node	2192 Dec 29 15:00	17° \approx 37'01				
greatest brilliancy	2192 Dec 30 03:54	17° \approx 51'26	-4.7m	superior conj	2195 Jun 27 01:36	5° \mathfrak{E} 37'09 0°24'59
retrograde	2193 Jan 11 13:44	20° \approx 45'11		minimum elong	2195 Jun 26 20:40	5° \mathfrak{E} 22'00 0°24'45
evening set	2193 Jan 27 13:50	15° \approx 39'37			2195 Jul 16 21:29	0° \mathfrak{Q}
min. Earth dist.	2193 Jan 31 08:51	13° \approx 22'50	0.26956 AU	evening rise	2195 Aug 01 22:51	19° \mathfrak{Q} 45'51
inferior conj	2193 Feb 01 05:43	12° \approx 50'38	7°22'49		2195 Aug 10 06:16	0° \mathfrak{M}
minimum elong	2193 Jan 31 19:51	13° \approx 05'51	7°21'03		2195 Sep 03 14:50	0° \mathfrak{L}
morning rise	2193 Feb 05 02:14	10° \approx 30'35			2195 Sep 28 00:21	0° \mathfrak{M}
direct	2193 Feb 21 17:08	5° \approx 07'02		desc. node	2195 Oct 05 23:32	9° \mathfrak{M} 46'38
greatest brilliancy	2193 Mar 04 10:43	7° \approx 16'29	-4.6m		2195 Oct 22 11:52	0° \mathfrak{J}
	2193 Apr 05 09:37	0° \mathfrak{K}			2195 Nov 16 02:47	0° \mathfrak{E}
morning max el	2193 Apr 12 11:42	6° \mathfrak{K} 46'09	46°22'22		2195 Dec 11 00:41	0° \approx
desc. node	2193 Apr 20 04:21	14° \mathfrak{K} 29'35			2196 Jan 05 15:33	0° \mathfrak{K}
	2193 May 04 20:24	0° Υ		asc. node	2196 Jan 27 02:47	23° \mathfrak{K} 42'15
	2193 May 31 17:15	0° \mathfrak{B}			2196 Feb 02 04:24	0° Υ
	2193 Jun 26 14:38	0° Π		evening max el	2196 Feb 02 17:34	0° Υ 33'29 46°55'48
	2193 Jul 21 22:33	0° \mathfrak{E}			2196 Mar 10 07:49	0° \mathfrak{B}
asc. node	2193 Aug 11 07:49	24° \mathfrak{E} 32'12		greatest brilliancy	2196 Mar 10 07:04	29° Υ 59'06 -4.6m
	2193 Aug 15 19:54	0° \mathfrak{Q}		retrograde	2196 Mar 24 05:36	3° \mathfrak{B} 31'08

	2196 Apr 06 11:13	30° \mathbb{R} \mathbb{Y}		superior conj	2198 Sep 02 11:23	10° \mathbb{M} 25'16	1°23'56
evening set	2196 Apr 10 05:28	27° \mathbb{Y} 54'10		minimum elong	2198 Sep 02 08:42	10° \mathbb{M} 16'56	1°23'55
inferior conj	2196 Apr 14 09:58	25° \mathbb{Y} 18'05	6°56'09		2198 Sep 18 05:47	0° \mathbb{L}	
minimum elong	2196 Apr 14 19:37	25° \mathbb{Y} 02'50	6°54'24	evening rise	2198 Oct 09 17:21	26° \mathbb{L} 44'34	
min. Earth dist.	2196 Apr 14 07:11	25° \mathbb{Y} 22'29	0.28348 AU		2198 Oct 12 08:06	0° \mathbb{M}	
morning rise	2196 Apr 19 10:07	22° \mathbb{Y} 13'57		desc. node	2198 Nov 02 11:30	26° \mathbb{M} 21'00	
direct	2196 May 05 14:17	17° \mathbb{Y} 11'23			2198 Nov 05 09:46	0° \mathbb{X}	
greatest brilliancy	2196 May 17 09:32	19° \mathbb{Y} 41'32	-4.5m		2198 Nov 29 11:38	0° \mathbb{Z}	
desc. node	2196 May 17 16:06	19° \mathbb{Y} 48'13			2198 Dec 23 14:46	0° \approx	
	2196 Jun 03 14:47	0° \mathbb{B}			2199 Jan 16 21:44	0° \mathbb{H}	
morning max el	2196 Jun 23 10:25	17° \mathbb{B} 10'57	45°46'13		2199 Feb 10 13:55	0° \mathbb{Y}	
	2196 Jul 06 07:51	0° \mathbb{I}		asc. node	2199 Feb 23 14:39	15° \mathbb{Y} 30'19	
	2196 Aug 03 02:42	0° \mathbb{G}			2199 Mar 08 01:17	0° \mathbb{B}	
	2196 Aug 29 05:29	0° \mathbb{Q}			2199 Apr 04 05:46	0° \mathbb{I}	
asc. node	2196 Sep 07 19:38	11° \mathbb{Q} 19'19		evening max el	2199 Apr 14 19:21	10° \mathbb{I} 42'32	45°49'54
	2196 Sep 23 09:26	0° \mathbb{M}			2199 May 06 22:37	0° \mathbb{G}	
	2196 Oct 17 22:25	0° \mathbb{L}		greatest brilliancy	2199 May 19 03:17	7° \mathbb{G} 31'07	-4.5m
	2196 Nov 11 02:01	0° \mathbb{M}		retrograde	2199 Jun 02 22:01	11° \mathbb{G} 20'50	
	2196 Dec 05 00:38	0° \mathbb{X}		desc. node	2199 Jun 15 04:07	8° \mathbb{G} 22'19	
morning set	2196 Dec 20 04:11	19° \mathbb{X} 02'28		evening set	2199 Jun 17 23:14	6° \mathbb{G} 56'45	
desc. node	2196 Dec 28 09:09	29° \mathbb{X} 21'57		inferior conj	2199 Jun 24 09:22	3° \mathbb{G} 06'02	-2°-9'-19
	2196 Dec 28 21:15	0° \mathbb{Z}		minimum elong	2199 Jun 24 04:43	3° \mathbb{G} 13'19	2°08'00
	2197 Jan 21 17:37	0° \approx		min. Earth dist.	2199 Jun 24 06:34	3° \mathbb{G} 10'25	0.28956 AU
					2199 Jun 29 11:35	30° \mathbb{R} \mathbb{I}	
superior conj	2197 Jan 30 22:06	11° \approx 32'44	-1°-9'-17	morning rise	2199 Jun 30 10:17	29° \mathbb{I} 27'52	
minimum elong	2197 Jan 30 10:35	10° \approx 56'36	1°08'57	direct	2199 Jul 15 23:37	24° \mathbb{I} 49'01	
max. Earth dist.	2197 Feb 02 16:02	14° \approx 59'46	1.71276 AU	greatest brilliancy	2199 Jul 29 16:05	28° \mathbb{I} 04'39	-4.5m
	2197 Feb 14 15:02	0° \mathbb{H}			2199 Aug 02 13:26	0° \mathbb{G}	
	2197 Mar 10 14:53	0° \mathbb{Y}		morning max el	2199 Sep 02 22:46	24° \mathbb{G} 48'53	45°53'44
evening rise	2197 Mar 12 16:08	2° \mathbb{Y} 33'25			2199 Sep 08 05:33	0° \mathbb{Q}	
	2197 Apr 03 18:46	0° \mathbb{B}		asc. node	2199 Oct 06 07:33	0° \mathbb{M} 04'49	
asc. node	2197 Apr 20 12:30	20° \mathbb{B} 37'23			2199 Oct 06 05:51	0° \mathbb{M}	
	2197 Apr 28 04:07	0° \mathbb{I}			2199 Nov 01 01:15	0° \mathbb{L}	
	2197 May 22 20:21	0° \mathbb{G}			2199 Nov 25 20:11	0° \mathbb{M}	
	2197 Jun 16 21:29	0° \mathbb{Q}			2199 Dec 20 03:06	0° \mathbb{X}	
	2197 Jul 12 11:54	0° \mathbb{M}			2200 Jan 13 04:41	0° \mathbb{Z}	
	2197 Aug 08 01:33	0° \mathbb{L}		desc. node	2200 Jan 25 20:51	15° \mathbb{Z} 50'42	
desc. node	2197 Aug 10 01:43	2° \mathbb{L} 11'52			2200 Feb 06 04:30	0° \approx	
	2197 Sep 05 18:44	0° \mathbb{M}			2200 Mar 02 04:31	0° \mathbb{H}	
evening max el	2197 Sep 07 03:37	1° \mathbb{M} 19'43	46°12'10	morning set	2200 Mar 08 06:50	7° \mathbb{H} 36'29	
	2197 Oct 15 19:44	0° \mathbb{X}			2200 Mar 26 06:06	0° \mathbb{Y}	
greatest brilliancy	2197 Oct 16 00:50	0° \mathbb{X} 04'46	-4.6m				
retrograde	2197 Oct 26 14:25	2° \mathbb{X} 07'48		superior conj	2200 Apr 16 14:07	26° \mathbb{Y} 28'56	-1°-7'-24
	2197 Nov 05 22:36	30° \mathbb{R} \mathbb{M}		minimum elong	2200 Apr 17 00:09	27° \mathbb{Y} 00'03	1°07'06
evening set	2197 Nov 10 18:59	27° \mathbb{M} 40'49			2200 Apr 19 10:17	0° \mathbb{B}	
inferior conj	2197 Nov 16 06:51	24° \mathbb{M} 27'50	-3°-43'-51	max. Earth dist.	2200 Apr 19 21:32	0° \mathbb{B} 34'47	1.72732 AU
minimum elong	2197 Nov 16 14:46	24° \mathbb{M} 15'47	3°41'33		2200 May 13 17:31	0° \mathbb{I}	
min. Earth dist.	2197 Nov 16 22:40	24° \mathbb{M} 03'46	0.26783 AU	asc. node	2200 May 19 00:27	6° \mathbb{I} 30'38	
morning rise	2197 Nov 22 09:51	20° \mathbb{M} 52'46		evening rise	2200 May 24 14:53	13° \mathbb{I} 23'51	
asc. node	2197 Dec 01 05:09	17° \mathbb{M} 22'10			2200 Jun 07 03:38	0° \mathbb{G}	
direct	2197 Dec 06 20:56	16° \mathbb{M} 42'26			2200 Jul 01 16:28	0° \mathbb{Q}	
greatest brilliancy	2197 Dec 20 02:25	19° \mathbb{M} 56'09	-4.7m		2200 Jul 26 08:40	0° \mathbb{M}	
	2198 Jan 04 18:10	0° \mathbb{X}			2200 Aug 20 05:56	0° \mathbb{L}	
morning max el	2198 Jan 26 13:22	20° \mathbb{X} 00'48	46°57'18	desc. node	2200 Sep 07 13:36	21° \mathbb{L} 50'25	
	2198 Feb 05 03:14	0° \mathbb{Z}			2200 Sep 14 11:11	0° \mathbb{M}	
	2198 Mar 04 01:13	0° \approx			2200 Oct 10 05:25	0° \mathbb{X}	
desc. node	2198 Mar 22 18:38	21° \approx 48'39			2200 Nov 06 01:44	0° \mathbb{Z}	
	2198 Mar 29 17:08	0° \mathbb{H}		evening max el	2200 Nov 20 08:16	14° \mathbb{Z} 56'20	47°12'44
	2198 Apr 23 20:53	0° \mathbb{Y}			2200 Dec 06 06:35	0° \approx	
	2198 May 18 19:05	0° \mathbb{B}		greatest brilliancy	2200 Dec 28 18:20	15° \approx 25'17	-4.7m
	2198 Jun 12 14:04	0° \mathbb{I}		asc. node	2200 Dec 29 17:00	15° \approx 49'16	
	2198 Jul 07 05:54	0° \mathbb{G}		retrograde	2201 Jan 10 03:25	18° \approx 17'20	
asc. node	2198 Jul 13 22:02	8° \mathbb{G} 08'59		evening set	2201 Jan 25 22:57	13° \approx 18'05	
morning set	2198 Jul 28 00:48	25° \mathbb{G} 26'32		min. Earth dist.	2201 Jan 29 21:34	10° \approx 56'00	0.26905 AU
	2198 Jul 31 17:49	0° \mathbb{Q}		inferior conj	2201 Jan 30 18:31	10° \approx 23'39	7°09'18
	2198 Aug 25 01:31	0° \mathbb{M}		minimum elong	2201 Jan 30 08:22	10° \approx 39'19	7°07'21
max. Earth dist.	2198 Aug 30 05:21	6° \mathbb{M} 23'24	1.72821 AU	morning rise	2201 Feb 03 18:14	7° \approx 59'05	

direct	2201 Feb 20 06:09	2° 41 '04		desc. node	2203 Oct 06 01:40	9° 17 '02	
greatest brilliancy	2201 Mar 02 22:36	4° 49 '46	-4.6m		2203 Oct 23 00:02	0° 2 '	
	2201 Apr 06 11:40	0° 1 '			2203 Nov 16 15:42	0° 3 '	
morning max el	2201 Apr 11 01:30	4° 1 '25'23	46°23'58		2203 Dec 11 14:47	0° 4 '	
desc. node	2201 Apr 20 06:25	13° 1 '42'41			2204 Jan 06 07:53	0° 1 '	
	2201 May 05 13:25	0° 1 '		asc. node	2204 Jan 27 04:47	22° 1 '54'14	
	2201 Jun 01 07:15	0° 1 '		evening max el	2204 Feb 01 07:04	28° 1 '09'46	46°57'47
	2201 Jun 27 03:09	0° 1 '			2204 Feb 03 02:46	0° 1 '	
	2201 Jul 22 10:15	0° 1 '		greatest brilliancy	2204 Mar 09 00:05	27° 1 '44'03	-4.6m
asc. node	2201 Aug 11 09:46	24° 1 '03'55			2204 Mar 14 19:05	0° 1 '	
	2201 Aug 16 07:08	0° 1 '		retrograde	2204 Mar 22 20:47	1° 1 '14'56	
	2201 Sep 09 19:05	0° 1 '			2204 Mar 30 16:14	30° 1 ' 1 '	
	2201 Oct 03 23:59	0° 1 '		evening set	2204 Apr 08 23:47	25° 1 '33'45	
morning set	2201 Oct 06 01:06	2° 1 '32'56		inferior conj	2204 Apr 13 01:21	23° 1 '02'14	7°08'58
	2201 Oct 28 00:17	0° 1 '		minimum elong	2204 Apr 13 10:47	22° 1 '47'20	7°07'20
max. Earth dist.	2201 Nov 11 13:35	18° 1 '14'58	1.71421 AU	min. Earth dist.	2204 Apr 12 22:27	23° 1 '06'49	0.28315 AU
				morning rise	2204 Apr 17 22:02	20° 1 '02'57	
superior conj	2201 Nov 13 12:27	20° 1 '41'59	0°40'10	direct	2204 May 04 04:26	14° 1 '55'55	
minimum elong	2201 Nov 13 21:20	21° 1 '09'51	0°39'47	greatest brilliancy	2204 May 15 23:36	17° 1 '25'32	-4.5m
	2201 Nov 20 22:14	0° 1 '		desc. node	2204 May 17 18:13	18° 1 '10'54	
desc. node	2201 Nov 30 23:23	12° 1 ' 1 '37'26			2204 Jun 05 03:06	0° 1 '	
	2201 Dec 14 19:19	0° 1 '		morning max el	2204 Jun 22 01:08	14° 1 ' 1 '56'25	45°46'56
evening rise	2201 Dec 24 09:07	12° 1 ' 1 '01'48			2204 Jul 07 02:29	0° 1 '	
	2202 Jan 07 16:35	0° 1 '			2204 Aug 03 17:17	0° 1 '	
	2202 Jan 31 15:28	0° 1 '			2204 Aug 29 18:20	0° 1 '	
	2202 Feb 24 18:19	0° 1 '		asc. node	2204 Sep 07 21:45	10° 1 ' 1 '48'33	
	2202 Mar 21 04:26	0° 1 '			2204 Sep 23 21:27	0° 1 '	
asc. node	2202 Mar 24 02:38	3° 1 ' 1 '33'34			2204 Oct 18 10:00	0° 1 '	
	2202 Apr 15 02:12	0° 1 '			2204 Nov 11 13:24	0° 1 '	
	2202 May 10 18:33	0° 1 '			2204 Dec 05 11:56	0° 1 '	
	2202 Jun 06 21:14	0° 1 '		morning set	2204 Dec 18 14:38	16° 1 ' 1 '28'52	
evening max el	2202 Jun 25 11:13	18° 1 ' 1 '49'22	45°24'49	desc. node	2204 Dec 28 11:05	28° 1 ' 1 '52'35	
	2202 Jul 07 20:07	0° 1 '			2204 Dec 29 08:31	0° 1 '	
desc. node	2202 Jul 13 15:56	4° 1 ' 1 '42'08			2205 Jan 22 04:52	0° 1 '	
greatest brilliancy	2202 Jul 31 16:04	15° 1 ' 1 '42'15	-4.5m				
retrograde	2202 Aug 13 00:15	18° 1 ' 1 '22'46		superior conj	2205 Jan 29 07:58	8° 1 ' 1 '57'43	-1°-6'-49
evening set	2202 Aug 30 20:23	12° 1 ' 1 '28'34		minimum elong	2205 Jan 28 20:10	8° 1 ' 1 '20'39	1°06'27
inferior conj	2202 Sep 03 08:27	10° 1 ' 1 '19'46	-8°-34'-11	max. Earth dist.	2205 Jan 31 18:30	12° 1 ' 1 '01'31	1.71247 AU
minimum elong	2202 Sep 03 05:11	10° 1 ' 1 '24'51	8°34'03		2205 Feb 15 02:15	0° 1 '	
min. Earth dist.	2202 Sep 03 19:27	10° 1 ' 1 '02'40	0.28635 AU	evening rise	2205 Mar 11 03:36	0° 1 '04'43	
morning rise	2202 Sep 06 13:49	8° 1 ' 1 '20'33			2205 Mar 11 02:05	0° 1 '	
direct	2202 Sep 24 20:04	2° 1 ' 1 '07'03			2205 Apr 04 06:00	0° 1 '	
greatest brilliancy	2202 Oct 09 05:59	5° 1 ' 1 '48'31	-4.6m	asc. node	2205 Apr 20 14:37	20° 1 ' 1 '09'01	
asc. node	2202 Nov 03 19:20	24° 1 ' 1 '31'20			2205 Apr 28 15:33	0° 1 '	
	2202 Nov 09 14:25	0° 1 '			2205 May 23 08:09	0° 1 '	
morning max el	2202 Nov 14 00:20	4° 1 ' 1 '22'01	46°35'35		2205 Jun 17 09:59	0° 1 '	
	2202 Dec 07 20:40	0° 1 '			2205 Jul 13 01:40	0° 1 '	
	2203 Jan 02 15:17	0° 1 '			2205 Aug 08 17:57	0° 1 '	
	2203 Jan 27 12:12	0° 1 '		desc. node	2205 Aug 10 03:45	1° 1 ' 1 '32'04	
desc. node	2203 Feb 21 00:21	0° 1 '		evening max el	2205 Sep 05 16:53	28° 1 ' 1 '58'47	46°09'57
	2203 Feb 23 08:47	2° 1 ' 1 '53'23			2205 Sep 06 18:24	0° 1 '	
	2203 Mar 17 09:13	0° 1 '		greatest brilliancy	2205 Oct 14 12:20	27° 1 ' 1 '38'30	-4.6m
	2203 Apr 10 17:30	0° 1 '		retrograde	2205 Oct 25 03:04	29° 1 ' 1 '42'27	
	2203 May 05 02:30	0° 1 '		evening set	2205 Nov 09 10:09	25° 1 ' 1 '11'11	
morning set	2203 May 19 22:35	18° 1 ' 1 '14'18		inferior conj	2205 Nov 14 19:29	22° 1 ' 1 '01'44	-4°-5'-8
	2203 May 29 12:26	0° 1 '		minimum elong	2205 Nov 15 04:00	21° 1 ' 1 '48'49	4°02'44
asc. node	2203 Jun 16 12:13	22° 1 ' 1 '05'44		min. Earth dist.	2205 Nov 15 12:16	21° 1 ' 1 '36'15	0.26838 AU
	2203 Jun 22 22:40	0° 1 '		morning rise	2205 Nov 20 21:10	18° 1 ' 1 '28'45	
max. Earth dist.	2203 Jun 25 05:22	2° 1 ' 1 '54'7'58	1.73580 AU	asc. node	2205 Dec 01 07:05	14° 1 ' 1 '36'39	
				direct	2205 Dec 05 10:34	14° 1 ' 1 '15'17	
superior conj	2203 Jun 25 19:44	3° 1 ' 1 '32'07	0°21'57	greatest brilliancy	2205 Dec 18 18:20	17° 1 ' 1 '32'18	-4.7m
minimum elong	2203 Jun 25 15:21	3° 1 ' 1 '18'38	0°21'44		2206 Jan 06 07:48	0° 1 '	
	2203 Jul 17 08:21	0° 1 '		morning max el	2206 Jan 25 04:14	17° 1 ' 1 ' 1 '38'12	46°57'31
evening rise	2203 Jul 31 17:36	17° 1 ' 1 ' 1 '42'10			2206 Feb 05 23:03	0° 1 '	
	2203 Aug 10 17:15	0° 1 '			2206 Mar 04 16:47	0° 1 '	
	2203 Sep 04 02:05	0° 1 '		desc. node	2206 Mar 22 20:45	21° 1 ' 1 '13'25	
	2203 Sep 28 11:58	0° 1 '			2206 Mar 30 06:47	0° 1 '	

	2206 Apr 24 09:27	0° Υ		evening max el	2208 Nov 17 23:09	12° ☾ 34'30	47°11'36
	2206 May 19 06:57	0° ♄			2208 Dec 06 16:52	0° \approx	
	2206 Jun 13 01:29	0° ♁		greatest brilliancy	2208 Dec 26 09:45	13° \approx 00'23	-4.7m
	2206 Jul 07 17:02	0° ☿		asc. node	2208 Dec 28 18:58	13° \approx 57'23	
asc. node	2206 Jul 13 23:58	7° ☿ 41'05		retrograde	2209 Jan 07 16:48	15° \approx 49'35	
morning set	2206 Jul 26 18:32	23° ☿ 19'55		evening set	2209 Jan 23 08:19	10° \approx 56'46	
	2206 Aug 01 04:49	0° ♁		min. Earth dist.	2209 Jan 27 10:49	8° \approx 29'03	0.26851 AU
	2206 Aug 25 12:29	0° ♁		inferior conj	2209 Jan 28 07:27	7° \approx 57'10	6°54'58
max. Earth dist.	2206 Aug 29 00:35	4° ♁ 20'19	1.72864 AU	minimum elong	2209 Jan 27 21:07	8° \approx 13'09	6°52'52
				morning rise	2209 Feb 01 10:21	5° \approx 27'54	
superior conj	2206 Sep 01 04:47	8° ♁ 16'23	1°23'23	direct	2209 Feb 17 18:55	0° \approx 15'38	
minimum elong	2206 Sep 01 01:27	8° ♁ 06'02	1°23'21	greatest brilliancy	2209 Feb 28 11:15	2° \approx 24'03	-4.6m
	2206 Sep 18 16:48	0° ♁			2209 Apr 06 12:19	0° ♁	
evening rise	2206 Oct 08 08:15	24° ♁ 26'49		morning max el	2209 Apr 08 14:23	2° ♁ 02'13	46°25'25
	2206 Oct 12 19:15	0° ♁		desc. node	2209 Apr 19 08:32	12° ♁ 56'45	
desc. node	2206 Nov 02 13:35	25° ♁ 52'10			2209 May 05 06:08	0° Υ	
	2206 Nov 05 21:07	0° ♁			2209 May 31 21:10	0° ♄	
	2206 Nov 29 23:14	0° ☿			2209 Jun 26 15:40	0° ♁	
	2206 Dec 24 02:41	0° \approx			2209 Jul 21 21:57	0° ☿	
	2207 Jan 17 10:09	0° ♁		asc. node	2209 Aug 10 11:56	23° ☿ 36'08	
	2207 Feb 11 03:10	0° Υ			2209 Aug 15 18:22	0° ♁	
asc. node	2207 Feb 23 16:42	14° Υ 55'23			2209 Sep 09 06:06	0° ♁	
	2207 Mar 08 16:11	0° ♄			2209 Oct 03 10:56	0° ♁	
	2207 Apr 05 00:54	0° ♁		morning set	2209 Oct 03 16:24	0° ♁ 17'02	
evening max el	2207 Apr 13 12:00	8° ♁ 31'55	45°51'58		2209 Oct 27 11:15	0° ♁	
	2207 May 08 16:38	0° ☿		max. Earth dist.	2209 Nov 08 19:51	15° ♁ 29'36	1.71461 AU
greatest brilliancy	2207 May 17 19:29	5° ☿ 21'15	-4.5m				
retrograde	2207 Jun 01 14:57	9° ☿ 11'17		superior conj	2209 Nov 11 00:56	18° ♁ 16'05	0°43'26
desc. node	2207 Jun 15 06:01	5° ☿ 31'56		minimum elong	2209 Nov 11 10:16	18° ♁ 45'20	0°43'02
evening set	2207 Jun 16 15:27	4° ☿ 47'37			2209 Nov 20 09:16	0° ♁	
inferior conj	2207 Jun 23 01:43	0° ☿ 56'19	-1°-50'-1	desc. node	2209 Nov 30 01:21	12° ♁ 08'47	
minimum elong	2207 Jun 22 21:43	1° ☿ 02'34	1°48'52		2209 Dec 14 06:25	0° ☿	
min. Earth dist.	2207 Jun 22 22:39	1° ☿ 01'06	0.28944 AU	evening rise	2209 Dec 21 19:30	9° ☿ 28'41	
	2207 Jun 24 13:48	30° ♁			2210 Jan 07 03:45	0° \approx	
morning rise	2207 Jun 29 04:12	27° ♁ 16'06			2210 Jan 31 02:45	0° ♁	
direct	2207 Jul 14 16:23	22° ♁ 39'38			2210 Feb 24 05:46	0° Υ	
greatest brilliancy	2207 Jul 28 06:27	25° ♁ 53'14	-4.5m		2210 Mar 20 16:13	0° ♄	
	2207 Aug 04 22:43	0° ☿		asc. node	2210 Mar 23 04:44	3° ♄ 03'57	
morning max el	2207 Sep 01 15:07	22° ☿ 38'59	45°52'37		2210 Apr 14 14:40	0° ♁	
	2207 Sep 09 01:44	0° ♁			2210 May 10 08:29	0° ☿	
asc. node	2207 Oct 06 09:37	29° ♁ 27'51			2210 Jun 06 14:39	0° ♁	
	2207 Oct 06 20:59	0° ♁		evening max el	2210 Jun 23 01:30	16° ♁ 34'54	45°24'25
	2207 Nov 01 14:30	0° ♁			2210 Jul 08 03:04	0° ♁	
	2207 Nov 26 08:33	0° ♁		desc. node	2210 Jul 12 18:02	3° ♁ 36'36	
	2207 Dec 20 14:58	0° ♁		greatest brilliancy	2210 Jul 29 04:45	13° ♁ 27'43	-4.5m
	2208 Jan 13 16:15	0° ☿		retrograde	2210 Aug 10 14:48	16° ♁ 10'54	
desc. node	2208 Jan 25 22:57	15° ☿ 21'33		evening set	2210 Aug 28 09:20	10° ♁ 19'44	
	2208 Feb 06 15:50	0° \approx		inferior conj	2210 Aug 31 23:57	8° ♁ 07'15	-8°-30'-8
	2208 Mar 01 15:41	0° ♁		minimum elong	2210 Aug 31 19:56	8° ♁ 13'30	8°29'55
morning set	2208 Mar 05 18:41	5° ♁ 08'57		min. Earth dist.	2210 Sep 01 10:26	7° ♁ 50'57	0.28678 AU
	2208 Mar 25 17:10	0° Υ		morning rise	2210 Sep 04 06:20	6° ♁ 06'26	
					2210 Sep 20 04:34	30° ♁	
superior conj	2208 Apr 14 04:39	24° Υ 11'14	-1°-9'-33	direct	2210 Sep 22 11:26	29° ♁ 53'48	
minimum elong	2208 Apr 14 14:32	24° Υ 41'52	1°09'16		2210 Sep 24 18:53	0° ♁	
max. Earth dist.	2208 Apr 17 15:52	28° Υ 28'59	1.72683 AU	greatest brilliancy	2210 Oct 06 22:16	3° ♁ 35'22	-4.6m
	2208 Apr 18 21:16	0° ♄		asc. node	2210 Nov 02 21:19	23° ♁ 34'55	
	2208 May 13 04:28	0° ♁			2210 Nov 09 13:40	0° ♁	
asc. node	2208 May 18 02:24	6° ♁ 02'56		morning max el	2210 Nov 11 14:13	2° ♁ 01'03	46°34'05
evening rise	2208 May 22 07:47	11° ♁ 14'40			2210 Dec 07 12:58	0° ♁	
	2208 Jun 06 14:38	0° ☿			2211 Jan 02 05:11	0° ♁	
	2208 Jul 01 03:41	0° ♁			2211 Jan 27 00:56	0° ☿	
	2208 Jul 25 20:16	0° ♁			2211 Feb 20 12:22	0° \approx	
	2208 Aug 19 18:14	0° ♁		desc. node	2211 Feb 22 10:53	2° \approx 23'05	
desc. node	2208 Sep 06 15:44	21° ♁ 18'09			2211 Mar 16 20:44	0° ♁	
	2208 Sep 14 00:36	0° ♁			2211 Apr 10 04:39	0° Υ	
	2208 Oct 09 20:43	0° ♁			2211 May 04 13:21	0° ♄	
	2208 Nov 05 21:02	0° ☿		morning set	2211 May 17 15:46	16° ♄ 06'36	

	2211 May 28 23:07	0°♊		morning rise	2213 Nov 18 08:14	16°♌06'03	
asc. node	2211 Jun 15 14:13	21°♊39'16		asc. node	2213 Nov 30 09:05	11°♌58'08	
	2211 Jun 22 09:16	0°♋		direct	2213 Dec 03 00:33	11°♌49'28	
max. Earth dist.	2211 Jun 23 01:14	0°♋49'00	1.73581 AU	greatest brilliancy	2213 Dec 16 09:21	15°♌08'25	-4.7m
					2214 Jan 06 17:33	0°♌	
superior conj	2211 Jun 23 14:00	1°♋28'13	0°18'53	morning max el	2214 Jan 22 19:02	15°♌16'36	46°57'38
minimum elong	2211 Jun 23 10:11	1°♋16'29	0°18'42		2214 Feb 05 17:56	0°♍	
	2211 Jul 16 19:00	0°♌			2214 Mar 04 07:45	0°♍	
evening rise	2211 Jul 29 12:27	15°♌39'32		desc. node	2214 Mar 21 22:47	20°♍39'20	
	2211 Aug 10 04:03	0°♍			2214 Mar 29 19:57	0°♎	
	2211 Sep 03 13:07	0°♎			2214 Apr 23 21:34	0°♎	
	2211 Sep 27 23:23	0°♏			2214 May 18 18:24	0°♏	
desc. node	2211 Oct 05 03:41	8°♏47'44			2214 Jun 12 12:29	0°♐	
	2211 Oct 22 11:59	0°♐			2214 Jul 07 03:45	0°♑	
	2211 Nov 16 04:26	0°♑		asc. node	2214 Jul 13 02:10	7°♑15'12	
	2211 Dec 11 04:45	0°♒		morning set	2214 Jul 24 12:43	21°♑16'01	
	2212 Jan 06 00:12	0°♒			2214 Jul 31 15:22	0°♒	
asc. node	2212 Jan 26 06:57	22°♒06'44			2214 Aug 24 23:00	0°♓	
evening max el	2212 Jan 29 20:58	25°♒47'51	46°59'46	max. Earth dist.	2214 Aug 26 19:24	2°♓17'21	1.72908 AU
	2212 Feb 03 01:43	0°♓					
greatest brilliancy	2212 Mar 06 16:23	25°♓28'58	-4.6m	superior conj	2214 Aug 29 22:34	6°♓10'06	1°22'44
retrograde	2212 Mar 20 12:26	28°♓59'58		minimum elong	2214 Aug 29 18:36	5°♓57'48	1°22'41
evening set	2212 Apr 06 18:08	23°♓14'23			2214 Sep 18 03:25	0°♔	
inferior conj	2212 Apr 10 16:48	20°♓47'32	7°21'02	evening rise	2214 Oct 05 23:25	22°♔11'01	
minimum elong	2212 Apr 11 01:58	20°♓33'04	7°19'32		2214 Oct 12 06:04	0°♕	
min. Earth dist.	2212 Apr 10 13:33	20°♓52'39	0.28280 AU	desc. node	2214 Nov 01 15:33	25°♕24'00	
morning rise	2212 Apr 15 10:02	17°♓53'28			2214 Nov 05 08:10	0°♖	
direct	2212 May 01 18:47	12°♓41'37			2214 Nov 29 10:34	0°♖	
greatest brilliancy	2212 May 13 13:47	15°♓11'06	-4.5m		2214 Dec 23 14:21	0°♗	
desc. node	2212 May 16 20:07	16°♓38'10			2215 Jan 16 22:17	0°♗	
	2212 Jun 05 11:36	0°♘			2215 Feb 10 16:10	0°♘	
morning max el	2212 Jun 19 16:44	12°♘45'18	45°47'42	asc. node	2215 Feb 22 18:46	14°♘21'15	
	2212 Jul 06 20:11	0°♙			2215 Mar 08 06:57	0°♘	
	2212 Aug 03 07:16	0°♚			2215 Apr 04 20:12	0°♙	
	2212 Aug 29 06:47	0°♚		evening max el	2215 Apr 11 04:38	6°♙22'02	45°53'58
asc. node	2212 Sep 06 23:48	10°♚18'41			2215 May 09 16:29	0°♚	
	2212 Sep 23 09:07	0°♛		greatest brilliancy	2215 May 15 13:01	3°♚14'04	-4.5m
	2212 Oct 17 21:16	0°♛		retrograde	2215 May 30 07:34	7°♚02'46	
	2212 Nov 11 00:28	0°♜		evening set	2215 Jun 14 07:55	2°♚39'33	
	2212 Dec 04 22:54	0°♜		desc. node	2215 Jun 14 08:10	2°♚39'13	
morning set	2212 Dec 16 01:17	13°♜56'59			2215 Jun 18 19:58	30°♞♊	
desc. node	2212 Dec 27 13:09	28°♜24'41		inferior conj	2215 Jun 20 18:07	28°♞♊47'54	-1°-30'-31
	2212 Dec 28 19:27	0°♞		minimum elong	2215 Jun 20 14:49	28°♞♊53'04	1°29'34
	2213 Jan 21 15:47	0°♞		min. Earth dist.	2215 Jun 20 15:01	28°♞♊52'45	0.28926 AU
				morning rise	2215 Jun 26 21:59	25°♞♊05'38	
superior conj	2213 Jan 26 17:46	6°♞23'24	-1°-4'-12	direct	2215 Jul 12 09:03	20°♞♊31'40	
minimum elong	2213 Jan 26 05:47	5°♞45'45	1°03'49	greatest brilliancy	2215 Jul 25 20:03	23°♞♊42'06	-4.5m
max. Earth dist.	2213 Jan 28 23:56	9°♞13'35	1.71223 AU		2215 Aug 05 21:46	0°♞	
	2213 Feb 14 13:09	0°♟		morning max el	2215 Aug 30 06:37	20°♞28'25	45°51'37
evening rise	2213 Mar 08 15:06	27°♟37'04			2215 Sep 08 20:47	0°♟	
	2213 Mar 10 12:58	0°♠		asc. node	2215 Oct 05 11:37	28°♟52'18	
	2213 Apr 03 16:55	0°♠			2215 Oct 06 11:28	0°♠	
asc. node	2213 Apr 19 16:35	19°♠41'15			2215 Nov 01 03:17	0°♠	
	2213 Apr 28 02:37	0°♑			2215 Nov 25 20:33	0°♑	
	2213 May 22 19:34	0°♑			2215 Dec 20 02:33	0°♑	
	2213 Jun 16 22:05	0°♒			2216 Jan 13 03:34	0°♒	
	2213 Jul 12 15:05	0°♒		desc. node	2216 Jan 25 01:06	14°♒53'13	
	2213 Aug 08 10:11	0°♓			2216 Feb 06 02:57	0°♓	
desc. node	2213 Aug 09 05:52	0°♓53'17			2216 Mar 01 02:37	0°♓	
evening max el	2213 Sep 03 07:05	26°♓41'20	46°07'33	morning set	2216 Mar 03 06:02	2°♓40'31	
	2213 Sep 06 18:43	0°♔			2216 Mar 25 03:58	0°♔	
greatest brilliancy	2213 Oct 11 23:40	25°♔13'22	-4.6m				
retrograde	2213 Oct 22 15:55	27°♔18'06		superior conj	2216 Apr 11 18:52	21°♔53'15	-1°-11'-35
evening set	2213 Nov 07 01:33	22°♔42'43		minimum elong	2216 Apr 12 04:31	22°♔23'11	1°11'21
inferior conj	2213 Nov 12 08:09	19°♔36'43	-4°-25'-54	max. Earth dist.	2216 Apr 15 10:37	26°♔25'12	1.72630 AU
minimum elong	2213 Nov 12 17:11	19°♔23'00	4°23'25		2216 Apr 18 07:59	0°♕	
min. Earth dist.	2213 Nov 13 01:35	19°♔10'14	0.26895 AU		2216 May 12 15:10	0°♕	

asc. node	2216 May 17 04:27	5°II36'16		asc. node	2218 Nov 01 23:19	22°III39'55	
evening rise	2216 May 20 00:29	9°II05'29		morning max el	2218 Nov 09 04:52	29°III42'27	46°32'49
	2216 Jun 06 01:25	0°III			2218 Nov 09 11:52	0°III	
	2216 Jun 30 14:39	0°III			2218 Dec 07 04:53	0°III	
	2216 Jul 25 07:38	0°III			2219 Jan 01 18:53	0°III	
	2216 Aug 19 06:17	0°III			2219 Jan 26 13:33	0°III	
desc. node	2216 Sep 05 17:46	20°III46'30		desc. node	2219 Feb 20 00:20	0°III	
	2216 Sep 13 13:45	0°III			2219 Feb 21 12:52	1°III52'25	
	2216 Oct 09 11:51	0°III			2219 Mar 16 08:18	0°III	
	2216 Nov 05 16:34	0°III			2219 Apr 09 15:53	0°III	
evening max el	2216 Nov 15 12:56	10°III10'35	47°10'07		2219 May 04 00:21	0°III	
	2216 Dec 07 06:24	0°III		morning set	2219 May 15 08:25	13°III56'43	
greatest brilliancy	2216 Dec 24 01:23	10°III35'38	-4.7m		2219 May 28 09:55	0°III	
asc. node	2216 Dec 27 21:08	12°III01'04		asc. node	2219 Jun 14 16:21	21°III12'48	
retrograde	2217 Jan 05 05:17	13°III21'30					
evening set	2217 Jan 20 17:32	8°III34'53		superior conj	2219 Jun 21 07:49	29°III22'36	0°15'45
min. Earth dist.	2217 Jan 25 00:19	6°III01'07	0.26804 AU	minimum elong	2219 Jun 21 04:36	29°III12'42	0°15'36
inferior conj	2217 Jan 25 20:12	5°III30'23	6°39'31	behind sun begin	2219 Jun 21 00:47	29°III00'57	
minimum elong	2217 Jan 25 09:44	5°III46'34	6°37'17	behind sun end	2219 Jun 21 08:26	29°III24'28	
morning rise	2217 Jan 30 02:19	2°III56'18		max. Earth dist.	2219 Jun 20 21:55	28°III52'09	1.73578 AU
	2217 Feb 04 22:42	30°III			2219 Jun 21 20:00	0°III	
direct	2217 Feb 15 07:03	27°III49'35			2219 Jul 16 05:46	0°III	
greatest brilliancy	2217 Feb 26 01:04	29°III59'11	-4.6m	evening rise	2219 Jul 27 07:08	13°III36'07	
	2217 Feb 26 01:55	0°III			2219 Aug 09 14:59	0°III	
morning max el	2217 Apr 06 02:22	29°III36'43	46°26'59		2219 Sep 03 00:19	0°III	
	2217 Apr 06 11:48	0°III			2219 Sep 27 10:57	0°III	
desc. node	2217 Apr 18 10:30	12°III11'19		desc. node	2219 Oct 04 05:40	8°III18'00	
	2217 May 04 22:26	0°III			2219 Oct 22 00:05	0°III	
	2217 May 31 10:49	0°III			2219 Nov 15 17:18	0°III	
	2217 Jun 26 03:59	0°III			2219 Dec 10 18:51	0°III	
	2217 Jul 21 09:30	0°III			2220 Jan 05 16:48	0°III	
asc. node	2217 Aug 09 13:56	23°III08'20		asc. node	2220 Jan 25 08:55	21°III17'59	
	2217 Aug 15 05:28	0°III		evening max el	2220 Jan 27 11:32	23°III27'31	47°01'35
	2217 Sep 08 16:57	0°III			2220 Feb 03 01:44	0°III	
morning set	2217 Oct 01 08:12	28°III03'14		greatest brilliancy	2220 Mar 04 07:48	23°III12'10	-4.6m
	2217 Oct 02 21:42	0°III		retrograde	2220 Mar 18 04:21	26°III44'01	
	2217 Oct 26 22:02	0°III		evening set	2220 Apr 04 12:15	20°III53'55	
max. Earth dist.	2217 Nov 06 06:11	12°III57'39	1.71503 AU	inferior conj	2220 Apr 08 08:05	18°III31'33	7°32'23
				minimum elong	2220 Apr 08 16:56	18°III17'37	7°31'02
superior conj	2217 Nov 08 13:59	15°III52'37	0°46'34	min. Earth dist.	2220 Apr 08 04:07	18°III37'46	0.28250 AU
minimum elong	2217 Nov 08 23:40	16°III23'00	0°46'09	morning rise	2220 Apr 12 21:50	15°III42'55	
	2217 Nov 19 20:06	0°III		direct	2220 Apr 29 09:34	10°III26'00	
desc. node	2217 Nov 29 03:28	11°III41'15		greatest brilliancy	2220 May 11 03:39	12°III55'10	-4.5m
	2217 Dec 13 17:21	0°III		desc. node	2220 May 15 22:17	15°III07'55	
evening rise	2217 Dec 19 06:13	6°III57'08			2220 Jun 05 18:08	0°III	
	2218 Jan 06 14:50	0°III		morning max el	2220 Jun 17 08:51	10°III34'27	45°48'25
	2218 Jan 30 13:59	0°III			2220 Jul 06 13:49	0°III	
	2218 Feb 23 17:14	0°III			2220 Aug 02 21:26	0°III	
	2218 Mar 20 04:04	0°III			2220 Aug 28 19:24	0°III	
asc. node	2218 Mar 22 06:41	2°III33'44		asc. node	2220 Sep 06 01:46	9°III47'58	
	2218 Apr 14 03:15	0°III			2220 Sep 22 20:59	0°III	
	2218 May 09 22:37	0°III			2220 Oct 17 08:44	0°III	
	2218 Jun 06 08:31	0°III			2220 Nov 10 11:43	0°III	
evening max el	2218 Jun 20 15:36	14°III19'56	45°24'11		2220 Dec 04 10:04	0°III	
	2218 Jul 08 12:44	0°III		morning set	2220 Dec 13 12:22	11°III25'57	
desc. node	2218 Jul 11 20:08	2°III29'11		desc. node	2220 Dec 26 15:18	27°III56'28	
greatest brilliancy	2218 Jul 26 16:29	11°III11'59	-4.5m		2220 Dec 28 06:33	0°III	
retrograde	2218 Aug 08 05:50	13°III59'06			2221 Jan 21 02:51	0°III	
evening set	2218 Aug 25 21:58	8°III11'04					
inferior conj	2218 Aug 29 15:23	5°III54'37	-8°-25'-17	superior conj	2221 Jan 24 03:54	3°III49'39	-1°-1'-28
minimum elong	2218 Aug 29 10:39	6°III01'59	8°24'59	minimum elong	2221 Jan 23 15:51	3°III11'48	1°01'04
min. Earth dist.	2218 Aug 30 01:09	5°III39'27	0.28717 AU	max. Earth dist.	2221 Jan 26 09:03	6°III36'44	1.71196 AU
morning rise	2218 Sep 01 23:06	3°III51'56			2221 Feb 14 00:10	0°III	
	2218 Sep 09 07:21	30°III		evening rise	2221 Mar 06 02:54	25°III09'48	
direct	2218 Sep 20 02:50	27°III40'26			2221 Mar 10 00:00	0°III	
	2218 Oct 01 10:47	0°III			2221 Apr 03 04:02	0°III	
greatest brilliancy	2218 Oct 04 15:21	1°III23'31	-4.6m	asc. node	2221 Apr 18 18:39	19°III13'04	

	2221 Apr 27 13:57	0°♊			2223 Nov 25 08:52	0°♌	
	2221 May 22 07:19	0°♌			2223 Dec 19 14:27	0°♏	
	2221 Jun 16 10:35	0°♍			2224 Jan 12 15:11	0°♐	
	2221 Jul 12 05:00	0°♎		desc. node	2224 Jan 24 03:00	14°♑23'06	
desc. node	2221 Aug 08 07:51	0°♏12'43			2224 Feb 05 14:22	0°♒	
	2221 Aug 08 03:08	0°♏		morning set	2224 Feb 29 17:21	0°♓10'53	
evening max el	2221 Aug 31 21:26	24°♏23'22	46°05'12		2224 Feb 29 13:52	0°♓	
	2221 Sep 06 20:48	0°♌			2224 Mar 24 15:04	0°♑	
greatest brilliancy	2221 Oct 09 11:40	22°♌48'12	-4.6m				
retrograde	2221 Oct 20 04:29	24°♌52'41		superior conj	2224 Apr 09 09:19	19°♑35'06	-1°-13'-31
evening set	2221 Nov 04 17:03	20°♌13'19		minimum elong	2224 Apr 09 18:41	20°♑04'09	1°13'18
inferior conj	2221 Nov 09 20:47	17°♌10'50	-4°-46'-5	max. Earth dist.	2224 Apr 13 04:41	24°♑18'20	1.72571 AU
minimum elong	2221 Nov 10 06:16	16°♌56'25	4°43'33		2224 Apr 17 18:59	0°♒	
min. Earth dist.	2221 Nov 10 14:52	16°♌43'20	0.26949 AU		2224 May 12 02:07	0°♊	
morning rise	2221 Nov 15 18:59	13°♌42'33		asc. node	2224 May 16 06:36	5°♊09'10	
asc. node	2221 Nov 29 11:17	9°♌24'28		evening rise	2224 May 17 17:24	6°♊56'12	
direct	2221 Nov 30 14:30	9°♌22'53			2224 Jun 05 12:26	0°♌	
greatest brilliancy	2221 Dec 13 23:41	12°♌42'37	-4.7m		2224 Jun 30 01:55	0°♍	
	2222 Jan 07 01:03	0°♏			2224 Jul 24 19:22	0°♎	
morning max el	2222 Jan 20 09:04	12°♏52'09	46°57'52		2224 Aug 18 18:44	0°♏	
	2222 Feb 05 12:34	0°♑		desc. node	2224 Sep 04 19:44	20°♏13'22	
	2222 Mar 03 22:44	0°♒			2224 Sep 13 03:24	0°♌	
desc. node	2222 Mar 21 00:47	20°♒04'49			2224 Oct 09 03:39	0°♏	
	2222 Mar 29 09:12	0°♓			2224 Nov 05 13:08	0°♑	
	2222 Apr 23 09:50	0°♑		evening max el	2224 Nov 13 01:40	7°♑42'57	47°08'43
	2222 May 18 06:04	0°♒			2224 Dec 08 01:03	0°♒	
	2222 Jun 11 23:46	0°♊		greatest brilliancy	2224 Dec 21 16:46	8°♒09'25	-4.7m
	2222 Jul 06 14:48	0°♌		asc. node	2224 Dec 26 23:06	9°♒58'43	
asc. node	2222 Jul 12 04:10	6°♌47'40		retrograde	2225 Jan 02 17:37	10°♒52'34	
morning set	2222 Jul 22 06:41	19°♌10'21		evening set	2225 Jan 18 02:50	6°♒11'30	
	2222 Jul 31 02:17	0°♍		min. Earth dist.	2225 Jan 22 13:57	3°♒31'54	0.26759 AU
	2222 Aug 24 09:54	0°♎		inferior conj	2225 Jan 23 08:56	3°♒02'36	6°23'21
max. Earth dist.	2222 Aug 24 12:17	0°♎07'24	1.72951 AU	minimum elong	2225 Jan 22 22:24	3°♒18'52	6°20'59
				morning rise	2225 Jan 27 18:18	0°♒23'51	
superior conj	2222 Aug 27 16:09	4°♎02'08	1°21'56		2225 Jan 28 11:08	30°♒♑	
minimum elong	2222 Aug 27 11:35	3°♎48'00	1°21'53	direct	2225 Feb 12 18:52	25°♑22'14	
	2222 Sep 17 14:24	0°♏		greatest brilliancy	2225 Feb 23 15:40	27°♑34'10	-4.6m
evening rise	2222 Oct 03 14:23	19°♏53'40			2225 Feb 28 22:16	0°♒	
	2222 Oct 11 17:13	0°♌		morning max el	2225 Apr 03 14:42	27°♒11'04	46°28'43
desc. node	2222 Oct 31 17:39	24°♌55'10			2225 Apr 06 10:39	0°♓	
	2222 Nov 04 19:35	0°♏		desc. node	2225 Apr 17 12:37	11°♓26'06	
	2222 Nov 28 22:15	0°♑			2225 May 04 14:42	0°♑	
	2222 Dec 23 02:22	0°♒			2225 May 31 00:34	0°♒	
	2223 Jan 16 10:48	0°♓			2225 Jun 25 16:25	0°♊	
	2223 Feb 10 05:33	0°♑			2225 Jul 20 21:11	0°♌	
asc. node	2223 Feb 21 20:46	13°♑46'00		asc. node	2225 Aug 08 15:56	22°♑39'58	
	2223 Mar 07 22:08	0°♒			2225 Aug 14 16:44	0°♍	
	2223 Apr 04 16:19	0°♊			2225 Sep 08 04:03	0°♎	
evening max el	2223 Apr 08 20:24	4°♊09'22	45°55'59	morning set	2225 Sep 28 23:57	25°♎48'29	
	2223 May 11 02:30	0°♌			2225 Oct 02 08:45	0°♏	
greatest brilliancy	2223 May 13 06:38	1°♌06'24	-4.5m		2225 Oct 26 09:07	0°♌	
retrograde	2223 May 27 23:48	4°♌53'49		max. Earth dist.	2225 Nov 03 18:01	10°♌29'24	1.71547 AU
evening set	2223 Jun 12 00:39	0°♌30'43					
	2223 Jun 12 22:37	30°♒♊		superior conj	2225 Nov 06 02:52	13°♌27'36	0°49'37
desc. node	2223 Jun 13 10:14	29°♊43'19		minimum elong	2225 Nov 06 12:50	13°♌58'53	0°49'13
inferior conj	2223 Jun 18 10:39	26°♊39'02	-1°-11'-2		2225 Nov 19 07:16	0°♏	
minimum elong	2223 Jun 18 08:03	26°♊43'07	1°10'17	desc. node	2225 Nov 28 05:33	11°♏12'38	
min. Earth dist.	2223 Jun 18 07:49	26°♊43'30	0.28913 AU		2225 Dec 13 04:36	0°♑	
morning rise	2223 Jun 24 15:44	22°♊54'42		evening rise	2225 Dec 16 16:43	4°♑24'03	
direct	2223 Jul 10 01:31	18°♊23'05			2226 Jan 06 02:12	0°♒	
greatest brilliancy	2223 Jul 23 10:14	21°♊30'42	-4.5m		2226 Jan 30 01:30	0°♓	
	2223 Aug 06 15:16	0°♌			2226 Feb 23 04:58	0°♑	
morning max el	2223 Aug 27 21:25	18°♌14'55	45°50'33		2226 Mar 19 16:11	0°♒	
	2223 Sep 08 15:47	0°♍		asc. node	2226 Mar 21 08:46	2°♒03'12	
asc. node	2223 Oct 04 13:43	28°♍16'01			2226 Apr 13 16:08	0°♊	
	2223 Oct 06 02:14	0°♎			2226 May 09 13:04	0°♌	
	2223 Oct 31 16:24	0°♏			2226 Jun 06 02:56	0°♍	

evening max el	2226 Jun 18 06:32	12°♌06'58	45°24'11		2228 Dec 03 21:09	0°♏	
	2226 Jul 09 01:44	0°♍		morning set	2228 Dec 10 23:31	8°♏55'15	
desc. node	2226 Jul 10 22:05	1°♍19'44		desc. node	2228 Dec 25 17:14	27°♏27'40	
greatest brilliancy	2226 Jul 24 03:41	8°♍56'07	-4.5m		2228 Dec 27 17:39	0°♏	
retrograde	2226 Aug 05 21:41	11°♍47'59			2229 Jan 20 13:56	0°♎	
evening set	2226 Aug 23 10:41	6°♍03'15					
inferior conj	2226 Aug 27 07:05	3°♍42'29	-8°-19'-43	superior conj	2229 Jan 21 13:31	1°♎14'10	0°-58'-35
minimum elong	2226 Aug 27 01:38	3°♍50'56	8°19'18	minimum elong	2229 Jan 21 01:33	0°♎36'31	0°58'09
min. Earth dist.	2226 Aug 27 15:41	3°♍29'08	0.28757 AU	max. Earth dist.	2229 Jan 23 17:20	3°♎57'01	1.71174 AU
morning rise	2226 Aug 30 16:23	1°♍37'34			2229 Feb 13 11:14	0°♏	
	2226 Sep 02 11:49	30°♌		evening rise	2229 Mar 03 14:00	22°♏40'09	
direct	2226 Sep 17 18:55	25°♌27'42			2229 Mar 09 11:02	0°♏	
greatest brilliancy	2226 Oct 02 08:34	29°♌12'12	-4.6m		2229 Apr 02 15:09	0°♏	
	2226 Oct 03 22:46	0°♍		asc. node	2229 Apr 17 20:46	18°♏45'13	
asc. node	2226 Nov 01 01:30	21°♍46'02			2229 Apr 27 01:16	0°♏	
morning max el	2226 Nov 06 20:38	27°♍26'20	46°31'13		2229 May 21 19:01	0°♏	
	2226 Nov 09 09:26	0°♎			2229 Jun 15 23:01	0°♌	
	2226 Dec 06 20:48	0°♍			2229 Jul 11 18:53	0°♍	
	2227 Jan 01 08:43	0°♏		desc. node	2229 Aug 07 09:55	29°♍32'36	
	2227 Jan 26 02:19	0°♏			2229 Aug 07 20:10	0°♎	
	2227 Feb 19 12:28	0°♎		evening max el	2229 Aug 29 11:46	22°♎06'21	46°02'58
desc. node	2227 Feb 20 14:57	1°♎21'35			2229 Sep 06 23:55	0°♍	
	2227 Mar 15 19:59	0°♏		greatest brilliancy	2229 Oct 07 00:46	20°♍26'08	-4.6m
	2227 Apr 09 03:13	0°♏		retrograde	2229 Oct 17 16:53	22°♍29'30	
	2227 May 03 11:25	0°♏		evening set	2229 Nov 02 09:00	17°♍46'15	
morning set	2227 May 13 01:07	11°♏46'37		inferior conj	2229 Nov 07 09:52	14°♍47'21	-5°-5'-19
	2227 May 27 20:49	0°♏		minimum elong	2229 Nov 07 19:42	14°♍32'22	5°02'47
asc. node	2227 Jun 13 18:21	20°♏45'37		min. Earth dist.	2229 Nov 08 04:39	14°♍18'43	0.27008 AU
				morning rise	2229 Nov 13 05:54	11°♍21'32	
superior conj	2227 Jun 19 01:51	27°♏17'18	0°12'38	direct	2229 Nov 28 04:26	6°♍58'41	
minimum elong	2227 Jun 18 23:15	27°♏09'18	0°12'29	asc. node	2229 Nov 28 13:13	6°♍58'50	
behind sun begin	2227 Jun 18 09:10	26°♏26'03		greatest brilliancy	2229 Dec 11 14:20	10°♍18'48	-4.7m
behind sun end	2227 Jun 19 13:20	27°♏52'33			2230 Jan 07 05:57	0°♏	
max. Earth dist.	2227 Jun 18 19:56	26°♏59'07	1.73570 AU	morning max el	2230 Jan 17 22:23	10°♏26'28	46°57'40
	2227 Jun 21 06:49	0°♏			2230 Feb 05 06:35	0°♏	
	2227 Jul 15 16:35	0°♌			2230 Mar 03 13:26	0°♎	
evening rise	2227 Jul 25 02:13	11°♌33'48		desc. node	2230 Mar 20 02:54	19°♎30'54	
	2227 Aug 09 01:55	0°♍			2230 Mar 28 22:17	0°♏	
	2227 Sep 02 11:31	0°♎			2230 Apr 22 21:59	0°♏	
	2227 Sep 26 22:34	0°♍			2230 May 17 17:35	0°♏	
desc. node	2227 Oct 03 07:50	7°♍48'37			2230 Jun 11 10:52	0°♏	
	2227 Oct 21 12:18	0°♏			2230 Jul 06 01:37	0°♏	
	2227 Nov 15 06:23	0°♏		asc. node	2230 Jul 11 06:08	6°♏20'43	
	2227 Dec 10 09:19	0°♎		morning set	2230 Jul 20 00:36	17°♏05'18	
	2228 Jan 05 09:58	0°♏			2230 Jul 30 12:58	0°♌	
asc. node	2228 Jan 24 10:57	20°♏27'52		max. Earth dist.	2230 Aug 22 04:51	27°♌57'15	1.72992 AU
evening max el	2228 Jan 25 02:56	21°♏08'38	47°03'25		2230 Aug 23 20:33	0°♍	
	2228 Feb 03 03:15	0°♏					
greatest brilliancy	2228 Mar 01 23:45	20°♏55'19	-4.6m	superior conj	2230 Aug 25 10:00	1°♍55'50	1°21'03
retrograde	2228 Mar 15 20:27	24°♏27'00		minimum elong	2230 Aug 25 04:52	1°♍39'59	1°20'58
evening set	2228 Apr 02 06:12	18°♏32'40			2230 Sep 17 01:08	0°♎	
inferior conj	2228 Apr 05 23:11	16°♏14'38	7°43'12	evening rise	2230 Oct 01 05:52	17°♎38'52	
minimum elong	2228 Apr 06 07:38	16°♏01'20	7°42'00		2230 Oct 11 04:06	0°♍	
min. Earth dist.	2228 Apr 05 18:08	16°♏22'34	0.28214 AU	desc. node	2230 Oct 30 19:43	24°♍27'13	
morning rise	2228 Apr 10 09:20	13°♏31'36			2230 Nov 04 06:41	0°♏	
direct	2228 Apr 27 00:33	8°♏09'48			2230 Nov 28 09:37	0°♏	
greatest brilliancy	2228 May 08 16:15	10°♏37'23	-4.5m		2230 Dec 22 14:06	0°♎	
desc. node	2228 May 15 00:22	13°♏40'23			2231 Jan 15 23:06	0°♏	
	2228 Jun 05 22:40	0°♏			2231 Feb 09 18:49	0°♏	
morning max el	2228 Jun 15 01:02	8°♏23'46	45°49'14	asc. node	2231 Feb 20 22:52	13°♏11'21	
	2228 Jul 06 07:03	0°♏			2231 Mar 07 13:23	0°♏	
	2228 Aug 02 11:22	0°♏			2231 Apr 04 13:00	0°♏	
	2228 Aug 28 07:52	0°♌		evening max el	2231 Apr 06 11:14	1°♏54'27	45°58'01
asc. node	2228 Sep 05 03:54	9°♌18'06		greatest brilliancy	2231 May 10 23:43	28°♏57'55	-4.5m
	2228 Sep 22 08:41	0°♍			2231 May 13 06:39	0°♏	
	2228 Oct 16 20:02	0°♎		retrograde	2231 May 25 15:46	2°♏44'52	
	2228 Nov 09 22:51	0°♍			2231 Jun 06 11:06	30°♌	

evening set	2231 Jun 09 17:20	28°II21'30		superior conj	2233 Nov 03 15:48	11°III03'59	0°52'35
desc. node	2231 Jun 12 12:09	26°II45'00		minimum elong	2233 Nov 04 02:00	11°III35'57	0°52'11
inferior conj	2231 Jun 16 03:02	24°II30'15	0°-51'-20		2233 Nov 18 18:03	0°X	
minimum elong	2231 Jun 16 01:09	24°II33'13	0°50'47	desc. node	2233 Nov 27 07:29	10°X44'39	
min. Earth dist.	2231 Jun 16 00:43	24°II33'54	0.28896 AU		2233 Dec 12 15:30	0°Z	
morning rise	2231 Jun 22 09:10	20°II44'06		evening rise	2233 Dec 14 03:25	1°Z52'46	
direct	2231 Jul 07 17:18	16°II14'33			2234 Jan 05 13:12	0°≈	
greatest brilliancy	2231 Jul 21 01:03	19°II20'28	-4.5m		2234 Jan 29 12:37	0°X	
	2231 Aug 07 04:01	0°S			2234 Feb 22 16:17	0°Y	
morning max el	2231 Aug 25 11:49	16°S01'19	45°49'43		2234 Mar 19 03:54	0°X	
	2231 Sep 08 09:56	0°Q		asc. node	2234 Mar 20 10:52	1°X33'53	
asc. node	2231 Oct 03 15:46	27°Q40'56			2234 Apr 13 04:40	0°II	
	2231 Oct 05 16:27	0°P			2234 May 09 03:20	0°S	
	2231 Oct 31 05:03	0°A			2234 Jun 05 21:33	0°Q	
	2231 Nov 24 20:46	0°III		evening max el	2234 Jun 15 22:18	9°Q56'44	45°24'07
	2231 Dec 19 01:55	0°X			2234 Jul 09 18:56	0°P	
	2232 Jan 12 02:22	0°Z		desc. node	2234 Jul 10 00:11	0°P08'58	
desc. node	2232 Jan 23 05:07	13°Z54'57		greatest brilliancy	2234 Jul 21 15:18	6°P41'07	-4.5m
	2232 Feb 05 01:21	0°≈		retrograde	2234 Aug 03 13:30	9°P36'53	
morning set	2232 Feb 27 04:36	27°≈42'05		evening set	2234 Aug 20 23:07	3°P55'58	
	2232 Feb 29 00:44	0°X		inferior conj	2234 Aug 24 22:35	1°P30'35	-8°-13'-28
	2232 Mar 24 01:51	0°Y		minimum elong	2234 Aug 24 16:30	1°P40'01	8°12'55
				min. Earth dist.	2234 Aug 25 05:53	1°P19'14	0.28792 AU
superior conj	2232 Apr 06 23:28	17°Y16'51	-1°-15'-20		2234 Aug 27 09:16	30°RQ	
minimum elong	2232 Apr 07 08:27	17°Y44'44	1°15'07	morning rise	2234 Aug 28 09:42	29°Q23'01	
max. Earth dist.	2232 Apr 10 19:54	22°Y03'29	1.72518 AU	direct	2234 Sep 15 11:12	23°Q15'24	
	2232 Apr 17 05:42	0°X		greatest brilliancy	2234 Sep 30 00:33	26°Q59'59	-4.6m
	2232 May 11 12:49	0°II			2234 Oct 05 12:13	0°P	
evening rise	2232 May 15 09:44	4°II45'52		asc. node	2234 Oct 31 03:28	20°P53'29	
asc. node	2232 May 15 08:32	4°II42'12		morning max el	2234 Nov 04 12:31	25°P11'40	46°29'39
	2232 Jun 04 23:12	0°S			2234 Nov 09 05:56	0°A	
	2232 Jun 29 12:55	0°Q			2234 Dec 06 12:08	0°III	
	2232 Jul 24 06:48	0°P			2234 Dec 31 22:06	0°X	
	2232 Aug 18 06:56	0°A			2235 Jan 25 14:43	0°Z	
desc. node	2232 Sep 03 21:52	19°A41'40			2235 Feb 19 00:15	0°≈	
	2232 Sep 12 16:49	0°III		desc. node	2235 Feb 19 17:01	0°≈51'42	
	2232 Oct 08 19:16	0°X			2235 Mar 15 07:19	0°X	
	2232 Nov 05 09:55	0°Z			2235 Apr 08 14:13	0°Y	
evening max el	2232 Nov 10 14:15	5°Z16'26	47°07'22		2235 May 02 22:09	0°X	
	2232 Dec 09 01:19	0°≈		morning set	2235 May 10 17:54	9°X37'45	
greatest brilliancy	2232 Dec 19 07:27	5°≈43'49	-4.7m		2235 May 27 07:24	0°II	
asc. node	2232 Dec 26 01:07	7°≈52'57		asc. node	2235 Jun 12 20:22	20°II19'24	
retrograde	2232 Dec 31 06:25	8°≈25'26					
evening set	2233 Jan 15 12:20	3°≈49'15		superior conj	2235 Jun 16 19:46	25°II12'27	0°09'28
min. Earth dist.	2233 Jan 20 03:31	1°≈04'23	0.26717 AU	minimum elong	2235 Jun 16 17:48	25°II06'24	0°09'22
inferior conj	2233 Jan 20 21:42	0°≈36'22	6°06'21	behind sun begin	2235 Jun 15 23:18	24°II09'36	
minimum elong	2233 Jan 20 11:12	0°≈52'33	6°03'52	behind sun end	2235 Jun 17 12:17	26°II03'13	
	2233 Jan 21 21:21	30°RZ		max. Earth dist.	2235 Jun 16 19:05	25°II10'23	1.73566 AU
morning rise	2233 Jan 25 10:21	27°Z53'12			2235 Jun 20 17:22	0°S	
direct	2233 Feb 10 06:46	22°Z56'19			2235 Jul 15 03:12	0°Q	
greatest brilliancy	2233 Feb 21 06:18	25°Z10'52	-4.6m	evening rise	2235 Jul 22 21:05	9°Q31'29	
	2233 Mar 02 15:06	0°≈			2235 Aug 08 12:41	0°P	
morning max el	2233 Apr 01 03:48	24°≈48'33	46°30'17		2235 Sep 01 22:33	0°A	
	2233 Apr 06 08:03	0°X			2235 Sep 26 10:01	0°III	
desc. node	2233 Apr 16 14:41	10°X42'41		desc. node	2235 Oct 02 09:48	7°III19'16	
	2233 May 04 06:19	0°Y			2235 Oct 21 00:21	0°X	
	2233 May 30 13:52	0°X			2235 Nov 14 19:19	0°Z	
	2233 Jun 25 04:30	0°II			2235 Dec 09 23:40	0°≈	
	2233 Jul 20 08:34	0°S			2236 Jan 05 03:14	0°X	
asc. node	2233 Aug 07 18:05	22°S12'52		evening max el	2236 Jan 22 18:48	18°X51'22	47°05'07
	2233 Aug 14 03:43	0°Q		asc. node	2236 Jan 23 13:06	19°X37'49	
	2233 Sep 07 14:49	0°P			2236 Feb 03 05:54	0°Y	
morning set	2233 Sep 26 15:37	23°P34'42		greatest brilliancy	2236 Feb 28 16:51	18°Y40'26	-4.6m
	2233 Oct 01 19:27	0°A		retrograde	2236 Mar 13 12:27	22°Y10'14	
	2233 Oct 25 19:51	0°III		evening set	2236 Mar 31 00:05	16°Y12'09	
max. Earth dist.	2233 Nov 01 07:42	8°III08'08	1.71589 AU	inferior conj	2236 Apr 03 14:15	13°Y58'11	7°53'21
				minimum elong	2236 Apr 03 22:16	13°Y45'34	7°52'17

min. Earth dist.	2236 Apr 03 08:04	14°♈07'54	0.28173 AU	desc. node	2238 Oct 29 21:41	23°♍58'17	
morning rise	2236 Apr 07 20:45	11°♈20'38			2238 Nov 03 18:00	0°♈	
direct	2236 Apr 24 15:39	5°♈54'21			2238 Nov 27 21:14	0°♈	
greatest brilliancy	2236 May 06 03:47	8°♈18'57	-4.5m		2238 Dec 22 02:05	0°♈	
desc. node	2236 May 14 02:15	12°♈16'08			2239 Jan 15 11:39	0°♈	
	2236 Jun 06 01:10	0°♈			2239 Feb 09 08:21	0°♈	
morning max el	2236 Jun 12 16:35	6°♈12'14	45°50'00	asc. node	2239 Feb 20 00:53	12°♈35'47	
	2236 Jul 05 23:41	0°♈			2239 Mar 07 05:00	0°♈	
	2236 Aug 02 00:59	0°♈		evening max el	2239 Apr 04 01:31	29°♈37'43	46°00'13
	2236 Aug 27 20:09	0°♈			2239 Apr 04 10:35	0°♈	
asc. node	2236 Sep 04 05:56	8°♈48'19		greatest brilliancy	2239 May 08 15:52	26°♈47'46	-4.5m
	2236 Sep 21 20:17	0°♈			2239 May 17 17:29	0°♈	
	2236 Oct 16 07:17	0°♈		retrograde	2239 May 23 08:01	0°♈35'48	
	2236 Nov 09 09:56	0°♈			2239 May 28 19:18	30°♈♌	
	2236 Dec 03 08:09	0°♈		evening set	2239 Jun 07 10:12	26°♈11'33	
morning set	2236 Dec 08 10:38	6°♈24'51		desc. node	2239 Jun 11 14:19	23°♈44'18	
desc. node	2236 Dec 24 19:19	26°♈59'41		inferior conj	2239 Jun 13 19:30	22°♈21'09	0°-31'-27
	2236 Dec 27 04:37	0°♈		minimum elong	2239 Jun 13 18:20	22°♈22'59	0°31'08
				min. Earth dist.	2239 Jun 13 17:43	22°♈23'57	0.28880 AU
superior conj	2237 Jan 18 23:09	28°♈39'05	0°-55'-33	morning rise	2239 Jun 20 02:34	18°♈33'32	
minimum elong	2237 Jan 18 11:20	28°♈01'57	0°55'07	direct	2239 Jul 05 08:49	14°♈05'29	
	2237 Jan 20 00:53	0°♈		greatest brilliancy	2239 Jul 18 16:47	17°♈11'01	-4.5m
max. Earth dist.	2237 Jan 21 00:55	1°♈15'33	1.71152 AU		2239 Aug 07 13:37	0°♈	
	2237 Feb 12 22:10	0°♈		morning max el	2239 Aug 23 02:58	13°♈49'10	45°49'00
evening rise	2237 Mar 01 01:02	20°♈10'30			2239 Sep 08 03:48	0°♈	
	2237 Mar 08 22:00	0°♈		asc. node	2239 Oct 02 17:46	27°♈05'24	
	2237 Apr 02 02:12	0°♈			2239 Oct 05 06:42	0°♈	
asc. node	2237 Apr 16 22:43	18°♈17'02			2239 Oct 30 17:52	0°♈	
	2237 Apr 26 12:30	0°♈			2239 Nov 24 08:54	0°♈	
	2237 May 21 06:39	0°♈			2239 Dec 18 13:40	0°♈	
	2237 Jun 15 11:26	0°♈			2240 Jan 11 13:53	0°♈	
	2237 Jul 11 08:51	0°♈		desc. node	2240 Jan 22 07:15	13°♈25'47	
desc. node	2237 Aug 06 12:00	28°♈52'01			2240 Feb 04 12:41	0°♈	
	2237 Aug 07 13:35	0°♈		morning set	2240 Feb 24 15:20	25°♈10'34	
evening max el	2237 Aug 27 01:04	19°♈46'36	46°00'29		2240 Feb 28 11:55	0°♈	
	2237 Sep 07 04:59	0°♈			2240 Mar 23 12:54	0°♈	
greatest brilliancy	2237 Oct 04 14:26	18°♈03'57	-4.6m				
retrograde	2237 Oct 15 04:40	20°♈05'33		superior conj	2240 Apr 04 13:21	14°♈56'51	-1°-17'00
evening set	2237 Oct 31 00:49	15°♈18'05		minimum elong	2240 Apr 04 21:53	15°♈23'22	1°16'50
inferior conj	2237 Nov 04 22:46	12°♈23'07	-5°-24'-6	max. Earth dist.	2240 Apr 08 09:25	19°♈42'33	1.72461 AU
minimum elong	2237 Nov 05 08:52	12°♈07'40	5°21'34		2240 Apr 16 16:40	0°♈	
min. Earth dist.	2237 Nov 05 18:37	11°♈52'46	0.27068 AU		2240 May 10 23:46	0°♈	
morning rise	2237 Nov 10 16:22	9°♈00'02		evening rise	2240 May 13 02:01	2°♈34'34	
direct	2237 Nov 25 17:35	4°♈33'24		asc. node	2240 May 14 10:36	4°♈14'47	
asc. node	2237 Nov 27 15:14	4°♈37'45			2240 Jun 04 10:16	0°♈	
greatest brilliancy	2237 Dec 09 05:30	7°♈54'56	-4.7m		2240 Jun 29 00:13	0°♈	
	2238 Jan 07 09:17	0°♈			2240 Jul 23 18:33	0°♈	
morning max el	2238 Jan 15 10:56	7°♈58'25	46°57'40		2240 Aug 17 19:26	0°♈	
	2238 Feb 05 00:16	0°♈		desc. node	2240 Sep 02 23:53	19°♈08'41	
	2238 Mar 03 03:59	0°♈			2240 Sep 12 06:36	0°♈	
desc. node	2238 Mar 19 04:55	18°♈56'52			2240 Oct 08 11:26	0°♈	
	2238 Mar 28 11:18	0°♈			2240 Nov 05 07:51	0°♈	
	2238 Apr 22 10:05	0°♈		evening max el	2240 Nov 08 03:23	2°♈50'26	47°05'45
	2238 May 17 05:07	0°♈			2240 Dec 10 12:21	0°♈	
	2238 Jun 10 22:00	0°♈		greatest brilliancy	2240 Dec 16 20:56	3°♈14'56	-4.7m
	2238 Jul 05 12:29	0°♈		asc. node	2240 Dec 25 03:16	5°♈39'47	
asc. node	2238 Jul 10 08:18	5°♈54'14		retrograde	2240 Dec 28 19:21	5°♈56'03	
morning set	2238 Jul 17 18:41	15°♈00'35		evening set	2241 Jan 12 21:40	1°♈24'15	
	2238 Jul 29 23:41	0°♈			2241 Jan 15 08:12	30°♈♌	
max. Earth dist.	2238 Aug 19 23:03	25°♈52'00	1.73038 AU	min. Earth dist.	2241 Jan 17 16:35	28°♈34'33	0.26680 AU
				inferior conj	2241 Jan 18 10:08	28°♈07'37	5°48'14
superior conj	2238 Aug 23 04:00	29°♈49'53	1°20'02	minimum elong	2241 Jan 17 23:45	28°♈23'33	5°45'41
minimum elong	2238 Aug 22 22:20	29°♈32'22	1°19'57	morning rise	2241 Jan 23 02:08	25°♈20'08	
	2238 Aug 23 07:16	0°♈		direct	2241 Feb 07 18:52	20°♈27'48	
	2238 Sep 16 11:59	0°♈		greatest brilliancy	2241 Feb 18 20:18	22°♈44'40	-4.6m
evening rise	2238 Sep 28 21:29	15°♈24'08			2241 Mar 03 20:29	0°♈	
	2238 Oct 10 15:11	0°♈		morning max el	2241 Mar 29 17:45	22°♈26'28	46°31'59

	2241 Apr 06 05:19	0° H			2243 Sep 25 21:50	0° M		
desc. node	2241 Apr 15 16:40	9° H 58'08		desc. node	2243 Oct 01 11:49	6° M 48'57		
	2241 May 03 22:07	0° Y			2243 Oct 20 12:47	0° J		
	2241 May 30 03:25	0° B			2243 Nov 14 08:37	0° Z		
	2241 Jun 24 16:52	0° II			2243 Dec 09 14:25	0° \approx		
	2241 Jul 19 20:14	0° S			2244 Jan 04 21:04	0° H		
asc. node	2241 Aug 06 20:04	21° S 44'21		evening max el	2244 Jan 20 10:18	16° H 32'27	47°06'33	
	2241 Aug 13 15:00	0° Q		asc. node	2244 Jan 22 15:03	18° H 45'42		
	2241 Sep 07 01:54	0° M			2244 Feb 03 10:31	0° Y		
morning set	2241 Sep 24 07:50	21° M 21'44		greatest brilliancy	2244 Feb 26 10:30	16° Y 25'17	-4.6m	
	2241 Oct 01 06:28	0° L		retrograde	2244 Mar 11 03:57	19° Y 52'12		
	2241 Oct 25 06:52	0° M		evening set	2244 Mar 28 17:50	13° Y 50'48		
max. Earth dist.	2241 Oct 29 21:29	5° M 46'21	1.71631 AU	inferior conj	2244 Apr 01 05:18	11° Y 40'42	8°02'41	
				minimum elong	2244 Apr 01 12:49	11° Y 28'52	8°01'46	
superior conj	2241 Nov 01 05:21	8° M 41'20	0°55'24	min. Earth dist.	2244 Mar 31 22:18	11° Y 51'44	0.28134 AU	
minimum elong	2241 Nov 01 15:40	9° M 13'40	0°55'00	morning rise	2244 Apr 05 08:07	9° Y 08'27		
	2241 Nov 18 05:10	0° J		direct	2244 Apr 22 06:35	3° Y 37'50		
desc. node	2241 Nov 26 09:38	10° J 16'21		greatest brilliancy	2244 May 03 15:35	5° Y 59'27	-4.5m	
evening rise	2241 Dec 11 14:28	29° J 21'32		desc. node	2244 May 13 04:26	10° Y 53'52		
	2241 Dec 12 02:44	0° Z			2244 Jun 06 02:46	0° B		
	2242 Jan 05 00:35	0° \approx		morning max el	2244 Jun 10 07:22	3° B 57'31	45°50'47	
	2242 Jan 29 00:11	0° H			2244 Jul 05 16:24	0° II		
	2242 Feb 22 04:05	0° Y			2244 Aug 01 14:49	0° S		
	2242 Mar 18 16:08	0° B			2244 Aug 27 08:37	0° Q		
asc. node	2242 Mar 19 12:48	1° B 02'36		asc. node	2244 Sep 03 07:54	8° Q 17'43		
	2242 Apr 12 17:45	0° II			2244 Sep 21 08:04	0° M		
	2242 May 08 18:14	0° S			2244 Oct 15 18:42	0° L		
	2242 Jun 05 17:08	0° Q			2244 Nov 08 21:11	0° M		
evening max el	2242 Jun 13 14:47	7° Q 47'09	45°24'14		2244 Dec 02 19:22	0° J		
desc. node	2242 Jul 09 02:16	28° Q 55'11		morning set	2244 Dec 05 22:06	3° J 54'52		
	2242 Jul 10 18:51	0° M		desc. node	2244 Dec 23 21:26	26° J 31'12		
greatest brilliancy	2242 Jul 19 04:04	4° M 26'52	-4.5m		2244 Dec 26 15:48	0° Z		
retrograde	2242 Aug 01 05:16	7° M 25'14						
evening set	2242 Aug 18 11:43	1° M 48'32		superior conj	2245 Jan 16 09:11	26° Z 04'46	0°-52'-26	
	2242 Aug 21 11:23	30° R Q		minimum elong	2245 Jan 15 21:38	25° Z 28'28	0°52'00	
inferior conj	2242 Aug 22 14:16	29° Q 18'17	-8°-6'-31	max. Earth dist.	2245 Jan 18 06:08	28° Z 26'04	1.71128 AU	
minimum elong	2242 Aug 22 07:36	29° Q 28'38	8°05'51		2245 Jan 19 12:00	0° \approx		
min. Earth dist.	2242 Aug 22 20:19	29° Q 08'53	0.28822 AU		2245 Feb 12 09:16	0° H		
morning rise	2242 Aug 26 03:22	27° Q 07'42		evening rise	2245 Feb 26 12:17	17° H 40'58		
direct	2242 Sep 13 03:51	21° Q 02'55			2245 Mar 08 09:07	0° Y		
greatest brilliancy	2242 Sep 27 15:26	24° Q 45'47	-4.6m		2245 Apr 01 13:25	0° B		
	2242 Oct 06 14:50	0° M		asc. node	2245 Apr 16 00:47	17° B 48'42		
asc. node	2242 Oct 30 05:29	20° M 01'16			2245 Apr 25 23:56	0° II		
morning max el	2242 Nov 02 04:14	22° M 55'58	46°28'07		2245 May 20 18:32	0° S		
	2242 Nov 09 02:04	0° L			2245 Jun 15 00:08	0° Q		
	2242 Dec 06 03:31	0° M			2245 Jul 10 23:11	0° M		
	2242 Dec 31 11:39	0° J		desc. node	2245 Aug 05 14:00	28° M 10'11		
	2243 Jan 25 03:20	0° Z			2245 Aug 07 07:37	0° L		
desc. node	2243 Feb 18 19:00	0° \approx 20'35		evening max el	2245 Aug 24 13:39	17° L 24'56	45°58'14	
	2243 Feb 18 12:20	0° \approx			2245 Sep 07 12:21	0° M		
	2243 Mar 14 19:00	0° H		greatest brilliancy	2245 Oct 02 03:50	15° M 41'40	-4.6m	
	2243 Apr 08 01:36	0° Y		retrograde	2245 Oct 12 16:37	17° M 42'17		
	2243 May 02 09:18	0° B		evening set	2245 Oct 28 16:51	12° M 50'04		
morning set	2243 May 08 10:19	7° B 26'24		inferior conj	2245 Nov 02 11:52	9° M 59'21	-5°-42'00	
	2243 May 26 18:23	0° II		minimum elong	2245 Nov 02 22:12	9° M 43'34	5°39'30	
asc. node	2243 Jun 11 22:30	19° II 52'23		min. Earth dist.	2245 Nov 03 08:55	9° M 27'10	0.27132 AU	
				morning rise	2245 Nov 08 02:53	6° M 39'24		
superior conj	2243 Jun 14 13:22	23° II 05'31	0°06'16	direct	2245 Nov 23 06:45	2° M 08'17		
minimum elong	2243 Jun 14 12:03	23° II 01'29	0°06'13	asc. node	2245 Nov 26 17:25	2° M 22'22		
behind sun begin	2243 Jun 13 14:58	21° II 56'42		greatest brilliancy	2245 Dec 06 21:52	5° M 32'45	-4.7m	
behind sun end	2243 Jun 15 09:09	24° II 06'17			2246 Jan 07 11:13	0° J		
max. Earth dist.	2243 Jun 14 18:10	23° II 20'15	1.73552 AU	morning max el	2246 Jan 12 23:59	5° J 31'21	46°57'44	
	2243 Jun 20 04:17	0° S			2246 Feb 04 17:38	0° Z		
	2243 Jul 14 14:09	0° Q			2246 Mar 02 18:24	0° \approx		
evening rise	2243 Jul 20 15:50	7° Q 27'51		desc. node	2246 Mar 18 06:55	18° \approx 22'52		
	2243 Aug 07 23:47	0° M			2246 Mar 28 00:15	0° H		
	2243 Sep 01 09:56	0° L			2246 Apr 21 22:10	0° Y		

	2246 May 16 16:39	0°♄		evening max el	2248 Nov 05 17:33	0°♄27'51	47°04'15
	2246 Jun 10 09:09	0°♂			2248 Dec 12 16:29	0°♄	
	2246 Jul 04 23:24	0°♄		greatest brilliancy	2248 Dec 14 09:59	0°♄46'34	-4.7m
asc. node	2246 Jul 09 10:17	5°♄26'55		asc. node	2248 Dec 24 05:12	3°♄21'54	
morning set	2246 Jul 15 12:41	12°♄55'20		retrograde	2248 Dec 26 08:41	3°♄27'31	
	2246 Jul 29 10:29	0°♂			2249 Jan 08 09:44	30°♄♂	
max. Earth dist.	2246 Aug 17 18:20	23°♂49'56	1.73081 AU	evening set	2249 Jan 10 07:18	28°♄59'55	
				min. Earth dist.	2249 Jan 15 05:27	26°♄05'54	0.26644 AU
superior conj	2246 Aug 20 21:56	27°♂43'35	1°18'55	inferior conj	2249 Jan 15 22:35	25°♄39'39	5°29'30
minimum elong	2246 Aug 20 15:46	27°♂24'31	1°18'48	minimum elong	2249 Jan 15 12:24	25°♄55'15	5°26'54
	2246 Aug 22 18:03	0°♄		morning rise	2249 Jan 20 17:52	22°♄48'00	
	2246 Sep 15 22:52	0°♂		direct	2249 Feb 05 07:32	18°♄00'18	
evening rise	2246 Sep 26 13:14	13°♂09'57		greatest brilliancy	2249 Feb 16 09:31	20°♄18'23	-4.6m
	2246 Oct 10 02:15	0°♂			2249 Mar 04 17:28	0°♄	
desc. node	2246 Oct 28 23:49	23°♂29'58		morning max el	2249 Mar 27 08:17	20°♄06'40	46°33'30
	2246 Nov 03 05:19	0°♄			2249 Apr 06 01:34	0°♄	
	2246 Nov 27 08:51	0°♄		desc. node	2249 Apr 14 18:47	9°♄15'16	
	2246 Dec 21 14:07	0°♄			2249 May 03 13:25	0°♄	
	2247 Jan 15 00:16	0°♄			2249 May 29 16:35	0°♄	
	2247 Feb 08 21:58	0°♄			2249 Jun 24 04:53	0°♂	
asc. node	2247 Feb 19 02:54	12°♄00'05			2249 Jul 19 07:35	0°♄	
	2247 Mar 06 20:47	0°♄		asc. node	2249 Aug 05 22:05	21°♄16'50	
evening max el	2247 Apr 01 16:03	27°♄21'53	46°02'31		2249 Aug 13 01:59	0°♂	
	2247 Apr 04 08:53	0°♂			2249 Sep 06 12:43	0°♄	
greatest brilliancy	2247 May 06 06:57	24°♂36'41	-4.5m	morning set	2249 Sep 22 00:01	19°♄09'27	
retrograde	2247 May 21 00:41	28°♂27'16			2249 Sep 30 17:15	0°♄	
evening set	2247 Jun 05 03:16	24°♂01'42			2249 Oct 24 17:41	0°♂	
desc. node	2247 Jun 10 16:20	20°♂43'14		max. Earth dist.	2249 Oct 27 08:07	3°♂15'24	1.71673 AU
inferior conj	2247 Jun 11 11:59	20°♂12'24	0°-11'-38				
minimum elong	2247 Jun 11 11:33	20°♂13'05	0°11'31	superior conj	2249 Oct 29 18:51	6°♂19'19	0°58'07
transit middle	2247 Jun 11 11:33	20°♂13'05	0°11'31	minimum elong	2249 Oct 30 05:12	6°♂51'43	0°57'44
transit begin	2247 Jun 11 08:42	20°♂17'34			2249 Nov 17 16:03	0°♄	
transit end	2247 Jun 11 14:25	20°♂08'36		desc. node	2249 Nov 25 11:42	9°♄48'35	
min. Earth dist.	2247 Jun 11 10:33	20°♂14'40	0.28868 AU	evening rise	2249 Dec 09 01:15	26°♄50'13	
morning rise	2247 Jun 17 19:56	16°♂23'42			2249 Dec 11 13:44	0°♄	
direct	2247 Jul 03 00:31	11°♂56'40			2250 Jan 04 11:43	0°♄	
greatest brilliancy	2247 Jul 16 09:03	15°♂02'35	-4.5m		2250 Jan 28 11:28	0°♄	
	2247 Aug 07 20:30	0°♄			2250 Feb 21 15:37	0°♄	
morning max el	2247 Aug 20 19:11	11°♄39'49	45°48'15		2250 Mar 18 04:07	0°♄	
	2247 Sep 07 21:14	0°♂		asc. node	2250 Mar 18 14:54	0°♄32'39	
asc. node	2247 Oct 01 19:51	26°♂30'28			2250 Apr 12 06:38	0°♂	
	2247 Oct 04 20:46	0°♄			2250 May 08 09:01	0°♄	
	2247 Oct 30 06:32	0°♄			2250 Jun 05 12:58	0°♂	
	2247 Nov 23 20:51	0°♄		evening max el	2250 Jun 11 07:09	5°♂38'14	45°24'22
	2247 Dec 18 01:15	0°♄		desc. node	2250 Jul 08 04:13	27°♂40'01	
	2248 Jan 11 01:13	0°♄			2250 Jul 12 03:31	0°♄	
desc. node	2248 Jan 21 09:09	12°♄56'24		greatest brilliancy	2250 Jul 16 17:50	2°♄14'57	-4.5m
	2248 Feb 03 23:52	0°♄		retrograde	2250 Jul 29 20:39	5°♄14'46	
morning set	2248 Feb 22 01:56	22°♄38'52			2250 Aug 15 12:22	30°♄♂	
	2248 Feb 27 22:58	0°♄		evening set	2250 Aug 16 00:15	29°♂42'42	
	2248 Mar 22 23:49	0°♄		inferior conj	2250 Aug 20 06:01	27°♂07'23	-7°-58'-51
				minimum elong	2250 Aug 19 22:48	27°♂18'38	7°58'04
superior conj	2248 Apr 02 03:07	12°♄36'50	-1°-18'-34	min. Earth dist.	2250 Aug 20 11:02	26°♂59'35	0.28849 AU
minimum elong	2248 Apr 02 11:10	13°♄01'51	1°18'26	morning rise	2250 Aug 23 21:13	24°♂53'25	
max. Earth dist.	2248 Apr 05 21:54	17°♄18'45	1.72403 AU	direct	2250 Sep 10 20:19	18°♂51'55	
	2248 Apr 16 03:29	0°♄		greatest brilliancy	2250 Sep 25 05:25	22°♂31'37	-4.5m
	2248 May 10 10:33	0°♂			2250 Oct 07 09:45	0°♄	
evening rise	2248 May 10 18:19	0°♂23'52		asc. node	2250 Oct 29 07:38	19°♄11'09	
asc. node	2248 May 13 12:44	3°♂48'12		morning max el	2250 Oct 30 19:05	20°♄39'04	46°26'24
	2248 Jun 03 21:08	0°♄			2250 Nov 08 21:17	0°♄	
	2248 Jun 28 11:22	0°♂			2250 Dec 05 18:28	0°♂	
	2248 Jul 23 06:11	0°♄			2250 Dec 31 00:53	0°♄	
	2248 Aug 17 07:51	0°♄			2251 Jan 24 15:40	0°♄	
desc. node	2248 Sep 02 01:52	18°♄35'53		desc. node	2251 Feb 17 21:06	29°♄50'49	
	2248 Sep 11 20:21	0°♂			2251 Feb 18 00:05	0°♄	
	2248 Oct 08 03:43	0°♄			2251 Mar 14 06:20	0°♄	
	2248 Nov 05 06:25	0°♄			2251 Apr 07 12:37	0°♄	

	2251 May 01 20:06	0°♄		evening set	2253 Oct 26 09:00	10°♌23'25	
morning set	2251 May 06 02:35	5°♄15'38		inferior conj	2253 Oct 31 01:07	7°♌37'03	-5°-59'00
	2251 May 26 05:03	0°♀		minimum elong	2253 Oct 31 11:34	7°♌21'05	5°56'36
asc. node	2251 Jun 11 00:28	19°♀25'51		min. Earth dist.	2253 Oct 31 23:03	7°♌03'32	0.27197 AU
				morning rise	2253 Nov 05 13:26	4°♌20'47	
superior conj	2251 Jun 12 07:00	20°♀59'39	0°03'04		2253 Nov 17 07:20	30°♌♌	
minimum elong	2251 Jun 12 06:22	20°♀57'40	0°03'01	direct	2253 Nov 20 20:16	29°♌44'37	
behind sun begin	2251 Jun 11 07:57	19°♀48'50			2253 Nov 24 10:38	0°♌	
behind sun end	2251 Jun 13 04:46	22°♀06'31		asc. node	2253 Nov 25 19:19	0°♌13'35	
max. Earth dist.	2251 Jun 12 16:00	21°♀27'17	1.73536 AU	greatest brilliancy	2253 Dec 04 14:45	3°♌12'45	-4.7m
	2251 Jun 19 14:53	0°♄			2254 Jan 07 11:27	0°♌	
	2251 Jul 14 00:47	0°♌		morning max el	2254 Jan 10 13:52	3°♌07'22	46°57'35
evening rise	2251 Jul 18 10:41	5°♌25'31			2254 Feb 04 10:23	0°♌	
	2251 Aug 07 10:33	0°♌			2254 Mar 02 08:30	0°♌	
	2251 Aug 31 20:59	0°♌		desc. node	2254 Mar 17 09:03	17°♌49'47	
	2251 Sep 25 09:20	0°♌			2254 Mar 27 13:00	0°♌	
desc. node	2251 Sep 30 13:59	6°♌20'09			2254 Apr 21 10:05	0°♌	
	2251 Oct 20 00:56	0°♌			2254 May 16 04:00	0°♌	
	2251 Nov 13 21:44	0°♌			2254 Jun 09 20:07	0°♌	
	2251 Dec 09 05:06	0°♌			2254 Jul 04 10:08	0°♌	
	2252 Jan 04 15:06	0°♌		asc. node	2254 Jul 08 12:17	5°♌00'16	
evening max el	2252 Jan 18 01:01	14°♌11'51	47°07'59	morning set	2254 Jul 13 06:33	10°♌50'12	
asc. node	2252 Jan 21 17:05	17°♌53'23			2254 Jul 28 21:06	0°♌	
	2252 Feb 03 16:56	0°♌		max. Earth dist.	2254 Aug 15 14:56	21°♌52'23	1.73122 AU
greatest brilliancy	2252 Feb 24 04:27	14°♌10'47	-4.6m				
retrograde	2252 Mar 08 18:54	17°♌34'29		superior conj	2254 Aug 18 15:51	25°♌37'41	1°17'41
evening set	2252 Mar 26 11:19	11°♌30'07		minimum elong	2254 Aug 18 09:14	25°♌17'13	1°17'33
inferior conj	2252 Mar 29 20:17	9°♌23'42	8°11'17		2254 Aug 22 04:42	0°♌	
minimum elong	2252 Mar 30 03:13	9°♌12'46	8°10'32		2254 Sep 15 09:38	0°♌	
min. Earth dist.	2252 Mar 29 12:43	9°♌35'39	0.28091 AU	evening rise	2254 Sep 24 05:13	10°♌56'57	
morning rise	2252 Apr 02 19:23	6°♌56'44			2254 Oct 09 13:10	0°♌	
direct	2252 Apr 19 20:51	1°♌21'45		desc. node	2254 Oct 28 01:50	23°♌01'49	
greatest brilliancy	2252 May 01 03:59	3°♌41'10	-4.5m		2254 Nov 02 16:28	0°♌	
desc. node	2252 May 12 06:31	9°♌34'44			2254 Nov 26 20:17	0°♌	
	2252 Jun 06 02:45	0°♌			2254 Dec 21 01:57	0°♌	
morning max el	2252 Jun 07 21:24	1°♌41'44	45°51'39		2255 Jan 14 12:44	0°♌	
	2252 Jul 05 08:28	0°♌			2255 Feb 08 11:33	0°♌	
	2252 Aug 01 04:11	0°♌		asc. node	2255 Feb 18 05:00	11°♌24'43	
	2252 Aug 26 20:43	0°♌			2255 Mar 06 12:44	0°♌	
asc. node	2252 Sep 02 10:02	7°♌48'35		evening max el	2255 Mar 30 07:28	25°♌08'16	46°04'49
	2252 Sep 20 19:29	0°♌			2255 Apr 04 08:07	0°♌	
	2252 Oct 15 05:47	0°♌		greatest brilliancy	2255 May 03 22:13	22°♌25'40	-4.5m
	2252 Nov 08 08:08	0°♌		retrograde	2255 May 18 17:37	26°♌18'19	
	2252 Dec 02 06:16	0°♌		evening set	2255 Jun 02 20:23	21°♌51'19	
morning set	2252 Dec 03 09:40	1°♌26'06		inferior conj	2255 Jun 09 04:20	18°♌03'11	0°08'17
desc. node	2252 Dec 22 23:23	26°♌03'04		minimum elong	2255 Jun 09 04:38	18°♌02'42	0°08'12
	2252 Dec 26 02:42	0°♌		transit middle	2255 Jun 09 04:38	18°♌02'42	0°08'12
				transit begin	2255 Jun 09 01:08	18°♌08'12	
superior conj	2253 Jan 13 18:56	23°♌30'14	0°-49'-11	transit end	2255 Jun 09 08:08	17°♌57'13	
minimum elong	2253 Jan 13 07:46	22°♌55'07	0°48'44	min. Earth dist.	2255 Jun 09 02:56	18°♌05'22	0.28854 AU
max. Earth dist.	2253 Jan 15 08:12	25°♌27'27	1.71113 AU	desc. node	2255 Jun 09 18:18	17°♌41'18	
	2253 Jan 18 22:54	0°♌		morning rise	2255 Jun 15 13:01	14°♌13'47	
	2253 Feb 11 20:09	0°♌		direct	2255 Jun 30 16:39	9°♌47'30	
evening rise	2253 Feb 23 22:58	15°♌10'16		greatest brilliancy	2255 Jul 14 00:46	12°♌53'31	-4.5m
	2253 Mar 07 20:02	0°♌			2255 Aug 08 01:13	0°♌	
	2253 Apr 01 00:25	0°♌		morning max el	2255 Aug 18 11:52	9°♌31'55	45°47'30
asc. node	2253 Apr 15 02:53	17°♌21'08			2255 Sep 07 14:14	0°♌	
	2253 Apr 25 11:10	0°♌		asc. node	2255 Sep 30 21:55	25°♌55'53	
	2253 May 20 06:12	0°♌			2255 Oct 04 10:38	0°♌	
	2253 Jun 14 12:41	0°♌			2255 Oct 29 19:04	0°♌	
	2253 Jul 10 13:27	0°♌			2255 Nov 23 08:44	0°♌	
desc. node	2253 Aug 04 16:05	27°♌28'46			2255 Dec 17 12:44	0°♌	
	2253 Aug 07 01:49	0°♌			2256 Jan 10 12:27	0°♌	
evening max el	2253 Aug 22 02:14	15°♌04'15	45°56'08	desc. node	2256 Jan 20 11:16	12°♌28'06	
	2253 Sep 07 21:56	0°♌			2256 Feb 03 10:55	0°♌	
greatest brilliancy	2253 Sep 29 16:14	13°♌19'41	-4.6m	morning set	2256 Feb 19 12:45	20°♌08'11	
retrograde	2253 Oct 10 05:01	15°♌20'45			2256 Feb 27 09:54	0°♌	

	2256 Mar 22 10:40	0°♄		inferior conj	2258 Aug 17 21:58	24°♌56'27	-7°-50'-34
				minimum elong	2258 Aug 17 14:13	25°♌08'31	7°49'38
superior conj	2256 Mar 30 16:49	10°♄16'36	-1°-20'00	min. Earth dist.	2258 Aug 18 02:19	24°♌49'39	0.28874 AU
minimum elong	2256 Mar 31 00:18	10°♄39'52	1°19'52	morning rise	2258 Aug 21 15:22	22°♌38'52	
max. Earth dist.	2256 Apr 03 11:40	14°♄58'53	1.72353 AU	direct	2258 Sep 08 12:29	16°♌40'47	
	2256 Apr 15 14:16	0°♄		greatest brilliancy	2258 Sep 22 19:58	20°♌17'46	-4.5m
evening rise	2256 May 08 10:23	28°♄12'24			2258 Oct 08 00:02	0°♍	
	2256 May 09 21:21	0°♍		asc. node	2258 Oct 28 09:37	18°♍20'53	
asc. node	2256 May 12 14:40	3°♍20'55		morning max el	2258 Oct 28 09:01	18°♍19'23	46°24'41
	2256 Jun 03 08:03	0°♍			2258 Nov 08 16:12	0°♎	
	2256 Jun 27 22:33	0°♎			2258 Dec 05 09:25	0°♎	
	2256 Jul 22 17:52	0°♎			2258 Dec 30 14:14	0°♏	
	2256 Aug 16 20:22	0°♎			2259 Jan 24 04:11	0°♏	
desc. node	2256 Sep 01 04:01	18°♎03'15		desc. node	2259 Feb 16 23:10	29°♏20'11	
	2256 Sep 11 10:18	0°♏			2259 Feb 17 12:02	0°♐	
	2256 Oct 07 20:22	0°♏			2259 Mar 13 17:53	0°♑	
evening max el	2256 Nov 03 08:33	28°♏07'17	47°02'36		2259 Apr 06 23:50	0°♑	
	2256 Nov 05 06:02	0°♑			2259 May 01 07:05	0°♒	
greatest brilliancy	2256 Dec 11 23:37	28°♑18'54	-4.7m	morning set	2259 May 03 19:08	3°♒05'02	
	2256 Dec 16 20:02	0°♒			2259 May 25 15:54	0°♒	
asc. node	2256 Dec 23 07:17	0°♒58'17					
retrograde	2256 Dec 23 22:02	0°♒58'45		superior conj	2259 Jun 10 00:56	18°♒54'08	0°00'-9
	2256 Dec 30 18:32	30°♒35'28		minimum elong	2259 Jun 10 00:58	18°♒54'12	0°00'10
evening set	2257 Jan 07 17:14	26°♒35'28		behind sun begin	2259 Jun 09 02:22	17°♒44'46	
inferior conj	2257 Jan 13 11:03	23°♒11'41	5°10'08	behind sun end	2259 Jun 10 23:34	20°♒03'38	
minimum elong	2257 Jan 13 01:10	23°♒26'50	5°07'30	asc. node	2259 Jun 10 02:34	18°♒59'10	
min. Earth dist.	2257 Jan 12 18:26	23°♒37'08	0.26604 AU	max. Earth dist.	2259 Jun 10 13:10	19°♒31'42	1.73520 AU
morning rise	2257 Jan 18 09:30	20°♒15'53			2259 Jun 19 01:41	0°♓	
direct	2257 Feb 02 20:30	15°♒33'05			2259 Jul 13 11:38	0°♓	
greatest brilliancy	2257 Feb 13 22:08	17°♒51'26	-4.6m	evening rise	2259 Jul 16 05:44	3°♓23'06	
	2257 Mar 05 08:59	0°♓			2259 Aug 06 21:35	0°♔	
morning max el	2257 Mar 24 22:14	17°♓45'27	46°34'58		2259 Aug 31 08:19	0°♔	
	2257 Apr 05 21:07	0°♔			2259 Sep 24 21:09	0°♕	
desc. node	2257 Apr 13 20:51	8°♔32'58		desc. node	2259 Sep 29 15:56	5°♕49'48	
	2257 May 03 04:28	0°♕			2259 Oct 19 13:26	0°♕	
	2257 May 29 05:42	0°♖			2259 Nov 13 11:13	0°♖	
	2257 Jun 23 16:57	0°♖			2259 Dec 08 20:16	0°♖	
	2257 Jul 18 19:02	0°♖			2260 Jan 04 09:57	0°♗	
asc. node	2257 Aug 05 00:14	20°♖49'23		evening max el	2260 Jan 15 14:46	11°♗47'39	47°09'16
	2257 Aug 12 13:05	0°♗		asc. node	2260 Jan 20 19:15	16°♗59'12	
	2257 Sep 05 23:38	0°♗			2260 Feb 04 02:22	0°♘	
morning set	2257 Sep 19 16:12	16°♗57'00		greatest brilliancy	2260 Feb 21 22:03	11°♘54'23	-4.6m
	2257 Sep 30 04:07	0°♘		retrograde	2260 Mar 06 09:38	15°♘15'33	
	2257 Oct 24 04:36	0°♘		evening set	2260 Mar 24 04:35	9°♘08'20	
max. Earth dist.	2257 Oct 24 17:29	0°♘40'17	1.71719 AU	inferior conj	2260 Mar 27 11:13	7°♘05'32	8°19'11
				minimum elong	2260 Mar 27 17:31	6°♘55'36	8°18'34
superior conj	2257 Oct 27 08:32	3°♘57'36	1°00'42	min. Earth dist.	2260 Mar 27 03:20	7°♘17'59	0.28046 AU
minimum elong	2257 Oct 27 18:50	4°♘29'52	1°00'21	morning rise	2260 Mar 31 06:41	4°♘43'50	
	2257 Nov 17 03:05	0°♘			2260 Apr 10 15:34	30°♘♏	
desc. node	2257 Nov 24 13:38	9°♘19'55		direct	2260 Apr 17 10:35	29°♘04'16	
evening rise	2257 Dec 06 12:07	24°♘18'39			2260 Apr 24 11:21	0°♙	
	2257 Dec 11 00:54	0°♙		greatest brilliancy	2260 Apr 28 17:19	1°♙22'48	-4.5m
	2258 Jan 03 23:01	0°♙		desc. node	2260 May 11 08:25	8°♙16'49	
	2258 Jan 27 22:54	0°♙		morning max el	2260 Jun 05 11:21	29°♙24'50	45°52'48
	2258 Feb 21 03:16	0°♙			2260 Jun 06 01:57	0°♚	
asc. node	2258 Mar 17 17:00	0°♚02'18			2260 Jul 05 00:30	0°♚	
	2258 Mar 17 16:14	0°♚			2260 Jul 31 17:42	0°♛	
	2258 Apr 11 19:42	0°♚			2260 Aug 26 09:02	0°♛	
	2258 May 08 00:06	0°♛		asc. node	2260 Sep 01 12:03	7°♛18'21	
	2258 Jun 05 09:37	0°♛			2260 Sep 20 07:11	0°♜	
evening max el	2258 Jun 08 22:57	3°♛27'25	45°24'25		2260 Oct 14 17:11	0°♜	
desc. node	2258 Jul 07 06:22	26°♛22'18			2260 Nov 07 19:24	0°♞	
	2258 Jul 14 05:14	0°♞		morning set	2260 Nov 30 21:17	28°♞56'29	
greatest brilliancy	2258 Jul 14 08:15	0°♞03'17	-4.5m		2260 Dec 01 17:30	0°♟	
retrograde	2258 Jul 27 11:44	3°♞04'08		desc. node	2260 Dec 22 01:30	25°♟34'28	
	2258 Aug 09 01:39	30°♞♏			2260 Dec 25 13:54	0°♠	
evening set	2258 Aug 13 12:55	27°♏36'46					

superior conj	2261 Jan 11 04:34	20°☾54'21	0°-45'-49	morning rise	2263 Jun 13 05:51	12°♊02'50	
minimum elong	2261 Jan 10 17:51	20°☾20'39	0°45'22	direct	2263 Jun 28 09:05	7°♊37'22	
max. Earth dist.	2261 Jan 12 10:54	22°☾29'44	1.71103 AU	greatest brilliancy	2263 Jul 11 15:27	10°♊42'17	-4.5m
	2261 Jan 18 10:06	0°≈			2263 Aug 08 04:30	0°☿	
	2261 Feb 11 07:22	0°✕		morning max el	2263 Aug 16 04:36	7°☿23'38	45°46'55
evening rise	2261 Feb 21 09:38	12°✕38'23			2263 Sep 07 07:04	0°♊	
	2261 Mar 07 07:18	0°♑		asc. node	2263 Sep 29 23:54	25°♊20'54	
	2261 Mar 31 11:48	0°♒			2263 Oct 04 00:30	0°♑	
asc. node	2261 Apr 14 04:51	16°♒52'03			2263 Oct 29 07:41	0°♎	
	2261 Apr 24 22:44	0°♊			2263 Nov 22 20:44	0°♎	
	2261 May 19 18:12	0°☿			2263 Dec 17 00:24	0°♒	
	2261 Jun 14 01:34	0°♊			2264 Jan 09 23:56	0°☾	
	2261 Jul 10 04:07	0°♑		desc. node	2264 Jan 19 13:23	11°☾58'54	
desc. node	2261 Aug 03 18:10	26°♑46'07			2264 Feb 02 22:15	0°≈	
	2261 Aug 06 20:47	0°♎		morning set	2264 Feb 16 23:05	17°≈35'04	
evening max el	2261 Aug 19 15:17	12°♎44'11	45°54'01		2264 Feb 26 21:06	0°✕	
	2261 Sep 08 11:16	0°♎			2264 Mar 21 21:45	0°♑	
greatest brilliancy	2261 Sep 27 03:34	10°♎55'55	-4.6m				
retrograde	2261 Oct 07 18:00	12°♎58'32		superior conj	2264 Mar 28 05:59	7°♑53'51	-1°-21'-18
evening set	2261 Oct 24 01:14	7°♎55'52		minimum elong	2264 Mar 28 12:49	8°♑15'06	1°21'12
inferior conj	2261 Oct 28 14:22	5°♎13'47	-6°-15'-19	max. Earth dist.	2264 Apr 01 03:09	12°♑43'32	1.72299 AU
minimum elong	2261 Oct 29 00:53	4°♎57'44	6°13'01		2264 Apr 15 01:17	0°♒	
min. Earth dist.	2261 Oct 29 12:47	4°♎39'35	0.27268 AU	evening rise	2264 May 06 02:07	25°♒59'08	
morning rise	2261 Nov 02 23:53	2°♎01'38			2264 May 09 08:22	0°♊	
	2261 Nov 06 23:37	30°♒♎		asc. node	2264 May 11 16:46	2°♊53'28	
direct	2261 Nov 18 10:22	27°♎20'02			2264 Jun 02 19:11	0°☿	
asc. node	2261 Nov 24 21:24	28°♎08'51			2264 Jun 27 09:58	0°♊	
	2261 Nov 30 09:30	0°♎			2264 Jul 22 05:46	0°♑	
greatest brilliancy	2261 Dec 02 07:35	0°♎51'50	-4.7m		2264 Aug 16 09:04	0°♎	
	2262 Jan 07 11:04	0°♒		desc. node	2264 Aug 31 06:00	17°♎29'44	
morning max el	2262 Jan 08 04:37	0°♒44'35	46°57'23		2264 Sep 11 00:25	0°♎	
	2262 Feb 04 03:12	0°☾			2264 Oct 07 13:21	0°♒	
	2262 Mar 01 22:47	0°≈		evening max el	2264 Oct 31 23:15	25°♒45'57	47°00'42
desc. node	2262 Mar 16 11:03	17°≈15'33			2264 Nov 05 06:48	0°☾	
	2262 Mar 27 01:59	0°✕		greatest brilliancy	2264 Dec 09 13:40	25°☾51'20	-4.7m
	2262 Apr 20 22:17	0°♑		retrograde	2264 Dec 21 10:46	28°☾29'01	
	2262 May 15 15:40	0°♒		asc. node	2264 Dec 22 09:24	28°☾27'55	
	2262 Jun 09 07:23	0°♊		evening set	2265 Jan 05 03:16	24°☾09'57	
	2262 Jul 03 21:08	0°☿		inferior conj	2265 Jan 10 23:23	20°☾42'51	4°49'52
asc. node	2262 Jul 07 14:28	4°☿33'20		minimum elong	2265 Jan 10 13:53	20°☾57'24	4°47'16
morning set	2262 Jul 11 00:43	8°☿45'14		min. Earth dist.	2265 Jan 10 07:36	21°☾07'01	0.26573 AU
	2262 Jul 28 07:59	0°♊		morning rise	2265 Jan 16 00:55	17°☾42'44	
max. Earth dist.	2262 Aug 13 12:58	19°♊58'40	1.73159 AU	direct	2265 Jan 31 09:10	13°☾04'55	
				greatest brilliancy	2265 Feb 11 11:13	15°☾23'45	-4.6m
superior conj	2262 Aug 16 10:05	23°♊32'06	1°16'21		2265 Mar 05 21:00	0°≈	
minimum elong	2262 Aug 16 03:02	23°♊10'20	1°16'12	morning max el	2265 Mar 22 11:06	15°≈20'29	46°36'21
	2262 Aug 21 15:35	0°♑			2265 Apr 05 16:25	0°✕	
	2262 Sep 14 20:37	0°♎		desc. node	2265 Apr 12 22:49	7°✕50'05	
evening rise	2262 Sep 21 21:33	8°♎44'21			2265 May 02 19:34	0°♑	
	2262 Oct 09 00:22	0°♎			2265 May 28 18:53	0°♒	
desc. node	2262 Oct 27 03:50	22°♎32'37			2265 Jun 23 05:05	0°♊	
	2262 Nov 02 03:56	0°♒			2265 Jul 18 06:33	0°☿	
	2262 Nov 26 08:06	0°☾		asc. node	2265 Aug 04 02:12	20°☿21'12	
	2262 Dec 20 14:12	0°≈			2265 Aug 12 00:14	0°♊	
	2263 Jan 14 01:38	0°✕			2265 Sep 05 10:36	0°♑	
	2263 Feb 08 01:37	0°♑		morning set	2265 Sep 17 08:35	14°♑45'06	
asc. node	2263 Feb 17 07:01	10°♑47'49			2265 Sep 29 15:00	0°♎	
	2263 Mar 06 05:19	0°♒		max. Earth dist.	2265 Oct 22 03:20	28°♎06'52	1.71763 AU
evening max el	2263 Mar 27 23:29	22°♒55'03	46°07'09		2265 Oct 23 15:30	0°♎	
	2263 Apr 04 08:54	0°♊					
greatest brilliancy	2263 May 01 14:35	20°♊15'02	-4.5m	superior conj	2265 Oct 24 22:44	1°♎37'45	1°03'09
retrograde	2263 May 16 10:39	24°♊08'03		minimum elong	2265 Oct 25 08:57	2°♎09'42	1°02'49
evening set	2263 May 31 13:37	19°♊39'42			2265 Nov 16 14:04	0°♒	
inferior conj	2263 Jun 06 20:34	15°♊52'43	0°28'23	desc. node	2265 Nov 23 15:48	8°♒52'10	
minimum elong	2263 Jun 06 21:36	15°♊51'04	0°28'04	evening rise	2265 Dec 03 23:25	21°♒48'44	
min. Earth dist.	2263 Jun 06 19:00	15°♊55'09	0.28836 AU		2265 Dec 10 12:01	0°☾	
desc. node	2263 Jun 08 20:28	14°♊38'00			2266 Jan 03 10:16	0°≈	

	2266 Jan 27 10:21	0° H		morning max el	2268 Jun 03 01:53	27° Y 09'49	45°53'50
	2266 Feb 20 15:00	0° Y			2268 Jun 06 00:01	0° B	
asc. node	2266 Mar 16 18:55	29° Y 31'05			2268 Jul 04 16:06	0° II	
	2266 Mar 17 04:29	0° B			2268 Jul 31 06:54	0° S	
	2266 Apr 11 08:57	0° II			2268 Aug 25 21:03	0° Q	
	2266 May 07 15:30	0° S		asc. node	2268 Aug 31 14:03	6° Q 48'51	
	2266 Jun 05 07:06	0° Q			2268 Sep 19 18:36	0° M	
evening max el	2266 Jun 06 13:38	1° Q 13'41	45°24'40		2268 Oct 14 04:18	0° A	
desc. node	2266 Jul 06 08:24	25° Q 01'43			2268 Nov 07 06:24	0° M	
greatest brilliancy	2266 Jul 11 22:06	27° Q 50'38	-4.5m	morning set	2268 Nov 28 09:07	26° M 28'30	
	2266 Jul 18 03:45	0° M			2268 Dec 01 04:26	0° J	
retrograde	2266 Jul 25 02:40	0° M 53'25		desc. node	2268 Dec 21 03:35	25° J 06'46	
	2266 Jul 31 20:38	30° R Q			2268 Dec 25 00:47	0° C	
evening set	2266 Aug 11 01:24	25° Q 30'30					
inferior conj	2266 Aug 15 13:47	22° Q 45'20	-7°-41'-36	superior conj	2269 Jan 08 14:26	18° C 20'15	0°-42'-21
minimum elong	2266 Aug 15 05:34	22° Q 58'09	7°40'31	minimum elong	2269 Jan 08 04:15	17° C 48'13	0°41'56
min. Earth dist.	2266 Aug 15 17:43	22° Q 39'11	0.28897 AU	max. Earth dist.	2269 Jan 09 15:59	19° C 40'36	1.71090 AU
morning rise	2266 Aug 19 09:33	20° Q 24'03			2269 Jan 17 20:57	0° \approx	
direct	2266 Sep 06 04:05	14° Q 29'19			2269 Feb 10 18:12	0° H	
greatest brilliancy	2266 Sep 20 11:32	18° Q 05'15	-4.5m	evening rise	2269 Feb 18 20:40	10° H 08'55	
	2266 Oct 08 10:38	0° M			2269 Mar 06 18:10	0° Y	
morning max el	2266 Oct 25 22:42	15° M 59'27	46°23'17		2269 Mar 30 22:45	0° B	
asc. node	2266 Oct 27 11:40	17° M 31'54		asc. node	2269 Apr 13 06:56	16° B 24'32	
	2266 Nov 08 10:29	0° A			2269 Apr 24 09:57	0° II	
	2266 Dec 05 00:00	0° M			2269 May 19 05:55	0° S	
	2266 Dec 30 03:16	0° J			2269 Jun 13 14:14	0° Q	
	2267 Jan 23 16:24	0° C			2269 Jul 09 18:43	0° M	
desc. node	2267 Feb 16 01:08	28° C 50'02		desc. node	2269 Aug 02 20:09	26° M 03'22	
	2267 Feb 16 23:45	0° \approx			2269 Aug 06 16:01	0° A	
	2267 Mar 13 05:14	0° H		evening max el	2269 Aug 17 05:08	10° A 26'59	45°52'03
	2267 Apr 06 10:55	0° Y			2269 Sep 09 04:38	0° M	
	2267 Apr 30 17:59	0° B		greatest brilliancy	2269 Sep 24 14:20	8° M 32'42	-4.6m
morning set	2267 May 01 11:02	0° B 52'35		retrograde	2269 Oct 05 07:18	10° M 37'10	
	2267 May 25 02:39	0° II		evening set	2269 Oct 21 17:28	5° M 29'16	
				inferior conj	2269 Oct 26 03:33	2° M 51'21	-6°-30'-58
superior conj	2267 Jun 07 18:17	16° II 47'05	0°-3'-26	minimum elong	2269 Oct 26 14:03	2° M 35'20	6°28'45
minimum elong	2267 Jun 07 19:00	16° II 49'17	0°03'24	min. Earth dist.	2269 Oct 27 02:02	2° M 17'04	0.27337 AU
behind sun begin	2267 Jun 06 20:37	15° II 40'30			2269 Oct 30 22:25	30° R A	
behind sun end	2267 Jun 08 17:23	17° II 58'04		morning rise	2269 Oct 31 10:05	29° A 43'33	
max. Earth dist.	2267 Jun 08 08:14	17° II 29'59	1.73501 AU	direct	2269 Nov 16 00:49	24° A 56'33	
asc. node	2267 Jun 09 04:39	18° II 32'41		asc. node	2269 Nov 23 23:34	26° A 09'51	
	2267 Jun 18 12:23	0° S		greatest brilliancy	2269 Nov 29 23:31	28° A 30'47	-4.6m
	2267 Jul 12 22:22	0° Q			2269 Dec 02 20:32	0° M	
evening rise	2267 Jul 14 00:22	1° Q 19'49		morning max el	2270 Jan 05 19:47	28° M 23'58	46°57'09
	2267 Aug 06 08:30	0° M			2270 Jan 07 09:19	0° J	
	2267 Aug 30 19:33	0° A			2270 Feb 03 19:18	0° C	
	2267 Sep 24 08:52	0° M			2270 Mar 01 12:30	0° \approx	
desc. node	2267 Sep 28 17:57	5° M 19'59		desc. node	2270 Mar 15 13:04	16° \approx 42'53	
	2267 Oct 19 01:48	0° J			2270 Mar 26 14:26	0° H	
	2267 Nov 13 00:33	0° C			2270 Apr 20 09:58	0° Y	
	2267 Dec 08 11:17	0° \approx			2270 May 15 02:49	0° B	
	2268 Jan 04 04:52	0° H			2270 Jun 08 18:13	0° II	
evening max el	2268 Jan 13 04:03	9° H 23'24	47°10'34		2270 Jul 03 07:45	0° S	
asc. node	2268 Jan 19 21:11	16° H 04'38		asc. node	2270 Jul 06 16:24	4° S 06'49	
	2268 Feb 04 14:25	0° Y		morning set	2270 Jul 08 18:48	6° S 41'07	
greatest brilliancy	2268 Feb 19 14:17	9° Y 37'12	-4.6m		2270 Jul 27 18:31	0° Q	
retrograde	2268 Mar 04 00:24	12° Y 57'40		max. Earth dist.	2270 Aug 11 09:45	18° Q 02'03	1.73196 AU
evening set	2268 Mar 21 21:32	6° Y 47'32					
min. Earth dist.	2268 Mar 24 17:47	5° Y 01'15	0.28008 AU	superior conj	2270 Aug 14 04:04	21° Q 26'48	1°14'54
inferior conj	2268 Mar 25 02:07	4° Y 48'07	8°26'08	minimum elong	2270 Aug 13 20:39	21° Q 03'52	1°14'44
minimum elong	2268 Mar 25 07:45	4° Y 39'13	8°25'39		2270 Aug 21 02:09	0° M	
morning rise	2268 Mar 28 18:10	2° Y 31'37			2270 Sep 14 07:18	0° A	
	2268 Apr 02 08:11	30° R H		evening rise	2270 Sep 19 13:40	6° A 32'03	
direct	2268 Apr 15 00:22	26° H 47'18			2270 Oct 08 11:15	0° M	
greatest brilliancy	2268 Apr 26 07:32	29° H 06'07	-4.5m	desc. node	2270 Oct 26 05:57	22° M 04'49	
	2268 Apr 28 10:55	0° Y			2270 Nov 01 15:05	0° J	
desc. node	2268 May 10 10:37	7° Y 02'22			2270 Nov 25 19:36	0° C	

asc. node	2270 Dec 20 02:10	0°♊		2273 Aug 11 11:07	0°♋		
	2271 Jan 13 14:15	0°♋		2273 Sep 04 21:20	0°♌		
	2271 Feb 07 15:23	0°♌	morning set	2273 Sep 15 01:03	12°♌34'08		
	2271 Feb 16 09:03	10°♌11'51		2273 Sep 29 01:43	0°♍		
evening max el	2271 Mar 05 21:43	0°♍	max. Earth dist.	2273 Oct 19 14:18	25°♍37'20	1.71816 AU	
	2271 Mar 25 15:54	20°♍44'15	46°09'35				
	2271 Apr 04 10:16	0°♎	superior conj	2273 Oct 22 12:58	29°♍18'18	1°05'30	
greatest brilliancy	2271 Apr 29 08:01	18°♎07'35	-4.5m	minimum elong	2273 Oct 22 22:59	29°♍49'41	1°05'10
retrograde	2271 May 14 03:41	21°♎59'34			2273 Oct 23 02:17	0°♏	
evening set	2271 May 29 07:14	17°♎29'59			2273 Nov 16 00:59	0°♐	
inferior conj	2271 Jun 04 12:59	13°♎44'10	0°48'18	desc. node	2273 Nov 22 17:50	8°♐24'15	
minimum elong	2271 Jun 04 14:46	13°♎41'23	0°47'46	evening rise	2273 Dec 01 10:30	19°♐18'28	
min. Earth dist.	2271 Jun 04 11:13	13°♎46'57	0.28818 AU		2273 Dec 09 23:04	0°♑	
desc. node	2271 Jun 07 22:27	11°♎38'04			2274 Jan 02 21:28	0°♒	
morning rise	2271 Jun 10 22:40	9°♎53'51			2274 Jan 26 21:42	0°♓	
direct	2271 Jun 26 01:50	5°♎29'17			2274 Feb 20 02:40	0°♑	
greatest brilliancy	2271 Jul 09 05:22	8°♎31'42	-4.5m	asc. node	2274 Mar 15 21:03	29°♑00'43	
	2271 Aug 08 05:44	0°♑			2274 Mar 16 16:41	0°♒	
morning max el	2271 Aug 13 20:50	5°♑15'18	45°46'06		2274 Apr 10 22:10	0°♓	
	2271 Sep 06 23:15	0°♋			2274 May 07 06:57	0°♑	
asc. node	2271 Sep 29 02:00	24°♋47'15		evening max el	2274 Jun 04 04:08	29°♑00'07	45°25'10
	2271 Oct 03 13:59	0°♌			2274 Jun 05 05:10	0°♋	
	2271 Oct 28 19:58	0°♍	desc. node	2274 Jul 05 10:23	23°♋39'33		
	2271 Nov 22 08:25	0°♎	greatest brilliancy	2274 Jul 09 11:14	25°♋38'17	-4.5m	
	2271 Dec 16 11:45	0°♏	retrograde	2274 Jul 22 18:18	28°♋44'30		
	2272 Jan 09 11:04	0°♑	evening set	2274 Aug 08 14:11	23°♋25'41		
desc. node	2272 Jan 18 15:17	11°♑30'07		inferior conj	2274 Aug 13 05:55	20°♋35'49	-7°-31'-55
	2272 Feb 02 09:16	0°♒	minimum elong	2274 Aug 12 21:18	20°♋49'16	7°30'43	
morning set	2272 Feb 14 09:21	15°♒02'43		min. Earth dist.	2274 Aug 13 09:21	20°♋30'28	0.28920 AU
	2272 Feb 26 07:59	0°♓	morning rise	2274 Aug 17 04:12	18°♋10'48		
	2272 Mar 21 08:30	0°♑	direct	2274 Sep 03 19:51	12°♋19'20		
			greatest brilliancy	2274 Sep 18 04:11	15°♋55'26	-4.5m	
superior conj	2272 Mar 25 19:11	5°♑32'10	-1°-22'-27		2274 Oct 08 18:04	0°♌	
minimum elong	2272 Mar 26 01:18	5°♑51'13	1°22'23	morning max el	2274 Oct 23 13:11	13°♌42'09	46°21'38
max. Earth dist.	2272 Mar 29 19:49	10°♑32'48	1.72240 AU	asc. node	2274 Oct 26 13:48	16°♌44'20	
	2272 Apr 14 11:57	0°♒			2274 Nov 08 04:16	0°♍	
evening rise	2272 May 03 17:55	23°♒47'07			2274 Dec 04 14:28	0°♎	
	2272 May 08 19:01	0°♓			2274 Dec 29 16:20	0°♏	
asc. node	2272 May 10 18:52	2°♓27'12			2275 Jan 23 04:42	0°♑	
	2272 Jun 02 05:57	0°♑	desc. node	2275 Feb 15 03:15	28°♑20'07		
	2272 Jun 26 21:01	0°♋		2275 Feb 16 11:32	0°♒		
	2272 Jul 21 17:21	0°♌		2275 Mar 12 16:38	0°♓		
	2272 Aug 15 21:34	0°♍		2275 Apr 05 22:02	0°♑		
desc. node	2272 Aug 30 08:00	16°♍56'46		morning set	2275 Apr 29 02:48	28°♑39'32	
	2272 Sep 10 14:29	0°♎			2275 Apr 30 04:54	0°♒	
	2272 Oct 07 06:30	0°♏			2275 May 24 13:27	0°♓	
evening max el	2272 Oct 29 13:03	23°♏22'49	46°58'42				
	2272 Nov 05 08:42	0°♑	superior conj	2275 Jun 05 11:45	14°♑40'18	0°-6'-39	
greatest brilliancy	2272 Dec 07 04:37	23°♑25'16	-4.7m	minimum elong	2275 Jun 05 13:10	14°♑44'38	0°06'36
retrograde	2272 Dec 18 22:55	25°♑59'39		behind sun begin	2275 Jun 04 16:10	13°♑40'05	
asc. node	2272 Dec 21 11:20	25°♑51'53		behind sun end	2275 Jun 06 10:10	15°♑49'10	
evening set	2273 Jan 02 13:28	21°♑44'32		max. Earth dist.	2275 Jun 06 03:04	15°♑27'21	1.73481 AU
inferior conj	2273 Jan 08 11:39	18°♑14'37	4°28'59	asc. node	2275 Jun 08 06:36	18°♑05'43	
minimum elong	2273 Jan 08 02:36	18°♑28'29	4°26'26		2275 Jun 17 23:07	0°♑	
min. Earth dist.	2273 Jan 07 21:07	18°♑36'54	0.26542 AU	evening rise	2275 Jul 11 19:19	29°♑17'35	
morning rise	2273 Jan 13 16:08	15°♑10'12			2275 Jul 12 09:08	0°♋	
direct	2273 Jan 28 21:15	10°♑37'10			2275 Aug 05 19:25	0°♌	
greatest brilliancy	2273 Feb 09 01:01	12°♑57'17	-4.7m		2275 Aug 30 06:48	0°♍	
	2273 Mar 06 05:38	0°♒			2275 Sep 23 20:37	0°♎	
morning max el	2273 Mar 19 23:03	12°♒53'42	46°37'49	desc. node	2275 Sep 27 20:08	4°♎50'35	
	2273 Apr 05 10:56	0°♓			2275 Oct 18 14:16	0°♏	
desc. node	2273 Apr 12 00:57	7°♓08'54			2275 Nov 12 14:07	0°♑	
	2273 May 02 10:11	0°♑			2275 Dec 08 02:45	0°♒	
	2273 May 28 07:41	0°♒			2276 Jan 04 00:41	0°♓	
	2273 Jun 22 16:53	0°♓		evening max el	2276 Jan 10 17:56	6°♓59'39	47°11'46
	2273 Jul 17 17:45	0°♑	asc. node	2276 Jan 18 23:15	15°♓08'06		
asc. node	2273 Aug 03 04:14	19°♑54'05			2276 Feb 05 07:17	0°♑	

greatest brilliancy	2276 Feb 17 05:49	7° Υ 17'39	-4.6m			2278 Jul 27 05:24	0° Ω	
retrograde	2276 Mar 01 15:31	10° Υ 38'14		max. Earth dist.		2278 Aug 09 05:27	16° Ω 01'07	1.73228 AU
evening set	2276 Mar 19 14:00	4° Υ 25'24						
inferior conj	2276 Mar 22 16:47	2° Υ 28'59	8°32'16	superior conj		2278 Aug 11 22:09	19° Ω 20'45	1°13'21
minimum elong	2276 Mar 22 21:42	2° Υ 21'15	8°31'55	minimum elong		2278 Aug 11 14:23	18° Ω 56'50	1°13'10
min. Earth dist.	2276 Mar 22 07:38	2° Υ 43'22	0.27965 AU			2278 Aug 20 13:04	0° \mathfrak{M}	
morning rise	2276 Mar 26 05:35	0° Υ 17'41				2278 Sep 13 18:20	0° $\underline{\Omega}$	
	2276 Mar 26 17:25	30° \mathfrak{R}		evening rise		2278 Sep 17 06:05	4° $\underline{\Omega}$ 19'47	
direct	2276 Apr 12 14:10	24° \mathfrak{K} 28'44				2278 Oct 07 22:28	0° \mathfrak{M}	
greatest brilliancy	2276 Apr 23 21:01	26° \mathfrak{K} 47'35	-4.5m	desc. node		2278 Oct 25 07:58	21° \mathfrak{M} 35'45	
	2276 Apr 30 13:57	0° Υ				2278 Nov 01 02:32	0° \mathfrak{K}	
desc. node	2276 May 09 12:39	5° Υ 49'02				2278 Nov 25 07:23	0° \mathfrak{C}	
morning max el	2276 May 31 17:07	24° Υ 55'46	45°55'01			2278 Dec 19 14:24	0° \approx	
	2276 Jun 05 21:28	0° \mathfrak{C}				2279 Jan 13 03:12	0° \mathfrak{K}	
	2276 Jul 04 07:37	0° \mathfrak{H}				2279 Feb 07 05:38	0° Υ	
	2276 Jul 30 20:08	0° \mathfrak{C}		asc. node		2279 Feb 15 11:08	9° Υ 34'39	
	2276 Aug 25 09:09	0° Ω				2279 Mar 05 14:54	0° \mathfrak{C}	
asc. node	2276 Aug 30 16:09	6° Ω 19'22		evening max el		2279 Mar 23 07:57	18° \mathfrak{C} 30'44	46°11'44
	2276 Sep 19 06:06	0° \mathfrak{M}				2279 Apr 04 13:54	0° \mathfrak{H}	
	2276 Oct 13 15:31	0° $\underline{\Omega}$		greatest brilliancy		2279 Apr 27 02:15	15° \mathfrak{H} 58'55	-4.5m
	2276 Nov 06 17:30	0° \mathfrak{M}		retrograde		2279 May 11 20:02	19° \mathfrak{H} 48'33	
morning set	2276 Nov 25 21:27	24° \mathfrak{M} 01'43		evening set		2279 May 27 00:46	15° \mathfrak{H} 17'46	
	2276 Nov 30 15:30	0° \mathfrak{K}		inferior conj		2279 Jun 02 05:11	11° \mathfrak{H} 33'23	1°08'16
desc. node	2276 Dec 20 05:32	24° \mathfrak{K} 38'03		minimum elong		2279 Jun 02 07:41	11° \mathfrak{H} 29'27	1°07'32
	2276 Dec 24 11:53	0° \mathfrak{C}		min. Earth dist.		2279 Jun 02 03:32	11° \mathfrak{H} 35'59	0.28798 AU
				desc. node		2279 Jun 07 00:25	8° \mathfrak{H} 37'03	
superior conj	2277 Jan 06 00:11	15° \mathfrak{C} 44'51	0°-38'-48	morning rise		2279 Jun 08 15:02	7° \mathfrak{H} 42'36	
minimum elong	2277 Jan 05 14:39	15° \mathfrak{C} 14'53	0°38'24	direct		2279 Jun 23 18:07	3° \mathfrak{H} 19'02	
max. Earth dist.	2277 Jan 06 23:24	16° \mathfrak{C} 57'55	1.71088 AU	greatest brilliancy		2279 Jul 06 18:45	6° \mathfrak{H} 18'24	-4.5m
	2277 Jan 17 08:05	0° \approx				2279 Aug 08 06:22	0° \mathfrak{C}	
	2277 Feb 10 05:22	0° \mathfrak{K}		morning max el		2279 Aug 11 11:59	3° \mathfrak{C} 02'57	45°45'28
evening rise	2277 Feb 16 07:12	7° \mathfrak{K} 36'46				2279 Sep 06 15:37	0° Ω	
	2277 Mar 06 05:23	0° Υ		asc. node		2279 Sep 28 04:03	24° Ω 12'36	
	2277 Mar 30 10:05	0° \mathfrak{C}				2279 Oct 03 03:43	0° \mathfrak{M}	
asc. node	2277 Apr 12 09:01	15° \mathfrak{C} 55'53				2279 Oct 28 08:33	0° $\underline{\Omega}$	
	2277 Apr 23 21:31	0° \mathfrak{H}				2279 Nov 21 20:23	0° \mathfrak{M}	
	2277 May 18 18:00	0° \mathfrak{C}				2279 Dec 15 23:22	0° \mathfrak{K}	
	2277 Jun 13 03:19	0° Ω				2280 Jan 08 22:29	0° \mathfrak{C}	
	2277 Jul 09 09:49	0° \mathfrak{M}		desc. node		2280 Jan 17 17:26	11° \mathfrak{C} 01'20	
desc. node	2277 Aug 01 22:14	25° \mathfrak{M} 19'37				2280 Feb 01 20:32	0° \approx	
	2277 Aug 06 12:06	0° $\underline{\Omega}$		morning set		2280 Feb 11 19:53	12° \approx 30'18	
evening max el	2277 Aug 14 20:01	8° $\underline{\Omega}$ 11'50	45°50'12			2280 Feb 25 19:08	0° \mathfrak{K}	
	2277 Sep 10 04:13	0° \mathfrak{M}				2280 Mar 20 19:34	0° Υ	
greatest brilliancy	2277 Sep 22 01:51	6° \mathfrak{M} 10'40	-4.6m					
retrograde	2277 Oct 02 20:53	8° \mathfrak{M} 16'16		superior conj		2280 Mar 23 08:22	3° Υ 09'20	-1°-23'-27
evening set	2277 Oct 19 10:04	3° \mathfrak{M} 03'34		minimum elong		2280 Mar 23 13:44	3° Υ 26'01	1°23'24
inferior conj	2277 Oct 23 17:06	0° \mathfrak{M} 29'37	-6°-45'-34	max. Earth dist.		2280 Mar 27 12:08	8° Υ 19'51	1.72187 AU
minimum elong	2277 Oct 24 03:30	0° \mathfrak{M} 13'43	6°43'30			2280 Apr 13 22:59	0° \mathfrak{C}	
min. Earth dist.	2277 Oct 24 15:21	29° $\underline{\Omega}$ 55'38	0.27404 AU	evening rise		2280 May 01 09:18	21° \mathfrak{C} 32'29	
	2277 Oct 24 12:30	30° \mathfrak{R} $\underline{\Omega}$				2280 May 08 06:06	0° \mathfrak{H}	
morning rise	2277 Oct 28 20:29	27° $\underline{\Omega}$ 26'09		asc. node		2280 May 09 20:48	1° \mathfrak{H} 59'03	
direct	2277 Nov 13 15:42	22° $\underline{\Omega}$ 34'03				2280 Jun 01 17:11	0° \mathfrak{C}	
asc. node	2277 Nov 23 01:26	24° $\underline{\Omega}$ 15'37				2280 Jun 26 08:33	0° Ω	
greatest brilliancy	2277 Nov 27 14:19	26° $\underline{\Omega}$ 08'37	-4.6m			2280 Jul 21 05:24	0° \mathfrak{M}	
	2277 Dec 04 10:00	0° \mathfrak{M}				2280 Aug 15 10:32	0° $\underline{\Omega}$	
morning max el	2278 Jan 03 10:44	26° \mathfrak{M} 02'24	46°56'35	desc. node		2280 Aug 29 10:09	16° $\underline{\Omega}$ 22'51	
	2278 Jan 07 06:53	0° \mathfrak{K}				2280 Sep 10 05:05	0° \mathfrak{M}	
	2278 Feb 03 11:25	0° \mathfrak{C}				2280 Oct 07 00:25	0° \mathfrak{K}	
	2278 Mar 01 02:28	0° \approx		evening max el		2280 Oct 27 02:00	20° \mathfrak{K} 56'45	46°56'45
desc. node	2278 Mar 14 15:11	16° \approx 09'24				2280 Nov 05 12:30	0° \mathfrak{C}	
	2278 Mar 26 03:16	0° \mathfrak{K}		greatest brilliancy		2280 Dec 04 20:03	20° \mathfrak{C} 59'02	-4.7m
	2278 Apr 19 22:04	0° Υ		retrograde		2280 Dec 16 10:54	23° \mathfrak{C} 30'04	
	2278 May 14 14:24	0° \mathfrak{C}		asc. node		2280 Dec 20 13:25	23° \mathfrak{C} 09'24	
	2278 Jun 08 05:25	0° \mathfrak{H}		evening set		2280 Dec 31 00:00	19° \mathfrak{C} 18'16	
	2278 Jul 02 18:44	0° \mathfrak{C}		min. Earth dist.		2281 Jan 05 11:06	16° \mathfrak{C} 06'04	0.26512 AU
asc. node	2278 Jul 05 18:26	3° \mathfrak{C} 39'29		inferior conj		2281 Jan 06 00:05	15° \mathfrak{C} 46'09	4°07'39
morning set	2278 Jul 06 12:44	4° \mathfrak{C} 35'32		minimum elong		2281 Jan 05 15:34	15° \mathfrak{C} 59'14	4°05'11

morning rise	2281 Jan 11 07:23	12°☾37'42			2283 Jul 11 20:00	0°♂	
direct	2281 Jan 26 09:01	8°☾08'56			2283 Aug 05 06:29	0°♍	
greatest brilliancy	2281 Feb 06 15:44	10°☾31'31	-4.7m		2283 Aug 29 18:13	0°♊	
	2281 Mar 06 12:00	0°≈			2283 Sep 23 08:32	0°♌	
morning max el	2281 Mar 17 10:55	10°≈26'02	46°39'18	desc. node	2283 Sep 26 22:03	4°♌19'56	
	2281 Apr 05 05:10	0°✎			2283 Oct 18 02:55	0°♏	
desc. node	2281 Apr 11 03:00	6°✎27'27			2283 Nov 12 03:52	0°☾	
	2281 May 02 00:51	0°♑			2283 Dec 07 18:28	0°≈	
	2281 May 27 20:42	0°♋			2284 Jan 03 21:08	0°✎	
	2281 Jun 22 04:59	0°♐		evening max el	2284 Jan 08 08:42	4°✎38'12	47°12'58
	2281 Jul 17 05:19	0°♍		asc. node	2284 Jan 18 01:22	14°✎10'33	
asc. node	2281 Aug 02 06:23	19°♍26'16			2284 Feb 06 06:02	0°♑	
	2281 Aug 10 22:20	0°♂		greatest brilliancy	2284 Feb 14 21:10	4°♑57'50	-4.6m
	2281 Sep 04 08:23	0°♍		retrograde	2284 Feb 28 07:10	8°♑18'37	
morning set	2281 Sep 12 17:23	10°♍21'47		evening set	2284 Mar 17 06:12	2°♑03'28	
	2281 Sep 28 12:43	0°♊		inferior conj	2284 Mar 20 07:24	0°♑09'38	8°37'41
max. Earth dist.	2281 Oct 17 04:03	23°♊15'42	1.71867 AU	minimum elong	2284 Mar 20 11:34	0°♑03'05	8°37'26
				min. Earth dist.	2284 Mar 19 21:07	0°♑25'46	0.27920 AU
superior conj	2281 Oct 20 03:11	26°♊58'07	1°07'42		2284 Mar 20 13:32	30°♏✎	
minimum elong	2281 Oct 20 12:59	27°♊28'45	1°07'25	morning rise	2284 Mar 23 17:09	28°✎03'14	
	2281 Oct 22 13:21	0°♌		direct	2284 Apr 10 04:20	22°✎10'08	
	2281 Nov 15 12:10	0°♏		greatest brilliancy	2284 Apr 21 09:30	24°✎27'59	-4.5m
desc. node	2281 Nov 21 19:48	7°♏55'17			2284 May 01 23:39	0°♑	
evening rise	2281 Nov 28 21:48	16°♏48'10		desc. node	2284 May 08 14:35	4°♑37'49	
	2281 Dec 09 10:23	0°☾		morning max el	2284 May 29 08:52	22°♑43'16	45°56'14
	2282 Jan 02 08:54	0°≈			2284 Jun 05 18:04	0°♋	
	2282 Jan 26 09:18	0°✎			2284 Jul 03 22:48	0°♐	
	2282 Feb 19 14:31	0°♑			2284 Jul 30 09:11	0°♍	
asc. node	2282 Mar 14 23:06	28°♑29'33			2284 Aug 24 21:10	0°♂	
	2282 Mar 16 05:05	0°♋		asc. node	2284 Aug 29 18:11	5°♂49'50	
	2282 Apr 10 11:39	0°♐			2284 Sep 18 17:35	0°♍	
	2282 May 06 22:52	0°♍			2284 Oct 13 02:45	0°♊	
evening max el	2282 Jun 01 18:56	26°♍46'33	45°25'34		2284 Nov 06 04:37	0°♌	
	2282 Jun 05 04:31	0°♂		morning set	2284 Nov 23 09:40	21°♌34'42	
desc. node	2282 Jul 04 12:31	22°♂13'40			2284 Nov 30 02:34	0°♏	
greatest brilliancy	2282 Jul 06 23:16	23°♂23'24	-4.5m	desc. node	2284 Dec 19 07:40	24°♏10'03	
retrograde	2282 Jul 20 10:14	26°♂34'10			2284 Dec 23 22:55	0°☾	
evening set	2282 Aug 06 02:45	21°♂19'20					
inferior conj	2282 Aug 10 21:51	18°♂24'48	-7°-21'-32	superior conj	2285 Jan 03 09:46	13°☾09'12	0°-35'-9
minimum elong	2282 Aug 10 12:52	18°♂38'49	7°20'11	minimum elong	2285 Jan 03 00:58	12°☾41'33	0°34'46
min. Earth dist.	2282 Aug 11 00:38	18°♂20'29	0.28944 AU	max. Earth dist.	2285 Jan 04 08:25	14°☾20'28	1.71082 AU
morning rise	2282 Aug 14 22:45	15°♂56'03			2285 Jan 16 19:07	0°≈	
direct	2282 Sep 01 11:39	10°♂07'52			2285 Feb 09 16:26	0°✎	
greatest brilliancy	2282 Sep 15 21:13	13°♂45'06	-4.5m	evening rise	2285 Feb 13 17:42	5°✎04'42	
	2282 Oct 08 23:42	0°♍			2285 Mar 05 16:30	0°♑	
morning max el	2282 Oct 21 04:30	11°♍26'16	46°20'08		2285 Mar 29 21:18	0°♋	
asc. node	2282 Oct 25 15:45	15°♍56'18		asc. node	2285 Apr 11 10:58	15°♋27'08	
	2282 Nov 07 21:54	0°♊			2285 Apr 23 08:59	0°♐	
	2282 Dec 04 04:56	0°♌			2285 May 18 05:58	0°♍	
	2282 Dec 29 05:26	0°♏			2285 Jun 12 16:18	0°♂	
	2283 Jan 22 17:02	0°☾			2285 Jul 09 00:54	0°♍	
desc. node	2283 Feb 14 05:18	27°☾49'44		desc. node	2285 Aug 01 00:19	24°♍35'46	
	2283 Feb 15 23:22	0°≈			2285 Aug 06 08:39	0°♊	
	2283 Mar 12 04:05	0°✎		evening max el	2285 Aug 12 10:44	5°♊56'44	45°48'06
	2283 Apr 05 09:13	0°♑			2285 Sep 11 12:53	0°♌	
morning set	2283 Apr 26 18:42	26°♑26'36		greatest brilliancy	2285 Sep 19 14:04	3°♌49'34	-4.5m
	2283 Apr 29 15:52	0°♋		retrograde	2285 Sep 30 09:45	5°♌55'11	
	2283 May 24 00:17	0°♐		evening set	2285 Oct 17 02:31	0°♌37'57	
					2285 Oct 18 04:30	30°♏♊	
superior conj	2283 Jun 03 05:19	12°♐33'36	0°-9'-51	inferior conj	2285 Oct 21 06:32	28°♊07'56	-6°-59'-28
minimum elong	2283 Jun 03 07:24	12°♐40'02	0°09'46	minimum elong	2285 Oct 21 16:44	27°♊52'17	6°57'33
behind sun begin	2283 Jun 02 13:08	11°♐43'51		min. Earth dist.	2285 Oct 22 04:48	27°♊33'50	0.27473 AU
behind sun end	2283 Jun 04 01:41	13°♐36'12		morning rise	2285 Oct 26 06:33	25°♊08'48	
max. Earth dist.	2283 Jun 03 23:31	13°♐29'34	1.73463 AU	direct	2285 Nov 11 06:16	22°♊11'30	
asc. node	2283 Jun 07 08:41	17°♐39'00		asc. node	2285 Nov 22 03:34	22°♊25'41	
	2283 Jun 17 09:54	0°♍		greatest brilliancy	2285 Nov 25 04:41	23°♊45'37	-4.6m
evening rise	2283 Jul 09 14:20	27°♍15'16			2285 Dec 05 12:28	0°♌	

morning max el	2286 Jan 01 00:46	23° \mathbb{M} 38'36	46°56'05	desc. node	2288 Aug 28 12:09	15° \mathbb{A} 49'38	
	2286 Jan 07 03:41	0° \mathbb{X}			2288 Sep 09 19:24	0° \mathbb{M}	
	2286 Feb 03 03:10	0° \mathbb{Z}			2288 Oct 06 18:15	0° \mathbb{X}	
	2286 Feb 28 16:08	0° \approx		evening max el	2288 Oct 24 14:20	18° \mathbb{X} 30'39	46°54'39
desc. node	2286 Mar 13 17:12	15° \approx 36'31			2288 Nov 05 17:33	0° \mathbb{Z}	
	2286 Mar 25 15:46	0° \mathbb{H}		greatest brilliancy	2288 Dec 02 10:30	18° \mathbb{Z} 32'35	-4.7m
	2286 Apr 19 09:51	0° \mathbb{Y}		retrograde	2288 Dec 13 22:49	21° \mathbb{Z} 01'25	
	2286 May 14 01:42	0° \mathbb{B}		asc. node	2288 Dec 19 15:32	20° \mathbb{Z} 21'29	
	2286 Jun 07 16:22	0° \mathbb{II}		evening set	2288 Dec 28 10:36	16° \mathbb{Z} 52'02	
	2286 Jul 02 05:27	0° \mathbb{S}		min. Earth dist.	2289 Jan 03 01:01	13° \mathbb{Z} 35'38	0.26494 AU
morning set	2286 Jul 04 07:00	2° \mathbb{S} 31'41		inferior conj	2289 Jan 03 12:24	13° \mathbb{Z} 18'14	3°45'36
asc. node	2286 Jul 04 20:36	3° \mathbb{S} 13'21		minimum elong	2289 Jan 03 04:28	13° \mathbb{Z} 30'22	3°43'15
	2286 Jul 26 16:02	0° \mathbb{Q}		morning rise	2289 Jan 08 22:28	10° \mathbb{Z} 06'00	
max. Earth dist.	2286 Aug 07 00:26	13° \mathbb{Q} 58'57	1.73260 AU	direct	2289 Jan 23 20:36	5° \mathbb{Z} 40'50	
				greatest brilliancy	2289 Feb 04 07:10	8° \mathbb{Z} 06'58	-4.7m
superior conj	2286 Aug 09 16:35	17° \mathbb{Q} 16'47	1°11'43		2289 Mar 06 16:11	0° \approx	
minimum elong	2286 Aug 09 08:33	16° \mathbb{Q} 52'01	1°11'31	morning max el	2289 Mar 14 23:41	8° \approx 00'55	46°40'49
	2286 Aug 19 23:42	0° \mathbb{P}			2289 Apr 04 22:46	0° \mathbb{H}	
	2286 Sep 13 05:06	0° \mathbb{A}		desc. node	2289 Apr 10 04:59	5° \mathbb{H} 46'52	
evening rise	2286 Sep 14 22:50	2° \mathbb{A} 09'23			2289 May 01 15:05	0° \mathbb{Y}	
	2286 Oct 07 09:27	0° \mathbb{M}			2289 May 27 09:19	0° \mathbb{B}	
desc. node	2286 Oct 24 09:59	21° \mathbb{M} 07'16			2289 Jun 21 16:41	0° \mathbb{II}	
	2286 Oct 31 13:49	0° \mathbb{X}			2289 Jul 16 16:28	0° \mathbb{S}	
	2286 Nov 24 19:02	0° \mathbb{Z}		asc. node	2289 Aug 01 08:20	18° \mathbb{S} 59'01	
	2286 Dec 19 02:33	0° \approx			2289 Aug 10 09:10	0° \mathbb{Q}	
	2287 Jan 12 16:04	0° \mathbb{H}			2289 Sep 03 19:03	0° \mathbb{P}	
	2287 Feb 06 19:48	0° \mathbb{Y}		morning set	2289 Sep 10 10:07	8° \mathbb{P} 11'54	
asc. node	2287 Feb 14 13:09	8° \mathbb{Y} 57'44			2289 Sep 27 23:20	0° \mathbb{A}	
	2287 Mar 05 08:09	0° \mathbb{B}		max. Earth dist.	2289 Oct 14 19:41	21° \mathbb{A} 01'11	1.71914 AU
evening max el	2287 Mar 20 23:06	16° \mathbb{B} 15'46	46°14'03				
	2287 Apr 04 18:54	0° \mathbb{II}		superior conj	2289 Oct 17 17:58	24° \mathbb{A} 40'51	1°09'46
greatest brilliancy	2287 Apr 24 20:23	13° \mathbb{II} 51'13	-4.5m	minimum elong	2289 Oct 18 03:28	25° \mathbb{A} 10'35	1°09'30
retrograde	2287 May 09 12:08	17° \mathbb{II} 38'56			2289 Oct 22 00:01	0° \mathbb{M}	
evening set	2287 May 24 18:33	13° \mathbb{II} 06'37			2289 Nov 14 22:57	0° \mathbb{X}	
inferior conj	2287 May 30 21:33	9° \mathbb{II} 24'01	1°28'09	desc. node	2289 Nov 20 21:58	7° \mathbb{X} 28'12	
minimum elong	2287 May 31 00:45	9° \mathbb{II} 18'59	1°27'13	evening rise	2289 Nov 26 09:39	14° \mathbb{X} 20'53	
min. Earth dist.	2287 May 30 20:18	9° \mathbb{II} 26'00	0.28776 AU		2289 Dec 08 21:18	0° \mathbb{Z}	
morning rise	2287 Jun 06 07:20	5° \mathbb{II} 32'54			2290 Jan 01 19:59	0° \approx	
desc. node	2287 Jun 06 02:37	5° \mathbb{II} 39'22			2290 Jan 25 20:36	0° \mathbb{H}	
direct	2287 Jun 21 10:00	1° \mathbb{II} 10'05			2290 Feb 19 02:11	0° \mathbb{Y}	
greatest brilliancy	2287 Jul 04 08:42	4° \mathbb{II} 06'56	-4.5m	asc. node	2290 Mar 14 01:04	27° \mathbb{Y} 58'41	
	2287 Aug 08 05:24	0° \mathbb{S}			2290 Mar 15 17:19	0° \mathbb{B}	
morning max el	2287 Aug 09 02:50	0° \mathbb{S} 50'58	45°45'01		2290 Apr 10 01:01	0° \mathbb{II}	
	2287 Sep 06 07:15	0° \mathbb{Q}			2290 May 06 14:46	0° \mathbb{S}	
asc. node	2287 Sep 27 06:02	23° \mathbb{Q} 39'12		evening max el	2290 May 30 10:37	24° \mathbb{S} 36'06	45°26'17
	2287 Oct 02 16:56	0° \mathbb{P}			2290 Jun 05 04:34	0° \mathbb{Q}	
	2287 Oct 27 20:41	0° \mathbb{A}		desc. node	2290 Jul 03 14:33	20° \mathbb{Q} 46'03	
	2287 Nov 21 08:00	0° \mathbb{M}		greatest brilliancy	2290 Jul 04 11:21	21° \mathbb{Q} 09'53	-4.5m
	2287 Dec 15 10:43	0° \mathbb{X}		retrograde	2290 Jul 18 02:36	24° \mathbb{Q} 25'12	
desc. node	2288 Jan 08 09:40	0° \mathbb{Z}		evening set	2290 Aug 03 15:33	19° \mathbb{Q} 14'14	
	2288 Jan 16 19:31	10° \mathbb{Z} 32'59		inferior conj	2290 Aug 08 13:53	16° \mathbb{Q} 15'06	-7°-10'-40
	2288 Feb 01 07:35	0° \approx		minimum elong	2290 Aug 08 04:36	16° \mathbb{Q} 29'33	7°09'10
morning set	2288 Feb 09 05:47	9° \approx 56'28		min. Earth dist.	2290 Aug 08 15:43	16° \mathbb{Q} 12'16	0.28962 AU
	2288 Feb 25 06:03	0° \mathbb{H}		morning rise	2290 Aug 12 17:28	13° \mathbb{Q} 42'34	
	2288 Mar 20 06:22	0° \mathbb{Y}		direct	2290 Aug 30 04:01	7° \mathbb{Q} 57'50	
				greatest brilliancy	2290 Sep 13 13:47	11° \mathbb{Q} 35'36	-4.5m
superior conj	2288 Mar 20 21:08	0° \mathbb{Y} 46'00	-1°-24'-19		2290 Oct 09 02:58	0° \mathbb{P}	
minimum elong	2288 Mar 21 01:39	1° \mathbb{Y} 00'05	1°24'17	morning max el	2290 Oct 18 20:50	9° \mathbb{P} 14'18	46°18'40
max. Earth dist.	2288 Mar 25 02:03	6° \mathbb{Y} 00'14	1.72127 AU	asc. node	2290 Oct 24 17:50	15° \mathbb{P} 10'27	
	2288 Apr 13 09:42	0° \mathbb{B}			2290 Nov 07 14:47	0° \mathbb{A}	
evening rise	2288 Apr 29 00:27	19° \mathbb{B} 18'04			2290 Dec 03 18:54	0° \mathbb{M}	
	2288 May 07 16:51	0° \mathbb{II}			2290 Dec 28 18:06	0° \mathbb{X}	
asc. node	2288 May 08 22:55	1° \mathbb{II} 32'30			2291 Jan 22 04:59	0° \mathbb{Z}	
	2288 Jun 01 04:05	0° \mathbb{S}		desc. node	2291 Feb 13 07:17	27° \mathbb{Z} 20'12	
	2288 Jun 25 19:44	0° \mathbb{Q}			2291 Feb 15 10:52	0° \approx	
	2288 Jul 20 17:07	0° \mathbb{P}			2291 Mar 11 15:16	0° \mathbb{H}	
	2288 Aug 14 23:10	0° \mathbb{A}			2291 Apr 04 20:10	0° \mathbb{Y}	

morning set	2291 Apr 24 10:13	24° Υ 13'01		greatest brilliancy	2293 Sep 17 03:09	1° \mathbb{M} 30'10	-4.5m
	2291 Apr 29 02:38	0° \mathcal{B}		retrograde	2293 Sep 27 22:21	3° \mathbb{M} 35'15	
	2291 May 23 10:55	0° \mathbb{I}			2293 Oct 11 12:56	30° \mathbb{R} \mathcal{A}	
superior conj	2291 May 31 22:28	10° \mathbb{I} 26'09	0°-13'-6	evening set	2293 Oct 14 19:11	28° \mathcal{A} 13'32	
minimum elong	2291 Jun 01 01:15	10° \mathbb{I} 34'41	0°12'58	inferior conj	2293 Oct 18 20:16	25° \mathcal{A} 47'28	-7°-12'-29
behind sun begin	2291 May 31 11:50	9° \mathbb{I} 53'25		minimum elong	2293 Oct 19 06:12	25° \mathcal{A} 32'12	7°10'43
behind sun end	2291 Jun 01 14:40	11° \mathbb{I} 15'58		min. Earth dist.	2293 Oct 19 18:44	25° \mathcal{A} 12'58	0.27541 AU
max. Earth dist.	2291 Jun 01 20:42	11° \mathbb{I} 34'32	1.73441 AU	morning rise	2293 Oct 23 16:49	22° \mathcal{A} 52'44	
asc. node	2291 Jun 06 10:48	17° \mathbb{I} 12'58		direct	2293 Nov 08 20:38	17° \mathcal{A} 50'04	
	2291 Jun 16 20:28	0° \mathcal{S}		asc. node	2293 Nov 21 05:42	20° \mathcal{A} 40'39	
evening rise	2291 Jul 07 09:08	25° \mathcal{S} 13'00		greatest brilliancy	2293 Nov 22 19:40	21° \mathcal{A} 24'09	-4.6m
	2291 Jul 11 06:38	0° \mathcal{Q}			2293 Dec 06 07:39	0° \mathbb{M}	
	2291 Aug 04 17:20	0° \mathbb{N}		morning max el	2293 Dec 29 14:09	21° \mathbb{M} 13'15	46°55'28
	2291 Aug 29 05:25	0° \mathcal{A}			2294 Jan 06 23:45	0° \mathcal{A}	
	2291 Sep 22 20:16	0° \mathbb{M}			2294 Feb 02 18:40	0° \mathcal{B}	
desc. node	2291 Sep 26 00:07	3° \mathbb{M} 50'17		desc. node	2294 Feb 28 05:41	0° \approx	
	2291 Oct 17 15:23	0° \mathcal{A}			2294 Mar 12 19:12	15° \approx 03'46	
	2291 Nov 11 17:28	0° \mathcal{B}			2294 Mar 25 04:14	0° \mathcal{H}	
	2291 Dec 07 10:08	0° \approx			2294 Apr 18 21:37	0° Υ	
	2292 Jan 03 17:54	0° \mathcal{H}			2294 May 13 12:58	0° \mathcal{B}	
evening max el	2292 Jan 06 00:26	2° \mathcal{H} 20'06	47°14'01		2294 Jun 07 03:19	0° \mathbb{I}	
asc. node	2292 Jan 17 03:21	13° \mathcal{H} 12'23		morning set	2294 Jul 01 16:14	0° \mathcal{S}	
	2292 Feb 07 13:00	0° Υ		asc. node	2294 Jul 02 01:09	0° \mathcal{S} 27'17	
greatest brilliancy	2292 Feb 12 12:47	2° Υ 39'16	-4.6m		2294 Jul 03 22:33	2° \mathcal{S} 46'20	
retrograde	2292 Feb 25 22:49	5° Υ 59'30			2294 Jul 26 02:45	0° \mathcal{Q}	
	2292 Mar 14 10:45	30° \mathbb{R} \mathcal{H}		max. Earth dist.	2294 Aug 04 18:17	11° \mathcal{Q} 53'01	1.73293 AU
evening set	2292 Mar 14 22:06	29° \mathcal{H} 42'45		superior conj	2294 Aug 07 10:55	15° \mathcal{Q} 12'14	1°09'59
inferior conj	2292 Mar 17 22:01	27° \mathcal{H} 50'52	8°42'12	minimum elong	2294 Aug 07 02:38	14° \mathcal{Q} 46'43	1°09'45
minimum elong	2292 Mar 18 01:26	27° \mathcal{H} 45'31	8°42'02		2294 Aug 19 10:28	0° \mathbb{N}	
min. Earth dist.	2292 Mar 17 10:28	28° \mathcal{H} 08'58	0.27876 AU	evening rise	2294 Sep 12 15:32	29° \mathbb{N} 58'37	
morning rise	2292 Mar 21 04:59	25° \mathcal{H} 48'50			2294 Sep 12 15:59	0° \mathcal{A}	
direct	2292 Apr 07 18:57	19° \mathcal{H} 52'15			2294 Oct 06 20:31	0° \mathbb{M}	
greatest brilliancy	2292 Apr 18 21:14	22° \mathcal{H} 07'56	-4.6m	desc. node	2294 Oct 23 12:06	20° \mathbb{M} 38'50	
	2292 May 02 23:27	0° Υ			2294 Oct 31 01:12	0° \mathcal{A}	
desc. node	2292 May 07 16:47	3° Υ 29'34			2294 Nov 24 06:49	0° \mathcal{B}	
morning max el	2292 May 27 00:34	20° Υ 30'53	45°57'19		2294 Dec 18 14:52	0° \approx	
	2292 Jun 05 13:54	0° \mathcal{B}			2295 Jan 12 05:09	0° \mathcal{H}	
	2292 Jul 03 13:41	0° \mathbb{I}			2295 Feb 06 10:17	0° Υ	
	2292 Jul 29 22:02	0° \mathcal{S}		asc. node	2295 Feb 13 15:11	8° Υ 20'01	
	2292 Aug 24 09:01	0° \mathcal{Q}			2295 Mar 05 01:57	0° \mathcal{B}	
asc. node	2292 Aug 28 20:12	5° \mathcal{Q} 20'45		evening max el	2295 Mar 18 13:28	13° \mathcal{B} 58'13	46°16'27
	2292 Sep 18 04:54	0° \mathbb{N}			2295 Apr 05 02:19	0° \mathbb{I}	
	2292 Oct 12 13:49	0° \mathcal{A}		greatest brilliancy	2295 Apr 22 13:33	11° \mathbb{I} 41'37	-4.5m
	2292 Nov 05 15:35	0° \mathbb{M}		retrograde	2295 May 07 04:08	15° \mathbb{I} 28'58	
morning set	2292 Nov 20 22:08	19° \mathbb{M} 08'51		evening set	2295 May 22 12:23	10° \mathbb{I} 54'35	
	2292 Nov 29 13:30	0° \mathcal{A}		inferior conj	2295 May 28 13:54	7° \mathbb{I} 14'14	1°47'54
desc. node	2292 Dec 18 09:44	23° \mathcal{A} 42'09		minimum elong	2295 May 28 17:48	7° \mathbb{I} 08'06	1°46'45
	2292 Dec 23 09:50	0° \mathcal{B}		min. Earth dist.	2295 May 28 13:14	7° \mathbb{I} 15'17	0.28756 AU
superior conj	2292 Dec 31 19:39	10° \mathcal{B} 34'53	0°-31'-27	morning rise	2295 Jun 03 23:28	3° \mathbb{I} 23'03	
minimum elong	2292 Dec 31 11:39	10° \mathcal{B} 09'44	0°31'05	desc. node	2295 Jun 05 04:34	2° \mathbb{I} 44'20	
max. Earth dist.	2293 Jan 01 15:49	11° \mathcal{B} 38'19	1.71075 AU		2295 Jun 11 23:08	30° \mathbb{R} \mathcal{B}	
	2293 Jan 16 06:02	0° \approx		direct	2295 Jun 19 01:26	29° \mathcal{B} 00'29	
	2293 Feb 09 03:22	0° \mathcal{H}			2295 Jun 26 09:57	0° \mathbb{I}	
evening rise	2293 Feb 11 04:22	2° \mathcal{H} 33'32		greatest brilliancy	2295 Jul 01 23:30	1° \mathbb{I} 55'58	-4.5m
	2293 Mar 05 03:29	0° Υ		morning max el	2295 Aug 06 17:45	28° \mathbb{I} 38'32	45°44'34
	2293 Mar 29 08:24	0° \mathcal{B}			2295 Aug 08 03:44	0° \mathcal{S}	
asc. node	2293 Apr 10 13:07	14° \mathcal{B} 59'17		asc. node	2295 Sep 05 22:56	0° \mathcal{Q}	
	2293 Apr 22 20:22	0° \mathbb{I}			2295 Sep 26 08:09	23° \mathcal{Q} 05'34	
	2293 May 17 17:56	0° \mathcal{S}			2295 Oct 02 06:20	0° \mathbb{N}	
	2293 Jun 12 05:21	0° \mathcal{Q}			2295 Oct 27 09:02	0° \mathcal{A}	
	2293 Jul 08 16:13	0° \mathbb{N}			2295 Nov 20 19:47	0° \mathbb{M}	
desc. node	2293 Jul 31 02:19	23° \mathbb{N} 51'10			2295 Dec 14 22:13	0° \mathcal{A}	
	2293 Aug 06 05:54	0° \mathcal{A}			2296 Jan 07 21:01	0° \mathcal{B}	
evening max el	2293 Aug 10 01:01	3° \mathcal{A} 40'46	45°46'11	desc. node	2296 Jan 15 21:26	10° \mathcal{B} 03'35	
	2293 Sep 13 13:02	0° \mathbb{M}		morning set	2296 Jan 31 18:49	0° \approx	
					2296 Feb 06 15:33	7° \approx 21'27	

	2296 Feb 24 17:11	0° H		morning rise	2298 Aug 10 12:14	11° Ω 28'00	
				direct	2298 Aug 27 20:47	5° Ω 47'07	
superior conj	2296 Mar 18 09:48	28° H 21'29	-1°-25'-1	greatest brilliancy	2298 Sep 11 05:00	9° Ω 23'37	-4.5m
minimum elong	2296 Mar 18 13:26	28° H 32'49	1°25'01		2298 Oct 09 05:08	0° M	
	2296 Mar 19 17:24	0° Y		morning max el	2298 Oct 16 12:58	7° M 01'05	46°16'59
max. Earth dist.	2296 Mar 22 12:43	3° Y 29'40	1.72069 AU	asc. node	2298 Oct 23 19:58	14° M 24'23	
	2296 Apr 12 20:42	0° B			2298 Nov 07 07:45	0° L	
evening rise	2296 Apr 26 15:29	17° B 02'25			2298 Dec 03 09:10	0° M	
	2296 May 07 03:52	0° II			2298 Dec 28 07:09	0° J	
asc. node	2296 May 08 01:01	1° II 05'04			2299 Jan 21 17:20	0° C	
	2296 May 31 15:14	0° S		desc. node	2299 Feb 12 09:25	26° C 49'52	
	2296 Jun 25 07:12	0° Ω			2299 Feb 14 22:45	0° \approx	
	2296 Jul 20 05:09	0° M			2299 Mar 11 02:49	0° H	
	2296 Aug 14 12:13	0° L			2299 Apr 04 07:28	0° Y	
desc. node	2296 Aug 27 14:09	15° L 15'15		morning set	2299 Apr 22 01:30	21° Y 57'31	
	2296 Sep 09 10:17	0° M			2299 Apr 28 13:45	0° B	
	2296 Oct 06 12:59	0° J			2299 May 22 21:55	0° II	
evening max el	2296 Oct 22 03:00	16° J 04'29	46°52'40				
	2296 Nov 06 01:19	0° C		superior conj	2299 May 29 15:27	8° II 16'56	0°-16'-20
greatest brilliancy	2296 Nov 30 00:03	16° C 04'00	-4.7m	minimum elong	2299 May 29 18:54	8° II 27'34	0°16'10
retrograde	2296 Dec 11 11:09	18° C 31'51		max. Earth dist.	2299 May 30 18:58	9° II 41'37	1.73418 AU
asc. node	2296 Dec 18 17:28	17° C 26'44		asc. node	2299 Jun 05 12:45	16° II 45'13	
evening set	2296 Dec 25 21:24	14° C 24'14			2299 Jun 16 07:26	0° S	
min. Earth dist.	2296 Dec 31 14:38	11° C 04'25	0.26478 AU	evening rise	2299 Jul 05 03:52	23° S 09'23	
inferior conj	2297 Jan 01 00:38	10° C 49'08	3°22'59		2299 Jul 10 17:39	0° Ω	
minimum elong	2296 Dec 31 17:22	11° C 00'14	3°20'47		2299 Aug 04 04:32	0° M	
morning rise	2297 Jan 06 13:24	7° C 33'33			2299 Aug 28 16:58	0° L	
direct	2297 Jan 21 08:33	3° C 11'30			2299 Sep 22 08:21	0° M	
greatest brilliancy	2297 Feb 01 22:16	5° C 41'08	-4.7m	desc. node	2299 Sep 25 02:16	3° M 19'55	
	2297 Mar 06 19:05	0° \approx			2299 Oct 17 04:15	0° J	
morning max el	2297 Mar 12 13:20	5° \approx 37'05	46°42'10		2299 Nov 11 07:34	0° C	
	2297 Apr 04 16:20	0° H			2299 Dec 07 02:31	0° \approx	
desc. node	2297 Apr 09 07:09	5° H 06'16		evening max el	2300 Jan 03 16:14	0° H 00'31	47°14'49
	2297 May 01 05:32	0° Y			2300 Jan 03 16:02	0° H	
	2297 May 26 22:14	0° B		asc. node	2300 Jan 16 05:25	12° H 11'26	
	2297 Jun 21 04:43	0° II			2300 Feb 09 12:39	0° Y	
	2297 Jul 16 03:57	0° S		greatest brilliancy	2300 Feb 10 05:18	0° Y 19'43	-4.7m
asc. node	2297 Jul 31 10:24	18° S 31'08		retrograde	2300 Feb 23 13:54	3° Y 37'46	
	2297 Aug 09 20:19	0° Ω			2300 Mar 08 21:42	30° R H	
	2297 Sep 03 06:03	0° M		evening set	2300 Mar 13 13:22	27° H 20'23	
morning set	2297 Sep 08 02:53	6° M 01'10		min. Earth dist.	2300 Mar 15 23:42	25° H 49'39	0.27825 AU
	2297 Sep 27 10:20	0° L		inferior conj	2300 Mar 16 12:21	25° H 29'49	8°45'51
max. Earth dist.	2297 Oct 12 10:56	18° L 44'21	1.71965 AU	minimum elong	2300 Mar 16 14:57	25° H 25'44	8°45'46
				morning rise	2300 Mar 19 16:45	23° H 31'37	
superior conj	2297 Oct 15 08:39	22° L 22'08	1°11'44	direct	2300 Apr 06 09:16	17° H 32'22	
minimum elong	2297 Oct 15 17:47	22° L 50'42	1°11'29	greatest brilliancy	2300 Apr 17 08:18	19° H 45'17	-4.6m
	2297 Oct 21 11:07	0° M			2300 May 04 17:43	0° Y	
	2297 Nov 14 10:11	0° J		desc. node	2300 May 07 18:48	2° Y 21'32	
desc. node	2297 Nov 19 23:59	6° J 59'17		morning max el	2300 May 25 15:14	18° Y 14'46	45°58'25
evening rise	2297 Nov 23 21:14	11° J 51'28			2300 Jun 06 09:32	0° B	
	2297 Dec 08 08:39	0° C			2300 Jul 04 04:42	0° II	
	2298 Jan 01 07:28	0° \approx			2300 Jul 30 11:07	0° S	
	2298 Jan 25 08:18	0° H			2300 Aug 24 21:06	0° Ω	
	2298 Feb 18 14:14	0° Y		asc. node	2300 Aug 28 22:18	4° Ω 51'09	
asc. node	2298 Mar 13 03:12	27° Y 27'03			2300 Sep 18 16:28	0° M	
	2298 Mar 15 06:00	0° B			2300 Oct 13 01:06	0° L	
	2298 Apr 09 14:55	0° II			2300 Nov 06 02:45	0° M	
	2298 May 06 07:24	0° S		morning set	2300 Nov 19 10:53	16° M 43'17	
evening max el	2298 May 28 03:06	22° S 26'24	45°27'02		2300 Nov 30 00:39	0° J	
	2298 Jun 05 06:23	0° Ω		desc. node	2300 Dec 18 11:41	23° J 13'12	
greatest brilliancy	2298 Jul 02 00:32	18° Ω 56'42	-4.5m		2300 Dec 23 21:00	0° C	
desc. node	2298 Jul 02 16:32	19° Ω 14'20					
retrograde	2298 Jul 15 19:01	22° Ω 15'05		superior conj	2300 Dec 30 05:36	8° C 00'03	0°-27'-40
evening set	2298 Aug 01 04:29	17° Ω 08'15		minimum elong	2300 Dec 29 22:29	7° C 37'39	0°27'22
inferior conj	2298 Aug 06 05:56	14° Ω 04'25	-6°-59'-7	max. Earth dist.	2300 Dec 30 20:40	8° C 47'26	1.71075 AU
minimum elong	2298 Aug 05 20:25	14° Ω 19'14	6°57'30		2301 Jan 16 17:15	0° \approx	
min. Earth dist.	2298 Aug 06 06:40	14° Ω 03'17	0.28976 AU	evening rise	2301 Feb 09 14:38	0° H 00'02	

	2301 Feb 09 14:37	0° H		morning max el	2303 Aug 05 09:16	26° II 27'35	45°44'13
	2301 Mar 05 14:46	0° Y			2303 Aug 09 01:12	0° S	
	2301 Mar 29 19:48	0° B			2303 Sep 06 14:17	0° Q	
asc. node	2301 Apr 10 15:09	14° B 30'11		asc. node	2303 Sep 26 10:12	22° Q 32'13	
	2301 Apr 23 08:03	0° II			2303 Oct 02 19:31	0° M	
	2301 May 18 06:12	0° S			2303 Oct 27 21:13	0° A	
	2301 Jun 12 18:47	0° Q			2303 Nov 21 07:27	0° M	
	2301 Jul 09 08:03	0° M			2303 Dec 15 09:36	0° X	
desc. node	2301 Jul 31 04:24	23° M 05'26		desc. node	2304 Jan 08 08:12	0° C	
	2301 Aug 07 04:17	0° A			2304 Jan 15 23:36	9° C 35'26	
evening max el	2301 Aug 08 14:26	1° A 22'04	45°44'20		2304 Feb 01 05:51	0° \approx	
greatest brilliancy	2301 Sep 15 16:22	29° A 10'31	-4.5m	morning set	2304 Feb 05 01:42	4° \approx 48'10	
	2301 Sep 18 04:02	0° M			2304 Feb 25 04:05	0° H	
retrograde	2301 Sep 26 10:54	1° M 15'20					
	2301 Oct 04 10:48	30° R A		superior conj	2304 Mar 16 22:39	25° H 58'09	-1°-25'-33
evening set	2301 Oct 13 11:48	25° A 49'00		minimum elong	2304 Mar 17 01:23	26° H 06'41	1°25'34
inferior conj	2301 Oct 17 10:04	23° A 26'59	-7°-24'-36		2304 Mar 20 04:14	0° Y	
minimum elong	2301 Oct 17 19:41	23° A 12'12	7°23'00	max. Earth dist.	2304 Mar 20 22:43	0° Y 57'38	1.72015 AU
min. Earth dist.	2301 Oct 18 08:56	22° A 51'50	0.27607 AU		2304 Apr 13 07:30	0° B	
morning rise	2301 Oct 22 03:06	20° A 36'54		evening rise	2304 Apr 25 06:32	14° B 47'25	
direct	2301 Nov 07 10:35	15° A 28'30			2304 May 07 14:43	0° II	
asc. node	2301 Nov 21 07:35	18° A 59'06		asc. node	2304 May 08 02:57	0° II 37'39	
greatest brilliancy	2301 Nov 21 11:26	19° A 03'43	-4.6m		2304 Jun 01 02:13	0° S	
	2301 Dec 07 22:01	0° M			2304 Jun 25 18:30	0° Q	
morning max el	2301 Dec 28 03:09	18° M 46'48	46°54'53		2304 Jul 20 17:03	0° M	
	2302 Jan 07 19:17	0° X			2304 Aug 15 01:10	0° A	
	2302 Feb 03 10:02	0° C		desc. node	2304 Aug 27 16:18	14° A 41'39	
	2302 Feb 28 19:15	0° \approx			2304 Sep 10 01:09	0° M	
desc. node	2302 Mar 12 21:19	14° \approx 31'03			2304 Oct 07 07:58	0° X	
	2302 Mar 25 16:47	0° H		evening max el	2304 Oct 20 16:31	13° X 41'17	46°50'36
	2302 Apr 19 09:30	0° Y			2304 Nov 07 11:30	0° C	
	2302 May 14 00:23	0° B		greatest brilliancy	2304 Nov 28 12:47	13° C 35'14	-4.7m
	2302 Jun 07 14:24	0° II		retrograde	2304 Dec 09 23:51	16° C 02'51	
morning set	2302 Jun 30 18:59	28° II 21'37		asc. node	2304 Dec 18 19:35	14° C 26'46	
	2302 Jul 02 03:07	0° S		evening set	2304 Dec 24 08:25	11° C 56'45	
asc. node	2302 Jul 04 00:36	2° S 19'20		min. Earth dist.	2304 Dec 30 03:55	8° C 34'01	0.26463 AU
	2302 Jul 26 13:33	0° Q		inferior conj	2304 Dec 30 12:47	8° C 20'31	2°59'53
max. Earth dist.	2302 Aug 03 13:11	9° Q 50'04	1.73327 AU	minimum elong	2304 Dec 30 06:13	8° C 30'31	2°57'52
				morning rise	2305 Jan 05 04:07	5° C 01'56	
superior conj	2302 Aug 06 05:06	13° Q 07'04	1°08'08	direct	2305 Jan 19 21:05	0° C 42'52	
minimum elong	2302 Aug 05 20:37	12° Q 40'56	1°07'54	greatest brilliancy	2305 Jan 31 12:35	3° C 15'09	-4.7m
	2302 Aug 19 21:18	0° M			2305 Mar 07 20:09	0° \approx	
evening rise	2302 Sep 11 08:22	27° M 48'07		morning max el	2305 Mar 11 03:35	3° \approx 15'45	46°43'39
	2302 Sep 13 02:56	0° A			2305 Apr 05 09:06	0° H	
	2302 Oct 07 07:41	0° M		desc. node	2305 Apr 09 09:09	4° H 26'53	
desc. node	2302 Oct 23 14:06	20° M 09'45			2305 May 01 19:26	0° Y	
	2302 Oct 31 12:39	0° X			2305 May 27 10:42	0° B	
	2302 Nov 24 18:38	0° C			2305 Jun 21 16:22	0° II	
	2302 Dec 19 03:10	0° \approx			2305 Jul 16 15:06	0° S	
	2303 Jan 12 18:13	0° H		asc. node	2305 Jul 31 12:32	18° S 04'21	
	2303 Feb 07 00:51	0° Y			2305 Aug 10 07:10	0° Q	
asc. node	2303 Feb 13 17:17	7° Y 42'23			2305 Sep 03 16:44	0° M	
	2303 Mar 05 20:09	0° B		morning set	2305 Sep 06 19:40	3° M 51'35	
evening max el	2303 Mar 17 03:36	11° B 39'59	46°18'45		2305 Sep 27 21:01	0° A	
	2303 Apr 06 12:34	0° II		max. Earth dist.	2305 Oct 11 01:25	16° A 26'15	1.72014 AU
greatest brilliancy	2303 Apr 21 05:49	9° II 30'28	-4.5m				
retrograde	2303 May 05 20:18	13° II 18'40		superior conj	2305 Oct 13 23:27	20° A 04'54	1°13'33
evening set	2303 May 21 06:16	8° II 41'44		minimum elong	2305 Oct 14 08:09	20° A 32'04	1°13'20
inferior conj	2303 May 27 06:10	5° II 03'58	2°07'33		2305 Oct 21 21:52	0° M	
minimum elong	2303 May 27 10:44	4° II 56'47	2°06'13		2305 Nov 14 21:04	0° X	
min. Earth dist.	2303 May 27 06:00	5° II 04'14	0.28738 AU	desc. node	2305 Nov 20 01:57	6° X 31'14	
morning rise	2303 Jun 02 15:24	1° II 13'10		evening rise	2305 Nov 22 08:55	9° X 23'26	
	2303 Jun 04 23:58	30° R B			2305 Dec 08 19:41	0° C	
desc. node	2303 Jun 05 06:34	29° B 52'06			2306 Jan 01 18:40	0° \approx	
direct	2303 Jun 17 16:43	26° B 50'18			2306 Jan 25 19:42	0° H	
greatest brilliancy	2303 Jun 30 15:09	29° B 45'49	-4.5m		2306 Feb 19 01:57	0° Y	
	2303 Jul 01 04:13	0° II		asc. node	2306 Mar 13 05:14	26° Y 56'23	

	2306 Mar 15 18:18	0°♄			2308 Oct 12 12:04	0°♊		
	2306 Apr 10 04:25	0°♈			2308 Nov 05 13:37	0°♌		
	2306 May 06 23:48	0°♊		morning set	2308 Nov 16 23:40	14°♌18'44		
evening max el	2306 May 26 19:56	20°♊18'54	45°27'42		2308 Nov 29 11:29	0°♈		
	2306 Jun 06 09:03	0°♊		desc. node	2308 Dec 17 13:51	22°♈45'52		
greatest brilliancy	2306 Jun 30 15:02	16°♊46'34	-4.5m		2308 Dec 23 07:51	0°♊		
desc. node	2306 Jul 02 18:40	17°♊41'06						
retrograde	2306 Jul 14 11:15	20°♊06'23		superior conj	2308 Dec 27 15:33	5°♊26'15	0°-23'-51	
evening set	2306 Jul 30 17:40	15°♊03'52		minimum elong	2308 Dec 27 09:22	5°♊06'45	0°23'34	
inferior conj	2306 Aug 04 22:07	11°♊55'21	-6°-46'-59	max. Earth dist.	2308 Dec 27 23:01	5°♊49'44	1.71076 AU	
minimum elong	2306 Aug 04 12:26	12°♊10'27	6°45'16		2309 Jan 16 04:07	0°♊		
min. Earth dist.	2306 Aug 04 21:55	11°♊55'40	0.28989 AU	evening rise	2309 Feb 07 00:49	27°♊27'17		
morning rise	2306 Aug 09 07:07	9°♊14'51			2309 Feb 09 01:32	0°♈		
direct	2306 Aug 26 13:47	3°♊38'09			2309 Mar 05 01:45	0°♈		
greatest brilliancy	2306 Sep 09 19:35	7°♊12'10	-4.5m		2309 Mar 29 06:56	0°♈		
	2306 Oct 10 05:30	0°♎		asc. node	2309 Apr 09 17:07	14°♈01'45		
morning max el	2306 Oct 15 04:25	4°♎47'26	46°15'17		2309 Apr 22 19:28	0°♈		
asc. node	2306 Oct 23 21:54	13°♎39'40			2309 May 17 18:12	0°♊		
	2306 Nov 07 23:59	0°♊			2309 Jun 12 07:56	0°♊		
	2306 Dec 03 22:52	0°♌			2309 Jul 08 23:41	0°♎		
	2306 Dec 28 19:42	0°♈		desc. node	2309 Jul 30 06:29	22°♎20'20		
	2307 Jan 22 05:14	0°♊		evening max el	2309 Aug 06 03:12	29°♎03'12	45°42'32	
desc. node	2307 Feb 12 11:26	26°♊20'25			2309 Aug 07 03:04	0°♊		
	2307 Feb 15 10:13	0°♊		greatest brilliancy	2309 Sep 13 04:43	26°♊51'22	-4.5m	
	2307 Mar 11 13:58	0°♈		retrograde	2309 Sep 23 23:47	28°♊57'10		
	2307 Apr 04 18:21	0°♈		evening set	2309 Oct 11 04:23	23°♊25'55		
morning set	2307 Apr 20 16:57	19°♈43'50		inferior conj	2309 Oct 15 00:01	21°♊07'53	-7°-35'-42	
	2307 Apr 29 00:26	0°♄		minimum elong	2309 Oct 15 09:13	20°♊53'44	7°34'18	
	2307 May 23 08:27	0°♈		min. Earth dist.	2309 Oct 15 23:10	20°♊32'18	0.27680 AU	
				morning rise	2309 Oct 19 13:34	18°♊22'40		
superior conj	2307 May 28 08:40	6°♈09'53	0°-19'-31	direct	2309 Nov 05 00:43	13°♊08'00		
minimum elong	2307 May 28 12:46	6°♈22'32	0°19'20	greatest brilliancy	2309 Nov 19 04:34	16°♊46'05	-4.6m	
max. Earth dist.	2307 May 29 18:15	7°♈53'13	1.73389 AU	asc. node	2309 Nov 20 09:43	17°♊22'27		
asc. node	2307 Jun 05 14:51	16°♈19'25			2309 Dec 08 08:28	0°♌		
	2307 Jun 16 17:55	0°♊		morning max el	2309 Dec 25 16:48	16°♌22'33	46°54'16	
evening rise	2307 Jul 03 22:49	21°♊07'46			2310 Jan 07 14:07	0°♈		
	2307 Jul 11 04:14	0°♊			2310 Feb 03 01:02	0°♊		
	2307 Aug 04 15:22	0°♎			2310 Feb 28 08:30	0°♊		
	2307 Aug 29 04:10	0°♊		desc. node	2310 Mar 11 23:20	13°♊58'48		
	2307 Sep 22 20:05	0°♌			2310 Mar 25 05:04	0°♈		
desc. node	2307 Sep 25 04:12	2°♌49'58			2310 Apr 18 21:07	0°♈		
	2307 Oct 17 16:48	0°♈			2310 May 13 11:33	0°♈		
	2307 Nov 11 21:24	0°♊			2310 Jun 07 01:16	0°♈		
	2307 Dec 07 18:46	0°♊		morning set	2310 Jun 28 13:01	26°♈17'06		
evening max el	2308 Jan 02 07:11	27°♊39'47	47°15'27		2310 Jul 01 13:47	0°♊		
	2308 Jan 04 14:35	0°♈		asc. node	2310 Jul 03 02:45	1°♊53'15		
asc. node	2308 Jan 16 07:31	11°♈10'20			2310 Jul 26 00:08	0°♊		
greatest brilliancy	2308 Feb 08 22:34	28°♈02'02	-4.7m	max. Earth dist.	2310 Aug 01 10:03	7°♊53'54	1.73355 AU	
	2308 Feb 14 01:02	0°♈						
retrograde	2308 Feb 22 04:29	1°♈16'49		superior conj	2310 Aug 03 23:37	11°♊03'37	1°06'14	
	2308 Mar 01 00:50	30°♈		minimum elong	2310 Aug 03 14:59	10°♊37'01	1°05'58	
evening set	2308 Mar 11 04:14	24°♈59'38			2310 Aug 19 07:54	0°♎		
min. Earth dist.	2308 Mar 13 13:17	23°♈30'48	0.27772 AU	evening rise	2310 Sep 09 01:42	25°♎40'02		
inferior conj	2308 Mar 14 02:40	23°♈09'47	8°48'41		2310 Sep 12 13:40	0°♊		
minimum elong	2308 Mar 14 04:24	23°♈07'03	8°48'39		2310 Oct 06 18:39	0°♌		
morning rise	2308 Mar 17 04:48	21°♈14'53		desc. node	2310 Oct 22 16:08	19°♌41'25		
direct	2308 Apr 03 23:10	15°♈13'26			2310 Oct 30 23:57	0°♈		
greatest brilliancy	2308 Apr 14 20:14	17°♈24'22	-4.6m		2310 Nov 24 06:22	0°♊		
	2308 May 05 06:49	0°♈			2310 Dec 18 15:27	0°♊		
desc. node	2308 May 06 20:45	1°♈16'20			2311 Jan 12 07:20	0°♈		
morning max el	2308 May 23 04:59	15°♈57'28	45°59'45		2311 Feb 06 15:33	0°♈		
	2308 Jun 06 04:07	0°♄		asc. node	2311 Feb 12 19:17	7°♈04'19		
	2308 Jul 03 19:01	0°♈			2311 Mar 05 14:45	0°♈		
	2308 Jul 29 23:38	0°♊		evening max el	2311 Mar 14 17:58	9°♈22'26	46°21'13	
	2308 Aug 24 08:43	0°♊			2311 Apr 07 02:20	0°♈		
asc. node	2308 Aug 28 00:19	4°♊22'38		greatest brilliancy	2311 Apr 18 21:31	7°♈18'35	-4.5m	
	2308 Sep 18 03:38	0°♎		retrograde	2311 May 03 12:48	11°♈08'17		

evening set	2311 May 19 00:09	6° Π 28'26		superior conj	2313 Oct 11 14:41	17° Ω 48'31	1°15'13
inferior conj	2311 May 24 22:18	2° Π 53'22	2°27'06	minimum elong	2313 Oct 11 22:55	18° Ω 14'12	1°15'02
minimum elong	2311 May 25 03:31	2° Π 45'10	2°25'37		2313 Oct 21 08:49	0° \mathbb{M}	
min. Earth dist.	2311 May 24 22:19	2° Π 53'20	0.28720 AU		2313 Nov 14 08:07	0° \mathcal{A}	
	2311 May 29 15:14	30° \mathbb{R} \mathcal{B}		desc. node	2313 Nov 19 04:07	6° \mathcal{A} 03'17	
morning rise	2311 May 31 07:05	29° \mathcal{B} 03'25		evening rise	2313 Nov 19 21:03	6° \mathcal{A} 56'19	
desc. node	2311 Jun 04 08:46	27° \mathcal{B} 03'09			2313 Dec 08 06:52	0° \mathcal{B}	
direct	2311 Jun 15 08:13	24° \mathcal{B} 39'44			2314 Jan 01 06:02	0° \approx	
greatest brilliancy	2311 Jun 28 06:50	27° \mathcal{B} 35'41	-4.5m		2314 Jan 25 07:19	0° \mathcal{H}	
	2311 Jul 03 04:57	0° Π			2314 Feb 18 13:58	0° Υ	
morning max el	2311 Aug 03 01:38	24° Π 18'57	45°44'04	asc. node	2314 Mar 12 07:11	26° Υ 24'21	
	2311 Aug 08 21:50	0° \mathcal{B}			2314 Mar 15 07:00	0° \mathcal{B}	
	2311 Sep 06 05:18	0° Ω			2314 Apr 09 18:27	0° Π	
asc. node	2311 Sep 25 12:10	21° Ω 59'15			2314 May 06 16:59	0° \mathcal{B}	
	2311 Oct 02 08:29	0° \mathbb{M}		evening max el	2314 May 24 12:07	18° \mathcal{B} 08'28	45°28'28
	2311 Oct 27 09:13	0° Ω			2314 Jun 06 14:03	0° Ω	
	2311 Nov 20 19:01	0° \mathbb{M}		greatest brilliancy	2314 Jun 28 06:21	14° Ω 35'59	-4.5m
	2311 Dec 14 20:56	0° \mathcal{A}		desc. node	2314 Jul 01 20:41	16° Ω 03'02	
	2312 Jan 07 19:25	0° \mathcal{B}		retrograde	2314 Jul 12 02:57	17° Ω 56'12	
desc. node	2312 Jan 15 01:40	9° \mathcal{B} 06'52		evening set	2314 Jul 28 06:50	12° Ω 57'59	
	2312 Jan 31 16:58	0° \approx		inferior conj	2314 Aug 02 14:11	9° Ω 44'57	-6°-34'-23
morning set	2312 Feb 02 11:22	2° \approx 13'04		minimum elong	2314 Aug 02 04:22	10° Ω 00'17	6°32'33
	2312 Feb 24 15:06	0° \mathcal{H}		min. Earth dist.	2314 Aug 02 13:23	9° Ω 46'12	0.28998 AU
				morning rise	2314 Aug 07 01:51	7° Ω 00'16	
superior conj	2312 Mar 14 10:47	23° \mathcal{H} 32'07	-1°-25'-57	direct	2314 Aug 24 06:14	1° Ω 27'50	
minimum elong	2312 Mar 14 12:34	23° \mathcal{H} 37'41	1°25'58	greatest brilliancy	2314 Sep 07 09:43	4° Ω 58'47	-4.5m
max. Earth dist.	2312 Mar 18 08:43	28° \mathcal{H} 25'07	1.71962 AU		2314 Oct 10 05:12	0° \mathbb{M}	
	2312 Mar 19 15:09	0° Υ		morning max el	2314 Oct 12 18:56	2° \mathbb{M} 30'28	46°13'46
	2312 Apr 12 18:23	0° \mathcal{B}		asc. node	2314 Oct 23 00:01	12° \mathbb{M} 55'05	
evening rise	2312 Apr 22 21:03	12° \mathcal{B} 30'27			2314 Nov 07 16:17	0° Ω	
asc. node	2312 May 07 05:04	0° Π 10'30			2314 Dec 03 12:45	0° \mathbb{M}	
	2312 May 07 01:39	0° Π			2314 Dec 28 08:26	0° \mathcal{A}	
	2312 May 31 13:20	0° \mathcal{B}			2315 Jan 21 17:19	0° \mathcal{B}	
	2312 Jun 25 05:57	0° Ω		desc. node	2315 Feb 11 13:26	25° \mathcal{B} 50'16	
	2312 Jul 20 05:06	0° \mathbb{M}			2315 Feb 14 21:53	0° \approx	
	2312 Aug 14 14:17	0° Ω			2315 Mar 11 01:21	0° \mathcal{H}	
desc. node	2312 Aug 26 18:16	14° Ω 07'16			2315 Apr 04 05:32	0° Υ	
	2312 Sep 09 16:14	0° \mathbb{M}		morning set	2315 Apr 18 08:04	17° Υ 27'58	
	2312 Oct 07 03:29	0° \mathcal{A}			2315 Apr 28 11:28	0° \mathcal{B}	
evening max el	2312 Oct 18 06:47	11° \mathcal{A} 20'17	46°48'31		2315 May 22 19:22	0° Π	
	2312 Nov 08 01:02	0° \mathcal{B}					
greatest brilliancy	2312 Nov 26 01:14	11° \mathcal{B} 06'32	-4.7m	superior conj	2315 May 26 01:28	4° Π 00'20	0°-22'-43
retrograde	2312 Dec 07 12:41	13° \mathcal{B} 33'52		minimum elong	2315 May 26 06:14	4° Π 14'59	0°22'30
asc. node	2312 Dec 17 21:40	11° \mathcal{B} 21'32		max. Earth dist.	2315 May 27 15:26	5° Π 57'07	1.73360 AU
evening set	2312 Dec 21 19:47	9° \mathcal{B} 29'10		asc. node	2315 Jun 04 16:56	15° Π 52'14	
min. Earth dist.	2312 Dec 27 17:01	6° \mathcal{B} 03'50	0.26455 AU		2315 Jun 16 04:50	0° \mathcal{B}	
inferior conj	2312 Dec 28 00:57	5° \mathcal{B} 51'46	2°36'28	evening rise	2315 Jul 01 17:18	19° \mathcal{B} 03'32	
minimum elong	2312 Dec 27 19:10	6° \mathcal{B} 00'34	2°34'39		2315 Jul 10 15:14	0° Ω	
morning rise	2313 Jan 02 18:42	2° \mathcal{B} 30'19			2315 Aug 04 02:35	0° \mathbb{M}	
	2313 Jan 08 04:18	30° \mathbb{R} \mathcal{A}			2315 Aug 28 15:48	0° Ω	
direct	2313 Jan 17 10:05	28° \mathcal{A} 14'16			2315 Sep 22 08:17	0° \mathbb{M}	
	2313 Jan 27 00:16	0° \mathcal{B}		desc. node	2315 Sep 24 06:15	2° \mathbb{M} 19'06	
greatest brilliancy	2313 Jan 29 02:16	0° \mathcal{B} 48'00	-4.7m		2315 Oct 17 05:49	0° \mathcal{A}	
	2313 Mar 07 20:17	0° \approx			2315 Nov 11 11:45	0° \mathcal{B}	
morning max el	2313 Mar 08 17:47	0° \approx 53'29	46°44'48		2315 Dec 07 11:37	0° \approx	
	2313 Apr 05 01:52	0° \mathcal{H}		evening max el	2315 Dec 30 21:16	25° \approx 16'03	47°16'10
desc. node	2313 Apr 08 11:10	3° \mathcal{H} 47'05			2316 Jan 04 14:23	0° \mathcal{H}	
	2313 May 01 09:29	0° Υ		asc. node	2316 Jan 15 09:30	10° \mathcal{H} 06'59	
	2313 May 26 23:22	0° \mathcal{B}		greatest brilliancy	2316 Feb 06 15:52	25° \mathcal{H} 43'52	-4.7m
	2313 Jun 21 04:12	0° Π		retrograde	2316 Feb 19 18:49	28° \mathcal{H} 55'46	
	2313 Jul 16 02:25	0° \mathcal{B}		evening set	2316 Mar 08 18:52	22° \mathcal{H} 39'21	
asc. node	2313 Jul 30 14:28	17° \mathcal{B} 36'22		min. Earth dist.	2316 Mar 11 03:17	21° \mathcal{H} 11'31	0.27722 AU
	2313 Aug 09 18:12	0° Ω		inferior conj	2316 Mar 11 17:12	20° \mathcal{H} 49'39	8°50'37
	2313 Sep 03 03:39	0° \mathbb{M}		minimum elong	2316 Mar 11 18:05	20° \mathcal{H} 48'16	8°50'36
morning set	2313 Sep 04 12:34	1° \mathbb{M} 41'44		morning rise	2316 Mar 14 17:29	18° \mathcal{H} 57'26	
	2313 Sep 27 07:54	0° Ω		direct	2316 Apr 01 12:48	12° \mathcal{H} 54'13	
max. Earth dist.	2313 Oct 08 13:58	14° Ω 01'35	1.72058 AU	greatest brilliancy	2316 Apr 12 09:23	15° \mathcal{H} 04'14	-4.6m

desc. node	2316 May 05 22:59	0° Υ 12'44		2318 Nov 23 18:25	0° \eth	
	2316 May 05 16:52	0° Υ		2318 Dec 18 04:03	0° \approx	
morning max el	2316 May 20 18:21	13° Υ 38'01	46°00'55	2319 Jan 11 20:48	0° H	
	2316 Jun 05 22:38	0° \eth		2319 Feb 06 06:41	0° Υ	
	2316 Jul 03 09:38	0° Π		asc. node	2319 Feb 11 21:20	6° Υ 25'22
	2316 Jul 29 12:32	0° \eth			2319 Mar 05 10:06	0° \eth
	2316 Aug 23 20:44	0° Ω		evening max el	2319 Mar 12 09:25	7° \eth 07'03 46°23'52
asc. node	2316 Aug 27 02:21	3° Ω 52'55			2319 Apr 07 20:59	0° Π
	2316 Sep 17 15:10	0° M		greatest brilliancy	2319 Apr 16 13:43	5° Π 07'22 -4.5m
	2316 Oct 11 23:22	0° \eth		retrograde	2319 May 01 05:56	8° Π 58'02
greatest brilliancy	2316 Oct 25 04:18	16° \eth 26'06	-3.9m	evening set	2319 May 16 18:24	4° Π 15'17
	2316 Nov 05 00:50	0° M		inferior conj	2319 May 22 14:37	0° Π 42'54 2°46'23
morning set	2316 Nov 14 12:26	11° M 53'03		minimum elong	2319 May 22 20:28	0° Π 33'44 2°44'43
	2316 Nov 28 22:40	0° H		min. Earth dist.	2319 May 22 14:26	0° Π 43'12 0.28699 AU
desc. node	2316 Dec 16 15:52	22° H 16'55			2319 May 23 17:59	30° $\text{R}\eth$
	2316 Dec 22 19:03	0° \eth		morning rise	2319 May 28 22:48	26° \eth 54'11
				desc. node	2319 Jun 03 10:42	24° \eth 19'13
superior conj	2316 Dec 25 01:37	2° \eth 51'39	0°-20'00	direct	2319 Jun 13 00:25	22° \eth 29'33
minimum elong	2316 Dec 24 20:22	2° \eth 35'10	0°19'44	greatest brilliancy	2319 Jun 25 21:50	25° \eth 24'58 -4.5m
max. Earth dist.	2316 Dec 25 01:21	2° \eth 50'50	1.71079 AU		2319 Jul 04 13:22	0° Π
	2317 Jan 15 15:20	0° \approx		morning max el	2319 Jul 31 18:32	22° Π 11'26 45°43'42
evening rise	2317 Feb 04 11:14	24° \approx 54'19			2319 Aug 08 17:54	0° \eth
	2317 Feb 08 12:45	0° H			2319 Sep 05 20:19	0° Ω
	2317 Mar 04 13:00	0° Υ		asc. node	2319 Sep 24 14:18	21° Ω 26'12
	2317 Mar 28 18:19	0° \eth			2319 Oct 01 21:36	0° M
asc. node	2317 Apr 08 19:15	13° \eth 33'02			2319 Oct 26 21:26	0° \eth
	2317 Apr 22 07:11	0° Π			2319 Nov 20 06:46	0° M
	2317 May 17 06:36	0° \eth			2319 Dec 14 08:27	0° H
	2317 Jun 11 21:36	0° Ω			2320 Jan 07 06:47	0° \eth
	2317 Jul 08 16:04	0° M		desc. node	2320 Jan 14 03:36	8° \eth 37'25
desc. node	2317 Jul 29 08:28	21° M 32'59		morning set	2320 Jan 30 20:58	29° \eth 37'19
evening max el	2317 Aug 03 16:15	26° M 43'50	45°40'52		2320 Jan 31 04:12	0° \approx
	2317 Aug 07 03:29	0° \eth			2320 Feb 24 02:14	0° H
greatest brilliancy	2317 Sep 10 16:01	24° \eth 29'56	-4.5m			
retrograde	2317 Sep 21 13:11	26° \eth 37'55		superior conj	2320 Mar 11 22:49	21° H 05'13 -1°-26'-11
evening set	2317 Oct 08 20:49	21° \eth 01'42		minimum elong	2320 Mar 11 23:35	21° H 07'38 1°26'12
inferior conj	2317 Oct 12 13:54	18° \eth 47'30	-7°-46'-2	max. Earth dist.	2320 Mar 15 20:25	25° H 57'23 1.71909 AU
minimum elong	2317 Oct 12 22:38	18° \eth 34'05	7°44'48		2320 Mar 19 02:13	0° Υ
min. Earth dist.	2317 Oct 13 12:59	18° \eth 12'04	0.27753 AU		2320 Apr 12 05:24	0° \eth
morning rise	2317 Oct 17 00:00	16° \eth 07'25		evening rise	2320 Apr 20 11:38	10° \eth 13'19
direct	2317 Nov 02 15:07	10° \eth 46'18		asc. node	2320 May 06 07:10	29° \eth 43'02
greatest brilliancy	2317 Nov 16 21:51	14° \eth 27'48	-4.6m		2320 May 06 12:41	0° Π
asc. node	2317 Nov 19 11:50	15° \eth 48'09			2320 May 31 00:29	0° \eth
	2317 Dec 08 16:36	0° M			2320 Jun 24 17:26	0° Ω
morning max el	2317 Dec 23 07:21	13° M 59'36	46°53'38		2320 Jul 19 17:14	0° M
	2318 Jan 07 08:51	0° H			2320 Aug 14 03:34	0° \eth
	2318 Feb 02 16:10	0° \eth		desc. node	2320 Aug 25 20:19	13° \eth 32'39
	2318 Feb 27 21:58	0° \approx			2320 Sep 09 07:40	0° M
desc. node	2318 Mar 11 01:21	13° \approx 25'52			2320 Oct 06 23:48	0° H
	2318 Mar 24 17:32	0° H		evening max el	2320 Oct 15 21:23	8° H 59'40 46°46'13
	2318 Apr 18 08:55	0° Υ			2320 Nov 08 19:26	0° \eth
	2318 May 12 22:54	0° \eth		greatest brilliancy	2320 Nov 23 14:41	8° \eth 38'30 -4.7m
	2318 Jun 06 12:20	0° Π		retrograde	2320 Dec 05 01:18	11° \eth 04'02
morning set	2318 Jun 26 07:09	24° Π 12'08		asc. node	2320 Dec 16 23:36	8° \eth 10'44
	2318 Jul 01 00:42	0° \eth		evening set	2320 Dec 19 07:24	7° \eth 00'51
asc. node	2318 Jul 02 04:40	1° \eth 25'44		inferior conj	2320 Dec 25 13:04	3° \eth 22'31 2°12'37
	2318 Jul 25 11:01	0° Ω		minimum elong	2320 Dec 25 08:07	3° \eth 30'04 2°11'02
max. Earth dist.	2318 Jul 30 08:01	6° Ω 00'12	1.73388 AU	min. Earth dist.	2320 Dec 25 06:18	3° \eth 32'49 0.26447 AU
				morning rise	2320 Dec 31 09:01	29° H 58'12
superior conj	2318 Aug 01 18:03	8° Ω 59'00	1°04'13		2320 Dec 31 07:41	30° RH
minimum elong	2318 Aug 01 09:18	8° Ω 32'04	1°03'56	direct	2321 Jan 14 22:52	25° H 45'20
	2318 Aug 18 18:49	0° M		greatest brilliancy	2321 Jan 26 15:36	28° H 19'51 -4.7m
evening rise	2318 Sep 06 18:57	23° M 30'44			2321 Jan 30 05:19	0° \eth
	2318 Sep 12 00:43	0° \eth		morning max el	2321 Mar 06 07:03	28° \eth 28'35 46°45'56
	2318 Oct 06 05:57	0° M			2321 Mar 07 19:27	0° \approx
desc. node	2318 Oct 21 18:16	19° M 12'23			2321 Apr 04 18:21	0° H
	2318 Oct 30 11:35	0° H		desc. node	2321 Apr 07 13:20	3° H 08'03

	2321 Apr 30 23:23	0°♄			2323 Dec 07 04:37	0°♁	
	2321 May 26 11:56	0°♂		evening max el	2323 Dec 28 10:27	22°♁50'11	47°16'32
	2321 Jun 20 15:57	0°♂			2324 Jan 04 15:16	0°♂	
	2321 Jul 15 13:39	0°♂		asc. node	2324 Jan 14 11:34	9°♂02'12	
asc. node	2321 Jul 29 16:34	17°♂09'10		greatest brilliancy	2324 Feb 04 08:32	23°♂24'08	-4.7m
	2321 Aug 09 05:07	0°♂		retrograde	2324 Feb 17 08:50	26°♂33'50	
morning set	2321 Sep 02 05:50	29°♂33'24		evening set	2324 Mar 06 08:37	20°♂18'46	
	2321 Sep 02 14:27	0°♂		min. Earth dist.	2324 Mar 08 17:05	18°♂51'01	0.27672 AU
	2321 Sep 26 18:44	0°♂		inferior conj	2324 Mar 09 07:22	18°♂28'35	8°51'30
max. Earth dist.	2321 Oct 06 02:01	11°♂35'40	1.72112 AU	minimum elong	2324 Mar 09 07:22	18°♂28'36	8°51'30
				morning rise	2324 Mar 12 06:17	16°♂38'29	
superior conj	2321 Oct 09 06:13	15°♂33'18	1°16'46	direct	2324 Mar 30 01:43	10°♂33'52	
minimum elong	2321 Oct 09 13:55	15°♂57'19	1°16'36	greatest brilliancy	2324 Apr 09 22:56	12°♂44'09	-4.6m
	2321 Oct 20 19:45	0°♂		desc. node	2324 May 05 00:57	29°♂10'22	
	2321 Nov 13 19:11	0°♂			2324 May 06 00:07	0°♄	
evening rise	2321 Nov 17 09:05	4°♂28'56		morning max el	2324 May 18 07:47	11°♄19'01	46°02'21
desc. node	2321 Nov 18 06:08	5°♂34'51			2324 Jun 05 16:27	0°♂	
	2321 Dec 07 18:05	0°♂			2324 Jul 02 23:47	0°♂	
	2321 Dec 31 17:25	0°♁			2324 Jul 29 01:02	0°♂	
	2322 Jan 24 18:58	0°♂			2324 Aug 23 08:22	0°♂	
	2322 Feb 18 01:59	0°♄		asc. node	2324 Aug 26 04:27	3°♂24'30	
asc. node	2322 Mar 11 09:21	25°♄53'04			2324 Sep 17 02:20	0°♂	
	2322 Mar 14 19:42	0°♂			2324 Oct 11 10:17	0°♂	
	2322 Apr 09 08:32	0°♂		greatest brilliancy	2324 Oct 29 12:38	22°♂32'52	-3.9m
	2322 May 06 10:23	0°♂			2324 Nov 04 11:39	0°♂	
evening max el	2322 May 22 03:44	15°♂57'06	45°29'23	morning set	2324 Nov 12 01:52	9°♂30'44	
	2322 Jun 06 20:53	0°♂			2324 Nov 28 09:29	0°♂	
greatest brilliancy	2322 Jun 25 21:50	12°♂26'33	-4.5m	desc. node	2324 Dec 15 17:52	21°♂49'05	
desc. node	2322 Jun 30 22:42	14°♂22'39					
retrograde	2322 Jul 09 18:42	15°♂47'39		superior conj	2324 Dec 22 11:56	0°♂18'57	0°-16'-6
evening set	2322 Jul 25 20:26	10°♂53'27		minimum elong	2324 Dec 22 07:40	0°♂05'34	0°15'55
inferior conj	2322 Jul 31 06:34	7°♂36'19	-6°-21'-17	behind sun begin	2324 Dec 22 01:39	29°♂46'36	
minimum elong	2322 Jul 30 20:42	7°♂51'45	6°19'21	behind sun end	2324 Dec 22 13:42	0°♂24'32	
min. Earth dist.	2322 Jul 31 05:31	7°♂37'58	0.29003 AU		2324 Dec 22 05:54	0°♂	
morning rise	2322 Aug 04 20:53	4°♂47'26		max. Earth dist.	2324 Dec 22 07:56	0°♂06'23	1.71094 AU
	2322 Aug 16 01:16	30°♂♂			2325 Jan 15 02:15	0°♁	
direct	2322 Aug 21 22:25	29°♂19'14		evening rise	2325 Feb 01 21:30	22°♁21'41	
	2322 Aug 27 23:18	0°♂			2325 Feb 07 23:43	0°♂	
greatest brilliancy	2322 Sep 05 00:22	2°♂47'32	-4.5m		2325 Mar 04 00:02	0°♄	
	2322 Oct 10 03:31	0°♂			2325 Mar 28 05:31	0°♂	
morning max el	2322 Oct 10 08:56	0°♂13'18	46°12'09	asc. node	2325 Apr 07 21:17	13°♂04'38	
asc. node	2322 Oct 22 02:07	12°♂11'55			2325 Apr 21 18:44	0°♂	
	2322 Nov 07 08:03	0°♂			2325 May 16 18:47	0°♂	
	2322 Dec 03 02:20	0°♂			2325 Jun 11 11:05	0°♂	
	2322 Dec 27 21:00	0°♂			2325 Jul 08 08:23	0°♂	
	2323 Jan 21 05:17	0°♂		desc. node	2325 Jul 28 10:35	20°♂46'15	
desc. node	2323 Feb 10 15:35	25°♂20'48		evening max el	2325 Aug 01 06:23	24°♂28'24	45°39'25
	2323 Feb 14 09:28	0°♁			2325 Aug 07 04:37	0°♂	
	2323 Mar 10 12:38	0°♂		greatest brilliancy	2325 Sep 08 02:57	22°♂10'05	-4.5m
	2323 Apr 03 16:34	0°♄		retrograde	2325 Sep 19 03:25	24°♂20'50	
morning set	2323 Apr 15 22:51	15°♄11'29		evening set	2325 Oct 06 13:24	18°♂39'57	
	2323 Apr 27 22:18	0°♂		inferior conj	2325 Oct 10 04:02	16°♂29'18	-7°-55'-32
	2323 May 22 06:05	0°♂		minimum elong	2325 Oct 10 12:17	16°♂16'40	7°54'27
				min. Earth dist.	2325 Oct 11 02:38	15°♂54'39	0.27821 AU
superior conj	2323 May 23 18:16	1°♂51'20	0°-25'-54	morning rise	2325 Oct 14 10:45	13°♂54'20	
minimum elong	2323 May 23 23:39	2°♂07'55	0°25'39	direct	2325 Oct 31 06:09	8°♂27'06	
max. Earth dist.	2323 May 25 11:04	3°♂56'54	1.73326 AU	greatest brilliancy	2325 Nov 14 14:19	12°♂10'44	-4.6m
asc. node	2323 Jun 03 18:54	15°♂25'21		asc. node	2325 Nov 18 13:44	14°♂18'49	
	2323 Jun 15 15:31	0°♂			2325 Dec 08 21:41	0°♂	
evening rise	2323 Jun 29 11:57	17°♂00'29		morning max el	2325 Dec 20 22:51	11°♂41'02	46°52'52
	2323 Jul 10 02:01	0°♂			2326 Jan 07 02:34	0°♂	
	2323 Aug 03 13:34	0°♂			2326 Feb 02 06:38	0°♂	
	2323 Aug 28 03:07	0°♂			2326 Feb 27 10:57	0°♁	
	2323 Sep 21 20:10	0°♂		desc. node	2326 Mar 10 03:28	12°♁54'22	
desc. node	2323 Sep 23 08:25	1°♂49'34			2326 Mar 24 05:38	0°♂	
	2323 Oct 16 18:35	0°♂			2326 Apr 17 20:27	0°♄	
	2323 Nov 11 01:57	0°♂			2326 May 12 10:01	0°♂	

	2326 Jun 05 23:09	0°♊		retrograde	2328 Dec 02 13:22	8°♎34'58	
morning set	2326 Jun 24 00:59	22°♊07'04		asc. node	2328 Dec 16 01:45	4°♎55'56	
	2326 Jun 30 11:20	0°♎		evening set	2328 Dec 16 19:16	4°♎33'05	
asc. node	2326 Jul 01 06:47	0°♎59'36		inferior conj	2328 Dec 23 01:13	0°♎54'14	1°48'27
	2326 Jul 24 21:34	0°♏		minimum elong	2328 Dec 22 21:07	1°♎00'29	1°47'09
max. Earth dist.	2326 Jul 28 06:49	4°♏10'07	1.73413 AU	min. Earth dist.	2328 Dec 22 19:59	1°♎02'12	0.26439 AU
					2328 Dec 24 12:54	30°♏	
superior conj	2326 Jul 30 12:15	6°♏54'42	1°02'06	morning rise	2328 Dec 28 23:06	27°♏27'03	
minimum elong	2326 Jul 30 03:27	6°♏27'34	1°01'49	direct	2329 Jan 12 11:14	23°♏17'12	
	2326 Aug 18 05:24	0°♐		greatest brilliancy	2329 Jan 24 05:24	25°♏52'55	-4.7m
evening rise	2326 Sep 04 12:17	21°♐22'43			2329 Feb 01 02:00	0°♎	
	2326 Sep 11 11:27	0°♑		morning max el	2329 Mar 03 19:25	26°♎02'09	46°47'09
	2326 Oct 05 16:55	0°♒			2329 Mar 07 17:20	0°♑	
desc. node	2326 Oct 20 20:14	18°♒43'59			2329 Apr 04 10:13	0°♒	
	2326 Oct 29 22:52	0°♓		desc. node	2329 Apr 06 15:19	2°♒29'46	
	2326 Nov 23 06:05	0°♎			2329 Apr 30 12:53	0°♑	
	2326 Dec 17 16:16	0°♑			2329 May 26 00:12	0°♒	
	2327 Jan 11 09:55	0°♒			2329 Jun 20 03:30	0°♊	
	2327 Feb 05 21:36	0°♑			2329 Jul 15 00:45	0°♎	
asc. node	2327 Feb 10 23:26	5°♑47'22		asc. node	2329 Jul 28 18:41	16°♎42'16	
	2327 Mar 05 05:41	0°♒			2329 Aug 08 15:57	0°♏	
evening max el	2327 Mar 10 01:28	4°♒53'50	46°26'08	morning set	2329 Aug 30 22:45	27°♏24'15	
	2327 Apr 08 22:22	0°♊			2329 Sep 02 01:10	0°♐	
greatest brilliancy	2327 Apr 14 06:42	2°♊57'08	-4.6m		2329 Sep 26 05:27	0°♑	
retrograde	2327 Apr 28 22:47	6°♊47'03		max. Earth dist.	2329 Oct 03 14:41	9°♑12'03	1.72164 AU
evening set	2327 May 14 12:29	2°♊01'32					
	2327 May 17 22:08	30°♒		superior conj	2329 Oct 06 21:35	13°♑18'03	1°18'11
inferior conj	2327 May 20 06:35	28°♒31'49	3°05'40	minimum elong	2329 Oct 07 04:42	13°♑40'15	1°18'02
minimum elong	2327 May 20 13:02	28°♒21'42	3°03'51		2329 Oct 20 06:33	0°♒	
min. Earth dist.	2327 May 20 06:06	28°♒32'35	0.28679 AU		2329 Nov 13 06:07	0°♓	
morning rise	2327 May 26 13:57	24°♒44'30		evening rise	2329 Nov 14 21:09	2°♓02'08	
desc. node	2327 Jun 02 12:43	21°♒38'45		desc. node	2329 Nov 17 08:06	5°♓06'40	
direct	2327 Jun 10 16:33	20°♒18'56			2329 Dec 07 05:11	0°♎	
greatest brilliancy	2327 Jun 23 11:38	23°♒12'37	-4.5m		2329 Dec 31 04:44	0°♑	
	2327 Jul 05 12:34	0°♊			2330 Jan 24 06:31	0°♒	
morning max el	2327 Jul 29 11:01	20°♊03'22	45°43'28		2330 Feb 17 13:54	0°♑	
	2327 Aug 08 13:10	0°♎		asc. node	2330 Mar 10 11:22	25°♑21'41	
	2327 Sep 05 10:52	0°♏			2330 Mar 14 08:18	0°♒	
asc. node	2327 Sep 23 16:21	20°♏53'58			2330 Apr 08 22:34	0°♊	
	2327 Oct 01 10:18	0°♐			2330 May 06 04:02	0°♎	
	2327 Oct 26 09:17	0°♑		evening max el	2330 May 19 18:32	13°♎43'59	45°30'13
	2327 Nov 19 18:11	0°♒			2330 Jun 07 06:15	0°♏	
	2327 Dec 13 19:38	0°♓		greatest brilliancy	2330 Jun 23 12:00	10°♏15'19	-4.5m
	2328 Jan 06 17:47	0°♎		desc. node	2330 Jun 30 00:49	12°♏38'24	
desc. node	2328 Jan 13 05:46	8°♎09'46		retrograde	2330 Jul 07 10:16	13°♏38'52	
morning set	2328 Jan 28 07:04	27°♎04'14		evening set	2330 Jul 23 09:53	8°♏48'09	
	2328 Jan 30 15:04	0°♑		inferior conj	2330 Jul 28 22:49	5°♏27'15	-6°-7'-27
	2328 Feb 23 12:59	0°♒		minimum elong	2330 Jul 28 12:56	5°♏42'43	6°05'27
				min. Earth dist.	2330 Jul 28 21:44	5°♏28'57	0.29012 AU
superior conj	2328 Mar 09 11:03	18°♒39'58	-1°-26'-14	morning rise	2330 Aug 02 15:49	2°♏34'15	
minimum elong	2328 Mar 09 10:49	18°♒39'15	1°26'16		2330 Aug 07 12:52	30°♒	
max. Earth dist.	2328 Mar 13 10:43	23°♒38'43	1.71859 AU	direct	2330 Aug 19 14:11	27°♎09'54	
	2328 Mar 18 12:55	0°♑			2330 Sep 01 06:29	0°♏	
	2328 Apr 11 16:07	0°♒		greatest brilliancy	2330 Sep 02 16:15	0°♏37'22	-4.5m
evening rise	2328 Apr 18 02:08	7°♒56'39		morning max el	2330 Oct 07 23:08	27°♏56'25	46°10'42
asc. node	2328 May 05 09:06	29°♒15'50			2330 Oct 10 01:07	0°♐	
	2328 May 05 23:28	0°♊		asc. node	2330 Oct 21 04:04	11°♐28'41	
	2328 May 30 11:27	0°♎			2330 Nov 06 23:39	0°♑	
	2328 Jun 24 04:46	0°♏			2330 Dec 02 15:50	0°♒	
	2328 Jul 19 05:14	0°♐			2330 Dec 27 09:29	0°♓	
	2328 Aug 13 16:46	0°♑		desc. node	2331 Jan 20 17:12	0°♎	
desc. node	2328 Aug 24 22:26	12°♑58'38			2331 Feb 09 17:35	24°♎50'59	
	2328 Sep 08 23:07	0°♒			2331 Feb 13 21:00	0°♑	
	2328 Oct 06 20:31	0°♓			2331 Mar 09 23:54	0°♒	
evening max el	2328 Oct 13 11:26	6°♓38'30	46°43'54		2331 Apr 03 03:36	0°♑	
	2328 Nov 09 19:44	0°♎		morning set	2331 Apr 13 13:37	12°♑54'47	
greatest brilliancy	2328 Nov 21 05:04	6°♎12'23	-4.6m		2331 Apr 27 09:08	0°♒	

superior conj	2331 May 21 11:10	29°♄42'39	0°-29'-1	min. Earth dist.	2333 Oct 08 15:56	13°♊36'28	0.27893 AU
minimum elong	2331 May 21 17:09	0°♊01'05	0°28'45	morning rise	2333 Oct 11 21:28	11°♊39'53	
	2331 May 21 16:48	0°♊		direct	2333 Oct 28 21:32	6°♊06'50	
max. Earth dist.	2331 May 23 05:41	1°♊53'30	1.73292 AU	greatest brilliancy	2333 Nov 12 05:54	9°♊51'12	-4.6m
asc. node	2331 Jun 02 21:01	14°♊58'55		asc. node	2333 Nov 17 15:54	12°♊51'30	
	2331 Jun 15 02:14	0°♊			2333 Dec 09 01:35	0°♊	
evening rise	2331 Jun 27 06:40	14°♊57'35		morning max el	2333 Dec 18 14:26	9°♊21'15	46°51'58
	2331 Jul 09 12:51	0°♊			2334 Jan 06 20:25	0°♊	
	2331 Aug 03 00:40	0°♊			2334 Feb 01 21:24	0°♊	
	2331 Aug 27 14:37	0°♊			2334 Feb 27 00:13	0°♊	
	2331 Sep 21 08:16	0°♊		desc. node	2334 Mar 09 05:28	12°♊21'32	
desc. node	2331 Sep 22 10:19	1°♊18'38			2334 Mar 23 18:00	0°♊	
	2331 Oct 16 07:36	0°♊			2334 Apr 17 08:14	0°♊	
	2331 Nov 10 16:29	0°♊			2334 May 11 21:24	0°♊	
	2331 Dec 06 22:06	0°♊			2334 Jun 05 10:16	0°♊	
evening max el	2331 Dec 25 23:38	20°♊24'04	47°17'01	morning set	2334 Jun 21 18:59	20°♊01'38	
	2332 Jan 04 17:38	0°♊			2334 Jun 29 22:17	0°♊	
asc. node	2332 Jan 13 13:40	7°♊55'24		asc. node	2334 Jun 30 08:53	0°♊32'31	
greatest brilliancy	2332 Feb 02 00:06	21°♊02'30	-4.7m		2334 Jul 24 08:26	0°♊	
retrograde	2332 Feb 14 23:09	24°♊11'28		max. Earth dist.	2334 Jul 26 05:07	2°♊17'33	1.73433 AU
evening set	2332 Mar 03 21:47	17°♊58'08					
inferior conj	2332 Mar 06 21:28	16°♊06'49	8°51'26	superior conj	2334 Jul 28 06:42	4°♊50'12	0°59'55
minimum elong	2332 Mar 06 20:34	16°♊08'14	8°51'26	minimum elong	2334 Jul 27 21:54	4°♊23'05	0°59'37
min. Earth dist.	2332 Mar 06 06:37	16°♊30'05	0.27622 AU		2334 Aug 17 16:17	0°♊	
morning rise	2332 Mar 09 19:30	14°♊18'15		evening rise	2334 Sep 02 05:53	19°♊14'41	
direct	2332 Mar 27 14:42	8°♊12'40			2334 Sep 10 22:29	0°♊	
greatest brilliancy	2332 Apr 07 12:33	10°♊23'34	-4.6m		2334 Oct 05 04:14	0°♊	
desc. node	2332 May 04 02:57	28°♊09'08		desc. node	2334 Oct 19 22:18	18°♊14'45	
	2332 May 06 05:23	0°♊			2334 Oct 29 10:33	0°♊	
morning max el	2332 May 15 22:07	9°♊01'44	46°03'54		2334 Nov 22 18:14	0°♊	
	2332 Jun 05 10:00	0°♊			2334 Dec 17 05:01	0°♊	
	2332 Jul 02 13:55	0°♊			2335 Jan 10 23:38	0°♊	
	2332 Jul 28 13:37	0°♊			2335 Feb 05 13:14	0°♊	
	2332 Aug 22 20:09	0°♊		asc. node	2335 Feb 10 01:26	5°♊07'16	
asc. node	2332 Aug 25 06:28	2°♊55'17			2335 Mar 05 02:24	0°♊	
	2332 Sep 16 13:43	0°♊		evening max el	2335 Mar 07 17:33	2°♊39'18	46°28'37
	2332 Oct 10 21:28	0°♊			2335 Apr 10 11:23	0°♊	
greatest brilliancy	2332 Nov 01 21:48	27°♊26'51	-3.9m	greatest brilliancy	2335 Apr 12 00:42	0°♊47'09	-4.6m
	2332 Nov 03 22:46	0°♊		retrograde	2335 Apr 26 15:24	4°♊34'56	
morning set	2332 Nov 09 15:06	7°♊06'54			2335 May 11 21:24	30°♊	
	2332 Nov 27 20:35	0°♊		evening set	2335 May 12 06:46	29°♊46'47	
desc. node	2332 Dec 14 20:01	21°♊20'49		inferior conj	2335 May 17 22:38	26°♊19'50	3°24'37
				minimum elong	2335 May 18 05:37	26°♊08'50	3°22'41
superior conj	2332 Dec 19 21:56	27°♊44'22	0°-12'-9	min. Earth dist.	2335 May 17 21:55	26°♊20'56	0.28654 AU
minimum elong	2332 Dec 19 18:42	27°♊34'14	0°12'01	morning rise	2335 May 24 04:56	22°♊33'55	
behind sun begin	2332 Dec 19 00:39	26°♊37'26		desc. node	2335 Jun 01 14:54	22°♊01'54	
behind sun end	2332 Dec 20 12:46	28°♊31'02		direct	2335 Jun 08 08:42	18°♊07'33	
max. Earth dist.	2332 Dec 19 16:44	27°♊28'00	1.71104 AU	greatest brilliancy	2335 Jun 21 00:30	20°♊58'08	-4.5m
	2332 Dec 21 17:02	0°♊			2335 Jul 06 06:09	0°♊	
	2333 Jan 14 13:25	0°♊		morning max el	2335 Jul 27 02:59	17°♊53'07	45°43'17
evening rise	2333 Jan 30 07:39	19°♊47'56			2335 Aug 08 08:14	0°♊	
	2333 Feb 07 10:55	0°♊			2335 Sep 05 01:33	0°♊	
	2333 Mar 03 11:19	0°♊		asc. node	2335 Sep 22 18:19	20°♊20'44	
	2333 Mar 27 16:58	0°♊			2335 Sep 30 23:14	0°♊	
asc. node	2333 Apr 06 23:15	12°♊35'14			2335 Oct 25 21:24	0°♊	
	2333 Apr 21 06:33	0°♊			2335 Nov 19 05:54	0°♊	
	2333 May 16 07:17	0°♊			2335 Dec 13 07:09	0°♊	
	2333 Jun 11 00:55	0°♊			2336 Jan 06 05:11	0°♊	
	2333 Jul 08 01:14	0°♊		desc. node	2336 Jan 12 07:48	7°♊40'24	
desc. node	2333 Jul 27 12:39	19°♊57'58		morning set	2336 Jan 25 16:42	24°♊28'13	
evening max el	2333 Jul 29 21:17	22°♊14'19	45°37'55		2336 Jan 30 02:22	0°♊	
	2333 Aug 07 07:29	0°♊			2336 Feb 23 00:13	0°♊	
greatest brilliancy	2333 Sep 05 13:33	19°♊49'13	-4.5m				
retrograde	2333 Sep 16 17:28	22°♊02'37		superior conj	2336 Mar 06 22:41	16°♊11'22	-1°-26'-8
evening set	2333 Oct 04 05:46	16°♊17'28		minimum elong	2336 Mar 06 21:26	16°♊07'29	1°26'09
inferior conj	2333 Oct 07 18:06	14°♊09'59	-8°-4'-4	max. Earth dist.	2336 Mar 10 23:52	21°♊15'04	1.71804 AU
minimum elong	2333 Oct 08 01:47	13°♊58'12	8°03'09		2336 Mar 18 00:04	0°♊	

	2336 Apr 11 03:14	0°♄			2338 Sep 03 10:31	0°♄		
evening rise	2336 Apr 15 16:04	5°♄36'57		morning max el	2338 Oct 05 14:25	25°♄42'01	46°09'18	
asc. node	2336 May 04 11:14	28°♄48'08			2338 Oct 09 22:05	0°♄		
	2336 May 05 10:37	0°♄		asc. node	2338 Oct 20 06:12	10°♄46'08		
	2336 May 29 22:47	0°♄			2338 Nov 06 15:08	0°♄		
	2336 Jun 23 16:29	0°♄			2338 Dec 02 05:18	0°♄		
	2336 Jul 18 17:39	0°♄			2338 Dec 26 21:58	0°♄		
	2336 Aug 13 06:24	0°♄			2339 Jan 20 05:07	0°♄		
desc. node	2336 Aug 24 00:24	12°♄23'04		desc. node	2339 Feb 08 19:36	24°♄21'05		
	2336 Sep 08 15:05	0°♄			2339 Feb 13 08:34	0°♄		
	2336 Oct 06 18:15	0°♄			2339 Mar 09 11:12	0°♄		
evening max el	2336 Oct 11 00:39	4°♄14'43	46°41'31		2339 Apr 02 14:42	0°♄		
	2336 Nov 11 05:56	0°♄		morning set	2339 Apr 11 04:06	10°♄36'47		
greatest brilliancy	2336 Nov 18 19:45	3°♄46'10	-4.6m		2339 Apr 26 20:05	0°♄		
retrograde	2336 Nov 30 00:58	6°♄05'39						
evening set	2336 Dec 14 07:26	2°♄04'26		superior conj	2339 May 19 03:43	27°♄32'25	0°-32'-8	
asc. node	2336 Dec 15 03:47	1°♄36'58		minimum elong	2339 May 19 10:18	27°♄52'41	0°31'51	
	2336 Dec 17 23:11	30°♄		max. Earth dist.	2339 May 20 23:02	29°♄45'48	1.73259 AU	
inferior conj	2336 Dec 20 13:29	28°♄25'38	1°24'16		2339 May 21 03:39	0°♄		
minimum elong	2336 Dec 20 10:17	28°♄30'31	1°23'13	asc. node	2339 Jun 01 23:05	14°♄31'58		
min. Earth dist.	2336 Dec 20 10:08	28°♄30'45	0.26442 AU		2339 Jun 14 13:04	0°♄		
morning rise	2336 Dec 26 13:07	24°♄55'43		evening rise	2339 Jun 25 01:04	12°♄53'31		
direct	2337 Jan 09 23:17	20°♄48'20			2339 Jul 08 23:46	0°♄		
greatest brilliancy	2337 Jan 21 20:24	23°♄26'29	-4.7m		2339 Aug 02 11:49	0°♄		
	2337 Feb 02 09:04	0°♄			2339 Aug 27 02:11	0°♄		
morning max el	2337 Mar 01 07:32	23°♄33'37	46°48'14		2339 Sep 20 20:28	0°♄		
	2337 Mar 07 14:55	0°♄		desc. node	2339 Sep 21 12:25	0°♄48'04		
	2337 Apr 04 02:19	0°♄			2339 Oct 15 20:46	0°♄		
desc. node	2337 Apr 05 17:20	1°♄50'33			2339 Nov 10 07:12	0°♄		
	2337 Apr 30 02:43	0°♄			2339 Dec 06 15:57	0°♄		
	2337 May 25 12:48	0°♄		evening max el	2339 Dec 23 13:59	18°♄01'13	47°17'30	
	2337 Jun 19 15:19	0°♄			2340 Jan 04 21:27	0°♄		
	2337 Jul 14 12:05	0°♄		asc. node	2340 Jan 12 15:38	6°♄46'47		
asc. node	2337 Jul 27 20:37	16°♄14'05		greatest brilliancy	2340 Jan 30 14:45	18°♄40'08	-4.7m	
	2337 Aug 08 03:01	0°♄		retrograde	2340 Feb 12 14:03	21°♄49'34		
morning set	2337 Aug 28 15:49	25°♄14'52		evening set	2340 Mar 01 10:34	15°♄38'30		
	2337 Sep 01 12:08	0°♄		inferior conj	2340 Mar 04 11:36	13°♄45'24	8°50'31	
	2337 Sep 25 16:25	0°♄		minimum elong	2340 Mar 04 09:48	13°♄48'12	8°50'28	
max. Earth dist.	2337 Oct 01 05:04	6°♄53'08	1.72215 AU	min. Earth dist.	2340 Mar 03 19:50	14°♄10'02	0.27572 AU	
				morning rise	2340 Mar 07 09:13	11°♄57'46		
superior conj	2337 Oct 04 13:24	11°♄03'29	1°19'27	direct	2340 Mar 25 04:11	5°♄51'56		
minimum elong	2337 Oct 04 19:56	11°♄23'50	1°19'20	greatest brilliancy	2340 Apr 05 01:28	8°♄02'46	-4.6m	
	2337 Oct 19 17:35	0°♄		desc. node	2340 May 03 05:09	27°♄10'08		
evening rise	2337 Nov 12 09:48	29°♄36'41			2340 May 06 08:40	0°♄		
	2337 Nov 12 17:15	0°♄		morning max el	2340 May 13 13:24	6°♄46'58	46°05'16	
desc. node	2337 Nov 16 10:17	4°♄38'33			2340 Jun 05 03:07	0°♄		
	2337 Dec 06 16:29	0°♄			2340 Jul 02 03:52	0°♄		
	2337 Dec 30 16:14	0°♄			2340 Jul 28 02:06	0°♄		
	2338 Jan 23 18:18	0°♄			2340 Aug 22 07:50	0°♄		
	2338 Feb 17 02:07	0°♄		asc. node	2340 Aug 24 08:30	2°♄26'24		
asc. node	2338 Mar 09 13:20	24°♄49'12			2340 Sep 16 00:58	0°♄		
	2338 Mar 13 21:16	0°♄			2340 Oct 10 08:30	0°♄		
	2338 Apr 08 13:05	0°♄			2340 Nov 03 09:43	0°♄		
	2338 May 05 22:27	0°♄		greatest brilliancy	2340 Nov 04 07:48	1°♄09'06	-3.9m	
evening max el	2338 May 17 09:18	11°♄29'58	45°31'23	morning set	2340 Nov 07 04:34	4°♄44'23		
	2338 Jun 07 19:21	0°♄			2340 Nov 27 07:33	0°♄		
greatest brilliancy	2338 Jun 21 01:25	8°♄02'36	-4.5m	desc. node	2340 Dec 13 22:01	20°♄52'33		
desc. node	2338 Jun 29 02:48	10°♄49'45						
retrograde	2338 Jul 05 02:23	11°♄29'58		superior conj	2340 Dec 17 08:11	25°♄10'58	0°-8'-13	
evening set	2338 Jul 20 23:36	6°♄42'14		minimum elong	2340 Dec 17 06:00	25°♄04'07	0°08'07	
inferior conj	2338 Jul 26 15:10	3°♄17'54	-5°-53'-16	behind sun begin	2340 Dec 16 06:57	23°♄51'36		
minimum elong	2338 Jul 26 05:19	3°♄33'18	5°51'10	behind sun end	2340 Dec 18 05:03	26°♄16'38		
min. Earth dist.	2338 Jul 26 13:52	3°♄19'56	0.29018 AU	max. Earth dist.	2340 Dec 17 02:10	24°♄52'02	1.71115 AU	
morning rise	2338 Jul 31 10:50	0°♄21'05			2340 Dec 21 04:03	0°♄		
	2338 Aug 01 01:28	30°♄			2341 Jan 14 00:27	0°♄		
direct	2338 Aug 17 05:59	25°♄00'16		evening rise	2341 Jan 27 17:59	17°♄15'10		
greatest brilliancy	2338 Aug 31 08:54	28°♄28'06	-4.5m		2341 Feb 06 21:57	0°♄		

	2341 Mar 02 22:25	0°Υ		asc. node	2343 Sep 21 20:27	19°Ω49'04	
	2341 Mar 27 04:14	0°Ϡ			2343 Sep 30 11:47	0°η	
asc. node	2341 Apr 06 01:24	12°Ϡ07'02			2343 Oct 25 09:11	0°♁	
	2341 Apr 20 18:11	0°Π			2343 Nov 18 17:18	0°ℓ	
	2341 May 15 19:38	0°☿			2343 Dec 12 18:19	0°♁	
	2341 Jun 10 14:42	0°Ω			2344 Jan 05 16:12	0°♁	
	2341 Jul 07 18:17	0°η		desc. node	2344 Jan 11 09:46	7°♁12'00	
desc. node	2341 Jul 26 14:37	19°η09'02		morning set	2344 Jan 23 02:16	21°♁53'10	
evening max el	2341 Jul 27 12:49	20°η02'10	45°36'28		2344 Jan 29 13:17	0°≈	
	2341 Aug 07 11:49	0°♁			2344 Feb 22 11:04	0°✕	
greatest brilliancy	2341 Sep 03 01:10	17°♁30'26	-4.5m				
retrograde	2341 Sep 14 07:20	19°♁45'24		superior conj	2344 Mar 04 10:15	13°✕43'40	-1°-25'-52
evening set	2341 Oct 01 22:07	13°♁56'41		minimum elong	2344 Mar 04 07:58	13°✕36'32	1°25'52
inferior conj	2341 Oct 05 08:20	11°♁51'58	-8°-11'-45	max. Earth dist.	2344 Mar 08 11:11	18°✕46'38	1.71751 AU
minimum elong	2341 Oct 05 15:23	11°♁41'08	8°11'01		2344 Mar 17 10:53	0°Υ	
min. Earth dist.	2341 Oct 06 05:21	11°♁19'39	0.27959 AU		2344 Apr 10 14:01	0°Ϡ	
morning rise	2341 Oct 09 08:23	9°♁26'30		evening rise	2344 Apr 13 05:51	3°Ϡ17'40	
direct	2341 Oct 26 13:05	3°♁48'08		asc. node	2344 May 03 13:17	28°Ϡ21'13	
greatest brilliancy	2341 Nov 09 20:33	7°♁31'35	-4.6m		2344 May 04 21:26	0°Π	
asc. node	2341 Nov 16 17:58	11°♁27'53			2344 May 29 09:45	0°☿	
	2341 Dec 09 03:32	0°ℓ			2344 Jun 23 03:50	0°Ω	
morning max el	2341 Dec 16 05:19	7°ℓ00'44	46°50'53		2344 Jul 18 05:44	0°η	
	2342 Jan 06 13:35	0°♁			2344 Aug 12 19:47	0°♁	
	2342 Feb 01 11:44	0°♁		desc. node	2344 Aug 23 02:29	11°♁48'34	
	2342 Feb 26 13:08	0°≈			2344 Sep 08 07:00	0°ℓ	
desc. node	2342 Mar 08 07:31	11°≈49'44			2344 Oct 06 16:31	0°♁	
	2342 Mar 23 06:03	0°✕		evening max el	2344 Oct 08 13:03	1°♁49'48	46°39'03
	2342 Apr 16 19:42	0°Υ			2344 Nov 13 08:38	0°♁	
	2342 May 11 08:28	0°Ϡ		greatest brilliancy	2344 Nov 16 10:11	1°♁20'12	-4.6m
	2342 Jun 04 21:04	0°Π		retrograde	2344 Nov 27 12:24	3°♁37'06	
morning set	2342 Jun 19 13:05	17°Π57'25			2344 Dec 11 01:01	30°ℓ♁	
asc. node	2342 Jun 29 10:49	0°☿05'51		evening set	2344 Dec 11 19:41	29°♁35'49	
	2342 Jun 29 08:55	0°☿		asc. node	2344 Dec 14 05:45	28°♁15'18	
	2342 Jul 23 19:01	0°Ω		inferior conj	2344 Dec 18 01:39	25°♁57'39	0°59'47
max. Earth dist.	2342 Jul 24 01:52	0°Ω21'07	1.73456 AU	minimum elong	2344 Dec 17 23:22	26°♁01'08	0°59'02
				min. Earth dist.	2344 Dec 18 00:20	25°♁59'39	0.26447 AU
superior conj	2342 Jul 26 01:09	2°Ω46'38	0°57'40	morning rise	2344 Dec 24 02:51	22°♁25'25	
minimum elong	2342 Jul 25 16:24	2°Ω19'40	0°57'20	direct	2345 Jan 07 11:01	18°♁19'50	
	2342 Aug 17 02:55	0°η		greatest brilliancy	2345 Jan 19 12:11	21°♁01'49	-4.7m
evening rise	2342 Aug 30 23:27	17°η07'21			2345 Feb 03 07:08	0°♁	
	2342 Sep 10 09:17	0°♁		morning max el	2345 Feb 26 19:49	21°♁06'23	46°49'21
	2342 Oct 04 15:18	0°ℓ			2345 Mar 07 11:21	0°≈	
desc. node	2342 Oct 19 00:24	17°ℓ46'32			2345 Apr 03 17:45	0°✕	
	2342 Oct 28 21:57	0°♁		desc. node	2345 Apr 04 19:30	1°✕13'15	
	2342 Nov 22 06:05	0°♁			2345 Apr 29 16:03	0°Υ	
	2342 Dec 16 17:29	0°≈			2345 May 25 00:57	0°Ϡ	
	2343 Jan 10 13:08	0°✕			2345 Jun 19 02:45	0°Π	
	2343 Feb 05 04:45	0°Υ			2345 Jul 13 23:03	0°☿	
asc. node	2343 Feb 09 03:29	4°Υ27'56		asc. node	2345 Jul 26 22:43	15°☿47'29	
	2343 Mar 04 23:27	0°Ϡ			2345 Aug 07 13:44	0°Ω	
evening max el	2343 Mar 05 09:13	0°Ϡ24'31	46°31'00	morning set	2345 Aug 26 09:05	23°Ω07'15	
greatest brilliancy	2343 Apr 09 19:13	28°Ϡ38'48	-4.6m		2345 Aug 31 22:45	0°η	
	2343 Apr 12 20:40	0°Π			2345 Sep 25 03:03	0°♁	
retrograde	2343 Apr 24 07:32	2°Π23'53		max. Earth dist.	2345 Sep 28 22:03	4°♁43'19	1.72271 AU
	2343 May 05 05:15	30°ℓϠ					
evening set	2343 May 10 01:12	27°Ϡ33'06		superior conj	2345 Oct 02 05:19	8°♁50'15	1°20'35
inferior conj	2343 May 15 14:44	24°Ϡ09'10	3°43'15	minimum elong	2345 Oct 02 11:13	9°♁08'38	1°20'30
minimum elong	2343 May 15 22:15	23°Ϡ57'21	3°41'14		2345 Oct 19 04:20	0°ℓ	
min. Earth dist.	2343 May 15 14:07	24°Ϡ10'10	0.28627 AU	evening rise	2345 Nov 09 22:25	27°ℓ11'59	
morning rise	2343 May 21 19:45	20°Ϡ24'43			2345 Nov 12 04:09	0°♁	
desc. node	2343 May 31 16:49	16°Ϡ31'12		desc. node	2345 Nov 15 12:16	4°♁10'34	
direct	2343 Jun 06 00:35	15°Ϡ57'30			2345 Dec 06 03:33	0°♁	
greatest brilliancy	2343 Jun 18 13:26	18°Ϡ44'54	-4.5m		2345 Dec 30 03:30	0°≈	
	2343 Jul 06 18:39	0°Π			2346 Jan 23 05:51	0°✕	
morning max el	2343 Jul 24 18:03	15°Π41'52	45°43'04		2346 Feb 16 14:05	0°Υ	
	2343 Aug 08 02:21	0°☿		asc. node	2346 Mar 08 15:29	24°Υ18'01	
	2343 Sep 04 15:42	0°Ω			2346 Mar 13 10:01	0°Ϡ	

	2346 Apr 08 03:28	0°♈			2348 Nov 02 20:36	0°♍	
	2346 May 05 17:03	0°♉		morning set	2348 Nov 04 18:32	2°♍23'48	
evening max el	2346 May 15 00:37	9°♉18'08	45°32'37		2348 Nov 26 18:27	0°♊	
	2346 Jun 08 12:27	0°♊		desc. node	2348 Dec 13 00:02	20°♊24'30	
greatest brilliancy	2346 Jun 18 14:31	5°♊50'21	-4.5m				
desc. node	2346 Jun 28 04:52	8°♊57'55		superior conj	2348 Dec 14 18:49	22°♊39'06	0°-4'-17
retrograde	2346 Jul 02 18:58	9°♊21'52		minimum elong	2348 Dec 14 17:41	22°♊35'30	0°04'15
evening set	2346 Jul 18 13:25	4°♊36'54		behind sun begin	2348 Dec 13 16:14	21°♊15'27	
inferior conj	2346 Jul 24 07:27	1°♊09'18	-5°-38'-31	behind sun end	2348 Dec 15 19:08	23°♊55'35	
minimum elong	2346 Jul 23 21:42	1°♊24'31	5°36'21	max. Earth dist.	2348 Dec 14 10:50	22°♊13'58	1.71128 AU
min. Earth dist.	2346 Jul 24 05:43	1°♊12'00	0.29022 AU		2348 Dec 20 15:00	0°♋	
	2346 Jul 26 03:58	30°♋♉			2349 Jan 13 11:27	0°♋	
morning rise	2346 Jul 29 05:50	28°♉08'48		evening rise	2349 Jan 25 04:16	14°♋42'08	
direct	2346 Aug 14 22:07	22°♉51'27			2349 Feb 06 09:01	0°♌	
greatest brilliancy	2346 Aug 29 01:26	26°♉19'48	-4.5m		2349 Mar 02 09:34	0°♍	
	2346 Sep 04 20:01	0°♊			2349 Mar 26 15:36	0°♌	
morning max el	2346 Oct 03 06:20	23°♊30'26	46°07'53	asc. node	2349 Apr 05 03:24	11°♌38'05	
	2346 Oct 09 17:59	0°♎			2349 Apr 20 05:56	0°♈	
asc. node	2346 Oct 19 08:15	10°♎04'49			2349 May 15 08:08	0°♉	
	2346 Nov 06 06:05	0°♌			2349 Jun 10 04:42	0°♊	
	2346 Dec 01 18:26	0°♍			2349 Jul 07 11:46	0°♎	
	2346 Dec 26 10:13	0°♊		evening max el	2349 Jul 25 03:49	17°♎48'33	45°35'01
	2347 Jan 19 16:53	0°♋		desc. node	2349 Jul 25 16:45	18°♎19'21	
desc. node	2347 Feb 07 21:44	23°♋52'00			2349 Aug 07 18:17	0°♌	
	2347 Feb 12 19:59	0°♋		greatest brilliancy	2349 Aug 31 13:57	15°♌12'55	-4.5m
	2347 Mar 08 22:20	0°♌		retrograde	2349 Sep 11 20:51	17°♌28'19	
	2347 Apr 02 01:37	0°♍		evening set	2349 Sep 29 14:22	11°♌36'28	
morning set	2347 Apr 08 18:12	8°♍18'04		inferior conj	2349 Oct 02 22:41	9°♌34'16	-8°-18'-41
	2347 Apr 26 06:49	0°♌		minimum elong	2349 Oct 03 05:02	9°♌24'28	8°18'05
				min. Earth dist.	2349 Oct 03 19:09	9°♌02'42	0.28020 AU
superior conj	2347 May 16 20:03	25°♌22'00	0°-35'-13	morning rise	2349 Oct 06 19:28	7°♌13'13	
minimum elong	2347 May 17 03:11	25°♌43'59	0°34'55	direct	2349 Oct 24 04:18	1°♌29'44	
max. Earth dist.	2347 May 18 17:59	27°♌43'32	1.73226 AU	greatest brilliancy	2349 Nov 07 10:58	5°♌11'46	-4.6m
	2347 May 20 14:18	0°♈		asc. node	2349 Nov 15 19:53	10°♌06'39	
asc. node	2347 Jun 01 01:01	14°♈05'10			2349 Dec 09 04:12	0°♍	
	2347 Jun 13 23:44	0°♉		morning max el	2349 Dec 13 19:14	4°♍37'46	46°49'56
evening rise	2347 Jun 22 19:30	10°♉50'01			2350 Jan 06 06:25	0°♊	
	2347 Jul 08 10:34	0°♊			2350 Feb 01 01:55	0°♋	
	2347 Aug 01 22:50	0°♎			2350 Feb 26 02:01	0°♋	
	2347 Aug 26 13:35	0°♌		desc. node	2350 Mar 07 09:37	11°♋17'59	
	2347 Sep 20 08:30	0°♍			2350 Mar 22 18:09	0°♌	
desc. node	2347 Sep 20 14:33	0°♍18'15			2350 Apr 16 07:17	0°♍	
	2347 Oct 15 09:48	0°♊			2350 May 10 19:41	0°♌	
	2347 Nov 09 21:55	0°♋			2350 Jun 04 08:01	0°♈	
	2347 Dec 06 10:06	0°♋		morning set	2350 Jun 17 06:56	15°♈51'55	
evening max el	2347 Dec 21 05:07	15°♋40'31	47°17'40	asc. node	2350 Jun 28 12:56	29°♈39'14	
	2348 Jan 05 03:11	0°♌			2350 Jun 28 19:42	0°♉	
asc. node	2348 Jan 11 17:44	5°♌36'16		max. Earth dist.	2350 Jul 21 21:22	28°♉20'27	1.73475 AU
greatest brilliancy	2348 Jan 28 05:18	16°♌17'02	-4.7m		2350 Jul 23 05:44	0°♊	
retrograde	2348 Feb 10 04:56	19°♌26'28					
evening set	2348 Feb 27 22:37	13°♌18'30		superior conj	2350 Jul 23 19:30	0°♊42'21	0°55'18
min. Earth dist.	2348 Mar 01 08:36	11°♌49'05	0.27519 AU	minimum elong	2350 Jul 23 10:49	0°♊15'39	0°54'59
inferior conj	2348 Mar 02 01:26	11°♌22'51	8°48'34		2350 Aug 16 13:43	0°♎	
minimum elong	2348 Mar 01 22:47	11°♌26'59	8°48'28	evening rise	2350 Aug 28 17:06	14°♎59'50	
morning rise	2348 Mar 04 23:07	9°♌35'22			2350 Sep 09 20:17	0°♌	
direct	2348 Mar 22 17:52	3°♌30'19			2350 Oct 04 02:34	0°♍	
greatest brilliancy	2348 Apr 02 13:20	5°♌40'06	-4.6m	desc. node	2350 Oct 18 02:23	17°♍17'18	
desc. node	2348 May 02 07:06	26°♌11'48			2350 Oct 28 09:33	0°♊	
	2348 May 06 10:28	0°♍			2350 Nov 21 18:07	0°♋	
morning max el	2348 May 11 04:39	4°♍32'04	46°06'40		2350 Dec 16 06:08	0°♋	
	2348 Jun 04 19:51	0°♌			2351 Jan 10 02:50	0°♌	
	2348 Jul 01 17:38	0°♈			2351 Feb 04 20:36	0°♍	
	2348 Jul 27 14:27	0°♉		asc. node	2351 Feb 08 05:36	3°♍48'04	
	2348 Aug 21 19:26	0°♊		evening max el	2351 Mar 02 23:56	28°♍06'44	46°33'12
asc. node	2348 Aug 23 10:35	1°♊57'52			2351 Mar 04 21:27	0°♌	
	2348 Sep 15 12:09	0°♎		greatest brilliancy	2351 Apr 07 13:25	26°♌29'09	-4.6m
	2348 Oct 09 19:28	0°♌			2351 Apr 18 18:01	0°♈	

retrograde	2351 Apr 21 23:17	0°II12'07		max. Earth dist.	2353 Sep 26 16:02	2°♄35'41	1.72322 AU
	2351 Apr 25 03:25	30°♌♌					
evening set	2351 May 07 19:43	25°♌18'19		superior conj	2353 Sep 29 21:17	6°♄36'17	1°21'36
inferior conj	2351 May 13 06:52	21°♌57'42	4°01'40	minimum elong	2353 Sep 30 02:31	6°♄52'35	1°21'31
minimum elong	2351 May 13 14:51	21°♌45'08	3°59'32		2353 Oct 18 15:23	0°♌	
min. Earth dist.	2351 May 13 06:34	21°♌58'11	0.28604 AU	evening rise	2353 Nov 07 11:12	24°♌46'56	
morning rise	2351 May 19 10:22	18°♌14'56			2353 Nov 11 15:21	0°♌	
desc. node	2351 May 30 18:53	14°♌04'15		desc. node	2353 Nov 14 14:17	3°♌41'47	
direct	2351 Jun 03 16:02	13°♌46'28			2353 Dec 05 14:57	0°♌	
greatest brilliancy	2351 Jun 16 03:32	16°♌31'58	-4.5m		2353 Dec 29 15:09	0°♌	
	2351 Jul 07 04:18	0°II			2354 Jan 22 17:46	0°♌	
morning max el	2351 Jul 22 08:47	13°II28'49	45°43'00		2354 Feb 16 02:25	0°♌	
	2351 Aug 07 20:21	0°♌		asc. node	2354 Mar 07 17:30	23°♌45'22	
	2351 Sep 04 05:57	0°♌			2354 Mar 12 23:08	0°♌	
asc. node	2351 Sep 20 22:29	19°♌16'31			2354 Apr 07 18:18	0°II	
	2351 Sep 30 00:30	0°♌			2354 May 05 12:25	0°♌	
	2351 Oct 24 21:10	0°♌		evening max el	2354 May 12 16:48	7°♌07'50	45°33'56
	2351 Nov 18 04:55	0°♌			2354 Jun 09 12:05	0°♌	
	2351 Dec 12 05:43	0°♌		greatest brilliancy	2354 Jun 16 04:16	3°♌38'30	-4.5m
desc. node	2352 Jan 05 03:28	0°♌		desc. node	2354 Jun 27 06:58	7°♌01'31	
morning set	2352 Jan 10 11:56	6°♌43'31		retrograde	2354 Jun 30 11:52	7°♌13'19	
	2352 Jan 20 12:07	19°♌18'13		evening set	2354 Jul 16 03:35	2°♌31'03	
	2352 Jan 29 00:26	0°♌			2354 Jul 20 09:25	30°♌♌	
	2352 Feb 21 22:07	0°♌		inferior conj	2354 Jul 21 23:53	29°♌00'11	-5°-23'-16
				minimum elong	2354 Jul 21 14:18	29°♌15'08	5°21'05
superior conj	2352 Mar 01 22:07	11°♌16'13	-1°-25'-25	min. Earth dist.	2354 Jul 21 21:26	29°♌04'00	0.29026 AU
minimum elong	2352 Mar 01 18:48	11°♌05'52	1°25'24	morning rise	2354 Jul 27 00:55	25°♌56'06	
max. Earth dist.	2352 Mar 05 20:54	16°♌12'39	1.71697 AU	direct	2354 Aug 12 15:00	20°♌42'17	
	2352 Mar 16 21:52	0°♌		greatest brilliancy	2354 Aug 26 17:43	24°♌10'34	-4.5m
	2352 Apr 10 01:00	0°♌			2354 Sep 05 20:17	0°♌	
evening rise	2352 Apr 10 19:47	0°♌58'10		morning max el	2354 Sep 30 22:51	21°♌19'30	46°06'24
asc. node	2352 May 02 15:15	27°♌53'19			2354 Oct 09 13:40	0°♌	
	2352 May 04 08:29	0°II		asc. node	2354 Oct 18 10:14	9°♌22'42	
	2352 May 28 21:02	0°♌			2354 Nov 05 21:11	0°♌	
	2352 Jun 22 15:32	0°♌			2354 Dec 01 07:47	0°♌	
	2352 Jul 17 18:11	0°♌			2354 Dec 25 22:43	0°♌	
	2352 Aug 12 09:36	0°♌			2355 Jan 19 04:53	0°♌	
desc. node	2352 Aug 22 04:36	11°♌13'01		desc. node	2355 Feb 06 23:45	23°♌21'43	
	2352 Sep 07 23:30	0°♌			2355 Feb 12 07:40	0°♌	
evening max el	2352 Oct 06 01:16	29°♌23'51	46°36'39		2355 Mar 08 09:46	0°♌	
	2352 Oct 06 16:04	0°♌			2355 Apr 01 12:49	0°♌	
greatest brilliancy	2352 Nov 13 23:39	28°♌52'26	-4.6m	morning set	2355 Apr 06 08:19	5°♌58'23	
	2352 Nov 17 07:19	0°♌			2355 Apr 25 17:50	0°♌	
retrograde	2352 Nov 25 00:11	1°♌08'05					
	2352 Dec 02 11:38	30°♌♌		superior conj	2355 May 14 12:30	23°♌11'05	0°-38'-15
evening set	2352 Dec 09 08:11	27°♌06'00		minimum elong	2355 May 14 20:10	23°♌34'41	0°37'55
asc. node	2352 Dec 13 07:54	24°♌50'19		max. Earth dist.	2355 May 16 14:50	25°♌46'12	1.73188 AU
inferior conj	2352 Dec 15 13:50	23°♌28'48	0°35'05		2355 May 20 01:13	0°II	
minimum elong	2352 Dec 15 12:29	23°♌30'52	0°34'40	asc. node	2355 May 31 03:12	13°II38'22	
min. Earth dist.	2352 Dec 15 14:20	23°♌28'02	0.26458 AU		2355 Jun 13 10:39	0°♌	
morning rise	2352 Dec 21 16:28	19°♌54'47		evening rise	2355 Jun 20 14:10	8°♌46'32	
direct	2353 Jan 04 23:04	15°♌50'17			2355 Jul 07 21:35	0°♌	
greatest brilliancy	2353 Jan 17 04:18	18°♌36'41	-4.7m		2355 Aug 01 10:07	0°♌	
	2353 Feb 03 23:58	0°♌			2355 Aug 26 01:18	0°♌	
morning max el	2353 Feb 24 09:08	18°♌40'50	46°50'39	desc. node	2355 Sep 19 16:28	29°♌46'41	
	2353 Mar 07 07:27	0°♌			2355 Sep 19 20:54	0°♌	
	2353 Apr 03 09:14	0°♌			2355 Oct 14 23:15	0°♌	
desc. node	2353 Apr 03 21:28	0°♌34'56			2355 Nov 09 13:08	0°♌	
	2353 Apr 29 05:29	0°♌			2355 Dec 06 05:02	0°♌	
	2353 May 24 13:17	0°♌		evening max el	2355 Dec 18 20:37	13°♌19'53	47°17'44
	2353 Jun 18 14:24	0°II			2356 Jan 05 11:35	0°♌	
	2353 Jul 13 10:18	0°♌		asc. node	2356 Jan 10 19:49	4°♌22'47	
asc. node	2353 Jul 26 00:50	15°♌19'59		greatest brilliancy	2356 Jan 25 20:27	13°♌53'48	-4.7m
	2353 Aug 07 00:46	0°♌		retrograde	2356 Feb 07 19:37	17°♌02'03	
morning set	2353 Aug 24 02:26	20°♌58'54		evening set	2356 Feb 25 10:13	10°♌58'04	
	2353 Aug 31 09:41	0°♌		min. Earth dist.	2356 Feb 27 21:21	9°♌26'56	0.27466 AU
	2353 Sep 24 14:00	0°♌		inferior conj	2356 Feb 28 15:11	8°♌59'08	8°45'38

minimum elong	2356 Feb 28 11:41	9° H 04'36	8°45'28		2358 Jul 22 16:30	0° Ω	
morning rise	2356 Mar 02 13:22	7° H 11'01			2358 Aug 16 00:32	0° M	
direct	2356 Mar 20 07:47	1° H 07'41		evening rise	2358 Aug 26 11:05	12° M 53'32	
greatest brilliancy	2356 Mar 31 00:51	3° H 15'48	-4.6m		2358 Sep 09 07:14	0° Ω	
desc. node	2356 May 01 09:09	25° H 14'00			2358 Oct 03 13:47	0° M	
	2356 May 06 11:21	0° Y		desc. node	2358 Oct 17 04:28	16° M 48'32	
morning max el	2356 May 08 19:17	2° Y 14'43	46°08'10		2358 Oct 27 21:09	0° Z	
	2356 Jun 04 12:31	0° B			2358 Nov 21 06:12	0° Z	
	2356 Jul 01 07:28	0° II			2358 Dec 15 18:55	0° \approx	
	2356 Jul 27 02:55	0° S			2359 Jan 09 16:46	0° H	
	2356 Aug 21 07:10	0° Ω			2359 Feb 04 12:53	0° Y	
asc. node	2356 Aug 22 12:37	1° Ω 28'46		asc. node	2359 Feb 07 07:35	3° Y 06'57	
	2356 Sep 14 23:28	0° M		evening max el	2359 Feb 28 13:33	25° Y 45'35	46°35'32
	2356 Oct 09 06:37	0° Ω			2359 Mar 04 20:33	0° B	
morning set	2356 Nov 02 08:27	0° M 02'20		greatest brilliancy	2359 Apr 05 06:36	24° B 17'23	-4.6m
	2356 Nov 02 07:43	0° M		retrograde	2359 Apr 19 14:56	27° B 59'33	
	2356 Nov 26 05:35	0° Z		evening set	2359 May 05 14:03	23° B 02'16	
max. Earth dist.	2356 Dec 11 16:01	19° Z 24'14	1.71143 AU	inferior conj	2359 May 10 22:46	19° B 45'22	4°19'45
				minimum elong	2359 May 11 07:10	19° B 32'06	4°17'34
superior conj	2356 Dec 12 05:23	20° Z 06'16	0°00'-18	min. Earth dist.	2359 May 10 22:51	19° B 45'14	0.28581 AU
minimum elong	2356 Dec 12 05:16	20° Z 05'56	0°00'20	morning rise	2359 May 17 00:36	16° B 04'40	
behind sun begin	2356 Dec 11 03:17	18° Z 44'13		desc. node	2359 May 29 21:04	11° B 41'10	
behind sun end	2356 Dec 13 07:16	21° Z 27'40		direct	2359 Jun 01 06:53	11° B 34'21	
desc. node	2356 Dec 12 02:13	19° Z 56'19		greatest brilliancy	2359 Jun 13 18:21	14° B 19'20	-4.5m
	2356 Dec 20 02:10	0° Z			2359 Jul 07 11:26	0° II	
	2357 Jan 12 22:39	0° \approx		morning max el	2359 Jul 19 23:43	11° II 16'05	45°43'11
evening rise	2357 Jan 22 14:16	12° \approx 07'33			2359 Aug 07 13:54	0° S	
	2357 Feb 05 20:16	0° H			2359 Sep 03 19:58	0° Ω	
	2357 Mar 01 20:57	0° Y		asc. node	2359 Sep 20 00:29	18° Ω 44'19	
	2357 Mar 26 03:12	0° B			2359 Sep 29 13:01	0° M	
asc. node	2357 Apr 04 05:24	11° B 08'28			2359 Oct 24 08:57	0° Ω	
	2357 Apr 19 17:56	0° II			2359 Nov 17 16:20	0° M	
	2357 May 14 20:53	0° S			2359 Dec 11 16:57	0° Z	
	2357 Jun 09 18:58	0° Ω			2360 Jan 04 14:35	0° Z	
	2357 Jul 07 05:44	0° M		desc. node	2360 Jan 09 13:57	6° Z 14'56	
evening max el	2357 Jul 22 18:01	15° M 33'01	45°33'43	morning set	2360 Jan 17 21:43	16° Z 42'40	
desc. node	2357 Jul 24 18:49	17° M 28'33			2360 Jan 28 11:29	0° \approx	
	2357 Aug 08 03:10	0° Ω			2360 Feb 21 09:07	0° H	
greatest brilliancy	2357 Aug 29 03:06	12° Ω 56'15	-4.5m				
retrograde	2357 Sep 09 10:17	15° Ω 12'07		superior conj	2360 Feb 28 09:22	8° H 46'56	-1°-24'-47
evening set	2357 Sep 27 06:34	9° Ω 17'25		minimum elong	2360 Feb 28 05:03	8° H 33'25	1°24'46
inferior conj	2357 Sep 30 13:18	7° Ω 17'24	-8°-24'-36	max. Earth dist.	2360 Mar 03 03:20	13° H 28'24	1.71648 AU
minimum elong	2357 Sep 30 18:57	7° Ω 08'40	8°24'08		2360 Mar 16 08:49	0° Y	
min. Earth dist.	2357 Oct 01 09:25	6° Ω 46'18	0.28085 AU	evening rise	2360 Apr 08 09:04	28° Y 36'49	
morning rise	2357 Oct 04 07:05	5° Ω 00'26			2360 Apr 09 11:55	0° B	
	2357 Oct 15 11:56	30° R M		asc. node	2360 May 01 17:24	27° B 26'09	
direct	2357 Oct 21 19:15	29° M 11'58			2360 May 03 19:28	0° II	
	2357 Oct 28 06:18	0° Ω			2360 May 28 08:14	0° S	
greatest brilliancy	2357 Nov 05 02:31	2° Ω 53'39	-4.6m		2360 Jun 22 03:10	0° Ω	
asc. node	2357 Nov 14 22:05	8° Ω 48'21			2360 Jul 17 06:36	0° M	
	2357 Dec 09 03:52	0° M			2360 Aug 11 23:23	0° Ω	
morning max el	2357 Dec 11 08:32	2° M 12'51	46°48'46	desc. node	2360 Aug 21 06:33	10° Ω 37'16	
	2358 Jan 05 23:07	0° Z			2360 Sep 07 16:04	0° M	
	2358 Jan 31 16:08	0° Z		evening max el	2360 Oct 03 14:07	27° M 00'42	46°34'28
	2358 Feb 25 14:57	0° \approx			2360 Oct 06 16:19	0° Z	
desc. node	2358 Mar 06 11:37	10° \approx 45'42		greatest brilliancy	2360 Nov 11 12:11	26° Z 25'14	-4.6m
	2358 Mar 22 06:19	0° H		retrograde	2360 Nov 22 12:39	28° Z 40'48	
	2358 Apr 15 18:55	0° Y		evening set	2360 Dec 06 21:06	24° Z 37'28	
	2358 May 10 06:58	0° B		asc. node	2360 Dec 12 09:56	21° Z 25'58	
	2358 Jun 03 19:03	0° II		inferior conj	2360 Dec 13 02:08	21° Z 01'23	0°10'33
morning set	2358 Jun 15 00:43	13° II 45'54		minimum elong	2360 Dec 13 01:44	21° Z 02'00	0°10'26
asc. node	2358 Jun 27 15:02	29° II 12'23		transit middle	2360 Dec 13 01:44	21° Z 02'00	0°10'26
	2358 Jun 28 06:33	0° S		transit begin	2360 Dec 12 22:32	21° Z 06'51	
max. Earth dist.	2358 Jul 19 16:01	26° S 17'01	1.73491 AU	transit end	2360 Dec 13 04:55	20° Z 57'09	
				min. Earth dist.	2360 Dec 13 04:02	20° Z 58'31	0.26476 AU
superior conj	2358 Jul 21 14:01	28° S 38'30	0°52'53	morning rise	2360 Dec 19 06:04	17° Z 26'04	
minimum elong	2358 Jul 21 05:28	28° S 12'12	0°52'34	direct	2361 Jan 02 11:50	13° Z 22'15	

greatest brilliancy	2361 Jan 14 19:48	16° ♁ 12'14	-4.7m			2363 Jul 31 21:06	0° ♁	
	2361 Feb 04 12:08	0° ♁				2363 Aug 25 12:45	0° ♁	
morning max el	2361 Feb 21 23:24	16° ♁ 18'25	46°51'32	desc. node		2363 Sep 18 18:34	29° ♁ 16'31	
	2361 Mar 07 02:44	0° ♁				2363 Sep 19 09:03	0° ♁	
desc. node	2361 Apr 02 23:31	29° ♁ 57'36				2363 Oct 14 12:29	0° ♁	
	2361 Apr 03 00:21	0° ♁				2363 Nov 09 04:13	0° ♁	
	2361 Apr 28 18:43	0° ♁				2363 Dec 06 00:03	0° ♁	
	2361 May 24 01:25	0° ♁		evening max el		2363 Dec 16 11:56	10° ♁ 59'51	47°17'47
	2361 Jun 18 01:52	0° ♁				2364 Jan 05 22:14	0° ♁	
	2361 Jul 12 21:21	0° ♁		asc. node		2364 Jan 09 21:48	3° ♁ 08'16	
asc. node	2361 Jul 25 02:46	14° ♁ 52'37		greatest brilliancy		2364 Jan 23 12:40	11° ♁ 33'21	-4.7m
	2361 Aug 06 11:34	0° ♁		retrograde		2364 Feb 05 10:01	14° ♁ 39'04	
morning set	2361 Aug 21 19:37	18° ♁ 50'51		evening set		2364 Feb 22 21:35	8° ♁ 39'58	
	2361 Aug 30 20:24	0° ♁		min. Earth dist.		2364 Feb 25 10:24	7° ♁ 06'13	0.27407 AU
	2361 Sep 24 00:44	0° ♁		inferior conj		2364 Feb 26 05:02	6° ♁ 37'09	8°41'52
max. Earth dist.	2361 Sep 24 08:56	0° ♁ 25'31	1.72369 AU	minimum elong		2364 Feb 26 00:41	6° ♁ 43'56	8°41'36
				morning rise		2364 Feb 29 04:03	4° ♁ 47'45	
superior conj	2361 Sep 27 13:20	4° ♁ 23'21	1°22'28			2364 Mar 10 04:05	30° ♁	
minimum elong	2361 Sep 27 17:52	4° ♁ 37'29	1°22'25	direct		2364 Mar 17 21:32	28° ♁ 46'59	
	2361 Oct 18 02:10	0° ♁				2364 Mar 25 21:18	0° ♁	
evening rise	2361 Nov 05 00:14	22° ♁ 23'37		greatest brilliancy		2364 Mar 28 12:31	0° ♁ 53'13	-4.6m
	2361 Nov 11 02:15	0° ♁		desc. node		2364 Apr 30 11:19	24° ♁ 19'17	
desc. node	2361 Nov 13 16:26	3° ♁ 14'23				2364 May 06 10:29	0° ♁	
	2361 Dec 05 02:01	0° ♁		morning max el		2364 May 06 08:54	29° ♁ 56'11	46°09'28
	2361 Dec 29 02:26	0° ♁				2364 Jun 04 04:27	0° ♁	
	2362 Jan 22 05:20	0° ♁				2364 Jun 30 20:50	0° ♁	
	2362 Feb 15 14:28	0° ♁				2364 Jul 26 15:02	0° ♁	
asc. node	2362 Mar 06 19:29	23° ♁ 13'20				2364 Aug 20 18:34	0° ♁	
	2362 Mar 12 12:04	0° ♁		asc. node		2364 Aug 21 14:39	1° ♁ 00'32	
	2362 Apr 07 09:06	0° ♁				2364 Sep 14 10:29	0° ♁	
	2362 May 05 08:12	0° ♁				2364 Oct 08 17:27	0° ♁	
evening max el	2362 May 10 09:23	4° ♁ 58'53	45°35'15	morning set		2364 Oct 30 22:12	27° ♁ 41'20	
	2362 Jun 10 21:07	0° ♁				2364 Nov 01 18:31	0° ♁	
greatest brilliancy	2362 Jun 13 19:14	1° ♁ 28'22	-4.5m			2364 Nov 25 16:25	0° ♁	
desc. node	2362 Jun 26 08:57	5° ♁ 00'43		max. Earth dist.		2364 Dec 08 19:13	16° ♁ 29'21	1.71161 AU
retrograde	2362 Jun 28 04:33	5° ♁ 04'33						
evening set	2362 Jul 13 17:42	0° ♁ 25'12		superior conj		2364 Dec 09 15:58	17° ♁ 34'33	0°03'39
	2362 Jul 14 11:33	30° ♁		minimum elong		2364 Dec 09 16:54	17° ♁ 37'30	0°03'36
inferior conj	2362 Jul 19 16:03	26° ♁ 51'03	-5°-7'-30	behind sun begin		2364 Dec 08 15:22	16° ♁ 17'15	
minimum elong	2362 Jul 19 06:41	27° ♁ 05'40	5°05'19	behind sun end		2364 Dec 10 18:25	18° ♁ 57'45	
min. Earth dist.	2362 Jul 19 12:52	26° ♁ 56'02	0.29025 AU	desc. node		2364 Dec 11 04:10	19° ♁ 28'22	
morning rise	2362 Jul 24 19:42	23° ♁ 43'21				2364 Dec 19 13:03	0° ♁	
direct	2362 Aug 10 07:48	18° ♁ 33'22				2365 Jan 12 09:33	0° ♁	
greatest brilliancy	2362 Aug 24 08:34	21° ♁ 59'59	-4.5m	evening rise		2365 Jan 20 00:19	9° ♁ 34'06	
	2362 Sep 06 13:53	0° ♁				2365 Feb 05 07:12	0° ♁	
morning max el	2362 Sep 28 14:50	19° ♁ 08'14	46°04'55			2365 Mar 01 07:58	0° ♁	
	2362 Oct 09 08:30	0° ♁				2365 Mar 25 14:24	0° ♁	
asc. node	2362 Oct 17 12:23	8° ♁ 42'23		asc. node		2365 Apr 03 07:34	10° ♁ 40'33	
	2362 Nov 05 11:47	0° ♁				2365 Apr 19 05:32	0° ♁	
	2362 Nov 30 20:42	0° ♁				2365 May 14 09:18	0° ♁	
	2362 Dec 25 10:47	0° ♁				2365 Jun 09 09:04	0° ♁	
	2363 Jan 18 16:27	0° ♁				2365 Jul 06 23:51	0° ♁	
desc. node	2363 Feb 06 01:45	22° ♁ 52'45		evening max el		2365 Jul 20 07:33	13° ♁ 16'30	45°32'22
	2363 Feb 11 18:54	0° ♁		desc. node		2365 Jul 23 20:48	16° ♁ 37'10	
	2363 Mar 07 20:45	0° ♁				2365 Aug 08 14:55	0° ♁	
	2363 Mar 31 23:36	0° ♁		greatest brilliancy		2365 Aug 26 15:51	10° ♁ 39'34	-4.5m
morning set	2363 Apr 03 22:22	3° ♁ 39'37		retrograde		2365 Sep 06 23:43	12° ♁ 56'37	
	2363 Apr 25 04:30	0° ♁		evening set		2365 Sep 24 22:20	6° ♁ 59'19	
				inferior conj		2365 Sep 28 03:52	5° ♁ 01'06	-8°-29'-34
superior conj	2363 May 12 04:36	20° ♁ 59'58	0°-41'-14	minimum elong		2365 Sep 28 08:44	4° ♁ 53'33	8°29'14
minimum elong	2363 May 12 12:45	21° ♁ 25'05	0°40'55	min. Earth dist.		2365 Sep 28 23:43	4° ♁ 30'23	0.28149 AU
max. Earth dist.	2363 May 14 12:02	23° ♁ 50'53	1.73152 AU	morning rise		2365 Oct 01 18:53	2° ♁ 48'04	
	2363 May 19 11:50	0° ♁				2365 Oct 06 22:28	30° ♁	
asc. node	2363 May 30 05:14	13° ♁ 12'03		direct		2365 Oct 19 09:49	26° ♁ 54'35	
	2363 Jun 12 21:16	0° ♁				2365 Nov 01 10:53	0° ♁	
evening rise	2363 Jun 18 08:18	6° ♁ 42'16		greatest brilliancy		2365 Nov 02 18:55	0° ♁ 37'24	-4.6m
	2363 Jul 07 08:19	0° ♁		asc. node		2365 Nov 14 00:06	7° ♁ 32'39	

morning max el	2365 Dec 08 21:55	29° Ω 48'53	46°47'42		2368 Aug 11 13:16	0° Ω	
	2365 Dec 09 02:17	0° \mathbb{M}		desc. node	2368 Aug 20 08:39	10° Ω 01'37	
	2366 Jan 05 15:15	0° \mathcal{A}			2368 Sep 07 09:01	0° \mathbb{M}	
	2366 Jan 31 05:57	0° \mathcal{C}		evening max el	2368 Oct 01 03:51	24° \mathbb{M} 39'29	46°32'00
	2366 Feb 25 03:33	0° \approx			2368 Oct 06 18:01	0° \mathcal{A}	
desc. node	2366 Mar 05 13:39	10° \approx 14'23		greatest brilliancy	2368 Nov 09 00:20	23° \mathcal{A} 56'52	-4.6m
	2366 Mar 21 18:10	0° \mathcal{H}		retrograde	2368 Nov 20 01:15	26° \mathcal{A} 12'15	
	2366 Apr 15 06:15	0° \mathcal{Y}		evening set	2368 Dec 04 10:03	22° \mathcal{A} 07'40	
	2366 May 09 17:56	0° \mathcal{B}		inferior conj	2368 Dec 10 14:13	18° \mathcal{A} 32'41	0°-14'-5
	2366 Jun 03 05:45	0° \mathbb{I}		minimum elong	2368 Dec 10 14:45	18° \mathcal{A} 31'52	0°13'56
morning set	2366 Jun 12 18:42	11° \mathbb{I} 41'25		transit middle	2368 Dec 10 14:45	18° \mathcal{A} 31'52	0°13'56
asc. node	2366 Jun 26 16:58	28° \mathbb{I} 45'58		transit begin	2368 Dec 10 12:29	18° \mathcal{A} 35'17	
	2366 Jun 27 17:07	0° \mathcal{G}		transit end	2368 Dec 10 17:01	18° \mathcal{A} 28'26	
max. Earth dist.	2366 Jul 17 11:59	24° \mathcal{G} 18'27	1.73513 AU	min. Earth dist.	2368 Dec 10 17:19	18° \mathcal{A} 27'58	0.26495 AU
				asc. node	2368 Dec 11 11:54	17° \mathcal{A} 59'50	
superior conj	2366 Jul 19 08:37	26° \mathcal{G} 35'39	0°50'25	morning rise	2368 Dec 16 19:12	14° \mathcal{A} 56'21	
minimum elong	2366 Jul 19 00:14	26° \mathcal{G} 09'54	0°50'05	direct	2368 Dec 31 00:51	10° \mathcal{A} 53'10	
	2366 Jul 22 03:03	0° \mathcal{Q}		greatest brilliancy	2369 Jan 12 10:16	13° \mathcal{A} 45'31	-4.7m
	2366 Aug 15 11:10	0° \mathbb{N}			2369 Feb 04 21:29	0° \mathcal{C}	
evening rise	2366 Aug 24 05:06	10° \mathbb{N} 47'55		morning max el	2369 Feb 19 13:43	13° \mathcal{C} 55'30	46°52'26
	2366 Sep 08 18:05	0° Ω			2369 Mar 06 21:41	0° \approx	
	2366 Oct 03 00:54	0° \mathbb{M}		desc. node	2369 Apr 02 01:40	29° \approx 20'32	
desc. node	2366 Oct 16 06:34	16° \mathbb{M} 20'09			2369 Apr 02 15:23	0° \mathcal{H}	
	2366 Oct 27 08:39	0° \mathcal{A}			2369 Apr 28 07:56	0° \mathcal{Y}	
	2366 Nov 20 18:12	0° \mathcal{C}			2369 May 23 13:36	0° \mathcal{B}	
	2366 Dec 15 07:39	0° \approx			2369 Jun 17 13:23	0° \mathbb{I}	
	2367 Jan 09 06:42	0° \mathcal{H}			2369 Jul 12 08:27	0° \mathcal{G}	
	2367 Feb 04 05:17	0° \mathcal{Y}		asc. node	2369 Jul 24 04:53	14° \mathcal{G} 25'38	
asc. node	2367 Feb 06 09:38	2° \mathcal{Y} 26'01			2369 Aug 05 22:27	0° \mathcal{Q}	
evening max el	2367 Feb 26 03:25	23° \mathcal{Y} 25'33	46°37'59	morning set	2369 Aug 19 13:18	16° \mathcal{Q} 44'12	
	2367 Mar 04 20:29	0° \mathcal{B}			2369 Aug 30 07:11	0° \mathbb{N}	
greatest brilliancy	2367 Apr 02 23:07	22° \mathcal{B} 05'24	-4.6m	max. Earth dist.	2369 Sep 22 01:28	28° \mathbb{N} 14'00	1.72420 AU
retrograde	2367 Apr 17 07:07	25° \mathcal{B} 48'03			2369 Sep 23 11:33	0° Ω	
evening set	2367 May 03 08:34	20° \mathcal{B} 46'54					
inferior conj	2367 May 08 14:47	17° \mathcal{B} 33'55	4°37'23	superior conj	2369 Sep 25 05:48	2° Ω 11'28	1°23'12
minimum elong	2367 May 08 23:35	17° \mathcal{B} 20'04	4°35'10	minimum elong	2369 Sep 25 09:39	2° Ω 23'25	1°23'11
min. Earth dist.	2367 May 08 14:59	17° \mathcal{B} 33'36	0.28555 AU		2369 Oct 17 13:06	0° \mathbb{M}	
morning rise	2367 May 14 14:50	13° \mathcal{B} 55'49		evening rise	2369 Nov 02 13:24	20° \mathbb{M} 00'06	
desc. node	2367 May 28 22:57	9° \mathcal{B} 24'11			2369 Nov 10 13:23	0° \mathcal{A}	
direct	2367 May 29 21:55	9° \mathcal{B} 23'07		desc. node	2369 Nov 12 18:25	2° \mathcal{A} 45'42	
greatest brilliancy	2367 Jun 11 09:34	12° \mathcal{B} 08'14	-4.5m		2369 Dec 04 13:23	0° \mathcal{C}	
	2367 Jul 07 15:59	0° \mathbb{I}			2369 Dec 28 14:02	0° \approx	
morning max el	2367 Jul 17 15:26	9° \mathbb{I} 06'02	45°43'19		2370 Jan 21 17:14	0° \mathcal{H}	
	2367 Aug 07 06:49	0° \mathcal{G}			2370 Feb 15 02:50	0° \mathcal{Y}	
	2367 Sep 03 09:42	0° \mathcal{Q}		asc. node	2370 Mar 05 21:38	22° \mathcal{Y} 40'48	
asc. node	2367 Sep 19 02:37	18° \mathcal{Q} 12'57			2370 Mar 12 01:21	0° \mathcal{B}	
	2367 Sep 29 01:25	0° \mathbb{N}			2370 Apr 07 00:21	0° \mathbb{I}	
	2367 Oct 23 20:43	0° Ω			2370 May 05 04:53	0° \mathcal{G}	
	2367 Nov 17 03:45	0° \mathbb{M}		evening max el	2370 May 08 02:07	2° \mathcal{G} 49'37	45°36'39
	2367 Dec 11 04:10	0° \mathcal{A}		greatest brilliancy	2370 Jun 11 11:28	29° \mathcal{G} 19'30	-4.5m
	2368 Jan 04 01:41	0° \mathcal{C}			2370 Jun 12 23:34	0° \mathcal{Q}	
desc. node	2368 Jan 08 15:56	5° \mathcal{C} 46'22		desc. node	2370 Jun 25 11:00	2° \mathcal{Q} 55'30	
morning set	2368 Jan 15 07:15	14° \mathcal{C} 07'01		retrograde	2370 Jun 25 21:09	2° \mathcal{Q} 55'42	
	2368 Jan 27 22:31	0° \approx			2370 Jul 08 01:55	30° \mathcal{R} \mathcal{G}	
	2368 Feb 20 20:05	0° \mathcal{H}		evening set	2370 Jul 11 08:17	28° \mathcal{G} 19'19	
				inferior conj	2370 Jul 17 08:29	24° \mathcal{G} 42'08	-4°-51'-30
superior conj	2368 Feb 25 20:27	6° \mathcal{H} 17'06	-1°-23'-59	minimum elong	2370 Jul 16 23:24	24° \mathcal{G} 56'21	4°49'18
minimum elong	2368 Feb 25 15:09	6° \mathcal{H} 00'28	1°23'57	min. Earth dist.	2370 Jul 17 04:51	24° \mathcal{G} 47'50	0.29018 AU
max. Earth dist.	2368 Feb 29 09:47	10° \mathcal{H} 44'12	1.71602 AU	morning rise	2370 Jul 22 14:35	21° \mathcal{G} 30'45	
	2368 Mar 15 19:45	0° \mathcal{Y}		direct	2370 Aug 08 00:39	16° \mathcal{G} 24'49	
evening rise	2368 Apr 05 22:22	26° \mathcal{Y} 15'31		greatest brilliancy	2370 Aug 21 22:30	19° \mathcal{G} 48'13	-4.5m
	2368 Apr 08 22:50	0° \mathcal{B}			2370 Sep 07 03:03	0° \mathcal{Q}	
asc. node	2368 Apr 30 19:26	26° \mathcal{B} 58'45		morning max el	2370 Sep 26 06:08	16° \mathcal{Q} 55'05	46°03'27
	2368 May 03 06:26	0° \mathbb{I}			2370 Oct 09 02:57	0° \mathbb{N}	
	2368 May 27 19:23	0° \mathcal{G}		asc. node	2370 Oct 16 14:24	8° \mathbb{N} 01'47	
	2368 Jun 21 14:46	0° \mathcal{Q}			2370 Nov 05 02:23	0° Ω	
	2368 Jul 16 19:00	0° \mathbb{N}			2370 Nov 30 09:47	0° \mathbb{M}	

	2370 Dec 24 23:07	0°♊			2373 Jun 08 23:47	0°♎		
	2371 Jan 18 04:23	0°♋			2373 Jul 06 18:56	0°♍		
desc. node	2371 Feb 05 03:54	22°♋23'03		evening max el	2373 Jul 17 20:57	10°♍58'41	45°31'19	
	2371 Feb 11 06:32	0°♌		desc. node	2373 Jul 22 22:55	15°♍44'00		
	2371 Mar 07 08:08	0°♍			2373 Aug 09 07:16	0°♎		
	2371 Mar 31 10:46	0°♎		greatest brilliancy	2373 Aug 24 03:42	8°♎21'14	-4.5m	
morning set	2371 Apr 01 11:57	1°♎18'11		retrograde	2373 Sep 04 13:45	10°♎40'49		
	2371 Apr 24 15:31	0°♏		evening set	2373 Sep 22 13:56	4°♎41'02		
				inferior conj	2373 Sep 25 18:33	2°♎44'19	-8°-33'-48	
superior conj	2371 May 09 20:29	18°♏47'06	0°-44'-12	minimum elong	2373 Sep 25 22:38	2°♎37'59	8°33'34	
minimum elong	2371 May 10 05:04	19°♏13'34	0°43'51	min. Earth dist.	2373 Sep 26 14:00	2°♎14'15	0.28211 AU	
max. Earth dist.	2371 May 12 09:25	21°♏55'02	1.73110 AU	morning rise	2373 Sep 29 07:05	0°♎35'03		
	2371 May 18 22:46	0°♐			2373 Sep 30 06:51	30°♐♍		
asc. node	2371 May 29 07:11	12°♐44'29		direct	2373 Oct 17 00:34	24°♐36'41		
	2371 Jun 12 08:14	0°♑		greatest brilliancy	2373 Oct 31 11:56	28°♐21'37	-4.6m	
evening rise	2371 Jun 16 02:25	4°♑36'51			2373 Nov 03 14:45	0°♑		
	2371 Jul 06 19:23	0°♒		asc. node	2373 Nov 13 02:02	6°♑18'21		
	2371 Jul 31 08:25	0°♓		morning max el	2373 Dec 06 12:22	27°♑27'10	46°46'44	
	2371 Aug 25 00:30	0°♑			2373 Dec 09 00:05	0°♒		
desc. node	2371 Sep 17 20:41	28°♑45'31			2374 Jan 05 07:20	0°♊		
	2371 Sep 18 21:31	0°♒			2374 Jan 30 19:52	0°♋		
	2371 Oct 14 02:06	0°♊			2374 Feb 24 16:21	0°♌		
	2371 Nov 08 19:48	0°♋		desc. node	2374 Mar 04 15:45	9°♌42'30		
	2371 Dec 05 20:02	0°♌			2374 Mar 21 06:18	0°♍		
evening max el	2371 Dec 14 02:06	8°♌35'36	47°17'21		2374 Apr 14 17:57	0°♎		
	2372 Jan 06 13:24	0°♍			2374 May 09 05:17	0°♏		
asc. node	2372 Jan 08 23:53	1°♍49'50			2374 Jun 02 16:51	0°♐		
greatest brilliancy	2372 Jan 21 05:24	9°♍11'15	-4.7m	morning set	2374 Jun 10 12:12	9°♐34'06		
retrograde	2372 Feb 02 23:40	12°♍13'26		asc. node	2374 Jun 25 19:05	28°♐18'55		
evening set	2372 Feb 20 08:16	6°♍19'54			2374 Jun 27 04:03	0°♑		
min. Earth dist.	2372 Feb 22 23:42	4°♍42'11	0.27352 AU	max. Earth dist.	2374 Jul 15 09:23	22°♑23'09	1.73529 AU	
inferior conj	2372 Feb 23 18:36	4°♍12'40	8°37'04					
minimum elong	2372 Feb 23 13:26	4°♍20'44	8°36'40	superior conj	2374 Jul 17 02:49	24°♑30'33	0°47'50	
morning rise	2372 Feb 26 18:52	2°♍21'15		minimum elong	2374 Jul 16 18:39	24°♑05'26	0°47'30	
	2372 Mar 01 23:24	30°♒♌			2374 Jul 21 13:56	0°♒		
direct	2372 Mar 15 10:23	26°♌23'32			2374 Aug 14 22:07	0°♓		
greatest brilliancy	2372 Mar 26 01:05	28°♌29'04	-4.6m	evening rise	2374 Aug 21 23:04	8°♓41'19		
	2372 Mar 29 14:11	0°♍			2374 Sep 08 05:13	0°♑		
desc. node	2372 Apr 29 13:16	23°♍23'23		desc. node	2374 Oct 02 12:20	0°♒		
morning max el	2372 May 03 21:34	27°♍33'20	46°11'00		2374 Oct 15 08:30	15°♒50'20		
	2372 May 06 09:20	0°♎			2374 Oct 26 20:26	0°♊		
	2372 Jun 03 20:39	0°♏			2374 Nov 20 06:28	0°♋		
	2372 Jun 30 10:31	0°♐			2374 Dec 14 20:38	0°♌		
	2372 Jul 26 03:27	0°♑			2375 Jan 08 20:55	0°♍		
	2372 Aug 20 06:17	0°♒			2375 Feb 03 22:08	0°♎		
asc. node	2372 Aug 20 16:45	0°♒31'33		asc. node	2375 Feb 05 11:44	1°♎44'19		
	2372 Sep 13 21:49	0°♓		evening max el	2375 Feb 23 17:59	21°♎06'43	46°40'16	
	2372 Oct 08 04:36	0°♑			2375 Mar 04 21:51	0°♏		
morning set	2372 Oct 28 12:37	25°♑21'33		greatest brilliancy	2375 Mar 31 14:52	19°♏51'27	-4.6m	
	2372 Nov 01 05:36	0°♒		retrograde	2375 Apr 14 23:34	23°♏35'11		
	2372 Nov 25 03:32	0°♊		evening set	2375 May 01 03:02	18°♏29'54		
max. Earth dist.	2372 Dec 06 01:05	13°♊41'59	1.71186 AU	inferior conj	2375 May 06 06:38	15°♏20'51	4°54'48	
				minimum elong	2375 May 06 15:45	15°♏06'30	4°52'32	
superior conj	2372 Dec 07 03:12	15°♊04'03	0°07'31	min. Earth dist.	2375 May 06 06:38	15°♏20'51	0.28536 AU	
minimum elong	2372 Dec 07 05:09	15°♊10'10	0°07'25	morning rise	2375 May 12 04:45	11°♏45'47		
behind sun begin	2372 Dec 06 05:46	13°♊56'43		direct	2375 May 27 13:15	7°♏10'16		
behind sun end	2372 Dec 08 04:31	16°♊23'38		desc. node	2375 May 28 01:03	7°♏10'33		
desc. node	2372 Dec 10 06:12	18°♊59'49		greatest brilliancy	2375 Jun 09 00:26	9°♏55'23	-4.5m	
	2372 Dec 19 00:12	0°♋			2375 Jul 07 19:21	0°♐		
	2373 Jan 11 20:46	0°♌		morning max el	2375 Jul 15 07:57	6°♐56'48	45°43'30	
evening rise	2373 Jan 17 10:38	7°♌00'25			2375 Aug 06 23:47	0°♑		
	2373 Feb 04 18:31	0°♍			2375 Sep 02 23:36	0°♒		
	2373 Feb 28 19:26	0°♎		asc. node	2375 Sep 18 04:37	17°♒40'38		
	2373 Mar 25 02:06	0°♏			2375 Sep 28 13:58	0°♓		
asc. node	2373 Apr 02 09:32	10°♏10'29			2375 Oct 23 08:36	0°♑		
	2373 Apr 18 17:40	0°♐			2375 Nov 16 15:17	0°♒		
	2373 May 13 22:16	0°♑			2375 Dec 10 15:31	0°♊		

	2376 Jan 03 12:54	0°☾			2378 Jun 29 20:50	30°☾☾	
desc. node	2376 Jan 07 18:04	5°☾17'53		evening set	2378 Jul 08 22:59	26°☾13'38	
morning set	2376 Jan 12 17:12	11°☾32'16		inferior conj	2378 Jul 15 00:56	22°☾33'46	-4°-34'-59
	2376 Jan 27 09:38	0°≈		minimum elong	2378 Jul 14 16:10	22°☾47'30	4°32'50
	2376 Feb 20 07:08	0°☿		min. Earth dist.	2378 Jul 14 21:14	22°☾39'34	0.29016 AU
				morning rise	2378 Jul 20 09:25	19°☾18'36	
superior conj	2376 Feb 23 07:44	3°☿47'30	-1°-23'-1	direct	2378 Aug 05 17:06	14°☾16'37	
minimum elong	2376 Feb 23 01:27	3°☿27'49	1°22'57	greatest brilliancy	2378 Aug 19 12:44	17°☾36'59	-4.5m
max. Earth dist.	2376 Feb 26 19:02	8°☿08'26	1.71557 AU		2378 Sep 07 12:44	0°☾	
	2376 Mar 15 06:44	0°☿		morning max el	2378 Sep 23 20:46	14°☾40'26	46°02'00
evening rise	2376 Apr 03 11:48	23°☿54'20			2378 Oct 08 20:54	0°☿	
	2376 Apr 08 09:49	0°☿		asc. node	2378 Oct 15 16:23	7°☿21'38	
asc. node	2376 Apr 29 21:23	26°☿30'44			2378 Nov 04 16:43	0°☿	
	2376 May 02 17:32	0°☿			2378 Nov 29 22:38	0°☿	
	2376 May 27 06:44	0°☿			2378 Dec 24 11:15	0°☿	
	2376 Jun 21 02:36	0°☿			2379 Jan 17 16:04	0°☿	
	2376 Jul 16 07:40	0°☿		desc. node	2379 Feb 04 05:53	21°☿53'37	
	2376 Aug 11 03:29	0°☿			2379 Feb 10 17:54	0°≈	
desc. node	2376 Aug 19 10:44	9°☿25'12			2379 Mar 06 19:16	0°☿	
	2376 Sep 07 02:28	0°☿		morning set	2379 Mar 30 01:26	28°☿57'04	
evening max el	2376 Sep 28 18:13	22°☿19'43	46°29'38		2379 Mar 30 21:42	0°☿	
	2376 Oct 06 21:18	0°☿			2379 Apr 24 02:17	0°☿	
greatest brilliancy	2376 Nov 06 12:53	21°☿29'08	-4.6m				
retrograde	2376 Nov 17 13:47	23°☿43'36		superior conj	2379 May 07 12:28	16°☿35'19	0°-47'-5
evening set	2376 Dec 01 23:19	19°☿37'50		minimum elong	2379 May 07 21:26	17°☿02'58	0°46'43
inferior conj	2376 Dec 08 02:19	16°☿04'04	0°-38'-46	max. Earth dist.	2379 May 10 05:31	19°☿56'00	1.73063 AU
minimum elong	2376 Dec 08 03:48	16°☿01'48	0°38'18		2379 May 18 09:28	0°☿	
min. Earth dist.	2376 Dec 08 06:38	15°☿57'31	0.26515 AU	asc. node	2379 May 28 09:20	12°☿18'21	
asc. node	2376 Dec 10 14:03	14°☿34'03			2379 Jun 11 18:55	0°☿	
morning rise	2376 Dec 14 08:06	12°☿26'47		evening rise	2379 Jun 13 20:35	2°☿32'30	
direct	2376 Dec 28 13:57	8°☿24'18			2379 Jul 06 06:11	0°☿	
greatest brilliancy	2377 Jan 10 00:00	11°☿17'46	-4.7m		2379 Jul 30 19:31	0°☿	
	2377 Feb 05 04:17	0°☿			2379 Aug 24 12:06	0°☿	
morning max el	2377 Feb 17 03:43	11°☿31'47	46°53'21	desc. node	2379 Sep 16 22:36	28°☿14'18	
	2377 Mar 06 16:07	0°≈			2379 Sep 18 09:53	0°☿	
desc. node	2377 Apr 01 03:36	28°≈43'18			2379 Oct 13 15:39	0°☿	
	2377 Apr 02 06:09	0°☿			2379 Nov 08 11:26	0°☿	
	2377 Apr 27 20:58	0°☿			2379 Dec 05 16:22	0°≈	
	2377 May 23 01:39	0°☿		evening max el	2379 Dec 11 15:23	6°≈09'46	47°17'04
	2377 Jun 17 00:50	0°☿			2380 Jan 07 09:10	0°☿	
	2377 Jul 11 19:33	0°☿		asc. node	2380 Jan 08 01:57	0°☿29'45	
asc. node	2377 Jul 23 06:57	13°☿58'27		greatest brilliancy	2380 Jan 18 21:51	6°☿49'29	-4.7m
	2377 Aug 05 09:21	0°☿		retrograde	2380 Jan 31 13:04	9°☿48'45	
morning set	2377 Aug 17 06:46	14°☿36'51		evening set	2380 Feb 17 18:40	4°☿01'02	
	2377 Aug 29 18:01	0°☿		min. Earth dist.	2380 Feb 20 13:16	2°☿18'41	0.27297 AU
max. Earth dist.	2377 Sep 19 15:32	25°☿54'55	1.72469 AU	inferior conj	2380 Feb 21 08:11	1°☿49'08	8°31'16
				minimum elong	2380 Feb 21 02:15	1°☿58'25	8°30'43
superior conj	2377 Sep 22 22:10	29°☿59'21	1°23'49	morning rise	2380 Feb 24 10:04	29°≈55'15	
minimum elong	2377 Sep 23 01:17	0°☿09'01	1°23'47		2380 Feb 24 06:55	30°☿≈	
	2377 Sep 22 22:23	0°☿		direct	2380 Mar 12 22:51	24°≈00'46	
	2377 Oct 17 00:02	0°☿		greatest brilliancy	2380 Mar 23 14:39	26°≈06'53	-4.6m
evening rise	2377 Oct 31 02:29	17°☿36'34			2380 Mar 31 14:33	0°☿	
	2377 Nov 10 00:28	0°☿		desc. node	2380 Apr 28 15:20	22°☿29'54	
desc. node	2377 Nov 11 20:26	2°☿17'21		morning max el	2380 May 01 10:21	25°☿11'36	46°12'38
	2377 Dec 04 00:41	0°☿			2380 May 06 06:54	0°☿	
	2377 Dec 28 01:34	0°≈			2380 Jun 03 12:11	0°☿	
	2378 Jan 21 05:04	0°☿			2380 Jun 29 23:42	0°☿	
	2378 Feb 14 15:09	0°☿			2380 Jul 25 15:26	0°☿	
asc. node	2378 Mar 04 23:36	22°☿08'01		asc. node	2380 Aug 19 18:44	0°☿03'25	
	2378 Mar 11 14:36	0°☿			2380 Aug 19 17:36	0°☿	
	2378 Apr 06 15:38	0°☿			2380 Sep 13 08:48	0°☿	
	2378 May 05 02:04	0°☿			2380 Oct 07 15:27	0°☿	
evening max el	2378 May 05 18:14	0°☿39'20	45°38'01	morning set	2380 Oct 26 02:52	23°☿02'05	
greatest brilliancy	2378 Jun 09 03:39	27°☿11'02	-4.5m		2380 Oct 31 16:27	0°☿	
	2378 Jun 17 00:34	0°☿			2380 Nov 24 14:25	0°☿	
retrograde	2378 Jun 23 13:10	0°☿47'19		max. Earth dist.	2380 Dec 03 08:21	10°☿59'41	1.71212 AU
desc. node	2378 Jun 24 13:06	0°☿46'10					

superior conj	2380 Dec 04 14:07	12°♄33'16	0°11'24	min. Earth dist.	2383 May 03 21:57	13°♄09'10	0.28509 AU
minimum elong	2380 Dec 04 17:03	12°♄42'29	0°11'15	morning rise	2383 May 09 18:27	9°♄36'38	
behind sun begin	2380 Dec 03 22:05	11°♄42'51		direct	2383 May 25 04:55	4°♄58'16	
behind sun end	2380 Dec 05 12:01	13°♄42'07		desc. node	2383 May 27 03:12	5°♄02'36	
desc. node	2380 Dec 09 08:22	18°♄32'23		greatest brilliancy	2383 Jun 06 14:03	7°♄41'59	-4.5m
	2380 Dec 18 11:07	0°♄			2383 Jul 07 20:46	0°♄	
	2381 Jan 11 07:43	0°♄		morning max el	2383 Jul 13 00:48	4°♄49'27	45°43'43
evening rise	2381 Jan 14 20:38	4°♄26'41			2383 Aug 06 16:02	0°♄	
	2381 Feb 04 05:32	0°♄			2383 Sep 02 13:01	0°♄	
	2381 Feb 28 06:34	0°♄		asc. node	2383 Sep 17 06:37	17°♄09'30	
	2381 Mar 24 13:29	0°♄			2383 Sep 28 02:07	0°♄	
asc. node	2381 Apr 01 11:33	9°♄41'34			2383 Oct 22 20:07	0°♄	
	2381 Apr 18 05:28	0°♄			2383 Nov 16 02:29	0°♄	
	2381 May 13 10:56	0°♄			2383 Dec 10 02:33	0°♄	
	2381 Jun 08 14:16	0°♄			2384 Jan 02 23:52	0°♄	
	2381 Jul 06 14:04	0°♄		desc. node	2384 Jan 06 20:06	4°♄49'48	
evening max el	2381 Jul 15 11:09	8°♄44'16	45°30'23	morning set	2384 Jan 10 03:08	8°♄58'11	
desc. node	2381 Jul 22 00:58	14°♄51'00			2384 Jan 26 20:34	0°♄	
	2381 Aug 10 04:19	0°♄			2384 Feb 19 18:02	0°♄	
greatest brilliancy	2381 Aug 21 14:14	6°♄03'10	-4.5m				
retrograde	2381 Sep 02 04:20	8°♄26'44		superior conj	2384 Feb 20 18:27	1°♄16'33	-1°-21'-52
evening set	2381 Sep 20 05:16	2°♄24'50		minimum elong	2384 Feb 20 11:16	0°♄54'01	1°21'46
inferior conj	2381 Sep 23 09:19	0°♄29'03	-8°-37'-4	max. Earth dist.	2384 Feb 24 04:54	5°♄34'56	1.71515 AU
minimum elong	2381 Sep 23 12:38	0°♄23'57	8°36'55		2384 Mar 14 17:35	0°♄	
min. Earth dist.	2381 Sep 24 04:00	0°♄00'14	0.28276 AU	evening rise	2384 Apr 01 00:37	21°♄31'35	
	2381 Sep 24 04:09	30°♄			2384 Apr 07 20:38	0°♄	
morning rise	2381 Sep 26 19:44	28°♄23'06		asc. node	2384 Apr 28 23:33	26°♄03'53	
direct	2381 Oct 14 15:58	22°♄20'21			2384 May 02 04:26	0°♄	
greatest brilliancy	2381 Oct 29 05:03	26°♄07'28	-4.6m		2384 May 26 17:54	0°♄	
	2381 Nov 05 00:10	0°♄			2384 Jun 20 14:14	0°♄	
asc. node	2381 Nov 12 04:13	5°♄07'41			2384 Jul 15 20:10	0°♄	
morning max el	2381 Dec 04 03:49	25°♄08'58	46°45'31		2384 Aug 10 17:35	0°♄	
	2381 Dec 08 20:51	0°♄		desc. node	2384 Aug 18 12:42	8°♄48'57	
	2382 Jan 04 22:58	0°♄			2384 Sep 06 19:58	0°♄	
	2382 Jan 30 09:28	0°♄		evening max el	2384 Sep 26 08:44	20°♄01'27	46°27'15
	2382 Feb 24 04:51	0°♄			2384 Oct 07 01:48	0°♄	
desc. node	2382 Mar 03 17:45	9°♄11'15		greatest brilliancy	2384 Nov 04 02:23	19°♄04'16	-4.6m
	2382 Mar 20 18:06	0°♄		retrograde	2384 Nov 15 02:04	21°♄16'47	
	2382 Apr 14 05:16	0°♄		evening set	2384 Nov 29 13:06	17°♄09'48	
	2382 May 08 16:15	0°♄		inferior conj	2384 Dec 05 14:44	13°♄37'30	-1°-3'-4
	2382 Jun 02 03:34	0°♄		minimum elong	2384 Dec 05 17:09	13°♄33'50	1°02'18
morning set	2382 Jun 08 05:50	7°♄28'17		min. Earth dist.	2384 Dec 05 20:27	13°♄28'49	0.26539 AU
asc. node	2382 Jun 24 21:10	27°♄52'51		asc. node	2384 Dec 09 16:03	11°♄12'22	
	2382 Jun 26 14:37	0°♄		morning rise	2384 Dec 11 21:00	9°♄59'16	
max. Earth dist.	2382 Jul 13 08:07	20°♄33'05	1.73542 AU	direct	2384 Dec 26 03:07	5°♄57'26	
				greatest brilliancy	2385 Jan 07 14:04	8°♄51'44	-4.7m
superior conj	2382 Jul 14 21:16	22°♄27'17	0°45'12		2385 Feb 05 08:40	0°♄	
minimum elong	2382 Jul 14 13:21	22°♄02'56	0°44'53	morning max el	2385 Feb 14 16:58	9°♄06'42	46°53'55
	2382 Jul 21 00:27	0°♄			2385 Mar 06 09:56	0°♄	
	2382 Aug 14 08:43	0°♄		desc. node	2385 Mar 31 05:41	28°♄07'06	
evening rise	2382 Aug 19 17:28	6°♄37'12			2385 Apr 01 20:40	0°♄	
	2382 Sep 07 16:00	0°♄			2385 Apr 27 09:52	0°♄	
	2382 Oct 01 23:24	0°♄			2385 May 22 13:36	0°♄	
desc. node	2382 Oct 14 10:38	15°♄22'12			2385 Jun 16 12:10	0°♄	
	2382 Oct 26 07:55	0°♄			2385 Jul 11 06:30	0°♄	
	2382 Nov 19 18:30	0°♄		asc. node	2385 Jul 22 08:55	13°♄31'25	
	2382 Dec 14 09:28	0°♄			2385 Aug 04 20:06	0°♄	
	2383 Jan 08 11:05	0°♄		morning set	2385 Aug 15 00:17	12°♄30'09	
	2383 Feb 03 15:08	0°♄			2385 Aug 29 04:41	0°♄	
asc. node	2383 Feb 04 13:43	1°♄02'18		max. Earth dist.	2385 Sep 17 05:08	23°♄34'48	1.72518 AU
evening max el	2383 Feb 21 09:34	18°♄50'53	46°42'43				
	2383 Mar 05 00:24	0°♄		superior conj	2385 Sep 20 14:53	27°♄48'50	1°24'18
greatest brilliancy	2383 Mar 29 07:15	17°♄38'59	-4.6m	minimum elong	2385 Sep 20 17:15	27°♄56'11	1°24'17
retrograde	2383 Apr 12 16:21	21°♄22'49			2385 Sep 22 09:05	0°♄	
evening set	2383 Apr 28 21:35	16°♄13'31			2385 Oct 16 10:50	0°♄	
inferior conj	2383 May 03 22:26	13°♄08'24	5°11'47	evening rise	2385 Oct 28 16:04	15°♄15'03	
minimum elong	2383 May 04 07:52	12°♄53'36	5°09'30		2385 Nov 09 11:26	0°♄	

desc. node	2385 Nov 10 22:36	1°♌49'49		2388 Jun 03 03:39	0°♏	
	2385 Dec 03 11:50	0°♎		2388 Jun 29 13:00	0°♐	
	2385 Dec 27 12:57	0°♏		2388 Jul 25 03:36	0°♑	
	2386 Jan 20 16:47	0°♐		asc. node	2388 Aug 18 20:49	29°♑34'52
	2386 Feb 14 03:25	0°♑			2388 Aug 19 05:08	0°♒
asc. node	2386 Mar 04 01:38	21°♑35'22			2388 Sep 12 19:59	0°♓
	2386 Mar 11 03:55	0°♏			2388 Oct 07 02:30	0°♐
	2386 Apr 06 07:11	0°♐		morning set	2388 Oct 23 17:17	20°♐42'43
evening max el	2386 May 03 09:37	28°♐26'52	45°39'28		2388 Oct 31 03:28	0°♑
	2386 May 05 00:11	0°♑			2388 Nov 24 01:28	0°♒
greatest brilliancy	2386 Jun 06 19:35	25°♑01'54	-4.5m	max. Earth dist.	2388 Nov 30 18:20	8°♒25'23 1.71241 AU
retrograde	2386 Jun 21 05:00	28°♑38'57				
desc. node	2386 Jun 23 15:05	28°♑32'05		superior conj	2388 Dec 02 01:11	10°♒02'23 0°15'15
evening set	2386 Jul 06 13:49	24°♑07'30		minimum elong	2388 Dec 02 05:04	10°♒14'34 0°15'03
inferior conj	2386 Jul 12 17:24	20°♑25'26	-4°-18'-5	behind sun begin	2388 Dec 01 19:03	9°♒43'06
minimum elong	2386 Jul 12 09:00	20°♑38'36	4°15'58	behind sun end	2388 Dec 02 15:05	10°♒46'02
min. Earth dist.	2386 Jul 12 13:56	20°♑30'52	0.29009 AU	desc. node	2388 Dec 08 10:19	18°♒03'40
morning rise	2386 Jul 18 04:10	17°♑06'39			2388 Dec 17 22:13	0°♎
direct	2386 Aug 03 09:06	12°♑08'21			2389 Jan 10 18:54	0°♏
greatest brilliancy	2386 Aug 17 03:35	15°♑26'34	-4.5m	evening rise	2389 Jan 12 06:51	1°♏52'55
	2386 Sep 07 19:42	0°♒			2389 Feb 03 16:48	0°♐
morning max el	2386 Sep 21 11:06	12°♒25'18	46°00'39		2389 Feb 27 17:56	0°♑
	2386 Oct 08 14:23	0°♓			2389 Mar 24 01:04	0°♏
asc. node	2386 Oct 14 18:34	6°♓42'37		asc. node	2389 Mar 31 13:43	9°♏12'28
	2386 Nov 04 06:52	0°♐			2389 Apr 17 17:31	0°♐
	2386 Nov 29 11:24	0°♑			2389 May 12 23:55	0°♑
	2386 Dec 23 23:18	0°♒			2389 Jun 08 05:13	0°♒
	2387 Jan 17 03:42	0°♎			2389 Jul 06 10:10	0°♓
desc. node	2387 Feb 03 07:55	21°♎24'27		evening max el	2389 Jul 13 02:23	6°♓31'31 45°29'27
	2387 Feb 10 05:13	0°♏		desc. node	2389 Jul 21 02:58	13°♓55'48
	2387 Mar 06 06:21	0°♐			2389 Aug 11 10:07	0°♐
morning set	2387 Mar 27 14:53	26°♐35'42		greatest brilliancy	2389 Aug 19 00:47	3°♐44'25 -4.5m
	2387 Mar 30 08:37	0°♑		retrograde	2389 Aug 30 19:17	6°♐11'51
	2387 Apr 23 13:07	0°♏		evening set	2389 Sep 17 20:21	0°♐08'35
					2389 Sep 18 02:06	30°♑♓
superior conj	2387 May 05 04:21	14°♏22'52	0°-49'-53	inferior conj	2389 Sep 21 00:10	28°♓13'06 -8°-39'-27
minimum elong	2387 May 05 13:39	14°♏51'34	0°49'32	minimum elong	2389 Sep 21 02:40	28°♓09'14 8°39'23
max. Earth dist.	2387 May 07 23:15	17°♏49'22	1.73020 AU	min. Earth dist.	2389 Sep 21 17:41	27°♓46'04 0.28335 AU
	2387 May 17 20:15	0°♐		morning rise	2389 Sep 24 08:47	26°♓09'56
asc. node	2387 May 27 11:22	11°♐51'28		direct	2389 Oct 12 07:50	20°♓03'40
	2387 Jun 11 05:43	0°♑		greatest brilliancy	2389 Oct 26 21:18	23°♓51'43 -4.6m
evening rise	2387 Jun 11 14:30	0°♑26'57			2389 Nov 06 00:21	0°♐
	2387 Jul 05 17:07	0°♒		asc. node	2389 Nov 11 06:15	3°♐58'01
	2387 Jul 30 06:44	0°♓		morning max el	2389 Dec 01 19:41	22°♐51'22 46°44'12
	2387 Aug 23 23:49	0°♐			2389 Dec 08 17:11	0°♑
desc. node	2387 Sep 16 00:44	27°♐43'22			2390 Jan 04 14:35	0°♒
	2387 Sep 17 22:24	0°♑			2390 Jan 29 23:10	0°♎
	2387 Oct 13 05:25	0°♒			2390 Feb 23 17:32	0°♏
	2387 Nov 08 03:23	0°♎		desc. node	2390 Mar 02 19:49	8°♏39'29
	2387 Dec 05 13:29	0°♏			2390 Mar 20 06:09	0°♐
evening max el	2387 Dec 09 04:37	3°♏43'39	47°16'46		2390 Apr 13 16:51	0°♑
asc. node	2388 Jan 07 03:57	29°♏06'50			2390 May 08 03:29	0°♏
	2388 Jan 08 12:12	0°♐			2390 Jun 01 14:33	0°♐
greatest brilliancy	2388 Jan 16 13:29	4°♐26'27	-4.7m	morning set	2390 Jun 05 23:36	5°♐22'02
retrograde	2388 Jan 29 02:41	7°♐24'15		asc. node	2390 Jun 23 23:07	27°♐25'31
evening set	2388 Feb 15 04:50	1°♐42'20			2390 Jun 26 01:28	0°♑
	2388 Feb 17 23:45	30°♑♏		max. Earth dist.	2390 Jul 11 07:42	18°♑44'38 1.73555 AU
min. Earth dist.	2388 Feb 18 02:50	29°♏55'12	0.27242 AU			
inferior conj	2388 Feb 18 21:51	29°♏25'34	8°24'26	superior conj	2390 Jul 12 15:42	20°♑22'59 0°42'31
minimum elong	2388 Feb 18 15:09	29°♏36'01	8°23'45	minimum elong	2390 Jul 12 08:05	19°♑59'35 0°42'12
morning rise	2388 Feb 22 01:41	27°♏28'54			2390 Jul 20 11:18	0°♒
direct	2388 Mar 10 11:20	21°♏37'48			2390 Aug 13 19:41	0°♓
greatest brilliancy	2388 Mar 21 04:35	23°♏45'07	-4.6m	evening rise	2390 Aug 17 11:49	4°♓31'49
	2388 Apr 01 23:01	0°♐			2390 Sep 07 03:10	0°♐
desc. node	2388 Apr 27 17:30	21°♐37'38			2390 Oct 01 10:51	0°♑
morning max el	2388 Apr 28 23:57	22°♐51'32	46°14'14	desc. node	2390 Oct 13 12:42	14°♑52'42
	2388 May 06 03:48	0°♑			2390 Oct 25 19:45	0°♒

	2390 Nov 19 06:54	0°☾		asc. node	2393 Jul 21 11:03	13°☾04'00	
	2390 Dec 13 22:43	0°≈			2393 Aug 04 07:07	0°♈	
	2391 Jan 08 01:45	0°✎		morning set	2393 Aug 12 17:56	10°♈23'03	
	2391 Feb 03 08:53	0°♑			2393 Aug 28 15:36	0°♑	
asc. node	2391 Feb 03 15:48	0°♑18'58		max. Earth dist.	2393 Sep 14 21:02	21°♑21'11	1.72570 AU
evening max el	2391 Feb 19 01:45	16°♑35'18	46°44'57				
	2391 Mar 05 05:10	0°♄		superior conj	2393 Sep 18 07:46	25°♑38'11	1°24'37
greatest brilliancy	2391 Mar 27 00:32	15°♄26'14	-4.6m	minimum elong	2393 Sep 18 09:25	25°♑43'16	1°24'38
retrograde	2391 Apr 10 08:50	19°♄08'35			2393 Sep 21 20:01	0°♄	
evening set	2391 Apr 26 16:06	13°♄55'32			2393 Oct 15 21:54	0°♄	
inferior conj	2391 May 01 14:05	10°♄54'20	5°28'20	evening rise	2393 Oct 26 05:46	12°♄53'09	
minimum elong	2391 May 01 23:44	10°♄39'10	5°26'05		2393 Nov 08 22:42	0°♄	
min. Earth dist.	2391 May 01 13:03	10°♄55'57	0.28480 AU	desc. node	2393 Nov 10 00:33	1°♄20'42	
morning rise	2391 May 07 07:46	7°♄25'58			2393 Dec 02 23:20	0°☾	
direct	2391 May 22 20:39	2°♄44'52			2393 Dec 27 00:41	0°≈	
desc. node	2391 May 26 05:06	2°♄57'52			2394 Jan 20 04:51	0°✎	
greatest brilliancy	2391 Jun 04 02:32	5°♄25'52	-4.5m		2394 Feb 13 16:03	0°♑	
	2391 Jul 07 21:21	0°♄		asc. node	2394 Mar 03 03:46	21°♑02'05	
morning max el	2391 Jul 10 16:58	2°♄39'25	45°43'57		2394 Mar 10 17:37	0°♄	
	2391 Aug 06 08:22	0°☾			2394 Apr 05 23:16	0°♄	
	2391 Sep 02 02:41	0°♈		evening max el	2394 May 01 00:14	26°♄11'45	45°41'00
asc. node	2391 Sep 16 08:46	16°♈37'52			2394 May 04 23:34	0°☾	
	2391 Sep 27 14:36	0°♑		greatest brilliancy	2394 Jun 04 10:31	22°☾50'37	-4.5m
	2391 Oct 22 08:00	0°♄		retrograde	2394 Jun 18 21:00	26°☾29'54	
	2391 Nov 15 14:03	0°♄		desc. node	2394 Jun 22 17:09	26°☾12'29	
	2391 Dec 09 13:57	0°♄		evening set	2394 Jul 04 04:43	22°☾00'06	
	2392 Jan 02 11:10	0°☾		inferior conj	2394 Jul 10 09:48	18°☾16'15	-4°00'-47
desc. node	2392 Jan 05 22:06	4°☾20'38		minimum elong	2394 Jul 10 01:48	18°☾28'47	3°58'43
morning set	2392 Jan 07 12:59	6°☾22'52		min. Earth dist.	2394 Jul 10 06:37	18°☾21'14	0.29002 AU
	2392 Jan 26 07:49	0°≈		morning rise	2394 Jul 15 22:49	14°☾54'10	
				direct	2394 Aug 01 00:48	9°☾59'06	
superior conj	2392 Feb 18 05:03	28°≈44'12	-1°-20'-32	greatest brilliancy	2394 Aug 14 19:28	13°☾16'50	-4.5m
minimum elong	2392 Feb 17 21:01	28°≈19'01	1°20'25		2394 Sep 08 00:47	0°♈	
	2392 Feb 19 05:13	0°✎		morning max el	2394 Sep 19 01:48	10°♈10'40	45°59'31
max. Earth dist.	2392 Feb 21 16:03	3°✎04'24	1.71474 AU		2394 Oct 08 07:39	0°♑	
	2392 Mar 14 04:44	0°♑		asc. node	2394 Oct 13 20:33	6°♑03'05	
evening rise	2392 Mar 29 13:17	19°♑07'12			2394 Nov 03 21:01	0°♄	
	2392 Apr 07 07:49	0°♄			2394 Nov 29 00:15	0°♄	
asc. node	2392 Apr 28 01:34	25°♄35'26			2394 Dec 23 11:30	0°♄	
	2392 May 01 15:43	0°♄			2395 Jan 16 15:30	0°☾	
	2392 May 26 05:25	0°☾		desc. node	2395 Feb 02 10:03	20°☾54'59	
	2392 Jun 20 02:14	0°♈			2395 Feb 09 16:45	0°≈	
	2392 Jul 15 09:03	0°♑			2395 Mar 05 17:38	0°✎	
	2392 Aug 10 08:10	0°♄		morning set	2395 Mar 25 03:45	24°✎11'51	
desc. node	2392 Aug 17 14:49	8°♄11'49			2395 Mar 29 19:43	0°♑	
	2392 Sep 06 14:17	0°♄			2395 Apr 23 00:05	0°♄	
evening max el	2392 Sep 23 22:17	17°♄39'39	46°24'38				
	2392 Oct 07 09:00	0°♄		superior conj	2395 May 02 19:52	12°♄08'57	0°-52'-39
greatest brilliancy	2392 Nov 01 16:27	16°♄38'22	-4.6m	minimum elong	2395 May 03 05:28	12°♄38'35	0°52'18
retrograde	2392 Nov 12 13:29	18°♄48'15		max. Earth dist.	2395 May 05 15:55	15°♄39'00	1.72974 AU
evening set	2392 Nov 27 02:52	14°♄39'40			2395 May 17 07:09	0°♄	
inferior conj	2392 Dec 03 03:01	11°♄09'18	-1°-27'-16	asc. node	2395 May 26 13:21	11°♄24'02	
minimum elong	2392 Dec 03 06:20	11°♄04'15	1°26'13	evening rise	2395 Jun 09 08:15	28°♄20'37	
min. Earth dist.	2392 Dec 03 10:29	10°♄57'56	0.26567 AU		2395 Jun 10 16:38	0°☾	
asc. node	2392 Dec 08 18:03	7°♄51'00			2395 Jul 05 04:11	0°♈	
morning rise	2392 Dec 09 09:28	7°♄30'18			2395 Jul 29 18:05	0°♑	
direct	2392 Dec 23 15:40	3°♄28'43			2395 Aug 23 11:40	0°♄	
greatest brilliancy	2393 Jan 05 04:59	6°♄25'05	-4.7m	desc. node	2395 Sep 15 02:49	27°♄12'07	
	2393 Feb 05 11:53	0°☾			2395 Sep 17 11:01	0°♄	
morning max el	2393 Feb 12 05:08	6°☾37'34	46°54'35		2395 Oct 12 19:18	0°♄	
	2393 Mar 06 03:43	0°≈			2395 Nov 07 19:36	0°☾	
desc. node	2393 Mar 30 07:50	27°≈30'26			2395 Dec 05 11:24	0°≈	
	2393 Apr 01 11:19	0°✎		evening max el	2395 Dec 06 18:00	1°≈17'56	47°16'15
	2393 Apr 26 22:57	0°♑		asc. node	2396 Jan 06 06:02	27°≈40'40	
	2393 May 22 01:46	0°♄			2396 Jan 10 03:12	0°✎	
	2393 Jun 15 23:47	0°♄		greatest brilliancy	2396 Jan 14 03:47	2°✎00'54	-4.7m
	2393 Jul 10 17:45	0°☾		retrograde	2396 Jan 26 16:26	4°✎58'30	

	2396 Feb 11 12:36	30° \approx		superior conj	2398 Jul 10 09:52	18° \approx 18'44	0°39'46
evening set	2396 Feb 12 14:26	29° \approx 22'22		minimum elong	2398 Jul 10 02:36	17° \approx 56'25	0°39'26
min. Earth dist.	2396 Feb 15 15:52	27° \approx 30'30	0.27192 AU		2398 Jul 19 21:54	0° Ω	
inferior conj	2396 Feb 16 11:10	27° \approx 00'31	8°16'34		2398 Aug 13 06:22	0° η	
minimum elong	2396 Feb 16 03:46	27° \approx 12'02	8°15'42	evening rise	2398 Aug 15 06:01	2° η 26'57	
morning rise	2396 Feb 19 17:19	25° \approx 00'42			2398 Sep 06 14:03	0° $\underline{\Omega}$	
direct	2396 Mar 07 23:52	19° \approx 13'17			2398 Sep 30 22:03	0° \mathbb{M}	
greatest brilliancy	2396 Mar 18 18:12	21° \approx 21'56	-4.6m	desc. node	2398 Oct 12 14:39	14° \mathbb{M} 23'35	
	2396 Apr 02 22:45	0° \mathbb{X}			2398 Oct 25 07:22	0° \mathbb{X}	
morning max el	2396 Apr 26 14:12	20° \mathbb{X} 32'31	46°15'53		2398 Nov 18 19:05	0° \mathbb{Z}	
desc. node	2396 Apr 26 19:25	20° \mathbb{X} 45'17			2398 Dec 13 11:42	0° \approx	
	2396 May 06 00:09	0° \mathbb{Y}			2399 Jan 07 16:10	0° \mathbb{X}	
	2396 Jun 02 18:57	0° \mathbb{B}		asc. node	2399 Feb 02 17:53	29° \mathbb{X} 36'33	
	2396 Jun 29 02:10	0° \mathbb{II}			2399 Feb 03 02:30	0° \mathbb{Y}	
	2396 Jul 24 15:40	0° \mathbb{S}		evening max el	2399 Feb 16 17:36	14° \mathbb{Y} 20'03	46°47'05
asc. node	2396 Aug 17 22:53	29° \mathbb{S} 06'30			2399 Mar 05 11:18	0° \mathbb{B}	
	2396 Aug 18 16:35	0° Ω		greatest brilliancy	2399 Mar 24 18:39	13° \mathbb{B} 15'54	-4.6m
	2396 Sep 12 07:07	0° η		retrograde	2399 Apr 08 00:55	16° \mathbb{B} 55'35	
	2396 Oct 06 13:28	0° $\underline{\Omega}$		evening set	2399 Apr 24 10:46	11° \mathbb{B} 38'54	
morning set	2396 Oct 21 08:03	18° $\underline{\Omega}$ 24'45		inferior conj	2399 Apr 29 05:51	8° \mathbb{B} 41'38	5°44'27
	2396 Oct 30 14:24	0° \mathbb{M}		minimum elong	2399 Apr 29 15:39	8° \mathbb{B} 26'11	5°42'14
	2396 Nov 23 12:24	0° \mathbb{X}		min. Earth dist.	2399 Apr 29 04:23	8° \mathbb{B} 43'55	0.28452 AU
max. Earth dist.	2396 Nov 28 05:51	5° \mathbb{X} 56'22	1.71266 AU	morning rise	2399 May 04 20:58	5° \mathbb{B} 16'43	
				direct	2399 May 20 12:26	0° \mathbb{B} 32'53	
superior conj	2396 Nov 29 12:40	7° \mathbb{X} 33'12	0°19'01	desc. node	2399 May 25 07:13	0° \mathbb{B} 59'05	
minimum elong	2396 Nov 29 17:26	7° \mathbb{X} 48'12	0°18'47	greatest brilliancy	2399 Jun 01 15:04	3° \mathbb{B} 10'47	-4.5m
desc. node	2396 Dec 07 12:22	17° \mathbb{X} 35'42			2399 Jul 07 20:24	0° \mathbb{II}	
	2396 Dec 17 09:12	0° \mathbb{Z}		morning max el	2399 Jul 08 08:25	0° \mathbb{II} 28'35	45°44'10
evening rise	2397 Jan 09 17:18	29° \mathbb{Z} 20'18			2399 Aug 06 00:03	0° \mathbb{S}	
	2397 Jan 10 05:56	0° \approx			2399 Sep 01 15:52	0° Ω	
	2397 Feb 03 03:57	0° \mathbb{X}		asc. node	2399 Sep 15 10:46	16° Ω 07'02	
	2397 Feb 27 05:14	0° \mathbb{Y}			2399 Sep 27 02:38	0° η	
	2397 Mar 23 12:37	0° \mathbb{B}			2399 Oct 21 19:28	0° $\underline{\Omega}$	
asc. node	2397 Mar 30 15:39	8° \mathbb{B} 42'49			2399 Nov 15 01:13	0° \mathbb{M}	
	2397 Apr 17 05:32	0° \mathbb{II}			2399 Dec 09 00:58	0° \mathbb{X}	
	2397 May 12 12:54	0° \mathbb{S}			2400 Jan 01 22:07	0° \mathbb{Z}	
	2397 Jun 07 20:17	0° Ω		morning set	2400 Jan 04 23:01	3° \mathbb{Z} 49'09	
	2397 Jul 06 06:47	0° η		desc. node	2400 Jan 05 00:15	3° \mathbb{Z} 53'02	
evening max el	2397 Jul 10 17:59	4° η 20'06	45°28'37		2400 Jan 25 18:41	0° \approx	
desc. node	2397 Jul 20 05:04	13° η 00'08					
	2397 Aug 13 05:12	0° $\underline{\Omega}$		superior conj	2400 Feb 15 15:54	26° \approx 13'55	-1°-19'-4
greatest brilliancy	2397 Aug 16 12:13	1° $\underline{\Omega}$ 27'10	-4.5m	minimum elong	2400 Feb 15 07:05	25° \approx 46'15	1°18'54
retrograde	2397 Aug 28 10:02	3° $\underline{\Omega}$ 57'17			2400 Feb 18 16:00	0° \mathbb{X}	
	2397 Sep 11 17:21	30° \mathbb{R} η		max. Earth dist.	2400 Feb 19 02:16	0° \mathbb{X} 32'10	1.71427 AU
evening set	2397 Sep 15 11:04	27° η 53'29			2400 Mar 13 15:27	0° \mathbb{Y}	
inferior conj	2397 Sep 18 14:58	25° η 57'38	-8°-41'-7	evening rise	2400 Mar 27 02:08	16° \mathbb{Y} 44'40	
minimum elong	2397 Sep 18 16:38	25° η 55'04	8°41'07		2400 Apr 06 18:32	0° \mathbb{B}	
min. Earth dist.	2397 Sep 19 07:12	25° η 32'34	0.28391 AU	asc. node	2400 Apr 27 03:34	25° \mathbb{B} 08'21	
morning rise	2397 Sep 21 22:02	23° η 56'43			2400 May 01 02:33	0° \mathbb{II}	
direct	2397 Oct 09 23:53	17° η 47'39			2400 May 25 16:31	0° \mathbb{S}	
greatest brilliancy	2397 Oct 24 12:28	21° η 35'06	-4.6m		2400 Jun 19 13:51	0° Ω	
	2397 Nov 06 17:57	0° $\underline{\Omega}$			2400 Jul 14 21:36	0° η	
asc. node	2397 Nov 10 08:12	2° $\underline{\Omega}$ 50'36			2400 Aug 09 22:30	0° $\underline{\Omega}$	
morning max el	2397 Nov 29 11:08	20° $\underline{\Omega}$ 33'31	46°43'00	desc. node	2400 Aug 16 16:53	7° $\underline{\Omega}$ 35'28	
	2397 Dec 08 12:39	0° \mathbb{M}			2400 Sep 06 08:37	0° \mathbb{M}	
	2398 Jan 04 05:41	0° \mathbb{X}		evening max el	2400 Sep 21 10:50	15° \mathbb{M} 16'48	46°22'05
	2398 Jan 29 12:28	0° \mathbb{Z}			2400 Oct 07 18:08	0° \mathbb{X}	
	2398 Feb 23 05:52	0° \approx		greatest brilliancy	2400 Oct 30 06:30	14° \mathbb{X} 14'02	-4.6m
desc. node	2398 Mar 01 21:54	8° \approx 08'49		retrograde	2400 Nov 10 00:50	16° \mathbb{X} 21'36	
	2398 Mar 19 17:52	0° \mathbb{X}		evening set	2400 Nov 24 16:52	12° \mathbb{X} 10'44	
	2398 Apr 13 04:09	0° \mathbb{Y}		inferior conj	2400 Nov 30 15:23	8° \mathbb{X} 42'45	-1°-51'-10
	2398 May 07 14:28	0° \mathbb{B}		minimum elong	2400 Nov 30 19:35	8° \mathbb{X} 36'21	1°49'51
	2398 Jun 01 01:18	0° \mathbb{II}		min. Earth dist.	2400 Dec 01 00:45	8° \mathbb{X} 28'30	0.26602 AU
morning set	2398 Jun 03 17:08	3° \mathbb{II} 15'44		morning rise	2400 Dec 06 21:49	5° \mathbb{X} 03'22	
asc. node	2398 Jun 23 01:16	26° \mathbb{II} 59'30		asc. node	2400 Dec 07 20:13	4° \mathbb{X} 34'20	
	2398 Jun 25 12:05	0° \mathbb{S}		direct	2400 Dec 21 03:57	1° \mathbb{X} 01'16	
max. Earth dist.	2398 Jul 09 06:24	16° \mathbb{S} 54'19	1.73562 AU	greatest brilliancy	2401 Jan 02 21:01	4° \mathbb{X} 01'07	-4.7m

	2401 Feb 05 13:11	0°☾		2403 Sep 16 23:31	0°☾	
morning max el	2401 Feb 09 17:28	4°☾09'48	46°55'23	2403 Oct 12 09:09	0°☾	
	2401 Mar 05 20:41	0°☾		2403 Nov 07 11:56	0°☾	
desc. node	2401 Mar 29 09:44	26°☾54'43		evening max el	2403 Dec 04 08:17	28°☾55'00 47°15'44
	2401 Apr 01 01:20	0°☾			2403 Dec 05 10:03	0°☾
	2401 Apr 26 11:29	0°☾		asc. node	2404 Jan 05 08:05	26°☾11'52
	2401 May 21 13:26	0°☾		greatest brilliancy	2404 Jan 11 17:25	29°☾34'52 -4.7m
	2401 Jun 15 10:54	0°☾			2404 Jan 12 16:45	0°☾
	2401 Jul 10 04:32	0°☾		retrograde	2404 Jan 24 06:30	2°☾32'48
asc. node	2401 Jul 20 13:06	12°☾37'41			2404 Feb 04 08:43	30°☾
	2401 Aug 03 17:44	0°☾		evening set	2404 Feb 09 23:49	27°☾02'32
morning set	2401 Aug 10 11:35	8°☾17'11		min. Earth dist.	2404 Feb 13 04:30	25°☾06'10 0.27140 AU
	2401 Aug 28 02:09	0°☾		inferior conj	2404 Feb 14 00:22	24°☾35'24 8°07'43
max. Earth dist.	2401 Sep 12 14:32	19°☾13'42	1.72623 AU	minimum elong	2404 Feb 13 16:20	24°☾47'51 8°06'40
				morning rise	2404 Feb 17 09:05	22°☾32'06
superior conj	2401 Sep 16 00:40	23°☾28'43	1°24'50	direct	2404 Mar 05 12:56	16°☾48'51
minimum elong	2401 Sep 16 01:35	23°☾31'32	1°24'50	greatest brilliancy	2404 Mar 16 06:56	18°☾57'55 -4.6m
	2401 Sep 21 06:36	0°☾			2404 Apr 03 16:10	0°☾
	2401 Oct 15 08:37	0°☾		morning max el	2404 Apr 24 04:55	18°☾14'58 46°17'31
evening rise	2401 Oct 23 19:34	10°☾32'52		desc. node	2404 Apr 25 21:31	19°☾54'44
	2401 Nov 08 09:37	0°☾			2404 May 05 19:45	0°☾
desc. node	2401 Nov 09 02:36	0°☾53'01			2404 Jun 02 09:53	0°☾
	2401 Dec 02 10:29	0°☾			2404 Jun 28 15:06	0°☾
	2401 Dec 26 12:06	0°☾			2404 Jul 24 03:31	0°☾
	2402 Jan 19 16:37	0°☾		asc. node	2404 Aug 17 00:53	28°☾38'29
	2402 Feb 13 04:24	0°☾			2404 Aug 18 03:51	0°☾
asc. node	2402 Mar 02 05:44	20°☾29'13			2404 Sep 11 18:04	0°☾
	2402 Mar 10 07:03	0°☾			2404 Oct 06 00:20	0°☾
	2402 Apr 05 15:10	0°☾		morning set	2404 Oct 18 22:58	16°☾07'40
evening max el	2402 Apr 28 15:03	23°☾58'34	45°42'47		2404 Oct 30 01:15	0°☾
	2402 May 04 23:23	0°☾			2404 Nov 22 23:19	0°☾
greatest brilliancy	2402 Jun 02 00:46	20°☾40'10	-4.5m	max. Earth dist.	2404 Nov 25 15:20	3°☾21'04 1.71295 AU
retrograde	2402 Jun 16 13:38	24°☾22'53				
desc. node	2402 Jun 21 19:14	23°☾50'15		superior conj	2404 Nov 27 00:08	5°☾04'04 0°22'45
evening set	2402 Jul 01 19:58	19°☾54'15		minimum elong	2404 Nov 27 05:45	5°☾21'43 0°22'29
inferior conj	2402 Jul 08 02:23	16°☾08'51	-3°-43'-16	desc. node	2404 Dec 06 14:31	17°☾07'59
minimum elong	2402 Jul 07 18:50	16°☾20'40	3°41'16		2404 Dec 16 20:10	0°☾
min. Earth dist.	2402 Jul 07 23:12	16°☾13'50	0.28998 AU	evening rise	2405 Jan 07 03:25	26°☾46'37
morning rise	2402 Jul 13 17:37	12°☾43'48			2405 Jan 09 17:00	0°☾
direct	2402 Jul 29 16:52	7°☾51'33			2405 Feb 02 15:06	0°☾
greatest brilliancy	2402 Aug 12 12:21	11°☾09'57	-4.5m		2405 Feb 26 16:33	0°☾
	2402 Sep 08 03:32	0°☾			2405 Mar 23 00:11	0°☾
morning max el	2402 Sep 16 17:35	7°☾59'54	45°58'16	asc. node	2405 Mar 29 17:41	8°☾13'19
	2402 Oct 08 00:13	0°☾			2405 Apr 16 17:38	0°☾
asc. node	2402 Oct 12 22:33	5°☾24'56			2405 May 12 02:01	0°☾
	2402 Nov 03 10:43	0°☾			2405 Jun 07 11:34	0°☾
	2402 Nov 28 12:44	0°☾			2405 Jul 06 04:06	0°☾
	2402 Dec 22 23:22	0°☾		evening max el	2405 Jul 08 09:46	2°☾09'14 45°27'54
	2403 Jan 16 02:59	0°☾		desc. node	2405 Jul 19 07:07	12°☾03'25
desc. node	2403 Feb 01 12:02	20°☾25'59		greatest brilliancy	2405 Aug 14 00:52	29°☾12'06 -4.5m
	2403 Feb 09 03:57	0°☾			2405 Aug 16 04:51	0°☾
	2403 Mar 05 04:38	0°☾		retrograde	2405 Aug 26 00:40	1°☾43'43
morning set	2403 Mar 22 16:25	21°☾47'58			2405 Sep 04 09:38	30°☾
	2403 Mar 29 06:34	0°☾		evening set	2405 Sep 13 01:44	25°☾40'10
	2403 Apr 22 10:48	0°☾		inferior conj	2405 Sep 16 06:04	23°☾43'22 -8°-42'00
				minimum elong	2405 Sep 16 06:55	23°☾42'03 8°42'00
superior conj	2403 Apr 30 11:22	9°☾55'36	0°-55'-21	min. Earth dist.	2405 Sep 16 21:07	23°☾20'04 0.28443 AU
minimum elong	2403 Apr 30 21:13	10°☾26'00	0°54'59	morning rise	2405 Sep 19 11:56	21°☾44'01
max. Earth dist.	2403 May 03 08:05	13°☾27'52	1.72925 AU	direct	2405 Oct 07 16:02	15°☾32'58
	2403 May 16 17:46	0°☾		greatest brilliancy	2405 Oct 22 03:01	19°☾18'20 -4.6m
asc. node	2403 May 25 15:30	10°☾58'01			2405 Nov 07 06:54	0°☾
evening rise	2403 Jun 07 02:08	26°☾15'35		asc. node	2405 Nov 09 10:24	1°☾45'44
	2403 Jun 10 03:15	0°☾		morning max el	2405 Nov 27 01:44	18°☾13'31 46°41'27
	2403 Jul 04 14:56	0°☾			2405 Dec 08 07:38	0°☾
	2403 Jul 29 05:10	0°☾			2406 Jan 03 20:46	0°☾
	2403 Aug 22 23:18	0°☾			2406 Jan 29 01:53	0°☾
desc. node	2403 Sep 14 04:44	26°☾40'50			2406 Feb 22 18:21	0°☾

desc. node	2406 Feb 28 23:53	7° \approx 37'17		evening max el	2408 Sep 18 22:53	12° \mathbb{M} 51'56	46°19'46
	2406 Mar 19 05:45	0° \mathbb{X}			2408 Oct 08 06:53	0° \mathbb{X}	
	2406 Apr 12 15:36	0° \mathbb{Y}		greatest brilliancy	2408 Oct 27 20:05	11° \mathbb{X} 48'45	-4.6m
	2406 May 07 01:36	0° \mathbb{B}		retrograde	2408 Nov 07 12:40	13° \mathbb{X} 55'02	
	2406 May 31 12:13	0° \mathbb{II}		evening set	2408 Nov 22 07:10	9° \mathbb{X} 41'14	
morning set	2406 Jun 01 10:29	1° \mathbb{II} 08'19		inferior conj	2408 Nov 28 03:55	6° \mathbb{X} 16'02	-2°-14'-42
asc. node	2406 Jun 22 03:17	26° \mathbb{II} 32'30		minimum elong	2408 Nov 28 08:58	6° \mathbb{X} 08'21	2°13'08
	2406 Jun 24 22:53	0° \mathbb{E}		min. Earth dist.	2408 Nov 28 15:00	5° \mathbb{X} 59'10	0.26639 AU
max. Earth dist.	2406 Jul 07 03:12	14° \mathbb{E} 57'39	1.73565 AU	morning rise	2408 Dec 04 10:09	2° \mathbb{X} 36'49	
				asc. node	2408 Dec 06 22:10	1° \mathbb{X} 22'01	
superior conj	2406 Jul 08 04:05	16° \mathbb{E} 14'06	0°36'56		2408 Dec 10 07:26	30° \mathbb{R} \mathbb{M}	
minimum elong	2406 Jul 07 21:13	15° \mathbb{E} 52'58	0°36'38	direct	2408 Dec 18 16:23	28° \mathbb{M} 33'30	
	2406 Jul 19 08:41	0° \mathbb{Q}			2408 Dec 27 08:39	0° \mathbb{X}	
	2406 Aug 12 17:13	0° \mathbb{P}		greatest brilliancy	2408 Dec 31 13:27	1° \mathbb{X} 37'31	-4.7m
evening rise	2406 Aug 13 00:26	0° \mathbb{P} 22'15			2409 Feb 05 13:32	0° \mathbb{Z}	
	2406 Sep 06 01:05	0° \mathbb{A}		morning max el	2409 Feb 07 06:30	1° \mathbb{Z} 43'00	46°55'56
	2406 Sep 30 09:23	0° \mathbb{M}			2409 Mar 05 13:40	0° \approx	
desc. node	2406 Oct 11 16:47	13° \mathbb{M} 54'39		desc. node	2409 Mar 28 11:50	26° \approx 18'33	
	2406 Oct 24 19:09	0° \mathbb{X}			2409 Mar 31 15:39	0° \mathbb{X}	
	2406 Nov 18 07:30	0° \mathbb{Z}			2409 Apr 26 00:25	0° \mathbb{Y}	
	2406 Dec 13 01:02	0° \approx			2409 May 21 01:32	0° \mathbb{B}	
	2407 Jan 07 07:04	0° \mathbb{X}			2409 Jun 14 22:28	0° \mathbb{II}	
asc. node	2407 Feb 01 19:51	28° \mathbb{X} 52'03			2409 Jul 09 15:46	0° \mathbb{E}	
	2407 Feb 02 21:00	0° \mathbb{Y}		asc. node	2409 Jul 19 15:02	12° \mathbb{E} 09'41	
evening max el	2407 Feb 14 08:23	12° \mathbb{Y} 00'36	46°49'10		2409 Aug 03 04:45	0° \mathbb{Q}	
	2407 Mar 05 20:36	0° \mathbb{B}		morning set	2409 Aug 08 05:01	6° \mathbb{Q} 09'21	
greatest brilliancy	2407 Mar 22 13:10	11° \mathbb{B} 04'17	-4.6m		2409 Aug 27 13:06	0° \mathbb{P}	
retrograde	2407 Apr 05 16:24	14° \mathbb{B} 40'43		max. Earth dist.	2409 Sep 10 09:28	17° \mathbb{P} 09'24	1.72672 AU
evening set	2407 Apr 22 05:18	9° \mathbb{B} 20'21					
inferior conj	2407 Apr 26 21:25	6° \mathbb{B} 27'12	6°00'10	superior conj	2409 Sep 13 17:31	21° \mathbb{P} 17'50	1°24'56
minimum elong	2407 Apr 27 07:19	6° \mathbb{B} 11'35	5°58'00	minimum elong	2409 Sep 13 17:41	21° \mathbb{P} 18'21	1°24'56
min. Earth dist.	2407 Apr 26 19:48	6° \mathbb{B} 29'44	0.28421 AU		2409 Sep 20 17:36	0° \mathbb{A}	
morning rise	2407 May 02 09:44	3° \mathbb{B} 05'55			2409 Oct 14 19:45	0° \mathbb{M}	
	2407 May 08 23:03	30° \mathbb{R} \mathbb{Y}		evening rise	2409 Oct 21 09:37	8° \mathbb{M} 12'11	
direct	2407 May 18 03:33	28° \mathbb{Y} 19'09			2409 Nov 07 20:55	0° \mathbb{X}	
desc. node	2407 May 24 09:21	29° \mathbb{Y} 03'07		desc. node	2409 Nov 08 04:43	0° \mathbb{X} 24'21	
	2407 May 27 17:26	0° \mathbb{B}			2409 Dec 01 21:57	0° \mathbb{Z}	
greatest brilliancy	2407 May 30 03:57	0° \mathbb{B} 54'32	-4.5m		2409 Dec 25 23:49	0° \approx	
morning max el	2407 Jul 05 22:50	28° \mathbb{B} 14'03	45°44'30		2410 Jan 19 04:42	0° \mathbb{X}	
	2407 Jul 07 18:57	0° \mathbb{II}			2410 Feb 12 17:08	0° \mathbb{Y}	
	2407 Aug 05 15:51	0° \mathbb{E}		asc. node	2410 Mar 01 07:45	19° \mathbb{Y} 55'21	
	2407 Sep 01 05:16	0° \mathbb{Q}			2410 Mar 09 21:00	0° \mathbb{B}	
asc. node	2407 Sep 14 12:45	15° \mathbb{Q} 35'25			2410 Apr 05 07:50	0° \mathbb{II}	
	2407 Sep 26 14:54	0° \mathbb{P}		evening max el	2410 Apr 26 06:28	21° \mathbb{II} 45'16	45°44'31
	2407 Oct 21 07:09	0° \mathbb{A}			2410 May 05 01:10	0° \mathbb{E}	
	2407 Nov 14 12:36	0° \mathbb{M}		greatest brilliancy	2410 May 30 15:06	18° \mathbb{E} 27'55	-4.5m
	2407 Dec 08 12:13	0° \mathbb{X}		retrograde	2410 Jun 14 06:31	22° \mathbb{E} 13'34	
	2408 Jan 01 09:19	0° \mathbb{Z}		desc. node	2410 Jun 20 21:12	21° \mathbb{E} 21'07	
morning set	2408 Jan 02 09:08	1° \mathbb{Z} 14'53		evening set	2410 Jun 29 11:11	17° \mathbb{E} 46'00	
desc. node	2408 Jan 04 02:13	3° \mathbb{Z} 24'03		inferior conj	2410 Jul 05 18:42	13° \mathbb{E} 59'09	-3°-25'-9
	2408 Jan 25 05:52	0° \approx		minimum elong	2410 Jul 05 11:39	14° \mathbb{E} 10'09	3°23'16
				min. Earth dist.	2410 Jul 05 15:16	14° \mathbb{E} 04'30	0.28992 AU
superior conj	2408 Feb 13 02:23	23° \approx 41'18	-1°-17'-24	morning rise	2410 Jul 11 12:07	10° \mathbb{E} 31'21	
minimum elong	2408 Feb 12 16:51	23° \approx 11'22	1°17'12	direct	2410 Jul 27 09:05	5° \mathbb{E} 41'49	
max. Earth dist.	2408 Feb 16 08:37	27° \approx 46'39	1.71387 AU	greatest brilliancy	2410 Aug 10 04:41	9° \mathbb{E} 00'41	-4.5m
	2408 Feb 18 03:09	0° \mathbb{X}			2410 Sep 08 05:29	0° \mathbb{Q}	
	2408 Mar 13 02:34	0° \mathbb{Y}		morning max el	2410 Sep 14 09:52	5° \mathbb{Q} 49'08	45°57'04
evening rise	2408 Mar 24 14:14	14° \mathbb{Y} 18'29			2410 Oct 07 16:56	0° \mathbb{P}	
	2408 Apr 06 05:40	0° \mathbb{B}		asc. node	2410 Oct 12 00:43	4° \mathbb{P} 46'24	
asc. node	2408 Apr 26 05:41	24° \mathbb{B} 40'18			2410 Nov 03 00:43	0° \mathbb{A}	
	2408 Apr 30 13:49	0° \mathbb{II}			2410 Nov 28 01:32	0° \mathbb{M}	
	2408 May 25 04:05	0° \mathbb{E}			2410 Dec 22 11:31	0° \mathbb{X}	
	2408 Jun 19 01:57	0° \mathbb{Q}			2411 Jan 15 14:44	0° \mathbb{Z}	
	2408 Jul 14 10:41	0° \mathbb{P}		desc. node	2411 Jan 31 14:04	19° \mathbb{Z} 56'16	
	2408 Aug 09 13:28	0° \mathbb{A}			2411 Feb 08 15:24	0° \approx	
desc. node	2408 Aug 15 18:50	6° \mathbb{A} 57'17			2411 Mar 04 15:53	0° \mathbb{X}	
	2408 Sep 06 03:53	0° \mathbb{M}		morning set	2411 Mar 20 05:14	19° \mathbb{X} 23'45	

	2411 Mar 28 17:40	0°♄		minimum elong	2413 Sep 13 21:11	21°♍28'41	8°41'57
	2411 Apr 21 21:48	0°♅		min. Earth dist.	2413 Sep 14 11:25	21°♍06'35	0.28495 AU
				morning rise	2413 Sep 17 02:14	19°♍30'16	
superior conj	2411 Apr 28 02:47	7°♅40'56	0°-57'-57	direct	2413 Oct 05 07:33	13°♍17'48	
minimum elong	2411 Apr 28 12:48	8°♅11'54	0°57'36	greatest brilliancy	2413 Oct 19 17:43	17°♍01'16	-4.6m
max. Earth dist.	2411 May 01 01:36	11°♅19'49	1.72884 AU		2413 Nov 07 16:45	0°♎	
	2411 May 16 04:44	0°♎		asc. node	2413 Nov 08 12:21	0°♎41'35	
asc. node	2411 May 24 17:30	10°♎30'24		morning max el	2413 Nov 24 15:26	15°♎50'55	46°40'00
evening rise	2411 Jun 04 19:46	24°♎08'43			2413 Dec 08 02:16	0°♏	
	2411 Jun 09 14:15	0°♏			2414 Jan 03 11:43	0°♐	
	2411 Jul 04 02:06	0°♐			2414 Jan 28 15:14	0°♑	
	2411 Jul 28 16:40	0°♑			2414 Feb 22 06:49	0°♒	
	2411 Aug 22 11:21	0°♒		desc. node	2414 Feb 28 01:59	7°♒06'03	
desc. node	2411 Sep 13 06:52	26°♒09'04			2414 Mar 18 17:38	0°♓	
	2411 Sep 16 12:26	0°♓			2414 Apr 12 03:01	0°♈	
	2411 Oct 11 23:30	0°♈			2414 May 06 12:40	0°♉	
	2411 Nov 07 04:57	0°♉		morning set	2414 May 30 04:09	29°♉02'01	
evening max el	2411 Dec 01 23:28	26°♉33'27	47°15'09		2414 May 30 23:03	0°♊	
	2411 Dec 05 10:02	0°♊		asc. node	2414 Jun 21 05:16	26°♊05'41	
asc. node	2412 Jan 04 10:05	24°♊39'08			2414 Jun 24 09:36	0°♋	
greatest brilliancy	2412 Jan 09 07:44	27°♊09'02	-4.7m	max. Earth dist.	2414 Jul 04 23:41	13°♋00'14	1.73571 AU
	2412 Jan 19 14:10	0°♋					
retrograde	2412 Jan 21 20:49	0°♋06'21		superior conj	2414 Jul 05 22:36	14°♋10'39	0°34'05
	2412 Jan 24 02:53	30°♌		minimum elong	2414 Jul 05 16:09	13°♋50'50	0°33'48
evening set	2412 Feb 07 09:16	24°♌42'23			2414 Jul 18 19:24	0°♌	
min. Earth dist.	2412 Feb 10 17:03	22°♌41'30	0.27083 AU	evening rise	2414 Aug 10 19:04	28°♌18'21	
inferior conj	2412 Feb 11 13:36	22°♌09'44	7°57'56		2414 Aug 12 04:03	0°♍	
minimum elong	2412 Feb 11 05:00	22°♌23'02	7°56'42		2414 Sep 05 12:08	0°♎	
morning rise	2412 Feb 15 01:03	20°♌02'41			2414 Sep 29 20:45	0°♏	
direct	2412 Mar 03 02:20	14°♌24'17		desc. node	2414 Oct 10 18:50	13°♏25'23	
greatest brilliancy	2412 Mar 13 18:38	16°♌32'25	-4.6m		2414 Oct 24 06:59	0°♐	
	2412 Apr 04 05:16	0°♐			2414 Nov 17 19:57	0°♑	
morning max el	2412 Apr 21 19:22	15°♐56'27	46°19'02		2414 Dec 12 14:26	0°♒	
desc. node	2412 Apr 24 23:40	19°♐04'59			2415 Jan 06 22:06	0°♓	
	2412 May 05 14:54	0°♑		asc. node	2415 Jan 31 21:56	28°♓07'33	
	2412 Jun 02 00:47	0°♒			2415 Feb 02 15:53	0°♈	
	2412 Jun 28 04:09	0°♓		evening max el	2415 Feb 11 22:21	9°♈39'12	46°51'14
	2412 Jul 23 15:35	0°♈			2415 Mar 06 08:58	0°♉	
asc. node	2412 Aug 16 02:57	28°♈09'51		greatest brilliancy	2415 Mar 20 07:23	8°♉52'29	-4.6m
	2412 Aug 17 15:21	0°♉		retrograde	2415 Apr 03 07:52	12°♉26'31	
	2412 Sep 11 05:17	0°♊		evening set	2415 Apr 19 23:56	7°♉02'14	
	2412 Oct 05 11:25	0°♋		inferior conj	2415 Apr 24 13:06	4°♉13'28	6°15'14
morning set	2412 Oct 16 13:48	13°♋49'43		minimum elong	2415 Apr 24 23:03	3°♉57'46	6°13'09
	2412 Oct 29 12:19	0°♌		min. Earth dist.	2415 Apr 24 11:32	4°♉15'57	0.28387 AU
	2412 Nov 22 10:25	0°♍		morning rise	2415 Apr 29 22:29	0°♉56'05	
max. Earth dist.	2412 Nov 22 22:52	0°♍39'05	1.71325 AU		2415 May 01 15:21	30°♊♈	
				direct	2415 May 15 18:14	26°♊05'59	
superior conj	2412 Nov 24 11:41	2°♍34'43	0°26'26	desc. node	2415 May 23 11:15	27°♊12'04	
minimum elong	2412 Nov 24 18:05	2°♍54'49	0°26'07	greatest brilliancy	2415 May 27 17:47	28°♊40'02	-4.5m
desc. node	2412 Dec 05 16:28	16°♍39'02			2415 May 30 17:26	0°♋	
	2412 Dec 16 07:21	0°♌		morning max el	2415 Jul 03 13:14	26°♋00'05	45°45'03
evening rise	2413 Jan 04 13:34	24°♌12'21			2415 Jul 07 16:20	0°♎	
	2413 Jan 09 04:15	0°♍			2415 Aug 05 07:07	0°♏	
	2413 Feb 02 02:26	0°♎			2415 Aug 31 18:20	0°♐	
	2413 Feb 26 03:59	0°♏		asc. node	2415 Sep 13 14:55	15°♐05'04	
asc. node	2413 Mar 22 11:52	0°♐			2415 Sep 26 02:57	0°♑	
	2413 Mar 28 19:50	7°♐43'58			2415 Oct 20 18:41	0°♒	
	2413 Apr 16 05:49	0°♑			2415 Nov 13 23:53	0°♓	
	2413 May 11 15:16	0°♒			2415 Dec 07 23:22	0°♈	
	2413 Jun 07 03:10	0°♓		morning set	2415 Dec 30 19:10	28°♈40'39	
evening max el	2413 Jul 06 00:57	29°♓56'30	45°27'00		2415 Dec 31 20:24	0°♉	
	2413 Jul 06 02:25	0°♔		desc. node	2416 Jan 03 04:16	2°♔55'42	
desc. node	2413 Jul 18 09:07	11°♔04'49			2416 Jan 24 16:52	0°♕	
greatest brilliancy	2413 Aug 11 14:21	26°♔57'16	-4.5m				
retrograde	2413 Aug 23 14:52	29°♔29'36		superior conj	2416 Feb 10 12:43	21°♕08'42	-1°-15'-34
evening set	2413 Sep 10 15:59	23°♔27'04		minimum elong	2416 Feb 10 02:32	20°♕36'44	1°15'21
inferior conj	2413 Sep 13 21:10	21°♔28'43	-8°-41'-56	max. Earth dist.	2416 Feb 13 12:33	24°♕54'05	1.71350 AU

	2416 Feb 17 14:06	0° Υ			2418 Sep 08 05:31	0° Ω		
	2416 Mar 12 13:30	0° Υ		morning max el	2418 Sep 12 02:27	3° Ω 40'43	45°55'59	
evening rise	2416 Mar 22 02:20	11° Υ 52'45			2418 Oct 07 08:50	0° η		
	2416 Apr 05 16:38	0° Υ		asc. node	2418 Oct 11 02:41	4° η 09'07		
asc. node	2416 Apr 25 07:41	24° Υ 12'31			2418 Nov 02 14:07	0° Ω		
	2416 Apr 30 00:54	0° Π			2418 Nov 27 13:51	0° \mathcal{M}		
	2416 May 24 15:25	0° \mathcal{E}			2418 Dec 21 23:17	0° \mathcal{Z}		
	2416 Jun 18 13:47	0° Ω			2419 Jan 15 02:09	0° \mathcal{Z}		
	2416 Jul 13 23:30	0° η		desc. node	2419 Jan 30 16:13	19° \mathcal{Z} 27'45		
	2416 Aug 09 04:15	0° Ω			2419 Feb 08 02:36	0° \approx		
desc. node	2416 Aug 14 20:59	6° Ω 20'20			2419 Mar 04 02:53	0° Υ		
	2416 Sep 05 23:21	0° \mathcal{M}		morning set	2419 Mar 17 17:28	16° Υ 58'20		
evening max el	2416 Sep 16 11:20	10° \mathcal{M} 29'09	46°17'16		2419 Mar 28 04:30	0° Υ		
	2416 Oct 08 23:29	0° \mathcal{Z}			2419 Apr 21 08:31	0° Υ		
greatest brilliancy	2416 Oct 25 08:34	9° \mathcal{Z} 22'53	-4.6m					
retrograde	2416 Nov 05 00:51	11° \mathcal{Z} 29'00		superior conj	2419 Apr 25 17:42	5° Υ 25'32	-1°00'-29	
evening set	2416 Nov 19 21:34	7° \mathcal{Z} 11'46		minimum elong	2419 Apr 26 03:51	5° Υ 56'55	1°00'09	
inferior conj	2416 Nov 25 16:21	3° \mathcal{Z} 49'32	-2°-37'-57	max. Earth dist.	2419 Apr 28 20:29	9° Υ 16'49	1.72836 AU	
minimum elong	2416 Nov 25 22:12	3° \mathcal{Z} 40'38	2°36'08		2419 May 15 15:22	0° Π		
min. Earth dist.	2416 Nov 26 04:55	3° \mathcal{Z} 30'27	0.26685 AU	asc. node	2419 May 23 19:29	10° Π 03'43		
morning rise	2416 Dec 01 22:12	0° \mathcal{Z} 11'01		evening rise	2419 Jun 02 13:12	22° Π 02'05		
	2416 Dec 02 06:32	30° \mathcal{M}			2419 Jun 09 00:56	0° \mathcal{E}		
asc. node	2416 Dec 06 00:11	28° \mathcal{M} 14'27			2419 Jul 03 12:57	0° Ω		
direct	2416 Dec 16 05:15	26° \mathcal{M} 05'53			2419 Jul 28 03:50	0° η		
greatest brilliancy	2416 Dec 29 05:49	29° \mathcal{M} 14'10	-4.7m		2419 Aug 21 23:03	0° Ω		
	2416 Dec 30 20:20	0° \mathcal{Z}		desc. node	2419 Sep 12 08:57	25° Ω 38'20		
morning max el	2417 Feb 04 20:34	29° \mathcal{Z} 19'13	46°56'33		2419 Sep 16 00:59	0° \mathcal{M}		
	2417 Feb 05 12:39	0° \mathcal{Z}			2419 Oct 11 13:29	0° \mathcal{Z}		
	2417 Mar 05 06:08	0° \approx			2419 Nov 06 21:45	0° \mathcal{Z}		
desc. node	2417 Mar 27 13:59	25° \approx 43'32		evening max el	2419 Nov 29 14:34	24° \mathcal{Z} 13'05	47°14'11	
	2417 Mar 31 05:33	0° Υ			2419 Dec 05 10:39	0° \approx		
	2417 Apr 25 12:59	0° Υ		asc. node	2420 Jan 03 12:10	23° \approx 03'58		
	2417 May 20 13:18	0° Υ		greatest brilliancy	2420 Jan 06 22:40	24° \approx 44'42	-4.7m	
	2417 Jun 14 09:42	0° Π		retrograde	2420 Jan 19 10:39	27° \approx 39'58		
	2417 Jul 09 02:38	0° \mathcal{E}		evening set	2420 Feb 04 18:28	22° \approx 22'42		
asc. node	2417 Jul 18 17:12	11° \mathcal{E} 43'24		min. Earth dist.	2420 Feb 08 05:49	20° \approx 16'30	0.27032 AU	
	2417 Aug 02 15:24	0° Ω		inferior conj	2420 Feb 09 02:39	19° \approx 44'15	7°47'06	
morning set	2417 Aug 05 23:00	4° Ω 04'24		minimum elong	2420 Feb 08 17:33	19° \approx 58'21	7°45'41	
	2417 Aug 26 23:41	0° η		morning rise	2420 Feb 12 17:00	17° \approx 32'59		
max. Earth dist.	2417 Sep 08 06:01	15° η 11'21	1.72719 AU	direct	2420 Feb 29 15:32	11° \approx 59'54		
				greatest brilliancy	2420 Mar 11 06:34	14° \approx 07'01	-4.6m	
superior conj	2417 Sep 11 10:53	19° η 09'50	1°24'53		2420 Apr 04 14:54	0° Υ		
minimum elong	2417 Sep 11 10:20	19° η 08'06	1°24'53	morning max el	2420 Apr 19 08:56	13° Υ 35'53	46°20'32	
	2417 Sep 20 04:14	0° Ω		desc. node	2420 Apr 24 01:35	18° Υ 15'53		
	2417 Oct 14 06:32	0° \mathcal{M}			2420 May 05 09:23	0° Υ		
evening rise	2417 Oct 19 00:08	5° \mathcal{M} 54'06			2420 Jun 01 15:17	0° Υ		
desc. node	2417 Nov 07 06:42	29° \mathcal{M} 56'13			2420 Jun 27 16:51	0° Π		
	2417 Nov 07 07:55	0° \mathcal{Z}			2420 Jul 23 03:18	0° \mathcal{E}		
	2417 Dec 01 09:11	0° \mathcal{Z}		asc. node	2420 Aug 15 05:01	27° \mathcal{E} 42'12		
	2417 Dec 25 11:20	0° \approx			2420 Aug 17 02:32	0° Ω		
	2418 Jan 18 16:38	0° Υ			2420 Sep 10 16:11	0° η		
	2418 Feb 12 05:42	0° Υ			2420 Oct 04 22:11	0° Ω		
asc. node	2418 Feb 28 09:54	19° Υ 22'24		morning set	2420 Oct 14 05:05	11° Ω 34'09		
	2418 Mar 09 10:48	0° Υ			2420 Oct 28 23:03	0° \mathcal{M}		
	2418 Apr 05 00:29	0° Π		max. Earth dist.	2420 Nov 20 05:47	27° \mathcal{M} 56'25	1.71355 AU	
evening max el	2418 Apr 23 22:43	19° Π 35'00	45°46'24					
	2418 May 05 03:57	0° \mathcal{E}		superior conj	2420 Nov 21 23:57	0° \mathcal{Z} 08'46	0°29'59	
greatest brilliancy	2418 May 28 06:26	16° \mathcal{E} 18'13	-4.5m	minimum elong	2420 Nov 22 07:04	0° \mathcal{Z} 31'06	0°29'39	
retrograde	2418 Jun 11 23:40	20° \mathcal{E} 05'30			2420 Nov 21 21:09	0° \mathcal{Z}		
desc. node	2418 Jun 19 23:18	18° \mathcal{E} 48'49		desc. node	2420 Dec 04 18:33	16° \mathcal{Z} 11'40		
evening set	2418 Jun 27 02:44	15° \mathcal{E} 39'04			2420 Dec 15 18:09	0° \mathcal{Z}		
inferior conj	2418 Jul 03 11:07	11° \mathcal{E} 50'47	-3°-6'-50	evening rise	2421 Jan 02 00:07	21° \mathcal{Z} 40'30		
minimum elong	2418 Jul 03 04:36	12° \mathcal{E} 00'57	3°05'04		2421 Jan 08 15:09	0° \approx		
min. Earth dist.	2418 Jul 03 07:18	11° \mathcal{E} 56'44	0.28980 AU		2421 Feb 01 13:28	0° Υ		
morning rise	2418 Jul 09 06:35	8° \mathcal{E} 20'23			2421 Feb 25 15:12	0° Υ		
direct	2418 Jul 25 01:48	3° \mathcal{E} 33'40			2421 Mar 21 23:23	0° Υ		
greatest brilliancy	2418 Aug 07 19:59	6° \mathcal{E} 51'39	-4.5m	asc. node	2421 Mar 27 21:47	7° Υ 14'25		

	2421 Apr 15 17:55	0°♊			2423 Nov 13 11:07	0°♌	
	2421 May 11 04:29	0°♋			2423 Dec 07 10:29	0°♏	
	2421 Jun 06 18:52	0°♌		morning set	2423 Dec 28 05:23	26°♏07'04	
evening max el	2421 Jul 03 15:16	27°♌42'11	45°26'21		2423 Dec 31 07:27	0°♐	
	2421 Jul 06 01:29	0°♍		desc. node	2424 Jan 02 06:23	2°♐27'36	
desc. node	2421 Jul 17 11:14	10°♍05'47			2424 Jan 24 03:52	0°♑	
greatest brilliancy	2421 Aug 09 03:37	24°♍42'59	-4.5m				
retrograde	2421 Aug 21 04:59	27°♍16'42		superior conj	2424 Feb 07 23:12	18°♑36'34	-1°-13'-35
evening set	2421 Sep 08 05:56	21°♍15'30		minimum elong	2424 Feb 07 12:27	18°♑02'49	1°13'19
inferior conj	2421 Sep 11 12:22	19°♍15'15	-8°-41'-7	max. Earth dist.	2424 Feb 10 16:32	22°♑01'41	1.71312 AU
minimum elong	2421 Sep 11 11:32	19°♍16'32	8°41'08		2424 Feb 17 01:01	0°♒	
min. Earth dist.	2421 Sep 12 02:07	18°♍53'52	0.28541 AU		2424 Mar 12 00:23	0°♓	
morning rise	2421 Sep 14 16:58	17°♍17'15		evening rise	2424 Mar 19 14:40	9°♓27'54	
direct	2421 Oct 02 22:42	11°♍03'35			2424 Apr 05 03:34	0°♈	
greatest brilliancy	2421 Oct 17 09:13	14°♍46'17	-4.6m	asc. node	2424 Apr 24 09:42	23°♈44'51	
asc. node	2421 Nov 07 14:22	29°♍39'59			2424 Apr 29 11:59	0°♉	
	2421 Nov 07 23:33	0°♊			2424 May 24 02:48	0°♋	
morning max el	2421 Nov 22 05:02	13°♊29'01	46°38'46		2424 Jun 18 01:46	0°♌	
	2421 Dec 07 20:05	0°♌			2424 Jul 13 12:34	0°♍	
	2422 Jan 03 02:09	0°♏			2424 Aug 08 19:26	0°♎	
	2422 Jan 28 04:10	0°♐		desc. node	2424 Aug 13 23:01	5°♎42'16	
	2422 Feb 21 18:55	0°♑			2424 Sep 05 19:39	0°♏	
desc. node	2422 Feb 27 04:02	6°♑35'43		evening max el	2424 Sep 14 00:42	8°♏08'27	46°14'59
	2422 Mar 18 05:12	0°♒			2424 Oct 09 22:02	0°♏	
	2422 Apr 11 14:13	0°♓		greatest brilliancy	2424 Oct 22 20:16	6°♏56'13	-4.6m
	2422 May 05 23:36	0°♈		retrograde	2424 Nov 02 13:30	9°♏02'51	
morning set	2422 May 27 21:20	26°♈54'26		evening set	2424 Nov 17 12:09	4°♏42'05	
	2422 May 30 09:48	0°♉		inferior conj	2424 Nov 23 04:46	1°♏22'45	-3°00'-44
asc. node	2422 Jun 20 07:25	25°♉39'32		minimum elong	2424 Nov 23 11:23	1°♏12'43	2°58'45
	2422 Jun 23 20:14	0°♋		min. Earth dist.	2424 Nov 23 18:24	1°♏02'03	0.26731 AU
max. Earth dist.	2422 Jul 02 18:47	10°♋58'51	1.73574 AU		2424 Nov 25 11:33	30°♌	
				morning rise	2424 Nov 29 10:00	27°♌45'22	
superior conj	2422 Jul 03 16:41	12°♋06'10	0°31'10	asc. node	2424 Dec 05 02:21	25°♌11'44	
minimum elong	2422 Jul 03 10:42	11°♋47'45	0°30'53	direct	2424 Dec 13 18:38	23°♌38'12	
	2422 Jul 18 06:02	0°♌		greatest brilliancy	2424 Dec 26 21:14	26°♌49'29	-4.7m
evening rise	2422 Aug 08 13:26	26°♌14'06			2425 Jan 01 19:43	0°♏	
	2422 Aug 11 14:47	0°♍		morning max el	2425 Feb 02 11:30	26°♏57'23	46°57'04
	2422 Sep 04 23:04	0°♎			2425 Feb 05 10:57	0°♐	
	2422 Sep 29 08:02	0°♏		desc. node	2425 Mar 04 22:23	0°♑	
desc. node	2422 Oct 09 20:47	12°♏56'08			2425 Mar 26 15:52	25°♑07'43	
	2422 Oct 23 18:44	0°♏			2425 Mar 30 19:23	0°♒	
	2422 Nov 17 08:20	0°♐			2425 Apr 25 01:33	0°♓	
	2422 Dec 12 03:44	0°♑			2425 May 20 01:06	0°♈	
	2423 Jan 06 13:06	0°♒			2425 Jun 13 21:01	0°♉	
asc. node	2423 Jan 31 00:03	27°♒23'17			2425 Jul 08 13:39	0°♋	
	2423 Feb 02 11:00	0°♓		asc. node	2425 Jul 17 19:14	11°♋16'10	
evening max el	2423 Feb 09 11:48	7°♓17'07	46°53'17		2425 Aug 02 02:15	0°♌	
	2423 Mar 07 01:12	0°♈		morning set	2425 Aug 03 16:46	1°♌58'14	
greatest brilliancy	2423 Mar 18 00:13	6°♈39'11	-4.6m		2425 Aug 26 10:30	0°♍	
retrograde	2423 Mar 31 23:22	10°♈12'36		max. Earth dist.	2425 Sep 06 00:15	13°♍05'24	1.72765 AU
evening set	2423 Apr 17 18:29	4°♈43'59					
inferior conj	2423 Apr 22 04:43	1°♈59'45	6°29'43	superior conj	2425 Sep 09 03:58	17°♍00'12	1°24'42
minimum elong	2423 Apr 22 14:38	1°♈44'06	6°27'43	minimum elong	2425 Sep 09 02:42	16°♍56'17	1°24'43
min. Earth dist.	2423 Apr 22 03:07	2°♈02'17	0.28362 AU		2425 Sep 19 15:07	0°♎	
	2423 Apr 25 09:31	30°♒			2425 Oct 13 17:33	0°♏	
morning rise	2423 Apr 27 11:04	28°♓46'38		evening rise	2425 Oct 16 14:21	3°♏34'22	
direct	2423 May 13 08:42	23°♓52'30		desc. node	2425 Nov 06 08:45	29°♏27'42	
desc. node	2423 May 22 13:23	25°♓25'11			2425 Nov 06 19:07	0°♏	
greatest brilliancy	2423 May 25 08:24	26°♓26'19	-4.5m		2425 Nov 30 20:38	0°♐	
	2423 Jun 01 12:17	0°♈			2425 Dec 24 23:05	0°♑	
morning max el	2423 Jul 01 04:22	23°♈47'37	45°45'34		2426 Jan 18 04:48	0°♒	
	2423 Jul 07 13:03	0°♉			2426 Feb 11 18:33	0°♓	
	2423 Aug 04 22:16	0°♋		asc. node	2426 Feb 27 11:50	18°♓48'05	
	2423 Aug 31 07:22	0°♌			2426 Mar 09 00:57	0°♈	
asc. node	2423 Sep 12 16:53	14°♌34'06			2426 Apr 04 17:40	0°♉	
	2423 Sep 25 14:58	0°♍		evening max el	2426 Apr 21 15:30	17°♍25'28	45°48'20
	2423 Oct 20 06:10	0°♎			2426 May 05 08:41	0°♋	

greatest brilliancy	2426 May 25 22:40	14°09'14"	-4.5m	minimum elong	2428 Nov 19 19:45	28°05'11"	0°33'10"
retrograde	2426 Jun 09 16:35	17°56'46"			2428 Nov 21 08:20	0°27'	
desc. node	2426 Jun 19 01:21	16°51'30"		desc. node	2428 Dec 03 20:41	15°24'30"	0°43'04"
evening set	2426 Jun 24 18:31	13°53'30"			2428 Dec 15 05:25	0°03'	
inferior conj	2426 Jul 01 03:32	9°54'52"	-2°-48'-22"	evening rise	2428 Dec 30 10:13	19°05'52"	
minimum elong	2426 Jun 30 21:37	9°51'09"	2°46'43"		2429 Jan 08 02:31	0°00'	
min. Earth dist.	2426 Jun 30 23:24	9°54'21"	0.28969 AU		2429 Feb 01 00:55	0°00'	
morning rise	2426 Jul 07 00:55	6°58'51"			2429 Feb 25 02:48	0°00'	
direct	2426 Jul 22 18:41	1°25'05"			2429 Mar 21 11:16	0°00'	
greatest brilliancy	2426 Aug 05 10:12	4°54'33"	-4.5m	asc. node	2429 Mar 26 23:50	6°04'08"	
	2426 Sep 08 04:54	0°00'			2429 Apr 15 06:24	0°00'	
morning max el	2426 Sep 09 18:36	1°03'20"	45°54'41"		2429 May 10 18:10	0°00'	
	2426 Oct 07 00:54	0°00'			2429 Jun 06 11:10	0°00'	
asc. node	2426 Oct 10 04:43	3°03'09"		evening max el	2429 Jul 01 05:22	25°02'40"	45°25'54"
	2426 Nov 02 03:49	0°00'			2429 Jul 06 01:57	0°00'	
	2426 Nov 27 02:29	0°00'		desc. node	2429 Jul 16 13:16	9°04'26"	
	2426 Dec 21 11:19	0°00'		greatest brilliancy	2429 Aug 06 15:50	22°07'10"	-4.5m
	2427 Jan 14 13:50	0°00'		retrograde	2429 Aug 18 19:29	25°03'56"	
desc. node	2427 Jan 29 18:11	18°57'54"		evening set	2429 Sep 05 19:41	19°04'17"	
	2427 Feb 07 14:02	0°00'		inferior conj	2429 Sep 09 03:47	17°01'41"	-8°-39'-28"
	2427 Mar 03 14:09	0°00'		minimum elong	2429 Sep 09 02:07	17°04'16"	8°39'27"
morning set	2427 Mar 15 05:36	14°03'44"		min. Earth dist.	2429 Sep 09 16:57	16°04'12"	0.28590 AU
	2427 Mar 27 15:38	0°00'		morning rise	2429 Sep 12 08:20	15°03'43"	
	2427 Apr 20 19:31	0°00'		direct	2429 Sep 30 14:00	8°04'09"	
				greatest brilliancy	2429 Oct 15 01:50	12°03'30"	-4.6m
superior conj	2427 Apr 23 08:38	3°09'11"	-1°-2'-56"	asc. node	2429 Nov 06 16:33	28°03'30"	
minimum elong	2427 Apr 23 18:50	3°04'46"	1°02'36"		2429 Nov 08 04:33	0°00'	
max. Earth dist.	2427 Apr 26 15:50	7°04'14"	1.72785 AU	morning max el	2429 Nov 19 19:13	11°07'46"	46°37'17"
	2427 May 15 02:18	0°00'			2429 Dec 07 13:54	0°00'	
asc. node	2427 May 22 21:39	9°03'44"			2430 Jan 02 16:52	0°00'	
evening rise	2427 May 31 06:37	19°05'34"			2430 Jan 27 17:29	0°00'	
	2427 Jun 08 11:53	0°00'			2430 Feb 21 07:25	0°00'	
	2427 Jul 03 00:05	0°00'		desc. node	2430 Feb 26 06:02	6°03'59"	
	2427 Jul 27 15:20	0°00'			2430 Mar 17 17:08	0°00'	
	2427 Aug 21 11:10	0°00'			2430 Apr 11 01:44	0°00'	
desc. node	2427 Sep 11 10:51	25°05'46"			2430 May 05 10:48	0°00'	
	2427 Sep 15 14:03	0°00'		morning set	2430 May 25 14:26	24°04'54"	
	2427 Oct 11 04:07	0°00'			2430 May 29 20:48	0°00'	
	2427 Nov 06 15:27	0°00'		asc. node	2430 Jun 19 09:25	25°02'10"	
evening max el	2427 Nov 27 05:08	21°04'53"	47°13'13"		2430 Jun 23 07:09	0°00'	
	2427 Dec 05 13:11	0°00'		max. Earth dist.	2430 Jun 30 14:41	8°05'10"	1.73576 AU
asc. node	2428 Jan 02 14:13	21°23'42"					
greatest brilliancy	2428 Jan 04 14:23	22°19'52"	-4.7m	superior conj	2430 Jul 01 10:55	10°01'17"	0°28'13"
retrograde	2428 Jan 16 23:58	25°12'00"		minimum elong	2430 Jul 01 05:24	9°04'21"	0°27'57"
evening set	2428 Feb 02 03:39	20°01'38"			2430 Jul 17 16:56	0°00'	
min. Earth dist.	2428 Feb 05 18:57	17°49'37"	0.26978 AU	evening rise	2430 Aug 06 08:10	24°01'16"	
inferior conj	2428 Feb 06 15:39	17°17'32"	7°35'28"		2430 Aug 11 01:46	0°00'	
minimum elong	2428 Feb 06 06:07	17°32'19"	7°33'51"		2430 Sep 04 10:15	0°00'	
morning rise	2428 Feb 10 08:58	15°01'48"			2430 Sep 28 19:33	0°00'	
direct	2428 Feb 27 04:09	9°34'13"		desc. node	2430 Oct 08 22:56	12°06'50"	
greatest brilliancy	2428 Mar 08 19:07	11°40'57"	-4.6m		2430 Oct 23 06:45	0°00'	
	2428 Apr 04 22:20	0°00'			2430 Nov 16 21:02	0°00'	
morning max el	2428 Apr 16 21:37	11°01'56"	46°22'04"		2430 Dec 11 17:28	0°00'	
desc. node	2428 Apr 23 03:43	17°07'12"			2431 Jan 06 04:42	0°00'	
	2428 May 05 03:45	0°00'		asc. node	2431 Jan 30 01:59	26°03'33"	
	2428 Jun 01 05:57	0°00'			2431 Feb 02 07:12	0°00'	
	2428 Jun 27 05:47	0°00'		evening max el	2431 Feb 07 01:50	4°05'03"	46°55'20"
	2428 Jul 22 15:18	0°00'			2431 Mar 08 00:10	0°00'	
asc. node	2428 Aug 14 07:02	27°03'29"		greatest brilliancy	2431 Mar 15 16:10	4°02'05"	-4.6m
	2428 Aug 16 14:00	0°00'		retrograde	2431 Mar 29 15:09	7°05'00"	
	2428 Sep 10 03:23	0°00'		evening set	2431 Apr 15 12:50	2°02'49"	
	2428 Oct 04 09:17	0°00'			2431 Apr 19 10:09	30°00'00"	
morning set	2428 Oct 11 20:14	9°01'09"		inferior conj	2431 Apr 19 20:08	29°04'16"	6°43'47"
	2428 Oct 28 10:10	0°00'		minimum elong	2431 Apr 20 05:58	29°02'46"	6°41'53"
max. Earth dist.	2428 Nov 17 11:57	25°00'04"	1.71393 AU	min. Earth dist.	2431 Apr 19 18:14	29°04'15"	0.28331 AU
				morning rise	2431 Apr 24 23:20	26°03'54"	
superior conj	2428 Nov 19 11:59	27°04'08"	0°33'30"	direct	2431 May 10 23:09	21°03'21"	

desc. node	2431 May 21 15:29	23° Υ 41'01		2433 Nov 06 06:15	0° \mathcal{X}	
greatest brilliancy	2431 May 22 22:38	24° Υ 11'07	-4.5m	2433 Nov 30 07:59	0° \mathcal{Z}	
	2431 Jun 02 18:15	0° \mathcal{B}		2433 Dec 24 10:43	0° \approx	
morning max el	2431 Jun 28 20:12	21° \mathcal{B} 36'12	45°46'13	2434 Jan 17 16:51	0° \mathcal{H}	
	2431 Jul 07 09:20	0° Π		2434 Feb 11 07:18	0° Υ	
	2431 Aug 04 13:23	0° \mathcal{E}		asc. node	2434 Feb 26 13:55	18° Υ 14'27
	2431 Aug 30 20:27	0° \mathcal{Q}			2434 Mar 08 15:05	0° \mathcal{B}
asc. node	2431 Sep 11 18:54	14° \mathcal{Q} 02'58			2434 Apr 04 11:06	0° Π
	2431 Sep 25 03:03	0° \mathcal{M}		evening max el	2434 Apr 19 08:06	15° Π 15'28 45°50'07
	2431 Oct 19 17:44	0° \mathcal{L}			2434 May 05 15:29	0° \mathcal{E}
	2431 Nov 12 22:26	0° \mathcal{M}		greatest brilliancy	2434 May 23 15:57	12° \mathcal{E} 01'31 -4.5m
	2431 Dec 06 21:42	0° \mathcal{X}		retrograde	2434 Jun 07 09:03	15° \mathcal{E} 47'57
morning set	2431 Dec 25 15:57	23° \mathcal{X} 34'15		desc. node	2434 Jun 18 03:20	13° \mathcal{E} 29'54
	2431 Dec 30 18:37	0° \mathcal{Z}		evening set	2434 Jun 22 10:28	11° \mathcal{E} 23'53
desc. node	2432 Jan 01 08:22	1° \mathcal{Z} 58'42		inferior conj	2434 Jun 28 19:58	7° \mathcal{E} 33'13 -2°-29'-31
	2432 Jan 23 15:00	0° \approx		minimum elong	2434 Jun 28 14:39	7° \mathcal{E} 41'33 2°28'01
				min. Earth dist.	2434 Jun 28 15:52	7° \mathcal{E} 39'39 0.28954 AU
superior conj	2432 Feb 05 09:21	16° \approx 02'46	-1°-11'-25	morning rise	2434 Jul 04 19:05	3° \mathcal{E} 57'30
minimum elong	2432 Feb 04 22:07	15° \approx 27'30	1°11'07		2434 Jul 14 10:16	30° \mathcal{R} Π
max. Earth dist.	2432 Feb 07 22:15	19° \approx 14'01	1.71285 AU	direct	2434 Jul 20 11:16	29° Π 16'52
	2432 Feb 16 12:08	0° \mathcal{H}			2434 Jul 26 16:27	0° \mathcal{E}
	2432 Mar 11 11:30	0° Υ		greatest brilliancy	2434 Aug 02 23:45	2° \mathcal{E} 28'55 -4.5m
evening rise	2432 Mar 17 02:28	7° Υ 00'41		morning max el	2434 Sep 07 09:48	29° \mathcal{E} 18'20 45°53'29
	2432 Apr 04 14:42	0° \mathcal{B}			2434 Sep 08 03:04	0° \mathcal{Q}
asc. node	2432 Apr 23 11:50	23° \mathcal{B} 16'55			2434 Oct 06 16:26	0° \mathcal{M}
	2432 Apr 28 23:14	0° Π		asc. node	2434 Oct 09 06:53	2° \mathcal{M} 54'40
	2432 May 23 14:21	0° \mathcal{E}			2434 Nov 01 17:08	0° \mathcal{L}
	2432 Jun 17 13:53	0° \mathcal{Q}			2434 Nov 26 14:47	0° \mathcal{M}
	2432 Jul 13 01:49	0° \mathcal{M}			2434 Dec 20 23:05	0° \mathcal{X}
	2432 Aug 08 10:55	0° \mathcal{L}			2435 Jan 14 01:14	0° \mathcal{Z}
desc. node	2432 Aug 13 00:59	5° \mathcal{L} 03'29		desc. node	2435 Jan 28 20:12	18° \mathcal{Z} 29'01
	2432 Sep 05 16:38	0° \mathcal{M}			2435 Feb 07 01:12	0° \approx
evening max el	2432 Sep 11 15:11	5° \mathcal{M} 50'39	46°12'43		2435 Mar 03 01:07	0° \mathcal{H}
	2432 Oct 11 04:50	0° \mathcal{X}		morning set	2435 Mar 12 17:55	12° \mathcal{H} 06'34
greatest brilliancy	2432 Oct 20 08:10	4° \mathcal{X} 30'40	-4.6m		2435 Mar 27 02:27	0° Υ
retrograde	2432 Oct 31 02:25	6° \mathcal{X} 37'31			2435 Apr 20 06:14	0° \mathcal{B}
evening set	2432 Nov 15 03:10	2° \mathcal{X} 13'24				
	2432 Nov 18 23:45	30° \mathcal{R} \mathcal{M}		superior conj	2435 Apr 20 23:36	0° \mathcal{B} 53'46 -1°-5'-17
inferior conj	2432 Nov 20 17:25	28° \mathcal{M} 56'58	-3°-23'-1	minimum elong	2435 Apr 21 09:46	1° \mathcal{B} 25'15 1°04'58
minimum elong	2432 Nov 21 00:43	28° \mathcal{M} 45'53	3°20'51	max. Earth dist.	2435 Apr 24 11:10	5° \mathcal{B} 12'26 1.72735 AU
min. Earth dist.	2432 Nov 21 07:53	28° \mathcal{M} 35'00	0.26778 AU		2435 May 14 12:59	0° Π
morning rise	2432 Nov 26 21:45	25° \mathcal{M} 20'53		asc. node	2435 May 21 23:38	9° Π 09'55
asc. node	2432 Dec 04 04:18	22° \mathcal{M} 15'48		evening rise	2435 May 28 23:50	17° Π 47'03
direct	2432 Dec 11 08:32	21° \mathcal{M} 11'47			2435 Jun 07 22:38	0° \mathcal{E}
greatest brilliancy	2432 Dec 24 11:49	24° \mathcal{M} 24'30	-4.7m		2435 Jul 02 11:00	0° \mathcal{Q}
	2433 Jan 03 03:22	0° \mathcal{X}			2435 Jul 27 02:36	0° \mathcal{M}
morning max el	2433 Jan 31 02:12	24° \mathcal{X} 35'18	46°57'18		2435 Aug 20 23:01	0° \mathcal{L}
	2433 Feb 05 08:18	0° \mathcal{Z}		desc. node	2435 Sep 10 13:00	24° \mathcal{L} 34'45
	2433 Mar 04 14:20	0° \approx			2435 Sep 15 02:51	0° \mathcal{M}
desc. node	2433 Mar 25 18:00	24° \approx 32'46			2435 Oct 10 18:34	0° \mathcal{X}
	2433 Mar 30 09:09	0° \mathcal{H}			2435 Nov 06 09:11	0° \mathcal{Z}
	2433 Apr 24 14:08	0° Υ		evening max el	2435 Nov 24 18:48	19° \mathcal{Z} 25'20 47°12'04
	2433 May 19 12:56	0° \mathcal{B}			2435 Dec 05 16:53	0° \approx
	2433 Jun 13 08:21	0° Π		asc. node	2436 Jan 01 16:14	19° \approx 40'23
	2433 Jul 08 00:37	0° \mathcal{E}		greatest brilliancy	2436 Jan 02 06:26	19° \approx 56'08 -4.7m
asc. node	2433 Jul 16 21:12	10° \mathcal{E} 48'52		retrograde	2436 Jan 14 12:46	22° \approx 44'57
morning set	2433 Aug 01 10:32	29° \mathcal{E} 52'20		evening set	2436 Jan 30 12:48	17° \approx 41'20
	2433 Aug 01 13:02	0° \mathcal{Q}		min. Earth dist.	2436 Feb 03 08:30	15° \approx 23'03 0.26924 AU
	2433 Aug 25 21:14	0° \mathcal{M}		inferior conj	2436 Feb 04 04:38	14° \approx 51'51 7°22'45
max. Earth dist.	2433 Sep 03 17:19	10° \mathcal{M} 56'14	1.72810 AU	minimum elong	2436 Feb 03 18:45	15° \approx 07'11 7°20'59
				morning rise	2436 Feb 08 01:02	12° \approx 31'29
superior conj	2433 Sep 06 21:14	14° \mathcal{M} 51'32	1°24'25	direct	2436 Feb 24 16:16	7° \approx 09'19
minimum elong	2433 Sep 06 19:17	14° \mathcal{M} 45'27	1°24'25	greatest brilliancy	2436 Mar 06 08:43	9° \approx 16'59 -4.6m
	2433 Sep 19 01:55	0° \mathcal{L}			2436 Apr 05 03:04	0° \mathcal{H}
	2433 Oct 13 04:30	0° \mathcal{M}		morning max el	2436 Apr 14 09:52	8° \mathcal{H} 47'57 46°23'45
evening rise	2433 Oct 14 04:54	1° \mathcal{M} 15'59		desc. node	2436 Apr 22 05:48	16° \mathcal{H} 40'25
desc. node	2433 Nov 05 10:51	28° \mathcal{M} 59'34			2436 May 04 21:13	0° Υ

	2436 May 31 20:01	0°♄			2439 Feb 02 03:39	0°♅	
	2436 Jun 26 18:16	0°♅		evening max el	2439 Feb 04 16:45	2°♅36'17	46°57'20
	2436 Jul 22 02:55	0°♆			2439 Mar 09 07:32	0°♄	
asc. node	2436 Aug 13 09:05	26°♆45'54		greatest brilliancy	2439 Mar 13 07:45	2°♄07'21	-4.6m
	2436 Aug 16 01:07	0°♄		retrograde	2439 Mar 27 07:15	5°♄41'56	
	2436 Sep 09 14:14	0°♅		evening set	2439 Apr 13 07:08	0°♄04'07	
	2436 Oct 03 20:01	0°♅			2439 Apr 13 09:54	30°♅	
morning set	2436 Oct 09 11:28	7°♅01'37		inferior conj	2439 Apr 17 11:25	27°♅29'13	6°57'13
	2436 Oct 27 20:53	0°♅		minimum elong	2439 Apr 17 21:08	27°♅13'57	6°55'26
max. Earth dist.	2436 Nov 14 21:16	22°♅34'58	1.71434 AU	min. Earth dist.	2439 Apr 17 08:55	27°♅33'10	0.28300 AU
				morning rise	2439 Apr 22 11:23	24°♅25'54	
superior conj	2436 Nov 17 00:12	25°♅14'47	0°36'57	direct	2439 May 08 14:01	19°♅22'46	
minimum elong	2436 Nov 17 08:34	25°♅41'02	0°36'34	greatest brilliancy	2439 May 20 12:06	21°♅55'47	-4.5m
	2436 Nov 20 19:06	0°♄		desc. node	2439 May 20 17:23	22°♅01'09	
desc. node	2436 Dec 02 22:36	15°♄15'03			2439 Jun 03 15:30	0°♄	
	2436 Dec 14 16:18	0°♄		morning max el	2439 Jun 26 12:35	19°♄27'05	45°46'56
evening rise	2436 Dec 27 20:34	16°♄33'19			2439 Jul 07 04:36	0°♅	
	2437 Jan 07 13:30	0°♅			2439 Aug 04 03:55	0°♆	
	2437 Jan 31 12:00	0°♆			2439 Aug 30 09:07	0°♄	
	2437 Feb 24 14:02	0°♅		asc. node	2439 Sep 10 21:02	13°♄33'12	
	2437 Mar 20 22:48	0°♄			2439 Sep 24 14:48	0°♅	
asc. node	2437 Mar 26 01:58	6°♄15'18			2439 Oct 19 05:03	0°♅	
	2437 Apr 14 18:31	0°♅			2439 Nov 12 09:32	0°♅	
	2437 May 10 07:31	0°♆			2439 Dec 06 08:43	0°♄	
	2437 Jun 06 03:18	0°♄		morning set	2439 Dec 23 02:29	21°♄02'04	
evening max el	2437 Jun 28 19:39	23°♄12'46	45°25'26		2439 Dec 30 05:34	0°♄	
	2437 Jul 06 03:13	0°♅		desc. node	2439 Dec 31 10:25	1°♄30'45	
desc. node	2437 Jul 15 15:15	8°♅02'29			2440 Jan 23 01:53	0°♅	
greatest brilliancy	2437 Aug 04 03:05	20°♅11'16	-4.5m				
retrograde	2437 Aug 16 10:30	22°♅52'12		superior conj	2440 Feb 02 19:15	13°♅28'56	-1°-9'-5
evening set	2437 Sep 03 09:02	16°♅54'23		minimum elong	2440 Feb 02 07:40	12°♅52'30	1°08'46
inferior conj	2437 Sep 06 19:07	14°♅48'59	-8°-36'-59	max. Earth dist.	2440 Feb 05 07:18	16°♅37'34	1.71256 AU
minimum elong	2437 Sep 06 16:40	14°♅52'47	8°36'55		2440 Feb 15 22:59	0°♆	
min. Earth dist.	2437 Sep 07 07:29	14°♅29'47	0.28638 AU		2440 Mar 10 22:21	0°♅	
morning rise	2437 Sep 10 00:04	12°♅50'35		evening rise	2440 Mar 14 14:09	4°♅33'44	
direct	2437 Sep 28 05:30	6°♅35'38			2440 Apr 04 01:38	0°♄	
greatest brilliancy	2437 Oct 12 18:58	10°♅20'39	-4.6m	asc. node	2440 Apr 22 13:48	22°♄49'10	
asc. node	2437 Nov 05 18:29	27°♅40'53			2440 Apr 28 10:18	0°♅	
	2437 Nov 08 07:21	0°♅			2440 May 23 01:43	0°♆	
morning max el	2437 Nov 17 10:13	8°♅50'00	46°35'53		2440 Jun 17 01:51	0°♄	
	2437 Dec 07 06:54	0°♅			2440 Jul 12 14:55	0°♅	
	2438 Jan 02 07:00	0°♄			2440 Aug 08 02:22	0°♅	
	2438 Jan 27 06:17	0°♄		desc. node	2440 Aug 12 03:08	4°♅25'33	
	2438 Feb 20 19:28	0°♅			2440 Sep 05 14:09	0°♅	
desc. node	2438 Feb 25 08:06	5°♅33'41		evening max el	2440 Sep 09 05:40	3°♅33'32	46°10'15
	2438 Mar 17 04:39	0°♆			2440 Oct 13 01:33	0°♄	
	2438 Apr 10 12:51	0°♅		greatest brilliancy	2440 Oct 17 20:27	2°♄05'57	-4.6m
	2438 May 04 21:37	0°♄		retrograde	2440 Oct 28 14:42	4°♄12'05	
morning set	2438 May 23 07:34	22°♄38'10			2440 Nov 12 06:53	30°♅	
	2438 May 29 07:25	0°♅		evening set	2440 Nov 12 18:13	29°♅44'40	
asc. node	2438 Jun 18 11:24	24°♅45'55		inferior conj	2440 Nov 18 05:56	26°♅31'14	-3°-44'-57
	2438 Jun 22 17:40	0°♆		minimum elong	2440 Nov 18 13:53	26°♅19'08	3°42'38
max. Earth dist.	2438 Jun 28 12:40	7°♆06'57	1.73578 AU	min. Earth dist.	2440 Nov 18 21:20	26°♅07'49	0.26828 AU
				morning rise	2440 Nov 24 09:05	22°♅56'30	
superior conj	2438 Jun 29 05:08	7°♆57'34	0°25'12	asc. node	2440 Dec 03 06:19	19°♅25'06	
minimum elong	2438 Jun 29 00:08	7°♆42'12	0°24'59	direct	2440 Dec 08 22:17	18°♅45'24	
	2438 Jul 17 03:27	0°♄		greatest brilliancy	2440 Dec 22 02:07	21°♅58'55	-4.7m
evening rise	2438 Aug 04 02:59	22°♄07'49			2441 Jan 04 02:15	0°♄	
	2438 Aug 10 12:24	0°♅		morning max el	2441 Jan 28 15:54	22°♄10'38	46°57'31
	2438 Sep 03 21:07	0°♅			2441 Feb 05 04:55	0°♄	
	2438 Sep 28 06:47	0°♅			2441 Mar 04 05:58	0°♅	
desc. node	2438 Oct 08 00:58	11°♅58'02		desc. node	2441 Mar 24 20:05	23°♅58'11	
	2438 Oct 22 18:29	0°♄			2441 Mar 29 22:40	0°♆	
	2438 Nov 16 09:28	0°♄			2441 Apr 24 02:30	0°♅	
	2438 Dec 11 06:57	0°♅			2441 May 19 00:36	0°♄	
	2439 Jan 05 20:09	0°♆			2441 Jun 12 19:32	0°♅	
asc. node	2439 Jan 29 04:05	25°♆50'36			2441 Jul 07 11:30	0°♆	

asc. node	2441 Jul 15 23:20	10°♄22'19		retrograde	2444 Jan 12 01:21	20°♊17'18	
morning set	2441 Jul 30 04:28	27°♄47'12		evening set	2444 Jan 27 21:52	15°♊19'50	
	2441 Jul 31 23:44	0°♂		min. Earth dist.	2444 Jan 31 22:04	12°♊55'26	0.26878 AU
	2441 Aug 25 07:53	0°♎		inferior conj	2444 Feb 01 17:34	12°♊25'16	7°09'04
max. Earth dist.	2441 Sep 01 09:39	8°♎45'12	1.72854 AU	minimum elong	2444 Feb 01 07:22	12°♊41'04	7°07'07
superior conj	2441 Sep 04 14:49	12°♎44'13	1°24'00	morning rise	2444 Feb 05 17:09	10°♊00'18	
	2441 Sep 04 12:10	12°♎36'01	1°23'59	direct	2444 Feb 22 04:14	4°♊43'09	
	2441 Sep 18 12:38	0°♊		greatest brilliancy	2444 Mar 03 23:23	6°♊53'08	-4.6m
evening rise	2441 Oct 11 19:44	28°♊58'50			2444 Apr 05 06:29	0°♋	
	2441 Oct 12 15:22	0°♌		morning max el	2444 Apr 11 22:29	6°♋23'39	46°25'24
	2441 Oct 12 15:22	0°♌		desc. node	2444 Apr 21 07:44	15°♋52'52	
desc. node	2441 Nov 04 12:49	28°♌31'10			2444 May 04 14:41	0°♍	
	2441 Nov 05 17:20	0°♌			2444 May 31 10:16	0°♍	
	2441 Nov 29 19:20	0°♍			2444 Jun 26 06:57	0°♎	
	2441 Dec 23 22:24	0°♎			2444 Jul 21 14:45	0°♎	
	2442 Jan 17 05:00	0°♋		asc. node	2444 Aug 12 11:09	26°♎17'34	
	2442 Feb 10 20:11	0°♍			2444 Aug 15 12:29	0°♏	
asc. node	2442 Feb 25 16:00	17°♍40'33			2444 Sep 09 01:22	0°♎	
evening max el	2442 Mar 08 05:24	0°♌			2444 Oct 03 07:02	0°♊	
	2442 Apr 04 04:59	0°♎		morning set	2444 Oct 07 02:57	4°♊46'01	
	2442 Apr 16 23:39	13°♎02'38	45°52'00		2444 Oct 27 07:52	0°♌	
	2442 May 06 00:57	0°♄		max. Earth dist.	2444 Nov 12 09:17	20°♌07'28	1.71470 AU
greatest brilliancy	2442 May 21 09:06	9°♄53'19	-4.5m				
retrograde	2442 Jun 05 00:57	13°♄38'55		superior conj	2444 Nov 14 12:52	22°♌49'16	0°40'17
desc. node	2442 Jun 17 05:26	10°♄43'37		minimum elong	2444 Nov 14 21:44	23°♌17'08	0°39'53
evening set	2442 Jun 20 02:30	9°♄15'39			2444 Nov 20 06:09	0°♌	
inferior conj	2442 Jun 26 12:21	5°♄24'20	-2°-10'-23	desc. node	2444 Dec 02 00:42	14°♌46'54	
minimum elong	2442 Jun 26 07:41	5°♄31'41	2°09'04		2444 Dec 14 03:25	0°♍	
min. Earth dist.	2442 Jun 26 08:35	5°♄30'15	0.28938 AU	evening rise	2444 Dec 25 07:23	14°♍01'34	
morning rise	2442 Jul 02 13:03	1°♄45'59			2445 Jan 07 00:42	0°♎	
	2442 Jul 06 00:09	30°♌♎			2445 Jan 30 23:20	0°♋	
direct	2442 Jul 18 03:24	27°♎08'14			2445 Feb 24 01:33	0°♍	
	2442 Jul 30 21:37	0°♄			2445 Mar 20 10:40	0°♌	
greatest brilliancy	2442 Jul 31 13:57	0°♄17'41	-4.5m	asc. node	2445 Mar 25 03:53	5°♌44'42	
morning max el	2442 Sep 05 00:17	27°♄04'22	45°52'31		2445 Apr 14 07:04	0°♎	
	2442 Sep 08 00:28	0°♏			2445 May 09 21:23	0°♄	
	2442 Oct 06 07:47	0°♎			2445 Jun 05 20:11	0°♏	
asc. node	2442 Oct 08 08:48	2°♎17'38		evening max el	2445 Jun 26 10:35	20°♏59'31	45°25'12
	2442 Nov 01 06:23	0°♊			2445 Jul 06 06:25	0°♎	
	2442 Nov 26 03:05	0°♌		desc. node	2445 Jul 14 17:23	6°♎58'09	
	2442 Dec 20 10:52	0°♌		greatest brilliancy	2445 Aug 01 13:57	17°♎54'07	-4.5m
	2443 Jan 13 12:44	0°♍		retrograde	2445 Aug 14 02:00	20°♎39'37	
desc. node	2443 Jan 27 22:21	18°♍00'05		evening set	2445 Aug 31 22:08	14°♎44'04	
	2443 Feb 06 12:30	0°♎		inferior conj	2445 Sep 04 10:29	12°♎35'20	-8°-33'-42
	2443 Mar 02 12:16	0°♋		minimum elong	2445 Sep 04 07:15	12°♎40'20	8°33'35
morning set	2443 Mar 10 05:33	9°♋38'33		min. Earth dist.	2445 Sep 04 21:39	12°♎18'01	0.28684 AU
	2443 Mar 26 13:27	0°♍		morning rise	2445 Sep 07 16:10	10°♎35'58	
				direct	2445 Sep 25 21:30	4°♎21'18	
superior conj	2443 Apr 18 14:04	28°♍36'15	-1°-7'-32	greatest brilliancy	2445 Oct 10 11:52	8°♎07'41	-4.6m
minimum elong	2443 Apr 19 00:09	29°♍07'27	1°07'15	asc. node	2445 Nov 04 20:32	26°♎42'45	
	2443 Apr 19 17:07	0°♌			2445 Nov 08 09:08	0°♊	
max. Earth dist.	2443 Apr 22 04:51	3°♌04'59	1.72680 AU	morning max el	2445 Nov 15 02:02	6°♊33'26	46°34'32
	2443 May 13 23:49	0°♎			2445 Dec 06 23:56	0°♌	
asc. node	2443 May 21 01:37	8°♎42'39			2446 Jan 01 21:18	0°♌	
evening rise	2443 May 26 16:40	15°♎37'53			2446 Jan 26 19:18	0°♍	
	2443 Jun 07 09:32	0°♄			2446 Feb 20 07:43	0°♎	
	2443 Jul 01 22:07	0°♏		desc. node	2446 Feb 24 10:11	5°♎02'41	
	2443 Jul 26 14:06	0°♎			2446 Mar 16 16:25	0°♋	
	2443 Aug 20 11:06	0°♊			2446 Apr 10 00:15	0°♍	
desc. node	2443 Sep 09 15:03	24°♊02'46			2446 May 04 08:47	0°♌	
	2443 Sep 14 15:55	0°♌		morning set	2446 May 21 00:33	20°♌28'57	
	2443 Oct 10 09:19	0°♌			2446 May 28 18:24	0°♎	
	2443 Nov 06 03:27	0°♍		asc. node	2446 Jun 17 13:34	24°♎19'05	
evening max el	2443 Nov 22 07:32	16°♍58'13	47°10'51		2446 Jun 22 04:34	0°♄	
	2443 Dec 05 22:37	0°♎					
greatest brilliancy	2443 Dec 30 21:37	17°♎30'42	-4.7m	superior conj	2446 Jun 26 23:06	5°♄51'54	0°22'09
asc. node	2443 Dec 31 18:17	17°♎52'25		minimum elong	2446 Jun 26 18:39	5°♄38'14	0°21'56

max. Earth dist.	2446 Jun 26 11:18	5°☿15'36	1.73577 AU	direct	2448 Dec 06 11:44	16°♌18'53	
	2446 Jul 16 14:20	0°♌		greatest brilliancy	2448 Dec 19 16:55	19°♌33'29	-4.7m
evening rise	2446 Aug 01 21:40	20°♌03'54			2449 Jan 04 19:31	0°♌	
	2446 Aug 09 23:23	0°♍		morning max el	2449 Jan 26 04:49	19°♌43'05	46°57'40
	2446 Sep 03 08:22	0°♎			2449 Feb 05 01:09	0°♏	
	2446 Sep 27 18:26	0°♐			2449 Mar 03 21:38	0°♑	
desc. node	2446 Oct 07 02:55	11°♐27'52		desc. node	2449 Mar 23 22:00	23°♑22'34	
	2446 Oct 22 06:39	0°♑			2449 Mar 29 12:19	0°♒	
	2446 Nov 15 22:21	0°♓			2449 Apr 23 15:01	0°♑	
	2446 Dec 10 20:54	0°♑			2449 May 18 12:24	0°♒	
	2447 Jan 05 12:08	0°♒			2449 Jun 12 06:51	0°♓	
asc. node	2447 Jan 28 06:10	25°♒03'12			2449 Jul 06 22:31	0°♓	
	2447 Feb 02 01:05	0°♑		asc. node	2449 Jul 15 01:21	9°♓54'57	
evening max el	2447 Feb 02 08:31	0°♑18'55	46°59'20	morning set	2449 Jul 27 22:31	25°♓41'53	
greatest brilliancy	2447 Mar 11 00:04	29°♑52'10	-4.6m		2449 Jul 31 10:37	0°♌	
	2447 Mar 11 06:41	0°♒			2449 Aug 24 18:45	0°♍	
retrograde	2447 Mar 24 23:39	3°♒26'23		max. Earth dist.	2449 Aug 30 01:45	6°♍32'48	1.72901 AU
	2447 Apr 06 23:54	30°♒♑					
evening set	2447 Apr 11 01:35	27°♑44'13		superior conj	2449 Sep 02 08:32	10°♍36'43	1°23'28
inferior conj	2447 Apr 15 02:52	25°♑13'43	7°09'56	minimum elong	2449 Sep 02 05:15	10°♍26'31	1°23'27
minimum elong	2447 Apr 15 12:23	24°♑58'47	7°08'17		2449 Sep 17 23:35	0°♎	
min. Earth dist.	2447 Apr 14 23:24	25°♑19'11	0.28269 AU	evening rise	2449 Oct 09 10:40	26°♎41'29	
morning rise	2447 Apr 19 23:29	22°♑15'32			2449 Oct 12 02:28	0°♐	
direct	2447 May 06 05:28	17°♑07'57		desc. node	2449 Nov 03 14:55	28°♐02'36	
greatest brilliancy	2447 May 18 00:49	19°♑38'57	-4.5m		2449 Nov 05 04:37	0°♑	
desc. node	2447 May 19 19:33	20°♑24'33			2449 Nov 29 06:53	0°♓	
	2447 Jun 04 07:37	0°♒			2449 Dec 23 10:18	0°♑	
morning max el	2447 Jun 24 05:03	17°♒17'11	45°47'28		2450 Jan 16 17:23	0°♒	
	2447 Jul 06 23:43	0°♓			2450 Feb 10 09:21	0°♑	
	2447 Aug 03 18:40	0°♓		asc. node	2450 Feb 24 17:57	17°♑05'23	
	2447 Aug 29 22:03	0°♌			2450 Mar 07 20:05	0°♒	
asc. node	2447 Sep 09 23:00	13°♌01'59			2450 Apr 03 23:28	0°♓	
	2447 Sep 24 02:51	0°♍		evening max el	2450 Apr 14 14:28	10°♓47'34	45°54'04
	2447 Oct 18 16:38	0°♎			2450 May 06 13:49	0°♓	
	2447 Nov 11 20:56	0°♐		greatest brilliancy	2450 May 19 01:43	7°♓44'25	-4.5m
	2447 Dec 05 20:01	0°♑		retrograde	2450 Jun 02 17:06	11°♓30'27	
morning set	2447 Dec 20 13:09	18°♑29'21		desc. node	2450 Jun 16 07:29	7°♓54'11	
	2447 Dec 29 16:49	0°♓		evening set	2450 Jun 17 18:52	7°♓07'27	
desc. node	2447 Dec 30 12:32	1°♓02'01		inferior conj	2450 Jun 24 04:58	3°♓15'56	-1°-51'-18
	2448 Jan 22 13:05	0°♑		minimum elong	2450 Jun 24 00:56	3°♓22'16	1°50'08
				min. Earth dist.	2450 Jun 24 01:39	3°♓21'09	0.28923 AU
superior conj	2448 Jan 31 05:17	10°♑54'25	-1°-6'-37		2450 Jun 29 13:35	30°♒♓	
minimum elong	2448 Jan 30 17:27	10°♑17'14	1°06'16	morning rise	2450 Jun 30 07:08	29°♓35'16	
max. Earth dist.	2448 Feb 02 16:55	14°♑01'49	1.71224 AU	direct	2450 Jul 15 19:20	25°♓00'00	
	2448 Feb 15 10:08	0°♒		greatest brilliancy	2450 Jul 29 05:19	28°♓08'07	-4.5m
	2448 Mar 10 09:29	0°♑			2450 Aug 02 00:56	0°♓	
evening rise	2448 Mar 12 01:58	2°♑06'16		morning max el	2450 Sep 02 14:57	24°♓50'46	45°51'29
	2448 Apr 03 12:47	0°♒			2450 Sep 07 21:11	0°♌	
asc. node	2448 Apr 21 15:50	22°♒20'55			2450 Oct 05 23:03	0°♍	
	2448 Apr 27 21:36	0°♓		asc. node	2450 Oct 07 10:52	1°♍40'58	
	2448 May 22 13:21	0°♓			2450 Oct 31 19:41	0°♎	
	2448 Jun 16 14:09	0°♌			2450 Nov 25 15:28	0°♐	
	2448 Jul 12 04:28	0°♍			2450 Dec 19 22:44	0°♑	
	2448 Aug 07 18:26	0°♎			2451 Jan 13 00:18	0°♓	
desc. node	2448 Aug 11 05:09	3°♎45'54		desc. node	2451 Jan 27 00:20	17°♓30'29	
	2448 Sep 05 12:53	0°♐			2451 Feb 05 23:52	0°♑	
evening max el	2448 Sep 06 19:36	1°♐14'17	46°07'49		2451 Mar 01 23:28	0°♒	
greatest brilliancy	2448 Oct 15 09:46	29°♐42'02	-4.6m	morning set	2451 Mar 07 16:56	7°♒09'26	
	2448 Oct 16 05:51	0°♑			2451 Mar 26 00:31	0°♑	
retrograde	2448 Oct 26 02:38	1°♑46'33					
	2448 Nov 04 13:12	30°♒♐		superior conj	2451 Apr 16 04:33	26°♑18'25	-1°-9'-42
evening set	2448 Nov 10 09:34	27°♐15'43		minimum elong	2451 Apr 16 14:28	26°♑49'11	1°09'25
inferior conj	2448 Nov 15 18:41	24°♐05'31	-4°-6'-6		2451 Apr 19 04:04	0°♒	
minimum elong	2448 Nov 16 03:12	23°♐52'31	4°03'42	max. Earth dist.	2451 Apr 19 19:58	0°♒49'16	1.72623 AU
min. Earth dist.	2448 Nov 16 11:11	23°♐40'20	0.26881 AU		2451 May 13 10:43	0°♓	
morning rise	2448 Nov 21 20:19	20°♐32'16		asc. node	2451 May 20 03:48	8°♓15'52	
asc. node	2448 Dec 02 08:28	16°♐39'54		evening rise	2451 May 24 09:34	13°♓28'48	

	2451 Jun 06 20:27	0°☿				2454 Feb 19 19:48	0°♊	
	2451 Jul 01 09:13	0°♈			desc. node	2454 Feb 23 12:10	4°♊31'56	
	2451 Jul 26 01:34	0°♍				2454 Mar 16 03:59	0°♋	
	2451 Aug 19 23:13	0°♌				2454 Apr 09 11:27	0°♎	
desc. node	2451 Sep 08 17:00	23°♌30'23				2454 May 03 19:43	0°♏	
	2451 Sep 14 05:04	0°♍			morning set	2454 May 18 17:15	18°♏19'33	
	2451 Oct 10 00:19	0°♎				2454 May 28 05:10	0°♐	
	2451 Nov 05 22:16	0°♏			asc. node	2454 Jun 16 15:33	23°♐52'24	
evening max el	2451 Nov 19 20:22	14°♏31'20	47°09'37			2454 Jun 21 15:14	0°☿	
	2451 Dec 06 06:43	0°♐						
greatest brilliancy	2451 Dec 28 11:54	15°♐03'49	-4.7m		superior conj	2454 Jun 24 16:55	3°☿46'24	0°19'03
asc. node	2451 Dec 30 20:21	15°♐59'45			minimum elong	2454 Jun 24 13:03	3°☿34'30	0°18'52
retrograde	2452 Jan 09 14:15	17°♐49'30			max. Earth dist.	2454 Jun 24 10:07	3°☿25'29	1.73572 AU
evening set	2452 Jan 25 06:56	12°♐57'38				2454 Jul 16 01:00	0°♈	
min. Earth dist.	2452 Jan 29 11:19	10°♐27'42	0.26834 AU		evening rise	2454 Jul 30 16:23	18°♈00'48	
inferior conj	2452 Jan 30 06:24	9°♐58'17	6°54'30			2454 Aug 09 10:09	0°♍	
minimum elong	2452 Jan 29 19:58	10°♐14'22	6°52'22			2454 Sep 02 19:21	0°♌	
morning rise	2452 Feb 03 09:16	7°♐28'51				2454 Sep 27 05:46	0°♍	
direct	2452 Feb 19 16:17	2°♐16'31			desc. node	2454 Oct 06 05:05	10°♍59'22	
greatest brilliancy	2452 Mar 01 13:48	4°♐28'56	-4.6m			2454 Oct 21 18:30	0°♎	
	2452 Apr 05 08:21	0°♋				2454 Nov 15 10:55	0°♏	
morning max el	2452 Apr 09 11:55	4°♋01'19	46°27'03			2454 Dec 10 10:39	0°♐	
desc. node	2452 Apr 20 09:54	15°♋06'43				2455 Jan 05 04:09	0°♋	
	2452 May 04 07:44	0°♎			asc. node	2455 Jan 27 08:07	24°♋15'01	
	2452 May 31 00:18	0°♏			evening max el	2455 Jan 31 00:20	28°♋01'48	47°01'01
	2452 Jun 25 19:31	0°♐				2455 Feb 01 23:12	0°♎	
	2452 Jul 21 02:28	0°☿			greatest brilliancy	2455 Mar 08 17:23	27°♎37'52	-4.6m
asc. node	2452 Aug 11 13:09	25°☿49'29				2455 Mar 14 20:47	0°♏	
	2452 Aug 14 23:42	0°♈			retrograde	2455 Mar 22 15:28	1°♏09'49	
	2452 Sep 08 12:19	0°♍				2455 Mar 30 03:24	30°♎♎	
	2452 Oct 02 17:53	0°♌			evening set	2455 Apr 08 19:43	25°♎23'41	
morning set	2452 Oct 04 18:44	2°♌31'55			inferior conj	2455 Apr 12 17:58	22°♎57'31	7°22'11
	2452 Oct 26 18:45	0°♍			minimum elong	2455 Apr 13 03:12	22°♎43'00	7°20'40
max. Earth dist.	2452 Nov 09 22:30	17°♍44'05	1.71513 AU		min. Earth dist.	2455 Apr 12 13:35	23°♎04'24	0.28234 AU
					morning rise	2455 Apr 17 11:02	20°♎04'30	
superior conj	2452 Nov 12 01:33	20°♍24'12	0°43'31		direct	2455 May 03 20:40	14°♎52'39	
minimum elong	2452 Nov 12 10:53	20°♍53'26	0°43'08		greatest brilliancy	2455 May 15 12:36	17°♎20'45	-4.5m
	2452 Nov 19 17:06	0°♎			desc. node	2455 May 18 21:37	18°♎51'01	
desc. node	2452 Dec 01 02:50	14°♎19'03				2455 Jun 04 19:32	0°♏	
	2452 Dec 13 14:29	0°♏			morning max el	2455 Jun 21 20:19	15°♏04'52	45°48'06
evening rise	2452 Dec 22 17:56	11°♏29'08				2455 Jul 06 18:05	0°♐	
	2453 Jan 06 11:53	0°♐				2455 Aug 03 08:58	0°☿	
	2453 Jan 30 10:37	0°♋				2455 Aug 29 10:37	0°♈	
	2453 Feb 23 13:01	0°♎			asc. node	2455 Sep 09 01:02	12°♈31'52	
	2453 Mar 19 22:30	0°♏				2455 Sep 23 14:33	0°♍	
asc. node	2453 Mar 24 05:58	5°♏14'54				2455 Oct 18 03:53	0°♌	
	2453 Apr 13 19:35	0°♐				2455 Nov 11 07:57	0°♍	
	2453 May 09 11:16	0°☿				2455 Dec 05 06:56	0°♎	
	2453 Jun 05 13:14	0°♈			morning set	2455 Dec 18 00:15	15°♎59'14	
evening max el	2453 Jun 24 02:31	18°♈49'15	45°25'07			2455 Dec 29 03:40	0°♏	
	2453 Jul 06 11:05	0°♍			desc. node	2455 Dec 29 14:30	0°♏34'05	
desc. node	2453 Jul 13 19:24	5°♍52'35				2456 Jan 21 23:55	0°♐	
greatest brilliancy	2453 Jul 30 01:43	15°♍39'04	-4.5m					
retrograde	2453 Aug 11 17:46	18°♍28'09			superior conj	2456 Jan 28 15:21	8°♐21'07	-1°-4'-1
evening set	2453 Aug 29 11:11	12°♍35'33			minimum elong	2456 Jan 28 03:22	7°♐43'29	1°03'37
inferior conj	2453 Sep 02 01:59	10°♍23'02	-8°-29'-45		max. Earth dist.	2456 Jan 31 00:46	11°♐21'34	1.71200 AU
minimum elong	2453 Sep 01 22:00	10°♍29'12	8°29'32			2456 Feb 14 20:59	0°♋	
min. Earth dist.	2453 Sep 02 11:39	10°♍08'01	0.28722 AU		evening rise	2456 Mar 09 13:20	29°♋38'06	
morning rise	2453 Sep 05 08:40	8°♍22'14				2456 Mar 09 20:21	0°♎	
direct	2453 Sep 23 13:58	2°♍08'40				2456 Apr 02 23:43	0°♏	
greatest brilliancy	2453 Oct 08 03:37	5°♍54'44	-4.6m		asc. node	2456 Apr 20 17:58	21°♏53'37	
asc. node	2453 Nov 03 22:41	25°♍47'09				2456 Apr 27 08:41	0°♐	
	2453 Nov 08 09:12	0°♌				2456 May 22 00:47	0°☿	
morning max el	2453 Nov 12 17:53	4°♌18'11	46°32'55			2456 Jun 16 02:15	0°♈	
	2453 Dec 06 16:22	0°♍				2456 Jul 11 17:51	0°♍	
	2454 Jan 01 11:16	0°♎				2456 Aug 07 10:29	0°♌	
	2454 Jan 26 08:05	0°♏			desc. node	2456 Aug 10 07:08	3°♌06'28	

evening max el	2456 Sep 04 08:41	28°♄53'56	46°05'30	morning set	2459 Mar 05 04:34	4°♋41'58	
	2456 Sep 05 12:16	0°♌			2459 Mar 25 11:15	0°♍	
greatest brilliancy	2456 Oct 12 23:51	27°♌20'18	-4.6m				
retrograde	2456 Oct 23 14:29	29°♌22'49		superior conj	2459 Apr 13 19:11	24°♍01'59	-1°-11'-43
evening set	2456 Nov 08 01:08	24°♌48'14		minimum elong	2459 Apr 14 04:53	24°♍32'03	1°11'28
inferior conj	2456 Nov 13 07:35	21°♌41'39	-4°-26'-41	max. Earth dist.	2459 Apr 17 10:36	28°♍32'57	1.72572 AU
minimum elong	2456 Nov 13 16:36	21°♌27'53	4°24'12		2459 Apr 18 14:42	0°♎	
min. Earth dist.	2456 Nov 14 01:25	21°♌14'25	0.26931 AU		2459 May 12 21:20	0°♏	
morning rise	2456 Nov 19 07:29	18°♌10'14		asc. node	2459 May 19 05:45	7°♏49'09	
asc. node	2456 Dec 01 10:24	14°♌02'19		evening rise	2459 May 22 02:27	11°♏20'24	
direct	2456 Dec 04 00:45	13°♌54'06			2459 Jun 06 07:11	0°♐	
greatest brilliancy	2456 Dec 17 08:26	17°♌10'42	-4.7m		2459 Jun 30 20:10	0°♑	
	2457 Jan 05 07:43	0°♒			2459 Jul 25 12:55	0°♓	
morning max el	2457 Jan 23 17:10	17°♒15'31	46°57'49		2459 Aug 19 11:13	0°♈	
	2457 Feb 04 20:14	0°♓		desc. node	2459 Sep 07 19:09	22°♈58'51	
	2457 Mar 03 12:37	0°♈			2459 Sep 13 18:11	0°♉	
desc. node	2457 Mar 23 00:09	22°♈48'59			2459 Oct 09 15:22	0°♊	
	2457 Mar 29 01:30	0°♋			2459 Nov 05 17:28	0°♌	
	2457 Apr 23 03:12	0°♍		evening max el	2459 Nov 17 09:49	12°♌06'33	47°08'23
	2457 May 17 23:55	0°♎			2459 Dec 06 17:30	0°♍	
	2457 Jun 11 17:55	0°♏		greatest brilliancy	2459 Dec 26 01:33	12°♍36'26	-4.7m
	2457 Jul 06 09:17	0°♐		asc. node	2459 Dec 29 22:22	14°♍02'42	
asc. node	2457 Jul 14 03:21	9°♐28'18		retrograde	2460 Jan 07 03:39	15°♍21'51	
morning set	2457 Jul 25 16:12	23°♐36'13		evening set	2460 Jan 22 16:01	10°♍35'15	
	2457 Jul 30 21:14	0°♑		min. Earth dist.	2460 Jan 27 00:12	8°♍00'17	0.26787 AU
	2457 Aug 24 05:21	0°♓		inferior conj	2460 Jan 27 19:04	7°♎31'17	6°39'00
max. Earth dist.	2457 Aug 27 19:31	4°♓26'28	1.72948 AU	minimum elong	2460 Jan 27 08:30	7°♎47'31	6°36'43
				morning rise	2460 Feb 01 01:18	4°♏57'29	
superior conj	2457 Aug 31 02:01	8°♓29'26	1°22'49		2460 Feb 14 08:17	30°♏♎	
minimum elong	2457 Aug 30 22:06	8°♓17'18	1°22'46	direct	2460 Feb 17 04:39	29°♎50'00	
	2457 Sep 17 10:16	0°♈			2460 Feb 20 02:03	0°♏	
evening rise	2457 Oct 07 01:40	24°♈25'11		greatest brilliancy	2460 Feb 28 03:11	2°♏03'58	-4.6m
	2457 Oct 11 13:17	0°♉			2460 Apr 05 08:37	0°♋	
desc. node	2457 Nov 02 16:59	27°♉34'47		morning max el	2460 Apr 07 02:05	1°♋41'31	46°28'49
	2457 Nov 04 15:39	0°♊		desc. node	2460 Apr 19 11:57	14°♋21'46	
	2457 Nov 28 18:09	0°♌			2460 May 04 00:09	0°♍	
	2457 Dec 22 21:52	0°♍			2460 May 30 13:57	0°♎	
	2458 Jan 16 05:25	0°♋			2460 Jun 25 07:48	0°♏	
	2458 Feb 09 22:11	0°♍			2460 Jul 20 14:01	0°♐	
asc. node	2458 Feb 23 20:03	16°♍31'40		asc. node	2460 Aug 10 15:14	25°♐21'55	
	2458 Mar 07 10:32	0°♎			2460 Aug 14 10:51	0°♑	
	2458 Apr 03 18:04	0°♏			2460 Sep 07 23:13	0°♓	
evening max el	2458 Apr 12 04:44	8°♏31'51	45°55'59	morning set	2460 Oct 02 10:22	0°♈17'38	
	2458 May 07 06:52	0°♐			2460 Oct 02 04:42	0°♈	
greatest brilliancy	2458 May 16 17:15	5°♐34'14	-4.5m		2460 Oct 26 05:34	0°♉	
retrograde	2458 May 31 09:23	9°♐22'01		max. Earth dist.	2460 Nov 07 10:53	15°♉18'21	1.71553 AU
evening set	2458 Jun 15 11:09	4°♐58'44					
desc. node	2458 Jun 15 09:28	5°♐01'02		superior conj	2460 Nov 09 14:10	17°♉59'08	0°46'41
inferior conj	2458 Jun 21 21:21	1°♐07'24	-1°-31'-48	minimum elong	2460 Nov 09 23:51	18°♉29'29	0°46'17
minimum elong	2458 Jun 21 18:01	1°♐12'39	1°30'50		2460 Nov 19 04:01	0°♊	
min. Earth dist.	2458 Jun 21 18:29	1°♐11'54	0.28912 AU	desc. node	2460 Nov 30 04:45	13°♊50'39	
	2458 Jun 23 16:25	30°♊♏			2460 Dec 13 01:31	0°♌	
morning rise	2458 Jun 28 00:56	27°♊24'44		evening rise	2460 Dec 20 04:24	8°♌56'34	
direct	2458 Jul 13 10:54	22°♊51'27			2461 Jan 05 23:01	0°♍	
greatest brilliancy	2458 Jul 26 21:30	25°♊59'44	-4.5m		2461 Jan 29 21:52	0°♋	
	2458 Aug 03 10:35	0°♎			2461 Feb 23 00:27	0°♍	
morning max el	2458 Aug 31 06:05	22°♎38'52	45°50'35		2461 Mar 19 10:17	0°♎	
	2458 Sep 07 17:03	0°♏		asc. node	2461 Mar 23 08:06	4°♎45'20	
	2458 Oct 05 13:53	0°♓			2461 Apr 13 08:02	0°♏	
asc. node	2458 Oct 06 13:02	1°♓05'31			2461 May 09 01:07	0°♐	
	2458 Oct 31 08:40	0°♈			2461 Jun 05 06:30	0°♑	
	2458 Nov 25 03:32	0°♉		evening max el	2461 Jun 21 18:48	16°♑40'06	45°24'52
	2458 Dec 19 10:20	0°♊			2461 Jul 06 17:46	0°♓	
	2459 Jan 12 11:35	0°♌		desc. node	2461 Jul 12 21:24	4°♓45'20	
desc. node	2459 Jan 26 02:21	17°♌01'56		greatest brilliancy	2461 Jul 27 14:32	13°♓25'20	-4.5m
	2459 Feb 05 10:55	0°♍		retrograde	2461 Aug 09 09:15	16°♓16'34	
	2459 Mar 01 10:21	0°♋		evening set	2461 Aug 27 00:06	10°♓27'32	

inferior conj	2461 Aug 30 17:32	8° \cap 10'45	-8°-25'-3	superior conj	2464 Jan 26 01:08	5° \approx 45'57	-1°-1'-15
minimum elong	2461 Aug 30 12:51	8° \cap 18'02	8°24'44	minimum elong	2464 Jan 25 13:06	5° \approx 08'10	1°00'50
min. Earth dist.	2461 Aug 31 01:54	7° \cap 57'45	0.28761 AU	max. Earth dist.	2464 Jan 28 05:13	8° \approx 29'40	1.71173 AU
morning rise	2461 Sep 03 01:28	6° \cap 07'55			2464 Feb 14 08:08	0° \times	
	2461 Sep 19 11:24	30° \mathbb{R} Ω		evening rise	2464 Mar 07 00:28	27° \times 08'12	
direct	2461 Sep 21 06:31	29° Ω 56'09			2464 Mar 09 07:31	0° Υ	
	2461 Sep 23 01:59	0° \cap			2464 Apr 02 10:57	0° \mathcal{B}	
greatest brilliancy	2461 Oct 05 18:25	3° \cap 40'17	-4.6m	asc. node	2464 Apr 19 19:56	21° \mathcal{B} 24'54	
asc. node	2461 Nov 03 00:38	24° \cap 51'46			2464 Apr 26 20:05	0° Π	
	2461 Nov 08 08:24	0° $\underline{\Delta}$			2464 May 21 12:30	0° \mathcal{E}	
morning max el	2461 Nov 10 09:13	2° $\underline{\Delta}$ 01'25	46°31'16		2464 Jun 15 14:39	0° Ω	
	2461 Dec 06 08:38	0° \mathbb{M}			2464 Jul 11 07:34	0° \cap	
	2462 Jan 01 01:12	0° \mathcal{A}			2464 Aug 07 03:00	0° $\underline{\Delta}$	
	2462 Jan 25 20:52	0° \mathcal{Z}		desc. node	2464 Aug 09 09:18	2° $\underline{\Delta}$ 26'37	
	2462 Feb 19 07:53	0° \approx		evening max el	2464 Sep 01 21:02	26° $\underline{\Delta}$ 31'30	46°03'08
desc. node	2462 Feb 22 14:16	4° \approx 01'22			2464 Sep 05 12:58	0° \mathbb{M}	
	2462 Mar 15 15:35	0° \times		greatest brilliancy	2464 Oct 10 13:11	24° \mathbb{M} 57'11	-4.6m
	2462 Apr 08 22:42	0° Υ		retrograde	2464 Oct 21 02:21	26° \mathbb{M} 58'42	
	2462 May 03 06:42	0° \mathcal{B}		evening set	2464 Nov 05 16:46	22° \mathbb{M} 19'39	
morning set	2462 May 16 10:17	16° \mathcal{B} 10'58		inferior conj	2464 Nov 10 20:32	19° \mathbb{M} 16'59	-4°-46'-38
	2462 May 27 15:58	0° Π		minimum elong	2464 Nov 11 05:59	19° \mathbb{M} 02'33	4°44'06
asc. node	2462 Jun 15 17:34	23° Π 25'45		min. Earth dist.	2464 Nov 11 15:44	18° \mathbb{M} 47'40	0.26994 AU
	2462 Jun 21 01:55	0° \mathcal{E}		morning rise	2464 Nov 16 18:31	15° \mathbb{M} 47'50	
				asc. node	2464 Nov 30 12:28	11° \mathbb{M} 29'23	
superior conj	2462 Jun 22 11:05	1° \mathcal{E} 41'52	0°15'57	direct	2464 Dec 01 13:42	11° \mathbb{M} 28'02	
minimum elong	2462 Jun 22 07:48	1° \mathcal{E} 31'48	0°15'48	greatest brilliancy	2464 Dec 15 01:07	14° \mathbb{M} 48'13	-4.7m
behind sun begin	2462 Jun 22 06:23	1° \mathcal{E} 27'26			2465 Jan 05 17:24	0° \mathcal{A}	
behind sun end	2462 Jun 22 09:14	1° \mathcal{E} 36'11		morning max el	2465 Jan 21 06:16	14° \mathcal{A} 48'13	46°57'57
max. Earth dist.	2462 Jun 22 09:28	1° \mathcal{E} 36'53	1.73562 AU		2465 Feb 04 15:23	0° \mathcal{Z}	
	2462 Jul 15 11:42	0° Ω			2465 Mar 03 03:54	0° \approx	
evening rise	2462 Jul 28 11:23	15° Ω 58'25		desc. node	2465 Mar 22 02:13	22° \approx 14'02	
	2462 Aug 08 21:00	0° \cap			2465 Mar 28 15:00	0° \times	
	2462 Sep 02 06:29	0° $\underline{\Delta}$			2465 Apr 22 15:41	0° Υ	
	2462 Sep 26 17:19	0° \mathbb{M}			2465 May 17 11:44	0° \mathcal{B}	
desc. node	2462 Oct 05 07:05	10° \mathbb{M} 29'37			2465 Jun 11 05:17	0° Π	
	2462 Oct 21 06:37	0° \mathcal{A}			2465 Jul 05 20:22	0° \mathcal{E}	
	2462 Nov 14 23:49	0° \mathcal{Z}		asc. node	2465 Jul 13 05:28	9° \mathcal{E} 01'06	
	2462 Dec 10 00:47	0° \approx		morning set	2465 Jul 23 10:11	21° \mathcal{E} 30'35	
	2463 Jan 04 20:41	0° \times			2465 Jul 30 08:09	0° Ω	
asc. node	2463 Jan 26 10:15	23° \times 25'50			2465 Aug 23 16:13	0° \cap	
evening max el	2463 Jan 28 15:31	25° \times 42'17	47°02'39	max. Earth dist.	2465 Aug 25 15:41	2° \cap 26'45	1.72990 AU
	2463 Feb 01 22:30	0° Υ					
greatest brilliancy	2463 Mar 06 11:36	25° Υ 23'57	-4.6m	superior conj	2465 Aug 28 19:58	6° \cap 22'44	1°22'03
retrograde	2463 Mar 20 06:52	28° Υ 52'28		minimum elong	2465 Aug 28 15:26	6° \cap 08'43	1°21'59
evening set	2463 Apr 06 13:51	23° Υ 02'36			2465 Sep 16 21:12	0° $\underline{\Delta}$	
inferior conj	2463 Apr 10 09:05	20° Υ 40'44	7°33'49	evening rise	2465 Oct 04 17:16	22° $\underline{\Delta}$ 10'07	
minimum elong	2463 Apr 10 17:59	20° Υ 26'42	7°32'27		2465 Oct 11 00:23	0° \mathbb{M}	
min. Earth dist.	2463 Apr 10 04:05	20° Υ 48'37	0.28194 AU	desc. node	2465 Nov 01 18:57	27° \mathbb{M} 05'42	
morning rise	2463 Apr 14 22:28	17° Υ 52'53			2465 Nov 04 02:59	0° \mathcal{A}	
direct	2463 May 01 11:34	12° Υ 36'48			2465 Nov 28 05:48	0° \mathcal{Z}	
greatest brilliancy	2463 May 13 00:34	15° Υ 02'02	-4.5m		2465 Dec 22 09:55	0° \approx	
desc. node	2463 May 17 23:33	17° Υ 19'57			2466 Jan 15 17:59	0° \times	
	2463 Jun 05 04:33	0° \mathcal{B}			2466 Feb 09 11:35	0° Υ	
morning max el	2463 Jun 19 10:51	12° \mathcal{B} 50'10	45°48'57	asc. node	2466 Feb 22 22:08	15° Υ 56'08	
	2463 Jul 06 12:07	0° Π			2466 Mar 07 01:39	0° \mathcal{B}	
	2463 Aug 02 23:13	0° \mathcal{E}			2466 Apr 03 13:44	0° Π	
	2463 Aug 28 23:15	0° Ω		evening max el	2466 Apr 09 19:25	6° Π 15'52	45°58'13
asc. node	2463 Sep 08 03:11	12° Ω 01'46			2466 May 08 06:51	0° \mathcal{E}	
	2463 Sep 23 02:23	0° \cap		greatest brilliancy	2466 May 14 08:08	3° \mathcal{E} 22'08	-4.5m
	2463 Oct 17 15:22	0° $\underline{\Delta}$		retrograde	2466 May 29 02:08	7° \mathcal{E} 12'33	
	2463 Nov 10 19:16	0° \mathbb{M}		evening set	2466 Jun 13 03:37	2° \mathcal{E} 48'40	
	2463 Dec 04 18:10	0° \mathcal{A}		desc. node	2466 Jun 14 11:33	2° \mathcal{E} 03'51	
morning set	2463 Dec 15 11:07	13° \mathcal{A} 27'15			2466 Jun 17 21:52	30° \mathbb{R} Π	
desc. node	2463 Dec 28 16:35	0° \mathcal{Z} 05'23		inferior conj	2466 Jun 19 13:44	28° Π 57'42	-1°-12'-6
	2463 Dec 28 14:52	0° \mathcal{Z}		minimum elong	2466 Jun 19 11:06	29° Π 01'50	1°11'21
	2464 Jan 21 11:05	0° \approx		min. Earth dist.	2466 Jun 19 11:04	29° Π 01'53	0.28897 AU
				morning rise	2466 Jun 25 18:38	25° Π 13'26	

direct	2466 Jul 11 02:41	20°II41'44		2469 Jan 05 10:14	0°≈	
greatest brilliancy	2466 Jul 24 13:50	23°II50'39	-4.5m	2469 Jan 29 09:14	0°✕	
	2466 Aug 04 11:04	0°☿		2469 Feb 22 12:03	0°Υ	
morning max el	2466 Aug 28 22:19	20°☿28'54	45°49'52	2469 Mar 18 22:18	0°♄	
	2466 Sep 07 12:39	0°♁		2469 Mar 22 10:00	4°♄14'23	
	2466 Oct 05 04:46	0°♊		2469 Apr 12 20:49	0°II	
asc. node	2466 Oct 05 14:55	0°♊28'49		2469 May 08 15:26	0°☿	
	2466 Oct 30 21:46	0°♌		2469 Jun 05 00:29	0°♁	
	2466 Nov 24 15:48	0°♍		2469 Jun 19 10:46	14°♁29'18	45°24'48
	2466 Dec 18 22:09	0°♎		2469 Jul 07 03:26	0°♊	
	2467 Jan 11 23:11	0°☿		2469 Jul 11 23:31	3°♊35'40	
desc. node	2467 Jan 25 04:28	16°☿32'34		2469 Jul 25 04:15	11°♊12'03	-4.5m
	2467 Feb 04 22:22	0°≈		2469 Aug 07 00:17	14°♊04'29	
	2467 Feb 28 21:39	0°✕		2469 Aug 24 12:51	8°♊19'32	
morning set	2467 Mar 02 15:32	2°✕10'57		2469 Aug 28 09:07	5°♊58'15	-8°-19'-37
	2467 Mar 24 22:24	0°Υ		2469 Aug 28 03:45	6°♊06'37	8°19'13
				2469 Aug 28 16:31	5°♊46'44	0.28793 AU
superior conj	2467 Apr 11 09:07	21°Υ41'57	-1°-13'-39	2469 Aug 31 18:31	3°♊52'56	
minimum elong	2467 Apr 11 18:31	22°Υ11'06	1°13'26	2469 Sep 08 05:14	30°♋♁	
max. Earth dist.	2467 Apr 15 00:21	26°Υ12'30	1.72518 AU	2469 Sep 18 22:41	27°♋43'28	
	2467 Apr 18 01:45	0°♄		2469 Sep 30 02:38	0°♊	
	2467 May 12 08:22	0°II		2469 Oct 03 08:30	1°♊24'40	-4.6m
asc. node	2467 May 18 07:46	7°II21'25		2469 Nov 02 02:41	23°♊57'32	
evening rise	2467 May 19 18:53	9°II09'25		2469 Nov 07 23:43	29°♊42'27	46°29'42
	2467 Jun 05 18:17	0°☿		2469 Nov 08 06:43	0°♌	
	2467 Jun 30 07:29	0°♁		2469 Dec 06 00:40	0°♍	
	2467 Jul 25 00:37	0°♊		2469 Dec 31 15:00	0°♎	
	2467 Aug 18 23:35	0°♌		2470 Jan 25 09:33	0°☿	
desc. node	2467 Sep 06 21:10	22°♌25'59		2470 Feb 18 19:53	0°≈	
	2467 Sep 13 07:39	0°♍		2470 Feb 21 16:17	3°≈30'47	
	2467 Oct 09 06:50	0°♎		2470 Mar 15 03:08	0°✕	
	2467 Nov 05 13:23	0°☿		2470 Apr 08 09:57	0°Υ	
evening max el	2467 Nov 15 00:13	9°☿43'59	47°07'01	2470 May 02 17:44	0°♄	
	2467 Dec 07 08:06	0°≈		2470 May 14 02:55	14°♄00'52	
greatest brilliancy	2467 Dec 23 14:43	10°≈08'07	-4.7m	2470 May 27 02:50	0°II	
asc. node	2467 Dec 29 00:26	12°≈00'17		2470 Jun 14 19:42	22°II59'10	
retrograde	2468 Jan 04 17:15	12°≈53'22				
evening set	2468 Jan 20 01:15	8°≈11'57		2470 Jun 20 04:46	29°II35'37	0°12'47
min. Earth dist.	2468 Jan 24 12:56	5°≈32'09	0.26749 AU	2470 Jun 20 02:07	29°II27'29	0°12'40
inferior conj	2468 Jan 25 07:41	5°≈03'23	6°22'31	2470 Jun 19 12:21	28°II45'11	
minimum elong	2468 Jan 24 21:06	5°≈19'38	6°20'08	2470 Jun 20 15:53	0°☿09'47	
morning rise	2468 Jan 29 17:20	2°≈25'06		2470 Jun 20 06:26	29°II40'45	1.73552 AU
	2468 Feb 03 09:50	30°♋☿		2470 Jun 20 12:42	0°☿	
direct	2468 Feb 14 17:35	27°☿22'40		2470 Jul 14 22:29	0°♁	
greatest brilliancy	2468 Feb 25 16:01	29°☿37'13	-4.6m	2470 Jul 26 05:55	13°♁54'27	
	2468 Feb 26 14:37	0°≈		2470 Aug 08 07:54	0°♊	
morning max el	2468 Apr 04 16:30	29°≈21'00	46°30'18	2470 Sep 01 17:39	0°♌	
	2468 Apr 05 08:17	0°✕		2470 Sep 26 04:54	0°♍	
desc. node	2468 Apr 18 13:52	13°✕35'47		2470 Oct 04 09:03	9°♍59'45	
	2468 May 03 16:44	0°Υ		2470 Oct 20 18:45	0°♎	
	2468 May 30 03:53	0°♄		2470 Nov 14 12:44	0°☿	
	2468 Jun 24 20:23	0°II		2470 Dec 09 14:57	0°≈	
	2468 Jul 20 01:49	0°☿		2471 Jan 04 13:22	0°✕	
asc. node	2468 Aug 09 17:17	24°☿53'33		2471 Jan 25 12:18	22°✕36'15	
	2468 Aug 13 22:11	0°♁		2471 Jan 26 05:50	23°✕20'56	47°04'17
	2468 Sep 07 10:19	0°♊		2471 Feb 01 22:38	0°Υ	
morning set	2468 Sep 30 02:18	28°♊03'45		2471 Mar 04 05:42	23°Υ10'25	-4.6m
	2468 Oct 01 15:41	0°♌		2471 Mar 17 21:59	26°Υ35'53	
	2468 Oct 25 16:34	0°♍		2471 Apr 04 07:57	20°Υ42'25	
max. Earth dist.	2468 Nov 04 21:23	12°♍46'22	1.71588 AU	2471 Apr 08 00:18	18°Υ24'46	7°44'34
				2471 Apr 08 08:49	18°Υ11'21	7°43'22
superior conj	2468 Nov 07 03:26	15°♍35'43	0°49'43	2471 Apr 07 18:54	18°Υ33'17	0.28157 AU
minimum elong	2468 Nov 07 13:23	16°♍06'54	0°49'18	2471 Apr 12 09:59	15°Υ42'05	
	2468 Nov 18 15:04	0°♎		2471 Apr 29 01:56	10°Υ21'36	
desc. node	2468 Nov 29 06:51	13°♎22'34		2471 May 10 13:26	12°Υ44'49	-4.5m
	2468 Dec 12 12:38	0°☿		2471 May 17 01:41	15°Υ52'48	
evening rise	2468 Dec 17 15:25	6°☿25'28		2471 Jun 05 10:52	0°♄	

morning max el	2471 Jun 17 00:59	10°♄34'40	45°49'40	asc. node	2474 Feb 22 00:03	15°♑21'01	
	2471 Jul 06 05:40	0°♈			2474 Mar 06 16:36	0°♄	
	2471 Aug 02 13:16	0°♊			2474 Apr 03 09:32	0°♈	
	2471 Aug 28 11:45	0°♌		evening max el	2474 Apr 07 11:10	4°♈03'42	46°00'32
asc. node	2471 Sep 07 05:07	11°♌31'19			2474 May 09 15:31	0°♊	
	2471 Sep 22 14:06	0°♍		greatest brilliancy	2474 May 11 23:28	1°♊12'01	-4.5m
	2471 Oct 17 02:41	0°♎		retrograde	2474 May 26 19:17	5°♊04'28	
	2471 Nov 10 06:24	0°♏		evening set	2474 Jun 10 20:22	0°♋39'53	
	2471 Dec 04 05:12	0°♐			2474 Jun 12 00:48	30°♌♈	
morning set	2471 Dec 12 22:05	10°♐56'10		desc. node	2474 Jun 13 13:36	29°♌06'01	
desc. node	2471 Dec 27 18:40	29°♐37'23		inferior conj	2474 Jun 17 06:10	26°♌49'19	0°-52'-25
	2471 Dec 28 01:51	0°♑		minimum elong	2474 Jun 17 04:14	26°♌52'21	0°51'52
	2472 Jan 20 22:02	0°♒		min. Earth dist.	2474 Jun 17 03:23	26°♌53'41	0.28882 AU
				morning rise	2474 Jun 23 12:16	23°♌03'46	
superior conj	2472 Jan 23 11:02	3°♒11'46	0°-58'-21	direct	2474 Jul 08 19:01	18°♌33'31	
minimum elong	2472 Jan 22 23:04	2°♒34'09	0°57'56	greatest brilliancy	2474 Jul 22 05:20	21°♌42'04	-4.5m
max. Earth dist.	2472 Jan 25 07:06	5°♒30'19	1.71149 AU		2474 Aug 05 04:23	0°♍	
	2472 Feb 13 19:04	0°♈		morning max el	2474 Aug 26 15:12	18°♍21'49	45°48'57
evening rise	2472 Mar 04 11:42	24°♈39'21			2474 Sep 07 07:16	0°♌	
	2472 Mar 08 18:26	0°♑		asc. node	2474 Oct 04 17:01	29°♌53'50	
	2472 Apr 01 21:54	0°♄			2474 Oct 04 19:11	0°♍	
asc. node	2472 Apr 18 21:59	20°♄57'17			2474 Oct 30 10:32	0°♎	
	2472 Apr 26 07:12	0°♈			2474 Nov 24 03:46	0°♏	
	2472 May 21 00:01	0°♊			2474 Dec 18 09:41	0°♐	
	2472 Jun 15 02:55	0°♌			2475 Jan 11 10:26	0°♑	
	2472 Jul 10 21:16	0°♍		desc. node	2475 Jan 24 06:28	16°♑03'57	
	2472 Aug 06 19:43	0°♎			2475 Feb 04 09:26	0°♒	
desc. node	2472 Aug 08 11:16	1°♎46'10		morning set	2475 Feb 28 02:26	29°♒40'50	
evening max el	2472 Aug 30 09:28	24°♎09'50	46°00'56		2475 Feb 28 08:33	0°♈	
	2472 Sep 05 14:49	0°♏			2475 Mar 24 09:11	0°♑	
greatest brilliancy	2472 Oct 08 01:35	22°♏33'47	-4.6m				
retrograde	2472 Oct 18 14:39	24°♏35'30		superior conj	2475 Apr 08 22:59	19°♑22'41	-1°-15'-28
evening set	2472 Nov 03 08:28	19°♏51'35		minimum elong	2475 Apr 09 08:02	19°♑50'46	1°15'17
inferior conj	2472 Nov 08 09:27	16°♏53'04	-5°-5'-52	max. Earth dist.	2475 Apr 12 15:09	23°♑56'19	1.72465 AU
minimum elong	2472 Nov 08 19:16	16°♏38'05	5°03'20		2475 Apr 17 12:27	0°♄	
min. Earth dist.	2472 Nov 09 05:45	16°♏22'06	0.27056 AU		2475 May 11 19:02	0°♈	
morning rise	2472 Nov 14 05:21	13°♏26'45		evening rise	2475 May 17 11:20	6°♌59'36	
direct	2472 Nov 29 02:56	9°♏02'44		asc. node	2475 May 17 09:55	6°♌55'15	
asc. node	2472 Nov 29 14:35	9°♏03'01			2475 Jun 05 05:01	0°♊	
greatest brilliancy	2472 Dec 12 17:50	12°♏26'53	-4.7m		2475 Jun 29 18:25	0°♌	
	2473 Jan 06 00:06	0°♐			2475 Jul 24 11:57	0°♍	
morning max el	2473 Jan 18 20:22	12°♐24'27	46°58'00		2475 Aug 18 11:37	0°♎	
	2473 Feb 04 09:41	0°♑		desc. node	2475 Sep 05 23:07	21°♎53'47	
	2473 Mar 02 18:40	0°♒			2475 Sep 12 20:54	0°♏	
desc. node	2473 Mar 21 04:08	21°♒39'50			2475 Oct 08 22:17	0°♐	
	2473 Mar 28 04:05	0°♈			2475 Nov 05 09:45	0°♑	
	2473 Apr 22 03:45	0°♑		evening max el	2475 Nov 12 15:18	7°♑23'38	47°05'28
	2473 May 16 23:09	0°♄			2475 Dec 08 03:24	0°♒	
	2473 Jun 10 16:16	0°♈		greatest brilliancy	2475 Dec 21 04:34	7°♒40'57	-4.7m
	2473 Jul 05 07:05	0°♊		asc. node	2475 Dec 28 02:27	9°♒52'56	
asc. node	2473 Jul 12 07:29	8°♊34'35		retrograde	2476 Jan 02 06:34	10°♒24'45	
morning set	2473 Jul 21 04:09	19°♊25'50		evening set	2476 Jan 17 10:32	5°♒48'44	
	2473 Jul 29 18:45	0°♌		min. Earth dist.	2476 Jan 22 01:40	3°♒03'59	0.26704 AU
	2473 Aug 23 02:50	0°♍		inferior conj	2476 Jan 22 20:08	2°♒35'38	6°05'17
max. Earth dist.	2473 Aug 23 12:13	0°♍29'00	1.73035 AU	minimum elong	2476 Jan 22 09:35	2°♒51'49	6°02'48
				morning rise	2476 Jan 27 09:05	29°♑52'51	
superior conj	2473 Aug 26 13:43	4°♍16'18	1°21'09		2476 Jan 27 04:04	30°♒♈	
minimum elong	2473 Aug 26 08:37	4°♍00'30	1°21'05	direct	2476 Feb 12 06:24	24°♑55'49	
	2473 Sep 16 07:54	0°♎		greatest brilliancy	2476 Feb 23 04:09	27°♑10'07	-4.6m
evening rise	2473 Oct 02 08:42	19°♎55'20			2476 Feb 29 03:45	0°♒	
	2473 Oct 10 11:14	0°♏		morning max el	2476 Apr 02 06:11	26°♒59'37	46°31'48
desc. node	2473 Oct 31 21:03	26°♏37'54			2476 Apr 05 06:33	0°♈	
	2473 Nov 03 14:03	0°♐		desc. node	2476 Apr 17 16:04	12°♈52'16	
	2473 Nov 27 17:09	0°♑			2476 May 03 08:37	0°♑	
	2473 Dec 21 21:39	0°♒			2476 May 29 17:18	0°♄	
	2474 Jan 15 06:14	0°♈			2476 Jun 24 08:32	0°♈	
	2474 Feb 09 00:43	0°♑			2476 Jul 19 13:14	0°♊	

asc. node	2476 Aug 08 19:16	24°☿26'11		evening max el	2479 Jan 23 19:29	20°☿57'33	47°05'41
	2476 Aug 13 09:09	0°♌		asc. node	2479 Jan 24 14:15	21°☿45'13	
	2476 Sep 06 21:03	0°♍			2479 Feb 02 00:08	0°♍	
morning set	2476 Sep 27 18:24	25°♍51'29		greatest brilliancy	2479 Mar 01 23:02	20°♍54'54	-4.6m
	2476 Oct 01 02:22	0°♎		retrograde	2479 Mar 15 12:50	24°♍18'21	
	2476 Oct 25 03:17	0°♏		evening set	2479 Apr 02 01:44	18°♍21'14	
max. Earth dist.	2476 Nov 02 05:36	10°♏08'04	1.71634 AU	inferior conj	2479 Apr 05 15:21	16°♍07'52	7°54'41
				minimum elong	2479 Apr 05 23:23	15°♍55'12	7°53'38
superior conj	2476 Nov 04 16:48	13°♏13'27	0°52'39	min. Earth dist.	2479 Apr 05 09:45	16°♍16'42	0.28117 AU
minimum elong	2476 Nov 05 02:56	13°♏45'11	0°52'15	morning rise	2479 Apr 09 21:16	13°♍30'36	
	2476 Nov 18 01:55	0°♐		direct	2479 Apr 26 15:46	8°♍05'15	
desc. node	2476 Nov 28 08:58	12°♐55'02		greatest brilliancy	2479 May 08 03:04	10°♍27'49	-4.5m
	2476 Dec 11 23:36	0°♑		desc. node	2479 May 16 03:45	14°♍27'56	
evening rise	2476 Dec 15 02:04	3°♑53'45			2479 Jun 05 15:15	0°♒	
	2477 Jan 04 21:18	0°♒		morning max el	2479 Jun 14 15:11	8°♒19'03	45°50'38
	2477 Jan 28 20:25	0°♓			2479 Jul 05 22:48	0°♓	
	2477 Feb 21 23:27	0°♈			2479 Aug 02 03:08	0°♈	
	2477 Mar 18 10:07	0°♉			2479 Aug 28 00:09	0°♉	
asc. node	2477 Mar 21 12:06	3°♉44'44		asc. node	2479 Sep 06 07:10	11°♉01'28	
	2477 Apr 12 09:24	0°♊			2479 Sep 22 01:45	0°♊	
	2477 May 08 05:35	0°♋			2479 Oct 16 13:57	0°♋	
	2477 Jun 04 18:34	0°♌			2479 Nov 09 17:29	0°♌	
evening max el	2477 Jun 17 02:17	12°♌18'17	45°24'48		2479 Dec 03 16:12	0°♍	
	2477 Jul 07 15:49	0°♍		morning set	2479 Dec 10 09:40	8°♍27'12	
desc. node	2477 Jul 11 01:33	2°♍25'02		desc. node	2479 Dec 26 20:39	29°♍09'08	
greatest brilliancy	2477 Jul 22 18:20	9°♍00'27	-4.5m		2479 Dec 27 12:49	0°♎	
retrograde	2477 Aug 04 15:10	11°♍54'14			2480 Jan 20 09:01	0°♏	
evening set	2477 Aug 22 01:41	6°♍13'33					
inferior conj	2477 Aug 26 00:58	3°♍47'39	-8°-13'-26	superior conj	2480 Jan 20 21:05	0°♏37'56	0°-55'-20
minimum elong	2477 Aug 25 18:57	3°♍57'03	8°12'55	minimum elong	2480 Jan 20 09:17	0°♏00'51	0°54'54
min. Earth dist.	2477 Aug 26 07:41	3°♍37'10	0.28823 AU	max. Earth dist.	2480 Jan 22 10:19	2°♏35'02	1.71136 AU
morning rise	2477 Aug 29 12:03	1°♍39'32			2480 Feb 13 06:04	0°♐	
	2477 Sep 01 09:02	30°♎♌		evening rise	2480 Mar 01 22:46	22°♐09'34	
direct	2477 Sep 16 14:36	25°♎♌32'33			2480 Mar 08 05:28	0°♍	
greatest brilliancy	2477 Sep 30 23:09	29°♎♌11'16	-4.6m		2480 Apr 01 09:01	0°♉	
	2477 Oct 02 14:20	0°♍		asc. node	2480 Apr 18 00:05	20°♉29'18	
asc. node	2477 Nov 01 04:49	23°♍05'34			2480 Apr 25 18:29	0°♊	
morning max el	2477 Nov 05 13:33	27°♍22'53	46°28'02		2480 May 20 11:42	0°♋	
	2477 Nov 08 03:51	0°♎			2480 Jun 14 15:22	0°♌	
	2477 Dec 05 16:13	0°♏			2480 Jul 10 11:11	0°♍	
	2477 Dec 31 04:32	0°♐			2480 Aug 06 12:52	0°♎	
	2478 Jan 24 22:05	0°♑		desc. node	2480 Aug 07 13:17	1°♎05'09	
	2478 Feb 18 07:48	0°♒		evening max el	2480 Aug 27 22:51	21°♎50'35	45°58'52
desc. node	2478 Feb 20 18:19	3°♒00'27			2480 Sep 05 18:14	0°♏	
	2478 Mar 14 14:36	0°♓		greatest brilliancy	2480 Oct 05 13:09	20°♏10'02	-4.6m
	2478 Apr 07 21:05	0°♈		retrograde	2480 Oct 16 03:42	22°♏13'02	
	2478 May 02 04:37	0°♉		evening set	2480 Nov 01 00:28	17°♏24'08	
morning set	2478 May 11 19:21	11°♉50'38		inferior conj	2480 Nov 05 22:35	14°♏29'41	-5°-24'-20
	2478 May 26 13:33	0°♊		minimum elong	2480 Nov 06 08:42	14°♏14'16	5°21'50
asc. node	2478 Jun 13 21:39	22°♊32'34		min. Earth dist.	2480 Nov 06 19:35	13°♏57'43	0.27119 AU
				morning rise	2480 Nov 11 16:15	11°♏06'41	
superior conj	2478 Jun 17 22:33	27°♊30'10	0°09'38	direct	2480 Nov 26 17:01	6°♏38'11	
minimum elong	2478 Jun 17 20:33	27°♊24'01	0°09'31	asc. node	2480 Nov 28 16:32	6°♏42'55	
behind sun begin	2478 Jun 17 02:12	26°♊27'39		greatest brilliancy	2480 Dec 10 10:12	10°♏05'40	-4.7m
behind sun end	2478 Jun 18 14:53	28°♊20'24			2481 Jan 06 04:42	0°♐	
max. Earth dist.	2478 Jun 18 02:23	27°♊41'57	1.73539 AU	morning max el	2481 Jan 16 11:20	10°♐03'02	46°57'59
	2478 Jun 19 23:19	0°♋			2481 Feb 04 03:35	0°♑	
	2478 Jul 14 09:07	0°♌			2481 Mar 02 09:20	0°♒	
evening rise	2478 Jul 24 00:46	11°♌51'54		desc. node	2481 Mar 20 06:18	21°♒06'15	
	2478 Aug 07 18:41	0°♍			2481 Mar 27 17:12	0°♓	
	2478 Sep 01 04:42	0°♎			2481 Apr 21 15:59	0°♈	
	2478 Sep 25 16:20	0°♏			2481 May 16 10:47	0°♉	
desc. node	2478 Oct 03 11:14	9°♏31'00			2481 Jun 10 03:29	0°♊	
	2478 Oct 20 06:45	0°♐			2481 Jul 04 18:02	0°♋	
	2478 Nov 14 01:35	0°♑		asc. node	2481 Jul 11 09:29	8°♋07'24	
	2478 Dec 09 05:11	0°♒		morning set	2481 Jul 18 22:03	17°♋20'18	
	2479 Jan 04 06:23	0°♓			2481 Jul 29 05:34	0°♌	

max. Earth dist.	2481 Aug 21 09:20	28°♌32'33	1.73074 AU	inferior conj	2484 Jan 20 08:40	0°≈07'17	5°47'19
	2481 Aug 22 13:38	0°♍		minimum elong	2484 Jan 19 22:16	0°≈23'15	5°44'44
					2484 Jan 20 13:24	30°♊	
superior conj	2481 Aug 24 07:31	2°♍09'27	1°20'08	morning rise	2484 Jan 25 00:51	27°♊19'49	
minimum elong	2481 Aug 24 01:52	1°♍52'02	1°20'04	direct	2484 Feb 09 18:59	22°♊28'16	
	2481 Sep 15 18:47	0°♌		greatest brilliancy	2484 Feb 20 17:06	24°♊42'49	-4.6m
evening rise	2481 Sep 30 00:24	17°♌40'50			2484 Mar 01 18:54	0°≈	
	2481 Oct 09 22:18	0°♍		morning max el	2484 Mar 30 19:02	24°≈35'04	46°33'21
desc. node	2481 Oct 30 23:06	26°♍09'15			2484 Apr 05 04:18	0°♋	
	2481 Nov 03 01:21	0°♌		desc. node	2484 Apr 16 18:05	12°♋08'04	
	2481 Nov 27 04:45	0°♊			2484 May 03 00:32	0°♌	
	2481 Dec 21 09:36	0°≈			2484 May 29 06:54	0°♍	
	2482 Jan 14 18:42	0°♋			2484 Jun 23 20:57	0°♎	
	2482 Feb 08 14:06	0°♌			2484 Jul 19 00:58	0°♏	
asc. node	2482 Feb 21 02:11	14°♌45'46		asc. node	2484 Aug 07 21:23	23°♏58'04	
	2482 Mar 06 07:56	0°♍			2484 Aug 12 20:29	0°♌	
	2482 Apr 03 06:18	0°♎			2484 Sep 06 08:09	0°♍	
evening max el	2482 Apr 05 03:38	1°♎52'23	46°02'38	morning set	2484 Sep 25 10:27	23°♍37'58	
greatest brilliancy	2482 May 09 15:50	29°♎02'06	-4.5m		2484 Sep 30 13:23	0°♌	
	2482 May 11 18:19	0°♏			2484 Oct 24 14:21	0°♍	
retrograde	2482 May 24 12:20	2°♏54'48		max. Earth dist.	2484 Oct 30 14:26	7°♍30'50	1.71679 AU
	2482 Jun 05 14:24	30°♎					
evening set	2482 Jun 08 13:12	28°♎29'40		superior conj	2484 Nov 02 06:18	10°♍50'46	0°55'27
desc. node	2482 Jun 12 15:35	26°♎05'04		minimum elong	2484 Nov 02 16:33	11°♍22'52	0°55'04
inferior conj	2482 Jun 14 22:30	24°♎39'31	0°-32'-32		2484 Nov 17 13:03	0°♌	
minimum elong	2482 Jun 14 21:17	24°♎41'24	0°32'11	desc. node	2484 Nov 27 10:54	12°♌26'02	
min. Earth dist.	2482 Jun 14 19:33	24°♎44'07	0.28866 AU		2484 Dec 11 10:51	0°♍	
morning rise	2482 Jun 21 05:39	20°♎52'45		evening rise	2484 Dec 12 12:52	1°♏21'39	
direct	2482 Jul 06 11:38	16°♎24'02			2485 Jan 04 08:41	0°≈	
greatest brilliancy	2482 Jul 19 19:50	19°♎31'00	-4.5m		2485 Jan 28 07:58	0°♋	
	2482 Aug 05 17:51	0°♏			2485 Feb 21 11:15	0°♌	
morning max el	2482 Aug 24 07:50	16°♏13'11	45°48'07		2485 Mar 17 22:18	0°♍	
	2482 Sep 07 01:47	0°♌		asc. node	2485 Mar 20 14:12	3°♍13'56	
asc. node	2482 Oct 03 19:09	29°♌18'26			2485 Apr 11 22:22	0°♎	
	2482 Oct 04 09:42	0°♍			2485 May 07 20:12	0°♏	
	2482 Oct 29 23:27	0°♌			2485 Jun 04 13:28	0°♌	
	2482 Nov 23 15:56	0°♍		evening max el	2485 Jun 14 16:49	10°♌03'59	45°24'46
	2482 Dec 17 21:26	0°♌			2485 Jul 08 09:07	0°♍	
	2483 Jan 10 21:57	0°♊		desc. node	2485 Jul 10 03:33	1°♍11'15	
desc. node	2483 Jan 23 08:30	15°♊34'39		greatest brilliancy	2485 Jul 20 07:36	6°♍46'43	-4.5m
	2483 Feb 03 20:45	0°≈		retrograde	2485 Aug 02 06:02	9°♍43'00	
morning set	2483 Feb 25 13:34	27°≈10'42		evening set	2485 Aug 19 14:17	4°♍06'25	
	2483 Feb 27 19:42	0°♋		inferior conj	2485 Aug 23 16:46	1°♍35'54	-8°-6'-34
	2483 Mar 23 20:11	0°♌		minimum elong	2485 Aug 23 10:08	1°♍46'16	8°05'54
				min. Earth dist.	2485 Aug 23 23:01	1°♍26'09	0.28854 AU
superior conj	2483 Apr 06 12:59	17°♌02'56	-1°-17'-9		2485 Aug 26 06:34	30°♎	
minimum elong	2483 Apr 06 21:35	17°♌29'40	1°16'59	morning rise	2485 Aug 27 05:46	29°♎24'46	
max. Earth dist.	2483 Apr 10 08:26	21°♌47'00	1.72413 AU	direct	2485 Sep 14 06:11	23°♎20'16	
	2483 Apr 16 23:23	0°♍		greatest brilliancy	2485 Sep 28 15:06	26°♎58'21	-4.5m
	2483 May 11 05:59	0°♎			2485 Oct 04 04:44	0°♍	
evening rise	2483 May 15 03:47	4°♎48'48		asc. node	2485 Oct 31 06:45	22°♍12'53	
asc. node	2483 May 16 11:53	6°♎27'35		morning max el	2485 Nov 03 03:28	25°♍02'25	46°26'31
	2483 Jun 04 16:05	0°♏			2485 Nov 08 00:43	0°♌	
	2483 Jun 29 05:43	0°♌			2485 Dec 05 07:54	0°♍	
	2483 Jul 23 23:40	0°♍			2485 Dec 30 18:16	0°♌	
	2483 Aug 18 00:05	0°♌			2486 Jan 24 10:48	0°♊	
desc. node	2483 Sep 05 01:17	21°♌21'03			2486 Feb 17 19:54	0°≈	
	2483 Sep 12 10:37	0°♍		desc. node	2486 Feb 19 20:26	2°≈29'46	
	2483 Oct 08 14:18	0°♌			2486 Mar 14 02:18	0°♋	
	2483 Nov 05 07:07	0°♊			2486 Apr 07 08:29	0°♌	
evening max el	2483 Nov 10 06:02	5°♊01'43	47°03'48		2486 May 01 15:46	0°♍	
	2483 Dec 09 06:03	0°≈		morning set	2486 May 09 11:48	9°♍39'24	
greatest brilliancy	2483 Dec 18 19:21	5°≈14'12	-4.7m		2486 May 26 00:30	0°♎	
asc. node	2483 Dec 27 04:29	7°≈39'36		asc. node	2486 Jun 12 23:43	22°♎05'28	
retrograde	2483 Dec 30 19:30	7°≈55'18					
evening set	2484 Jan 14 20:07	3°≈24'35		superior conj	2486 Jun 15 16:26	25°♎24'18	0°06'27
min. Earth dist.	2484 Jan 19 14:55	0°≈34'33	0.26662 AU	minimum elong	2486 Jun 15 15:05	25°♎20'08	0°06'23

behind sun begin	2486 Jun 14 18:04	24°II15'36		greatest brilliancy	2488 Dec 08 01:49	7°ML43'03	-4.7m
behind sun end	2486 Jun 16 12:05	26°II24'40			2489 Jan 06 07:50	0°J	
max. Earth dist.	2486 Jun 15 22:05	25°II41'41	1.73525 AU	morning max el	2489 Jan 14 02:28	7°J41'34	46°57'47
	2486 Jun 19 10:11	0°S			2489 Feb 03 21:17	0°S	
	2486 Jul 13 20:01	0°Q			2489 Mar 01 23:57	0°≈	
evening rise	2486 Jul 21 19:44	9°Q49'07		desc. node	2489 Mar 19 08:20	20°≈32'15	
	2486 Aug 07 05:45	0°M			2489 Mar 27 06:18	0°K	
	2486 Aug 31 16:03	0°A			2489 Apr 21 04:09	0°Y	
	2486 Sep 25 04:07	0°ML			2489 May 15 22:21	0°B	
desc. node	2486 Oct 02 13:13	9°ML00'35			2489 Jun 09 14:39	0°II	
	2486 Oct 19 19:07	0°J			2489 Jul 04 04:58	0°S	
	2486 Nov 13 14:48	0°S		asc. node	2489 Jul 10 11:37	7°S40'41	
	2486 Dec 08 19:51	0°≈		morning set	2489 Jul 16 16:04	15°S15'11	
	2487 Jan 04 00:01	0°K			2489 Jul 28 16:22	0°Q	
evening max el	2487 Jan 21 08:55	18°K32'54	47°07'11	max. Earth dist.	2489 Aug 19 05:20	26°Q32'48	1.73109 AU
asc. node	2487 Jan 23 16:23	20°K53'05					
	2487 Feb 02 03:23	0°Y		superior conj	2489 Aug 22 01:30	0°M03'24	1°19'02
greatest brilliancy	2487 Feb 27 15:05	18°Y36'51	-4.6m	minimum elong	2489 Aug 21 19:22	29°Q44'27	1°18'55
retrograde	2487 Mar 13 03:48	21°Y59'59			2489 Aug 22 00:24	0°M	
evening set	2487 Mar 30 19:17	15°Y58'56			2489 Sep 15 05:37	0°A	
inferior conj	2487 Apr 03 06:17	13°Y49'50	8°04'07	evening rise	2489 Sep 27 16:21	15°A27'22	
minimum elong	2487 Apr 03 13:48	13°Y38'01	8°03'12		2489 Oct 09 09:17	0°ML	
min. Earth dist.	2487 Apr 03 00:18	13°Y59'16	0.28081 AU	desc. node	2489 Oct 30 01:05	25°ML40'34	
morning rise	2487 Apr 07 08:30	11°Y18'10			2489 Nov 02 12:35	0°J	
direct	2487 Apr 24 05:34	5°Y47'36			2489 Nov 26 16:18	0°S	
greatest brilliancy	2487 May 05 17:08	8°Y10'22	-4.5m		2489 Dec 20 21:34	0°≈	
desc. node	2487 May 15 05:42	13°Y04'52			2490 Jan 14 07:14	0°K	
	2487 Jun 05 18:15	0°B			2490 Feb 08 03:36	0°Y	
morning max el	2487 Jun 12 06:11	6°B04'36	45°51'45	asc. node	2490 Feb 20 04:14	14°Y10'00	
	2487 Jul 05 15:48	0°II			2490 Mar 05 23:30	0°B	
	2487 Aug 01 17:01	0°S		evening max el	2490 Apr 02 20:04	29°B40'59	46°04'53
	2487 Aug 27 12:38	0°Q			2490 Apr 03 03:47	0°II	
asc. node	2487 Sep 05 09:19	10°Q31'33		greatest brilliancy	2490 May 07 09:14	26°II53'37	-4.5m
	2487 Sep 21 13:33	0°M			2490 May 15 21:37	0°S	
	2487 Oct 16 01:24	0°A		retrograde	2490 May 22 05:00	0°S45'02	
	2487 Nov 09 04:46	0°ML			2490 May 28 07:39	30°RII	
	2487 Dec 03 03:24	0°J		evening set	2490 Jun 06 06:11	26°II19'25	
morning set	2487 Dec 07 21:03	5°J56'54		desc. node	2490 Jun 11 17:41	23°II02'47	
desc. node	2487 Dec 25 22:45	28°J40'36		inferior conj	2490 Jun 12 14:44	22°II29'47	0°-12'-28
	2487 Dec 26 23:59	0°S		minimum elong	2490 Jun 12 14:17	22°II30'31	0°12'21
				transit middle	2490 Jun 12 14:17	22°II30'31	0°12'21
superior conj	2488 Jan 18 06:42	28°S02'09	0°-52'-11	transit begin	2490 Jun 12 11:39	22°II34'38	
minimum elong	2488 Jan 17 19:09	27°S25'52	0°51'44	transit end	2490 Jun 12 16:55	22°II26'23	
max. Earth dist.	2488 Jan 19 16:00	29°S46'54	1.71121 AU	min. Earth dist.	2490 Jun 12 11:44	22°II34'29	0.28847 AU
	2488 Jan 19 20:10	0°≈		morning rise	2490 Jun 18 22:45	18°II41'49	
	2488 Feb 12 17:12	0°K		direct	2490 Jul 04 04:13	14°II14'46	
evening rise	2488 Feb 28 09:38	19°K38'46		greatest brilliancy	2490 Jul 17 09:30	17°II19'01	-4.5m
	2488 Mar 07 16:37	0°Y			2490 Aug 06 03:42	0°S	
	2488 Mar 31 20:15	0°B		morning max el	2490 Aug 21 23:39	14°S03'02	45°47'22
asc. node	2488 Apr 17 02:02	20°B00'26			2490 Sep 06 19:40	0°Q	
	2488 Apr 25 05:55	0°II		asc. node	2490 Oct 02 21:03	28°Q43'11	
	2488 May 19 23:33	0°S			2490 Oct 03 23:52	0°M	
	2488 Jun 14 04:00	0°Q			2490 Oct 29 12:06	0°A	
	2488 Jul 10 01:20	0°M			2490 Nov 23 03:50	0°ML	
	2488 Aug 06 06:25	0°A			2490 Dec 17 08:57	0°J	
desc. node	2488 Aug 06 15:27	0°A23'55			2491 Jan 10 09:15	0°S	
evening max el	2488 Aug 25 12:57	19°A33'09	45°56'47	desc. node	2491 Jan 22 10:37	15°S06'14	
	2488 Sep 05 23:29	0°ML			2491 Feb 03 07:54	0°≈	
greatest brilliancy	2488 Oct 02 23:56	17°ML45'35	-4.6m	morning set	2491 Feb 23 00:14	24°≈39'24	
retrograde	2488 Oct 13 16:50	19°ML50'13			2491 Feb 27 06:42	0°K	
evening set	2488 Oct 29 16:30	14°ML56'26			2491 Mar 23 07:04	0°Y	
inferior conj	2488 Nov 03 11:38	12°ML05'54	-5°-42'-14				
minimum elong	2488 Nov 03 21:58	11°ML50'10	5°39'45	superior conj	2491 Apr 04 02:25	14°Y41'52	-1°-18'-43
min. Earth dist.	2488 Nov 04 08:53	11°ML33'33	0.27187 AU	minimum elong	2491 Apr 04 10:29	15°Y06'56	1°18'34
morning rise	2488 Nov 09 02:50	8°ML46'27		max. Earth dist.	2491 Apr 08 01:39	19°Y37'46	1.72357 AU
direct	2488 Nov 24 07:25	4°ML13'26			2491 Apr 16 10:11	0°B	
asc. node	2488 Nov 27 18:36	4°ML27'52			2491 May 10 16:46	0°II	

evening rise	2491 May 12 19:41	2°II36'51		asc. node	2493 Oct 30 08:52	21°II22'45	
asc. node	2491 May 15 13:55	6°II00'40		morning max el	2493 Oct 31 18:05	22°II45'03	46°25'00
	2491 Jun 04 02:57	0°II			2493 Nov 07 20:30	0°II	
	2491 Jun 28 16:49	0°II			2493 Dec 04 22:58	0°II	
	2491 Jul 23 11:13	0°II			2493 Dec 30 07:29	0°II	
	2491 Aug 17 12:23	0°II			2494 Jan 23 23:03	0°II	
desc. node	2491 Sep 04 03:16	20°II48'20			2494 Feb 17 07:32	0°II	
	2491 Sep 12 00:12	0°II		desc. node	2494 Feb 18 22:25	2°II00'06	
	2491 Oct 08 06:15	0°II			2494 Mar 13 13:32	0°II	
	2491 Nov 05 04:51	0°II			2494 Apr 06 19:25	0°II	
evening max el	2491 Nov 07 19:50	2°II38'31	47°02'06		2494 May 01 02:29	0°II	
	2491 Dec 10 18:48	0°II		morning set	2494 May 07 04:08	7°II28'59	
greatest brilliancy	2491 Dec 16 10:32	2°II49'05	-4.7m		2494 May 25 11:05	0°II	
asc. node	2491 Dec 26 06:34	5°II22'00		asc. node	2494 Jun 12 01:51	21°II39'41	
retrograde	2491 Dec 28 07:49	5°II27'03					
evening set	2492 Jan 12 05:56	1°II01'16		superior conj	2494 Jun 13 10:08	23°II18'54	0°03'14
	2492 Jan 14 00:57	30°II		minimum elong	2494 Jun 13 09:27	23°II16'49	0°03'13
min. Earth dist.	2492 Jan 17 04:35	28°II05'51	0.26626 AU	behind sun begin	2494 Jun 12 11:04	22°II08'01	
inferior conj	2492 Jan 17 21:15	27°II40'13	5°28'33	behind sun end	2494 Jun 14 07:51	24°II25'38	
minimum elong	2492 Jan 17 11:05	27°II55'51	5°25'57	max. Earth dist.	2494 Jun 13 17:35	23°II41'50	1.73512 AU
morning rise	2492 Jan 22 16:37	24°II48'04			2494 Jun 18 20:41	0°II	
direct	2492 Feb 07 07:12	20°II01'44			2494 Jul 13 06:33	0°II	
greatest brilliancy	2492 Feb 18 07:12	22°II17'43	-4.6m	evening rise	2494 Jul 19 14:34	7°II47'03	
	2492 Mar 02 21:51	0°II			2494 Aug 06 16:26	0°II	
morning max el	2492 Mar 28 07:03	22°II09'02	46°34'46		2494 Aug 31 03:02	0°II	
	2492 Apr 05 01:00	0°II			2494 Sep 24 15:32	0°II	
desc. node	2492 Apr 15 20:03	11°II25'01		desc. node	2494 Oct 01 15:12	8°II31'15	
	2492 May 02 15:58	0°II			2494 Oct 19 07:11	0°II	
	2492 May 28 20:09	0°II			2494 Nov 13 03:47	0°II	
	2492 Jun 23 09:02	0°II			2494 Dec 08 10:20	0°II	
	2492 Jul 18 12:21	0°II			2495 Jan 03 17:39	0°II	
asc. node	2492 Aug 06 23:25	23°II30'46		evening max el	2495 Jan 18 23:11	16°II11'35	47°08'45
	2492 Aug 12 07:27	0°II		asc. node	2495 Jan 22 18:27	20°II01'07	
	2492 Sep 05 18:55	0°II			2495 Feb 02 07:48	0°II	
morning set	2492 Sep 23 02:29	21°II25'24		greatest brilliancy	2495 Feb 25 06:33	16°II19'30	-4.6m
	2492 Sep 30 00:06	0°II		retrograde	2495 Mar 10 19:23	19°II43'13	
	2492 Oct 24 01:06	0°II		evening set	2495 Mar 28 12:45	13°II38'21	
max. Earth dist.	2492 Oct 28 01:11	5°II00'38	1.71725 AU	inferior conj	2495 Mar 31 21:17	11°II33'15	8°12'38
				minimum elong	2495 Apr 01 04:15	11°II22'19	8°11'53
superior conj	2492 Oct 30 20:02	8°II29'52	0°58'09	min. Earth dist.	2495 Mar 31 14:30	11°II43'55	0.28042 AU
minimum elong	2492 Oct 31 06:21	9°II02'09	0°57'47	morning rise	2495 Apr 04 19:55	9°II07'15	
	2492 Nov 16 23:52	0°II		direct	2495 Apr 21 19:52	3°II31'31	
desc. node	2492 Nov 26 13:01	11°II58'42		greatest brilliancy	2495 May 03 06:41	5°II54'01	-4.5m
evening rise	2492 Dec 10 00:00	28°II51'49		desc. node	2495 May 14 07:51	11°II46'21	
	2492 Dec 10 21:44	0°II			2495 Jun 05 19:12	0°II	
	2493 Jan 03 19:40	0°II		morning max el	2495 Jun 09 21:58	3°II53'25	45°52'44
	2493 Jan 27 19:07	0°II			2495 Jul 05 08:03	0°II	
	2493 Feb 20 22:39	0°II			2495 Aug 01 06:26	0°II	
	2493 Mar 17 10:09	0°II			2495 Aug 27 00:44	0°II	
asc. node	2493 Mar 19 16:07	2°II43'38		asc. node	2495 Sep 04 11:14	10°II02'01	
	2493 Apr 11 11:03	0°II			2495 Sep 21 00:59	0°II	
	2493 May 07 10:40	0°II			2495 Oct 15 12:30	0°II	
	2493 Jun 04 08:31	0°II			2495 Nov 08 15:41	0°II	
evening max el	2493 Jun 12 07:07	7°II50'06	45°25'01		2495 Dec 02 14:17	0°II	
desc. node	2493 Jul 09 05:40	29°II56'35		morning set	2495 Dec 05 08:35	3°II28'13	
	2493 Jul 09 07:51	0°II		desc. node	2495 Dec 25 00:48	28°II12'51	
greatest brilliancy	2493 Jul 17 19:56	4°II33'02	-4.5m		2495 Dec 26 10:52	0°II	
retrograde	2493 Jul 30 21:24	7°II33'13					
evening set	2493 Aug 17 02:51	2°II00'32		superior conj	2496 Jan 15 16:18	25°II27'08	0°-48'-54
	2493 Aug 20 10:22	30°II		minimum elong	2496 Jan 15 05:08	24°II52'01	0°48'27
inferior conj	2493 Aug 21 08:37	29°II25'22	-7°-58'-57	max. Earth dist.	2496 Jan 16 23:13	27°II04'25	1.71109 AU
minimum elong	2493 Aug 21 01:25	29°II36'36	7°58'10		2496 Jan 19 07:03	0°II	
min. Earth dist.	2493 Aug 21 14:13	29°II16'39	0.28885 AU		2496 Feb 12 04:05	0°II	
morning rise	2493 Aug 24 23:45	27°II11'08		evening rise	2496 Feb 25 20:34	17°II09'00	
direct	2493 Sep 11 21:50	21°II09'10			2496 Mar 07 03:29	0°II	
greatest brilliancy	2493 Sep 26 08:05	24°II48'10	-4.5m		2496 Mar 31 07:09	0°II	
	2493 Oct 05 06:55	0°II		asc. node	2496 Apr 16 04:08	19°II33'01	

	2496 Apr 24 17:01	0°♊			2498 Oct 29 00:42	0°♎	
	2496 May 19 11:05	0°♋			2498 Nov 22 15:45	0°♏	
	2496 Jun 13 16:22	0°♌			2498 Dec 16 20:32	0°♐	
	2496 Jul 09 15:20	0°♍			2499 Jan 09 20:36	0°♑	
desc. node	2496 Aug 05 17:25	29°♍42'28		desc. node	2499 Jan 21 12:35	14°♑37'08	
	2496 Aug 06 00:05	0°♎			2499 Feb 02 19:05	0°♒	
evening max el	2496 Aug 23 03:43	17°♎18'09	45°54'42	morning set	2499 Feb 20 10:36	22°♒06'59	
	2496 Sep 06 06:33	0°♏			2499 Feb 26 17:45	0°♓	
greatest brilliancy	2496 Sep 30 11:41	15°♏23'27	-4.6m		2499 Mar 22 18:02	0°♈	
retrograde	2496 Oct 11 05:59	17°♏28'36					
evening set	2496 Oct 27 08:47	12°♏30'14		superior conj	2499 Apr 01 15:42	12°♈19'54	-1°-20'-9
inferior conj	2496 Nov 01 00:53	9°♏43'33	-5°-59'-16	minimum elong	2499 Apr 01 23:11	12°♈43'09	1°20'03
minimum elong	2496 Nov 01 11:21	9°♏27'35	5°56'51	max. Earth dist.	2499 Apr 05 17:38	17°♈24'21	1.72300 AU
min. Earth dist.	2496 Nov 01 22:14	9°♏10'59	0.27254 AU		2499 Apr 15 21:06	0°♉	
morning rise	2496 Nov 06 13:24	6°♏27'39		evening rise	2499 May 10 11:25	0°♉23'52	
direct	2496 Nov 21 22:03	1°♏50'17			2499 May 10 03:40	0°♉	
asc. node	2496 Nov 26 20:43	2°♏19'22		asc. node	2499 May 14 16:03	5°♉33'42	
greatest brilliancy	2496 Dec 05 16:35	5°♏20'24	-4.7m		2499 Jun 03 13:56	0°♊	
	2497 Jan 06 09:12	0°♐			2499 Jun 28 04:00	0°♋	
morning max el	2497 Jan 11 17:01	5°♐19'22	46°57'22		2499 Jul 22 22:51	0°♌	
	2497 Feb 03 14:22	0°♑			2499 Aug 17 00:48	0°♍	
	2497 Mar 01 14:13	0°♒		desc. node	2499 Sep 03 05:15	20°♍15'15	
desc. node	2497 Mar 18 10:15	19°♒58'35			2499 Sep 11 14:00	0°♎	
	2497 Mar 26 19:08	0°♓			2499 Oct 07 22:40	0°♏	
	2497 Apr 20 16:06	0°♈			2499 Nov 05 03:47	0°♑	
	2497 May 15 09:42	0°♉		evening max el	2499 Nov 05 08:35	0°♑11'58	47°00'09
	2497 Jun 09 01:36	0°♊			2499 Dec 13 04:46	0°♒	
	2497 Jul 03 15:40	0°♋		greatest brilliancy	2499 Dec 14 01:36	0°♒22'24	-4.7m
asc. node	2497 Jul 09 13:36	7°♋14'09		asc. node	2499 Dec 25 08:35	2°♒57'12	
morning set	2497 Jul 14 10:19	13°♋11'30		retrograde	2499 Dec 25 19:41	2°♒57'27	
	2497 Jul 28 02:58	0°♌			2500 Jan 06 21:57	30°♒♊	
max. Earth dist.	2497 Aug 17 00:00	24°♌29'31	1.73147 AU	evening set	2500 Jan 09 15:40	28°♊35'57	
				inferior conj	2500 Jan 15 09:37	25°♊11'41	5°08'55
superior conj	2497 Aug 19 19:40	27°♌58'25	1°17'49	minimum elong	2500 Jan 14 23:45	25°♊26'52	5°06'17
minimum elong	2497 Aug 19 13:04	27°♌38'03	1°17'41	min. Earth dist.	2500 Jan 14 18:16	25°♊35'17	0.26594 AU
	2497 Aug 21 11:01	0°♍		morning rise	2500 Jan 20 08:07	22°♊15'04	
	2497 Sep 14 16:19	0°♎		direct	2500 Feb 04 18:50	17°♊33'26	
evening rise	2497 Sep 25 08:22	13°♎14'28		greatest brilliancy	2500 Feb 15 21:57	19°♊52'04	-4.6m
	2497 Oct 08 20:10	0°♏			2500 Mar 04 18:07	0°♋	
desc. node	2497 Oct 29 03:12	25°♏12'35		morning max el	2500 Mar 26 18:55	19°♋41'29	46°36'17
	2497 Nov 01 23:44	0°♐			2500 Apr 05 21:21	0°♌	
	2497 Nov 26 03:48	0°♑		desc. node	2500 Apr 15 22:14	10°♌42'22	
	2497 Dec 20 09:29	0°♒			2500 May 03 07:28	0°♍	
	2498 Jan 13 19:45	0°♓			2500 May 29 09:34	0°♎	
	2498 Feb 07 17:11	0°♈			2500 Jun 23 21:19	0°♏	
asc. node	2498 Feb 19 06:11	13°♈33'47			2500 Jul 18 23:56	0°♐	
	2498 Mar 05 15:17	0°♉		asc. node	2500 Aug 07 01:24	23°♐02'41	
evening max el	2498 Mar 31 12:01	27°♉28'16	46°07'08		2500 Aug 12 18:37	0°♋	
	2498 Apr 03 02:05	0°♊			2500 Sep 06 05:53	0°♌	
greatest brilliancy	2498 May 05 03:36	24°♊46'35	-4.5m	morning set	2500 Sep 21 18:55	19°♌13'33	
retrograde	2498 May 19 21:23	28°♊35'46			2500 Sep 30 11:01	0°♍	
evening set	2498 Jun 03 23:27	24°♊09'34			2500 Oct 24 12:03	0°♎	
inferior conj	2498 Jun 10 07:09	20°♊20'47	0°07'28	max. Earth dist.	2500 Oct 26 15:15	2°♎40'06	1.71776 AU
minimum elong	2498 Jun 10 07:25	20°♊20'21	0°07'23				
transit middle	2498 Jun 10 07:25	20°♊20'21	0°07'23	superior conj	2500 Oct 29 10:05	6°♎09'15	1°00'44
transit begin	2498 Jun 10 03:48	20°♊26'02		minimum elong	2500 Oct 29 20:22	6°♎41'26	1°00'22
transit end	2498 Jun 10 11:02	20°♊14'41			2500 Nov 17 10:57	0°♏	
min. Earth dist.	2498 Jun 10 04:19	20°♊25'13	0.28823 AU	desc. node	2500 Nov 26 15:06	11°♏30'18	
desc. node	2498 Jun 10 19:42	20°♊01'03		evening rise	2500 Dec 08 11:13	26°♏21'20	
morning rise	2498 Jun 16 15:47	16°♊31'40			2500 Dec 11 08:57	0°♑	
direct	2498 Jul 01 20:34	12°♊06'18			2501 Jan 04 07:01	0°♒	
greatest brilliancy	2498 Jul 14 23:01	15°♊07'23	-4.5m		2501 Jan 28 06:39	0°♓	
	2498 Aug 06 10:38	0°♋			2501 Feb 21 10:27	0°♈	
morning max el	2498 Aug 19 14:37	11°♋51'14	45°46'35		2501 Mar 17 22:25	0°♉	
	2498 Sep 06 13:01	0°♌		asc. node	2501 Mar 19 18:14	2°♉12'44	
asc. node	2498 Oct 01 23:10	28°♌08'52			2501 Apr 12 00:13	0°♊	
	2498 Oct 03 13:51	0°♍			2501 May 08 01:43	0°♋	

	2501 Jun 05 04:38	0°♈			2503 Nov 09 02:58	0°♍		
evening max el	2501 Jun 10 22:01	5°♈36'37	45°25'25		2503 Dec 03 01:28	0°♊		
desc. node	2501 Jul 09 07:39	28°♈38'26		morning set	2503 Dec 03 20:46	1°♊00'38		
	2501 Jul 11 16:23	0°♎		desc. node	2503 Dec 25 02:47	27°♊43'58		
greatest brilliancy	2501 Jul 16 07:52	2°♎17'58	-4.5m		2503 Dec 26 22:01	0°♊		
retrograde	2501 Jul 29 13:28	5°♎22'40						
	2501 Aug 15 11:14	30°♎♈		superior conj	2504 Jan 14 02:17	22°♊52'24	0°-45'-32	
evening set	2501 Aug 15 15:24	29°♈53'58		minimum elong	2504 Jan 13 15:37	22°♊18'49	0°45'06	
inferior conj	2501 Aug 20 00:30	27°♈14'04	-7°-50'-37	max. Earth dist.	2504 Jan 15 08:31	24°♊27'31	1.71100 AU	
minimum elong	2501 Aug 19 16:47	27°♈26'05	7°49'42		2504 Jan 19 18:13	0°♋		
min. Earth dist.	2501 Aug 20 05:09	27°♈06'50	0.28909 AU		2504 Feb 12 15:16	0°♋		
morning rise	2501 Aug 23 17:57	24°♈56'33		evening rise	2504 Feb 24 07:28	14°♋37'53		
direct	2501 Sep 10 13:46	18°♈57'27			2504 Mar 07 14:43	0°♌		
greatest brilliancy	2501 Sep 25 01:02	22°♈37'35	-4.5m		2504 Mar 31 18:29	0°♌		
	2501 Oct 07 02:23	0°♎		asc. node	2504 Apr 16 06:12	19°♌04'06		
asc. node	2501 Oct 30 10:58	20°♎32'51			2504 Apr 25 04:35	0°♌		
morning max el	2501 Oct 30 09:35	20°♎29'24	46°23'31		2504 May 19 23:07	0°♍		
	2501 Nov 08 15:57	0°♌			2504 Jun 14 05:16	0°♌		
	2501 Dec 05 14:07	0°♌			2504 Jul 10 05:57	0°♎		
	2501 Dec 30 20:56	0°♊		desc. node	2504 Aug 05 19:26	28°♎59'20		
	2502 Jan 24 11:38	0°♊			2504 Aug 06 18:41	0°♌		
	2502 Feb 17 19:36	0°♋		evening max el	2504 Aug 21 18:08	15°♌01'06	45°52'36	
desc. node	2502 Feb 19 00:27	1°♋29'12			2504 Sep 07 16:56	0°♌		
	2502 Mar 14 01:13	0°♋		greatest brilliancy	2504 Sep 29 00:30	13°♌01'24	-4.6m	
	2502 Apr 07 06:48	0°♌		retrograde	2504 Oct 09 18:37	15°♌05'53		
	2502 May 01 13:38	0°♌		evening set	2504 Oct 26 01:07	10°♌03'08		
morning set	2502 May 05 19:57	5°♌15'31		inferior conj	2504 Oct 30 14:08	7°♌20'24	-6°-15'-35	
	2502 May 25 22:04	0°♌		minimum elong	2504 Oct 31 00:38	7°♌04'19	6°13'16	
				min. Earth dist.	2504 Oct 31 11:49	6°♌47'14	0.27315 AU	
superior conj	2502 Jun 12 03:29	21°♌11'07	0°00'-1	morning rise	2504 Nov 04 23:41	4°♌08'10		
minimum elong	2502 Jun 12 03:28	21°♌11'04	0°00'02		2504 Nov 15 06:37	30°♌♈		
behind sun begin	2502 Jun 11 06:15	20°♌05'50		direct	2504 Nov 20 12:16	29°♌26'23		
behind sun end	2502 Jun 13 00:42	22°♌16'17			2504 Nov 25 20:19	0°♌		
asc. node	2502 Jun 12 03:49	21°♌12'07		asc. node	2504 Nov 26 22:39	0°♌14'54		
max. Earth dist.	2502 Jun 12 14:16	21°♌44'16	1.73498 AU	greatest brilliancy	2504 Dec 04 06:55	2°♌56'21	-4.6m	
	2502 Jun 19 07:37	0°♍			2505 Jan 07 09:36	0°♊		
	2502 Jul 13 17:32	0°♈		morning max el	2505 Jan 10 06:33	2°♊53'55	46°57'06	
evening rise	2502 Jul 18 09:20	5°♈43'26			2505 Feb 04 07:20	0°♊		
	2502 Aug 07 03:35	0°♎			2505 Mar 02 04:31	0°♋		
	2502 Aug 31 14:27	0°♌		desc. node	2505 Mar 18 12:27	19°♋25'21		
	2502 Sep 25 03:22	0°♌			2505 Mar 27 08:06	0°♋		
desc. node	2502 Oct 01 17:22	8°♌01'22			2505 Apr 21 04:15	0°♌		
	2502 Oct 19 19:37	0°♊			2505 May 15 21:19	0°♌		
	2502 Nov 13 17:10	0°♊			2505 Jun 09 12:52	0°♌		
	2502 Dec 09 01:21	0°♋			2505 Jul 04 02:42	0°♍		
	2503 Jan 04 12:08	0°♋		asc. node	2505 Jul 09 15:37	6°♍46'42		
evening max el	2503 Jan 17 14:14	13°♋50'50	47°09'58	morning set	2505 Jul 13 04:10	11°♍05'35		
asc. node	2503 Jan 22 20:23	19°♋06'17			2505 Jul 28 13:53	0°♈		
	2503 Feb 03 15:03	0°♌		max. Earth dist.	2505 Aug 15 17:47	22°♈22'41	1.73183 AU	
greatest brilliancy	2503 Feb 23 21:54	13°♌59'43	-4.6m					
retrograde	2503 Mar 09 11:00	17°♌23'31		superior conj	2505 Aug 18 13:33	25°♈51'51	1°16'28	
evening set	2503 Mar 27 05:43	11°♌15'11		minimum elong	2505 Aug 18 06:32	25°♈30'12	1°16'20	
inferior conj	2503 Mar 30 11:56	9°♌13'44	8°20'25		2505 Aug 21 21:54	0°♎		
minimum elong	2503 Mar 30 18:15	9°♌03'48	8°19'49		2505 Sep 15 03:19	0°♌		
min. Earth dist.	2503 Mar 30 04:01	9°♌26'07	0.28003 AU	evening rise	2505 Sep 24 00:19	11°♌00'38		
morning rise	2503 Apr 03 07:01	6°♌53'20			2505 Oct 09 07:22	0°♌		
direct	2503 Apr 20 10:19	1°♌12'43		desc. node	2505 Oct 29 05:13	24°♌43'24		
greatest brilliancy	2503 May 01 19:08	3°♌34'02	-4.5m		2505 Nov 02 11:12	0°♊		
desc. node	2503 May 14 09:53	10°♌28'05			2505 Nov 26 15:33	0°♊		
	2503 Jun 06 19:40	0°♌			2505 Dec 20 21:36	0°♋		
morning max el	2503 Jun 08 13:42	1°♌40'19	45°53'45		2506 Jan 14 08:26	0°♋		
	2503 Jul 06 00:32	0°♌			2506 Feb 08 06:56	0°♌		
	2503 Aug 01 20:12	0°♍		asc. node	2506 Feb 19 08:19	12°♌57'44		
	2503 Aug 27 13:13	0°♈			2506 Mar 06 07:23	0°♌		
asc. node	2503 Sep 04 13:19	9°♈31'45		evening max el	2506 Mar 30 02:55	25°♌12'33	46°09'14	
	2503 Sep 21 12:48	0°♎			2506 Apr 04 01:27	0°♌		
	2503 Oct 15 23:57	0°♌		greatest brilliancy	2506 May 03 21:18	22°♌37'56	-4.5m	

retrograde	2506 May 18 13:21	26°II25'47		superior conj	2508 Oct 27 00:03	3°ML48'45	1°03'11
evening set	2506 Jun 02 16:46	21°II58'32		minimum elong	2508 Oct 27 10:15	4°ML20'38	1°02'51
inferior conj	2506 Jun 08 23:31	18°II11'00	0°27'27		2508 Nov 16 21:53	0°Z	
minimum elong	2506 Jun 09 00:31	18°II09'24	0°27'10	desc. node	2508 Nov 25 17:02	11°Z01'54	
min. Earth dist.	2506 Jun 08 21:12	18°II14'38	0.28805 AU	evening rise	2508 Dec 05 22:25	23°Z51'20	
desc. node	2506 Jun 10 21:43	16°II58'36			2508 Dec 10 20:01	0°Z	
morning rise	2506 Jun 15 08:36	14°II20'50			2509 Jan 03 18:14	0°≈	
direct	2506 Jun 30 12:24	9°II56'49			2509 Jan 27 18:02	0°K	
greatest brilliancy	2506 Jul 13 13:33	12°II55'57	-4.5m		2509 Feb 20 22:06	0°Y	
	2506 Aug 07 15:48	0°S			2509 Mar 17 10:30	0°B	
morning max el	2506 Aug 18 05:08	9°S37'27	45°45'55	asc. node	2509 Mar 18 20:18	1°B42'20	
	2506 Sep 07 06:16	0°Q			2509 Apr 11 13:09	0°II	
asc. node	2506 Oct 02 01:17	27°Q34'19			2509 May 07 16:36	0°S	
	2506 Oct 04 03:53	0°M			2509 Jun 05 00:56	0°Q	
	2506 Oct 29 13:22	0°A		evening max el	2509 Jun 08 13:50	3°Q26'35	45°25'51
	2506 Nov 23 03:46	0°ML		desc. node	2509 Jul 08 09:42	27°Q19'13	
	2506 Dec 17 08:11	0°Z			2509 Jul 13 15:57	0°M	
	2507 Jan 10 08:02	0°Z		greatest brilliancy	2509 Jul 13 19:53	0°M04'20	-4.5m
desc. node	2507 Jan 21 14:38	14°Z08'05		retrograde	2509 Jul 27 05:49	3°M13'22	
	2507 Feb 03 06:18	0°≈			2509 Aug 09 02:06	30°RQ	
morning set	2507 Feb 18 21:13	19°≈35'04		evening set	2509 Aug 13 04:05	27°Q48'44	
	2507 Feb 27 04:48	0°K		inferior conj	2509 Aug 17 16:30	25°Q03'57	-7°-41'-39
	2507 Mar 23 04:57	0°Y		minimum elong	2509 Aug 17 08:19	25°Q16'42	7°40'35
				min. Earth dist.	2509 Aug 17 19:58	24°Q58'34	0.28936 AU
superior conj	2507 Mar 31 05:19	9°Y59'04	-1°-21'-26	morning rise	2509 Aug 21 12:23	22°Q42'58	
minimum elong	2507 Mar 31 12:09	10°Y20'20	1°21'21	direct	2509 Sep 08 06:20	16°Q47'00	
max. Earth dist.	2507 Apr 04 08:52	15°Y08'42	1.72242 AU	greatest brilliancy	2509 Sep 22 17:32	20°Q27'25	-4.5m
	2507 Apr 16 07:57	0°B			2509 Oct 07 16:31	0°M	
evening rise	2507 May 09 03:19	28°B11'28		morning max el	2509 Oct 28 01:51	18°M16'34	46°21'54
	2507 May 10 14:33	0°II		asc. node	2509 Oct 29 12:53	19°M43'59	
asc. node	2507 May 14 18:00	5°II06'11			2509 Nov 08 10:41	0°A	
	2507 Jun 04 00:54	0°S			2509 Dec 05 04:53	0°ML	
	2507 Jun 28 15:15	0°Q			2509 Dec 30 10:04	0°Z	
	2507 Jul 23 10:35	0°M			2510 Jan 23 23:54	0°Z	
	2507 Aug 17 13:23	0°A			2510 Feb 17 07:19	0°≈	
desc. node	2507 Sep 03 07:25	19°A42'20		desc. node	2510 Feb 18 02:34	0°≈59'33	
	2507 Sep 12 04:01	0°ML			2510 Mar 13 12:34	0°K	
	2507 Oct 08 15:26	0°Z			2510 Apr 06 17:52	0°Y	
evening max el	2507 Nov 03 20:44	27°Z44'06	46°58'16		2510 May 01 00:28	0°B	
	2507 Nov 06 03:45	0°Z		morning set	2510 May 03 11:57	3°B03'30	
greatest brilliancy	2507 Dec 12 16:02	27°Z54'56	-4.7m		2510 May 25 08:43	0°II	
	2507 Dec 19 11:14	0°≈					
retrograde	2507 Dec 24 07:51	0°≈28'02		superior conj	2510 Jun 09 21:02	19°II04'59	0°-3'-16
asc. node	2507 Dec 25 10:37	0°≈26'31		minimum elong	2510 Jun 09 21:44	19°II07'08	0°03'16
	2507 Dec 29 02:13	30°RZ		behind sun begin	2510 Jun 08 23:15	17°II57'58	
evening set	2508 Jan 08 01:32	26°Z10'03		behind sun end	2510 Jun 10 20:14	20°II16'17	
inferior conj	2508 Jan 13 21:56	22°Z43'05	4°48'38	max. Earth dist.	2510 Jun 10 12:52	19°II53'41	1.73478 AU
minimum elong	2508 Jan 13 12:26	22°Z57'40	4°46'01	asc. node	2510 Jun 11 05:51	20°II45'51	
min. Earth dist.	2508 Jan 13 07:54	23°Z04'37	0.26564 AU		2510 Jun 18 18:11	0°S	
morning rise	2508 Jan 18 23:32	19°Z42'19			2510 Jul 13 04:07	0°Q	
direct	2508 Feb 03 06:22	15°Z04'52		evening rise	2510 Jul 16 04:26	3°Q42'06	
greatest brilliancy	2508 Feb 14 12:59	17°Z26'50	-4.7m		2510 Aug 06 14:21	0°M	
	2508 Mar 05 09:09	0°≈			2510 Aug 31 01:32	0°A	
morning max el	2508 Mar 24 07:43	17°≈16'35	46°38'02		2510 Sep 24 14:55	0°ML	
	2508 Apr 05 16:54	0°K		desc. node	2510 Sep 30 19:20	7°ML31'44	
desc. node	2508 Apr 15 00:13	10°K00'16			2510 Oct 19 07:50	0°Z	
	2508 May 02 22:31	0°Y			2510 Nov 13 06:24	0°Z	
	2508 May 28 22:39	0°B			2510 Dec 08 16:16	0°≈	
	2508 Jun 23 09:20	0°II			2511 Jan 04 06:47	0°K	
	2508 Jul 18 11:19	0°S		evening max el	2511 Jan 15 05:54	11°K32'27	47°11'12
asc. node	2508 Aug 06 03:31	22°S35'21		asc. node	2511 Jan 21 22:32	18°K11'54	
	2508 Aug 12 05:39	0°Q			2511 Feb 04 00:28	0°Y	
	2508 Sep 05 16:44	0°M		greatest brilliancy	2511 Feb 21 14:07	11°Y42'04	-4.6m
morning set	2508 Sep 19 11:16	17°M01'49		retrograde	2511 Mar 07 02:39	15°Y04'34	
	2508 Sep 29 21:50	0°A		evening set	2511 Mar 24 22:32	8°Y53'21	
	2508 Oct 23 22:55	0°ML		min. Earth dist.	2511 Mar 27 17:25	7°Y09'29	0.27959 AU
max. Earth dist.	2508 Oct 24 06:25	0°ML23'27	1.71823 AU	inferior conj	2511 Mar 28 02:34	6°Y55'09	8°27'33

minimum elong	2511 Mar 28 08:13	6°Υ46'16	8°27'04		2513 Aug 21 08:26	0°Π	
morning rise	2511 Mar 31 18:09	4°Υ40'07			2513 Sep 14 13:56	0°Δ	
	2511 Apr 10 18:06	30°RϠ		evening rise	2513 Sep 21 16:56	8°Δ50'11	
direct	2511 Apr 18 00:59	28°Ϡ55'06			2513 Oct 08 18:10	0°Π	
	2511 Apr 25 14:20	0°Υ		desc. node	2513 Oct 28 07:14	24°Π15'26	
greatest brilliancy	2511 Apr 29 06:38	1°Υ13'56	-4.5m		2513 Nov 01 22:17	0°Ϡ	
desc. node	2511 May 13 11:52	9°Υ13'18			2513 Nov 26 03:00	0°Θ	
morning max el	2511 Jun 06 05:14	29°Υ27'55	45°54'52		2513 Dec 20 09:30	0°≈	
	2511 Jun 06 18:33	0°Ϡ			2514 Jan 13 21:00	0°Ϡ	
	2511 Jul 05 16:15	0°Π			2514 Feb 07 20:40	0°Υ	
	2511 Aug 01 09:22	0°Θ		asc. node	2514 Feb 18 10:21	12°Υ21'32	
	2511 Aug 27 01:11	0°Ω			2514 Mar 05 23:40	0°Ϡ	
asc. node	2511 Sep 03 15:25	9°Ω03'03		evening max el	2514 Mar 27 17:07	22°Ϡ55'22	46°11'34
	2511 Sep 21 00:08	0°Π			2514 Apr 04 01:47	0°Π	
	2511 Oct 15 11:00	0°Δ		greatest brilliancy	2514 May 01 14:03	20°Π28'21	-4.5m
	2511 Nov 08 13:53	0°Π		retrograde	2514 May 16 05:24	24°Π16'21	
morning set	2511 Dec 01 08:50	28°Π33'37		evening set	2514 May 31 10:08	19°Π47'33	
	2511 Dec 02 12:21	0°Ϡ		inferior conj	2514 Jun 06 15:50	16°Π01'41	0°47'29
desc. node	2511 Dec 24 04:55	27°Ϡ16'21		minimum elong	2514 Jun 06 17:34	15°Π58'56	0°46'58
	2511 Dec 26 08:55	0°Θ		min. Earth dist.	2514 Jun 06 14:08	16°Π04'21	0.28785 AU
				desc. node	2514 Jun 09 23:49	13°Π57'18	
superior conj	2512 Jan 11 11:57	20°Θ17'30	0°-42'-4	morning rise	2514 Jun 13 01:15	12°Π10'49	
minimum elong	2512 Jan 11 01:51	19°Θ45'45	0°41'38	direct	2514 Jun 28 03:47	7°Π47'38	
max. Earth dist.	2512 Jan 12 15:11	21°Θ43'11	1.71089 AU	greatest brilliancy	2514 Jul 11 04:53	10°Π46'05	-4.5m
	2512 Jan 19 05:07	0°≈			2514 Aug 07 18:50	0°Θ	
	2512 Feb 12 02:10	0°Ϡ		morning max el	2514 Aug 15 20:11	7°Θ25'46	45°45'30
evening rise	2512 Feb 21 17:58	12°Ϡ06'22			2514 Sep 06 22:50	0°Ω	
	2512 Mar 07 01:38	0°Υ		asc. node	2514 Oct 01 03:10	27°Ω00'12	
	2512 Mar 31 05:30	0°Ϡ			2514 Oct 03 17:27	0°Π	
asc. node	2512 Apr 15 08:10	18°Ϡ35'59			2514 Oct 29 01:39	0°Δ	
	2512 Apr 24 15:50	0°Π			2514 Nov 22 15:25	0°Π	
	2512 May 19 10:49	0°Θ			2514 Dec 16 19:31	0°Ϡ	
	2512 Jun 13 17:51	0°Ω			2515 Jan 09 19:11	0°Θ	
	2512 Jul 09 20:15	0°Π		desc. node	2515 Jan 20 16:46	13°Θ40'00	
desc. node	2512 Aug 04 21:37	28°Π17'41			2515 Feb 02 17:20	0°≈	
	2512 Aug 06 13:11	0°Δ		morning set	2515 Feb 16 07:22	17°≈02'08	
evening max el	2512 Aug 19 08:01	12°Δ44'27	45°50'34		2515 Feb 26 15:44	0°Ϡ	
	2512 Sep 08 05:47	0°Π			2515 Mar 22 15:48	0°Υ	
greatest brilliancy	2512 Sep 26 13:52	10°Π42'10	-4.6m				
retrograde	2512 Oct 07 07:03	12°Π45'44		superior conj	2515 Mar 28 18:19	7°Υ36'29	-1°-22'-36
evening set	2512 Oct 23 17:42	7°Π38'27		minimum elong	2515 Mar 29 00:25	7°Υ55'28	1°22'31
inferior conj	2512 Oct 28 03:44	4°Π59'43	-6°-30'-56	max. Earth dist.	2515 Apr 01 20:02	12°Υ40'32	1.72184 AU
minimum elong	2512 Oct 28 14:11	4°Π43'41	6°28'45		2515 Apr 15 18:45	0°Ϡ	
min. Earth dist.	2512 Oct 29 01:55	4°Π25'41	0.27384 AU	evening rise	2515 May 06 18:35	25°Ϡ57'24	
morning rise	2512 Nov 02 10:10	1°Π51'16			2515 May 10 01:20	0°Π	
	2512 Nov 06 00:21	30°RΔ		asc. node	2515 May 13 20:04	4°Π39'19	
direct	2512 Nov 18 02:17	27°Δ04'39			2515 Jun 03 11:47	0°Θ	
asc. node	2512 Nov 26 00:44	28°Δ17'13			2515 Jun 28 02:23	0°Ω	
	2512 Nov 30 15:37	0°Π			2515 Jul 22 22:14	0°Π	
greatest brilliancy	2512 Dec 01 22:15	0°Π35'12	-4.6m		2515 Aug 17 01:53	0°Δ	
	2513 Jan 07 08:36	0°Ϡ		desc. node	2515 Sep 02 09:23	19°Δ09'12	
morning max el	2513 Jan 07 19:43	0°Ϡ28'17	46°56'35		2515 Sep 11 17:59	0°Π	
	2513 Feb 03 23:45	0°Θ			2515 Oct 08 08:16	0°Ϡ	
	2513 Mar 01 18:29	0°≈		evening max el	2515 Nov 01 09:46	25°Ϡ19'42	46°56'33
desc. node	2513 Mar 17 14:27	18°≈52'22			2515 Nov 06 04:26	0°Θ	
	2513 Mar 26 20:44	0°Ϡ		greatest brilliancy	2515 Dec 10 05:29	25°Θ27'48	-4.7m
	2513 Apr 20 16:04	0°Υ		retrograde	2515 Dec 21 20:40	28°Θ00'23	
	2513 May 15 08:36	0°Ϡ		asc. node	2515 Dec 24 12:41	27°Θ51'35	
	2513 Jun 08 23:47	0°Π		evening set	2516 Jan 05 11:54	23°Θ45'13	
	2513 Jul 03 13:23	0°Θ		inferior conj	2516 Jan 11 10:28	20°Θ15'53	4°27'48
asc. node	2513 Jul 08 17:45	6°Θ20'38		minimum elong	2516 Jan 11 01:25	20°Θ29'44	4°25'14
morning set	2513 Jul 10 22:14	9°Θ01'20		min. Earth dist.	2516 Jan 10 21:26	20°Θ35'49	0.26542 AU
	2513 Jul 28 00:27	0°Ω		morning rise	2516 Jan 16 15:07	17°Θ11'18	
max. Earth dist.	2513 Aug 13 11:53	20°Ω17'58	1.73216 AU	direct	2516 Jan 31 18:39	12°Θ37'37	
				greatest brilliancy	2516 Feb 12 03:47	15°Θ02'28	-4.7m
superior conj	2513 Aug 16 07:55	23°Ω47'53	1°15'04		2516 Mar 05 20:04	0°≈	
minimum elong	2513 Aug 16 00:32	23°Ω25'05	1°14'53	morning max el	2516 Mar 21 21:45	14°≈55'00	46°39'23

	2516 Apr 05 11:51	0° H			2518 Sep 24 02:43	0° M	
desc. node	2516 Apr 14 02:13	9° H 18'43		desc. node	2518 Sep 29 21:20	7° M 01'27	
	2516 May 02 13:25	0° Y			2518 Oct 18 20:20	0° Z	
	2516 May 28 11:43	0° B			2518 Nov 12 19:57	0° Z	
	2516 Jun 22 21:21	0° II			2518 Dec 08 07:37	0° \approx	
	2516 Jul 17 22:42	0° S			2519 Jan 04 02:07	0° H	
asc. node	2516 Aug 05 05:33	22° S 07'51		evening max el	2519 Jan 12 21:36	9° H 13'34	47°12'23
	2516 Aug 11 16:39	0° Q		asc. node	2519 Jan 21 00:35	17° H 15'47	
	2516 Sep 05 03:34	0° M			2519 Feb 04 13:19	0° Y	
morning set	2516 Sep 17 03:42	14° M 50'30		greatest brilliancy	2519 Feb 19 07:20	9° Y 25'20	-4.6m
	2516 Sep 29 08:38	0° A		retrograde	2519 Mar 04 18:03	12° Y 45'14	
max. Earth dist.	2516 Oct 21 20:51	28° A 04'37	1.71866 AU	evening set	2519 Mar 22 15:15	6° Y 31'51	
	2516 Oct 23 09:45	0° M		inferior conj	2519 Mar 25 17:19	4° Y 36'27	8°33'48
				minimum elong	2519 Mar 25 22:17	4° Y 28'39	8°33'26
superior conj	2516 Oct 24 14:20	1° M 29'20	1°05'31	min. Earth dist.	2519 Mar 25 07:09	4° Y 52'25	0.27913 AU
minimum elong	2516 Oct 25 00:22	2° M 00'42	1°05'12	morning rise	2519 Mar 29 05:34	2° Y 26'20	
	2516 Nov 16 08:48	0° Z			2519 Apr 02 15:19	30° R H	
desc. node	2516 Nov 24 19:11	10° Z 34'16		direct	2519 Apr 15 15:38	26° H 37'30	
evening rise	2516 Dec 03 10:02	21° Z 22'49		greatest brilliancy	2519 Apr 26 17:58	28° H 53'18	-4.5m
	2516 Dec 10 07:01	0° Z			2519 Apr 29 08:52	0° Y	
	2517 Jan 03 05:22	0° \approx		desc. node	2519 May 12 14:01	8° Y 00'46	
	2517 Jan 27 05:22	0° H		morning max el	2519 Jun 03 19:57	27° Y 12'53	45°55'48
	2517 Feb 20 09:44	0° Y			2519 Jun 06 16:43	0° B	
	2517 Mar 16 22:39	0° B			2519 Jul 05 08:01	0° II	
asc. node	2517 Mar 17 22:14	1° B 11'18			2519 Jul 31 22:47	0° S	
	2517 Apr 11 02:18	0° II			2519 Aug 26 13:27	0° Q	
	2517 May 07 07:54	0° S		asc. node	2519 Sep 02 17:22	8° Q 32'50	
	2517 Jun 04 22:16	0° Q			2519 Sep 20 11:49	0° M	
evening max el	2517 Jun 06 06:22	1° Q 17'33	45°26'21		2519 Oct 14 22:21	0° A	
desc. node	2517 Jul 07 11:49	25° Q 56'42			2519 Nov 08 01:05	0° M	
greatest brilliancy	2517 Jul 11 08:55	27° Q 51'09	-4.5m	morning set	2519 Nov 28 20:51	26° M 05'38	
	2517 Jul 17 08:30	0° M			2519 Dec 01 23:30	0° Z	
retrograde	2517 Jul 24 21:56	1° M 02'58		desc. node	2519 Dec 23 06:57	26° Z 47'39	
	2517 Aug 01 04:33	30° R Q			2519 Dec 25 20:05	0° Z	
evening set	2517 Aug 10 16:42	25° Q 42'44					
inferior conj	2517 Aug 15 08:22	22° Q 52'59	-7°-32'-6	superior conj	2520 Jan 08 21:40	17° Z 42'01	0°-38'-30
minimum elong	2517 Aug 14 23:47	23° Q 06'21	7°30'53	minimum elong	2520 Jan 08 12:14	17° Z 12'20	0°38'05
min. Earth dist.	2517 Aug 15 10:38	22° Q 49'27	0.28956 AU	max. Earth dist.	2520 Jan 09 18:56	18° Z 48'54	1.71081 AU
morning rise	2517 Aug 19 06:44	20° Q 28'18			2520 Jan 18 16:18	0° \approx	
direct	2517 Sep 05 23:01	14° Q 35'57			2520 Feb 11 13:20	0° H	
greatest brilliancy	2517 Sep 20 08:30	18° Q 14'49	-4.5m	evening rise	2520 Feb 19 04:29	9° H 34'00	
	2517 Oct 08 03:14	0° M			2520 Mar 06 12:48	0° Y	
morning max el	2517 Oct 25 17:47	16° M 02'42	46°20'16		2520 Mar 30 16:46	0° B	
asc. node	2517 Oct 28 15:02	18° M 56'09		asc. node	2520 Apr 14 10:16	18° B 07'30	
	2517 Nov 08 05:03	0° A			2520 Apr 24 03:20	0° II	
	2517 Dec 04 19:33	0° M			2520 May 18 22:49	0° S	
	2517 Dec 29 23:10	0° Z			2520 Jun 13 06:48	0° Q	
	2518 Jan 23 12:10	0° Z			2520 Jul 09 11:07	0° M	
	2518 Feb 16 19:04	0° \approx		desc. node	2520 Aug 03 23:33	27° M 33'31	
desc. node	2518 Feb 17 04:33	0° \approx 29'23			2520 Aug 06 08:42	0° A	
	2518 Mar 12 23:57	0° H		evening max el	2520 Aug 16 21:05	10° A 24'29	45°48'29
	2518 Apr 06 04:59	0° Y			2520 Sep 08 23:55	0° M	
	2518 Apr 30 11:23	0° B		greatest brilliancy	2520 Sep 24 03:10	8° M 21'22	-4.5m
morning set	2518 May 01 03:54	0° B 50'57		retrograde	2520 Oct 04 19:21	10° M 24'23	
	2518 May 24 19:32	0° II		evening set	2520 Oct 21 10:11	5° M 12'16	
				inferior conj	2520 Oct 25 17:16	2° M 37'48	-6°-45'-34
superior conj	2518 Jun 07 14:22	16° II 57'27	0°-6'-31	minimum elong	2520 Oct 26 03:36	2° M 21'56	6°43'31
minimum elong	2518 Jun 07 15:45	17° II 01'42	0°06'28	min. Earth dist.	2520 Oct 26 16:12	2° M 02'36	0.27453 AU
behind sun begin	2518 Jun 06 18:36	15° II 56'42			2520 Oct 30 01:56	30° R A	
behind sun end	2518 Jun 08 12:53	18° II 06'43		morning rise	2520 Oct 30 20:29	29° A 33'29	
max. Earth dist.	2518 Jun 08 11:20	18° II 01'58	1.73461 AU	direct	2520 Nov 15 15:55	24° A 41'28	
asc. node	2518 Jun 10 07:59	20° II 19'12		asc. node	2520 Nov 25 02:51	26° A 22'52	
	2518 Jun 18 04:58	0° S		greatest brilliancy	2520 Nov 29 14:21	28° A 13'57	-4.6m
	2518 Jul 12 14:58	0° Q			2520 Dec 02 23:24	0° M	
evening rise	2518 Jul 13 23:09	1° Q 38'49		morning max el	2521 Jan 05 08:45	28° M 01'12	46°56'09
	2518 Aug 06 01:22	0° M			2521 Jan 07 07:05	0° Z	
	2518 Aug 30 12:52	0° A			2521 Feb 03 16:13	0° Z	

	2521 Mar 01 08:36	0°♊		evening max el	2523 Oct 29 23:38	22°♊56'15	46°54'33
desc. node	2521 Mar 16 16:25	18°♊18'29			2523 Nov 06 07:03	0°♋	
	2521 Mar 26 09:36	0°♌		greatest brilliancy	2523 Dec 07 18:14	22°♋57'57	-4.7m
	2521 Apr 20 04:09	0°♍		retrograde	2523 Dec 19 09:33	25°♋30'17	
	2521 May 14 20:09	0°♎		asc. node	2523 Dec 23 14:43	25°♋08'12	
	2521 Jun 08 10:59	0°♏		evening set	2524 Jan 02 22:10	21°♋17'50	
	2521 Jul 03 00:22	0°♐		inferior conj	2524 Jan 08 22:37	17°♋46'16	4°06'04
asc. node	2521 Jul 07 19:44	5°♐53'12		minimum elong	2524 Jan 08 14:06	17°♋59'15	4°03'36
morning set	2521 Jul 08 16:22	6°♐56'22		min. Earth dist.	2524 Jan 08 10:27	18°♋04'48	0.26520 AU
	2521 Jul 27 11:19	0°♑		morning rise	2524 Jan 14 06:15	14°♋38'02	
max. Earth dist.	2521 Aug 11 07:14	18°♑16'02	1.73256 AU	direct	2524 Jan 29 07:10	10°♋08'10	
				greatest brilliancy	2524 Feb 09 17:30	12°♋35'01	-4.7m
superior conj	2521 Aug 14 02:14	21°♑42'41	1°13'32		2524 Mar 06 04:40	0°♌	
minimum elong	2521 Aug 13 18:30	21°♑18'50	1°13'20	morning max el	2524 Mar 19 12:06	12°♌33'10	46°40'50
	2521 Aug 20 19:20	0°♍			2524 Apr 05 06:37	0°♌	
	2521 Sep 14 00:57	0°♎		desc. node	2524 Apr 13 04:25	8°♌37'29	
evening rise	2521 Sep 19 09:28	6°♎38'15			2524 May 02 04:20	0°♍	
	2521 Oct 08 05:25	0°♏			2524 May 28 00:51	0°♎	
desc. node	2521 Oct 27 09:20	23°♏46'26			2524 Jun 22 09:29	0°♏	
	2521 Nov 01 09:48	0°♐			2524 Jul 17 10:13	0°♐	
	2521 Nov 25 14:51	0°♑		asc. node	2524 Aug 04 07:33	21°♐39'47	
	2521 Dec 19 21:48	0°♒			2524 Aug 11 03:48	0°♑	
	2522 Jan 13 09:59	0°♓			2524 Sep 04 14:32	0°♒	
	2522 Feb 07 10:53	0°♈		morning set	2524 Sep 14 20:33	12°♒40'14	
asc. node	2522 Feb 17 12:19	11°♈43'50			2524 Sep 28 19:33	0°♓	
	2522 Mar 05 16:36	0°♉		max. Earth dist.	2524 Oct 19 10:21	25°♓42'32	1.71915 AU
evening max el	2522 Mar 25 07:25	20°♉37'21	46°13'59				
	2522 Apr 04 03:48	0°♊		superior conj	2524 Oct 22 04:56	29°♓10'36	1°07'43
greatest brilliancy	2522 Apr 29 05:57	18°♊16'43	-4.5m	minimum elong	2524 Oct 22 14:43	29°♓41'10	1°07'25
retrograde	2522 May 13 21:51	22°♊06'13			2524 Oct 22 20:44	0°♋	
evening set	2522 May 29 03:40	17°♊35'23			2524 Nov 15 19:54	0°♌	
inferior conj	2522 Jun 04 08:10	13°♊51'31	1°07'30	desc. node	2524 Nov 23 21:14	10°♌05'43	
minimum elong	2522 Jun 04 10:38	13°♊47'37	1°06'45	evening rise	2524 Nov 30 21:34	18°♌53'20	
min. Earth dist.	2522 Jun 04 06:54	13°♊53'29	0.28765 AU		2524 Dec 09 18:16	0°♍	
desc. node	2522 Jun 09 01:51	10°♊57'01			2525 Jan 02 16:48	0°♎	
morning rise	2522 Jun 10 17:47	10°♊00'24			2525 Jan 26 16:59	0°♏	
direct	2522 Jun 25 19:07	5°♊37'32			2525 Feb 19 21:38	0°♐	
greatest brilliancy	2522 Jul 08 20:35	8°♊36'02	-4.5m		2525 Mar 16 11:03	0°♑	
	2522 Aug 07 20:40	0°♋		asc. node	2525 Mar 17 00:23	0°♒40'18	
morning max el	2522 Aug 13 12:01	5°♋15'18	45°45'02		2525 Apr 10 15:42	0°♓	
	2522 Sep 06 15:25	0°♌			2525 May 06 23:32	0°♔	
asc. node	2522 Sep 30 05:20	26°♌26'04		evening max el	2525 Jun 03 23:10	29°♔08'55	45°26'55
	2522 Oct 03 07:16	0°♍			2525 Jun 04 20:29	0°♕	
	2522 Oct 28 14:17	0°♎		desc. node	2525 Jul 06 13:48	24°♕31'28	
	2522 Nov 22 03:29	0°♏		greatest brilliancy	2525 Jul 08 23:25	25°♕39'58	-4.5m
	2522 Dec 16 07:15	0°♐		retrograde	2525 Jul 22 13:56	28°♕53'04	
	2523 Jan 09 06:41	0°♑		evening set	2525 Aug 08 05:38	23°♕37'30	
desc. node	2523 Jan 19 18:44	13°♑10'19		inferior conj	2525 Aug 13 00:28	20°♕42'46	-7°-21'-53
	2523 Feb 02 04:40	0°♒		minimum elong	2525 Aug 12 15:32	20°♕56'41	7°20'33
morning set	2523 Feb 13 17:18	14°♒27'27		min. Earth dist.	2525 Aug 13 01:46	20°♕40'45	0.28969 AU
	2523 Feb 26 02:56	0°♓		morning rise	2525 Aug 17 01:22	18°♕14'10	
	2523 Mar 22 02:56	0°♈		direct	2525 Sep 03 15:49	12°♕25'51	
				greatest brilliancy	2525 Sep 17 22:32	16°♕01'33	-4.5m
superior conj	2523 Mar 26 07:11	5°♈12'30	-1°-23'-35		2525 Oct 08 10:57	0°♉	
minimum elong	2523 Mar 26 12:30	5°♈29'04	1°23'33	morning max el	2525 Oct 23 09:02	13°♉47'31	46°18'36
max. Earth dist.	2523 Mar 30 06:15	10°♈08'31	1.72129 AU	asc. node	2525 Oct 27 17:06	18°♉09'09	
	2523 Apr 15 05:49	0°♉			2525 Nov 07 22:55	0°♊	
evening rise	2523 May 04 09:54	23°♉42'35			2525 Dec 04 10:02	0°♋	
	2523 May 09 12:24	0°♊			2525 Dec 29 12:14	0°♌	
asc. node	2523 May 12 22:12	4°♊11'46			2526 Jan 23 00:29	0°♍	
	2523 Jun 02 22:57	0°♋		desc. node	2526 Feb 16 06:36	29°♍59'00	
	2523 Jun 27 13:48	0°♌			2526 Feb 16 06:55	0°♎	
	2523 Jul 22 10:09	0°♍			2526 Mar 12 11:28	0°♏	
	2523 Aug 16 14:42	0°♎			2526 Apr 05 16:12	0°♐	
desc. node	2523 Sep 01 11:24	18°♎35'18		morning set	2526 Apr 28 19:30	28°♐37'05	
	2523 Sep 11 08:22	0°♏			2526 Apr 29 22:22	0°♑	
	2523 Oct 08 01:49	0°♐			2526 May 24 06:21	0°♒	

superior conj	2526 Jun 05 07:31	14°II49'29	0°-9'-46	minimum elong	2528 Oct 23 17:09	0°III01'55	6°57'23
minimum elong	2526 Jun 05 09:36	14°II55'52	0°09'41		2528 Oct 23 18:24	30°R♂	
behind sun begin	2526 Jun 04 15:11	13°II59'13		min. Earth dist.	2528 Oct 24 06:29	29°♂41'28	0.27522 AU
behind sun end	2526 Jun 06 04:01	15°II52'31		morning rise	2528 Oct 28 06:56	27°♂17'45	
max. Earth dist.	2526 Jun 06 09:50	16°II10'23	1.73436 AU	direct	2528 Nov 13 05:52	22°♂19'47	
asc. node	2526 Jun 09 09:56	19°II52'02		asc. node	2528 Nov 24 04:47	24°♂34'09	
	2526 Jun 17 15:43	0°♂		greatest brilliancy	2528 Nov 27 07:26	25°♂55'34	-4.6m
evening rise	2526 Jul 11 17:55	29°♂35'49			2528 Dec 04 10:48	0°III	
	2526 Jul 12 01:48	0°♂		morning max el	2529 Jan 02 22:39	25°III37'40	46°55'48
	2526 Aug 05 12:21	0°♂			2529 Jan 07 04:16	0°♂	
	2526 Aug 30 00:08	0°♂			2529 Feb 03 07:59	0°♂	
	2526 Sep 23 14:27	0°III			2529 Feb 28 22:11	0°≈	
desc. node	2526 Sep 28 23:30	6°III32'01		desc. node	2529 Mar 15 18:35	17°≈46'30	
	2526 Oct 18 08:46	0°♂			2529 Mar 25 22:02	0°♂	
	2526 Nov 12 09:27	0°♂			2529 Apr 19 15:52	0°♂	
	2526 Dec 07 23:03	0°≈			2529 May 14 07:24	0°♂	
	2527 Jan 03 21:58	0°♂			2529 Jun 07 21:54	0°II	
evening max el	2527 Jan 10 12:24	6°♂52'13	47°13'06		2529 Jul 02 11:04	0°♂	
asc. node	2527 Jan 20 02:32	16°♂18'02		morning set	2529 Jul 06 10:15	4°♂51'29	
	2527 Feb 05 06:46	0°♂		asc. node	2529 Jul 06 21:46	5°♂26'47	
greatest brilliancy	2527 Feb 17 00:49	7°♂08'00	-4.6m		2529 Jul 26 21:53	0°♂	
retrograde	2527 Mar 02 08:37	10°♂24'34		max. Earth dist.	2529 Aug 09 04:18	16°♂20'26	1.73289 AU
evening set	2527 Mar 20 07:20	4°♂09'43					
inferior conj	2527 Mar 23 07:47	2°♂16'40	8°39'09	superior conj	2529 Aug 11 20:23	19°♂38'03	1°11'53
minimum elong	2527 Mar 23 11:58	2°♂10'04	8°38'54	minimum elong	2529 Aug 11 12:21	19°♂13'16	1°11'41
min. Earth dist.	2527 Mar 22 21:02	2°♂33'35	0.27867 AU		2529 Aug 20 05:53	0°♂	
morning rise	2527 Mar 26 16:51	0°♂11'09			2529 Sep 13 11:38	0°♂	
	2527 Mar 27 00:17	30°R♂		evening rise	2529 Sep 17 02:08	4°♂28'01	
direct	2527 Apr 13 05:31	24°♂18'44			2529 Oct 07 16:19	0°III	
greatest brilliancy	2527 Apr 24 06:05	26°♂32'33	-4.6m	desc. node	2529 Oct 26 11:21	23°III18'13	
	2527 May 01 10:29	0°♂			2529 Oct 31 20:59	0°♂	
desc. node	2527 May 11 16:01	6°♂49'36			2529 Nov 25 02:23	0°♂	
morning max el	2527 Jun 01 09:39	24°♂55'04	45°57'00		2529 Dec 19 09:45	0°≈	
	2527 Jun 06 14:04	0°♂			2530 Jan 12 22:37	0°♂	
	2527 Jul 04 23:26	0°II			2530 Feb 07 00:47	0°♂	
	2527 Jul 31 11:56	0°♂		asc. node	2530 Feb 16 14:29	11°♂07'51	
	2527 Aug 26 01:29	0°♂			2530 Mar 05 09:21	0°♂	
asc. node	2527 Sep 01 19:27	8°♂03'43		evening max el	2530 Mar 22 22:19	18°♂22'09	46°16'19
	2527 Sep 19 23:15	0°♂			2530 Apr 04 06:48	0°II	
	2527 Oct 14 09:28	0°♂		greatest brilliancy	2530 Apr 26 21:20	16°II05'29	-4.5m
	2527 Nov 07 12:02	0°III		retrograde	2530 May 11 14:35	19°II56'55	
morning set	2527 Nov 26 09:27	23°III40'13		evening set	2530 May 26 21:16	15°II23'47	
	2527 Dec 01 10:25	0°♂		inferior conj	2530 Jun 02 00:25	11°II42'01	1°27'25
desc. node	2527 Dec 22 08:56	26°♂19'34		minimum elong	2530 Jun 02 03:37	11°II37'00	1°26'28
	2527 Dec 25 07:00	0°♂		min. Earth dist.	2530 Jun 01 23:21	11°II43'42	0.28748 AU
				morning rise	2530 Jun 08 10:09	7°II51'03	
superior conj	2528 Jan 06 07:52	15°♂08'48	0°-34'-53	desc. node	2530 Jun 08 03:50	7°II59'45	
minimum elong	2528 Jan 05 23:09	14°♂41'25	0°34'30	direct	2530 Jun 23 10:56	3°II28'04	
max. Earth dist.	2528 Jan 06 22:08	15°♂53'41	1.71079 AU	greatest brilliancy	2530 Jul 06 12:19	6°II26'54	-4.5m
	2528 Jan 18 03:13	0°≈			2530 Aug 07 20:49	0°♂	
	2528 Feb 11 00:17	0°♂		morning max el	2530 Aug 11 04:39	3°♂07'45	45°44'38
evening rise	2528 Feb 16 15:05	7°♂02'30			2530 Sep 06 07:19	0°♂	
	2528 Mar 05 23:48	0°♂		asc. node	2530 Sep 29 07:25	25°♂53'03	
	2528 Mar 30 03:54	0°♂			2530 Oct 02 20:34	0°♂	
asc. node	2528 Apr 13 12:20	17°♂39'20			2530 Oct 28 02:25	0°♂	
	2528 Apr 23 14:44	0°II			2530 Nov 21 15:04	0°III	
	2528 May 18 10:42	0°♂			2530 Dec 15 18:32	0°♂	
	2528 Jun 12 19:38	0°♂			2531 Jan 08 17:46	0°♂	
	2528 Jul 09 01:55	0°♂		desc. node	2531 Jan 18 20:47	12°♂42'09	
desc. node	2528 Aug 03 01:36	26°♂49'56			2531 Feb 01 15:36	0°≈	
	2528 Aug 06 04:29	0°♂		morning set	2531 Feb 11 03:26	11°≈54'34	
evening max el	2528 Aug 14 09:50	8°♂04'55	45°46'39		2531 Feb 25 13:45	0°♂	
	2528 Sep 09 23:38	0°III			2531 Mar 21 13:38	0°♂	
greatest brilliancy	2528 Sep 21 15:33	6°III01'05	-4.5m				
retrograde	2528 Oct 02 08:07	8°III04'58		superior conj	2531 Mar 23 20:07	2°♂49'55	-1°-24'-26
evening set	2528 Oct 19 02:47	2°III47'37		minimum elong	2531 Mar 24 00:38	3°♂03'57	1°24'25
inferior conj	2528 Oct 23 06:59	0°III17'31	-6°-59'-18	max. Earth dist.	2531 Mar 27 18:14	7°♂43'09	1.72074 AU

	2531 Apr 14 16:28	0°♄			2533 Nov 07 16:14	0°♎		
evening rise	2531 May 02 01:17	21°♄29'11			2533 Dec 04 00:12	0°♍		
	2531 May 08 23:03	0°♂			2533 Dec 29 01:02	0°♁		
asc. node	2531 May 12 00:09	3°♂44'58			2534 Jan 22 12:32	0°♄		
	2531 Jun 02 09:44	0°♄		desc. node	2534 Feb 15 08:43	29°♄29'37		
	2531 Jun 27 00:53	0°♂			2534 Feb 15 18:32	0°♌		
	2531 Jul 21 21:46	0°♎			2534 Mar 11 22:45	0°♋		
	2531 Aug 16 03:14	0°♎			2534 Apr 05 03:14	0°♑		
desc. node	2531 Aug 31 13:33	18°♎02'39		morning set	2534 Apr 26 10:55	26°♑23'00		
	2531 Sep 10 22:33	0°♍			2534 Apr 29 09:11	0°♄		
	2531 Oct 07 19:19	0°♁			2534 May 23 17:02	0°♂		
evening max el	2531 Oct 27 14:08	20°♁35'49 46°52'32						
	2531 Nov 06 10:41	0°♄		superior conj	2534 Jun 03 00:39	12°♂41'49 0°-13'00		
greatest brilliancy	2531 Dec 05 07:04	20°♄29'44 -4.7m		minimum elong	2534 Jun 03 03:25	12°♂50'19 0°12'54		
retrograde	2531 Dec 16 22:26	23°♄01'20		behind sun begin	2534 Jun 02 13:49	12°♂08'29		
asc. node	2531 Dec 22 16:45	22°♄20'03		behind sun end	2534 Jun 03 17:01	13°♂32'10		
evening set	2531 Dec 31 08:45	18°♄51'32		max. Earth dist.	2534 Jun 04 06:56	14°♂14'58 1.73406 AU		
inferior conj	2532 Jan 06 10:45	15°♄17'47 3°43'53		asc. node	2534 Jun 08 12:00	19°♂25'41		
minimum elong	2532 Jan 06 02:50	15°♄29'51 3°41'32			2534 Jun 17 02:21	0°♄		
min. Earth dist.	2532 Jan 05 23:27	15°♄35'01 0.26501 AU		evening rise	2534 Jul 09 12:40	27°♄33'13		
morning rise	2532 Jan 11 21:12	12°♄05'59			2534 Jul 11 12:29	0°♂		
direct	2532 Jan 26 20:02	7°♄40'01			2534 Aug 04 23:13	0°♎		
greatest brilliancy	2532 Feb 07 06:46	10°♄07'56 -4.7m			2534 Aug 29 11:20	0°♎		
	2532 Mar 06 10:26	0°♌			2534 Sep 23 02:10	0°♍		
morning max el	2532 Mar 17 02:05	10°♌11'25 46°42'14		desc. node	2534 Sep 28 01:27	6°♍01'56		
	2532 Apr 05 00:33	0°♋			2534 Oct 17 21:15	0°♁		
desc. node	2532 Apr 12 06:21	7°♋57'03			2534 Nov 11 23:06	0°♄		
	2532 May 01 18:42	0°♑			2534 Dec 07 14:42	0°♌		
	2532 May 27 13:31	0°♄			2535 Jan 03 18:25	0°♋		
	2532 Jun 21 21:11	0°♂		evening max el	2535 Jan 08 02:06	4°♋28'03 47°13'56		
	2532 Jul 16 21:22	0°♄		asc. node	2535 Jan 19 04:41	15°♋19'36		
asc. node	2532 Aug 03 09:40	21°♄13'02			2535 Feb 06 06:17	0°♑		
	2532 Aug 10 14:38	0°♂		greatest brilliancy	2535 Feb 14 17:57	4°♑50'08 -4.7m		
	2532 Sep 04 01:14	0°♎		retrograde	2535 Feb 27 22:49	8°♑03'59		
morning set	2532 Sep 12 13:15	10°♎30'24		evening set	2535 Mar 17 23:03	1°♑48'01		
	2532 Sep 28 06:13	0°♎		inferior conj	2535 Mar 20 22:14	29°♋56'54 8°43'42		
max. Earth dist.	2532 Oct 16 21:41	23°♎14'42 1.71962 AU		minimum elong	2535 Mar 21 01:36	29°♋51'36 8°43'32		
				min. Earth dist.	2535 Mar 20 11:03	0°♑14'30 0.27821 AU		
superior conj	2532 Oct 19 19:34	26°♎52'57 1°09'48			2535 Mar 20 20:16	30°♋		
minimum elong	2532 Oct 20 05:02	27°♎22'29 1°09'31		morning rise	2535 Mar 24 04:22	27°♋55'41		
	2532 Oct 22 07:26	0°♍		direct	2535 Apr 10 18:56	21°♋59'43		
	2532 Nov 15 06:42	0°♁		greatest brilliancy	2535 Apr 21 19:16	24°♋12'50 -4.6m		
desc. node	2532 Nov 22 23:11	9°♁37'49			2535 May 02 19:34	0°♑		
evening rise	2532 Nov 28 09:05	16°♁24'52		desc. node	2535 May 10 18:02	5°♑40'28		
	2532 Dec 09 05:13	0°♄		morning max el	2535 May 29 23:11	22°♑36'39 45°58'16		
	2533 Jan 02 03:55	0°♌			2535 Jun 06 10:42	0°♄		
	2533 Jan 26 04:20	0°♋			2535 Jul 04 14:39	0°♂		
	2533 Feb 19 09:16	0°♑			2535 Jul 31 00:59	0°♄		
	2533 Mar 15 23:13	0°♄			2535 Aug 25 13:28	0°♂		
asc. node	2533 Mar 16 02:25	0°♄09'40		asc. node	2535 Aug 31 21:33	7°♂34'39		
	2533 Apr 10 04:55	0°♂			2535 Sep 19 10:39	0°♎		
	2533 May 06 15:06	0°♄			2535 Oct 13 20:36	0°♎		
evening max el	2533 Jun 01 15:09	26°♄59'08 45°27'30			2535 Nov 06 23:05	0°♍		
	2533 Jun 04 19:17	0°♂		morning set	2535 Nov 23 21:54	21°♍14'00		
desc. node	2533 Jul 05 15:50	23°♂04'12			2535 Nov 30 21:27	0°♁		
greatest brilliancy	2533 Jul 06 14:18	23°♂29'58 -4.5m		desc. node	2535 Dec 21 11:03	25°♁51'28		
retrograde	2533 Jul 20 05:24	26°♂43'55			2535 Dec 24 18:03	0°♄		
evening set	2533 Aug 05 18:33	21°♂32'58						
inferior conj	2533 Aug 10 16:34	18°♂33'21 -7°-11'-4		superior conj	2536 Jan 03 17:41	12°♄33'58 0°-31'-10		
minimum elong	2533 Aug 10 07:20	18°♂47'47 7°09'36		minimum elong	2536 Jan 03 09:47	12°♄09'06 0°30'48		
min. Earth dist.	2533 Aug 10 17:13	18°♂32'19 0.28984 AU		max. Earth dist.	2536 Jan 04 00:41	12°♄56'00 1.71079 AU		
morning rise	2533 Aug 14 20:01	16°♂00'38			2536 Jan 17 14:16	0°♌		
direct	2533 Sep 01 08:12	10°♂16'24			2536 Feb 10 11:20	0°♋		
greatest brilliancy	2533 Sep 15 12:46	13°♂49'00 -4.5m		evening rise	2536 Feb 14 01:20	4°♋29'35		
	2533 Oct 08 16:12	0°♎			2536 Mar 05 10:55	0°♑		
morning max el	2533 Oct 20 23:20	11°♎30'25 46°16'56			2536 Mar 29 15:08	0°♄		
asc. node	2533 Oct 26 19:02	17°♎22'51		asc. node	2536 Apr 12 14:17	17°♄10'27		

	2536 Apr 23 02:16	0°♊			2538 Nov 21 02:56	0°♌	
	2536 May 17 22:46	0°♌			2538 Dec 15 06:06	0°♏	
	2536 Jun 12 08:42	0°♍			2539 Jan 08 05:09	0°♐	
	2536 Jul 08 17:04	0°♎		desc. node	2539 Jan 17 22:53	12°♑13'10	
desc. node	2536 Aug 02 03:46	26°♎05'40			2539 Feb 01 02:52	0°♒	
	2536 Aug 06 01:02	0°♏		morning set	2539 Feb 08 13:27	9°♒20'12	
evening max el	2536 Aug 11 22:58	5°♏46'09	45°44'58		2539 Feb 25 00:56	0°♓	
	2536 Sep 11 08:52	0°♌					
greatest brilliancy	2536 Sep 19 02:39	3°♌39'31	-4.5m	superior conj	2539 Mar 21 08:33	0°♑24'21	-1°-25'-8
retrograde	2536 Sep 29 21:28	5°♌45'37		minimum elong	2539 Mar 21 12:10	0°♑35'38	1°25'07
evening set	2536 Oct 16 19:21	0°♌22'54			2539 Mar 21 00:45	0°♑	
	2536 Oct 17 11:07	30°♌♏		max. Earth dist.	2539 Mar 25 07:07	5°♑19'12	1.72022 AU
inferior conj	2536 Oct 20 20:43	27°♏56'58	-7°-12'-6		2539 Apr 14 03:31	0°♒	
minimum elong	2536 Oct 21 06:38	27°♏41'46	7°10'21	evening rise	2539 Apr 29 16:06	19°♒12'42	
min. Earth dist.	2536 Oct 21 20:17	27°♏20'52	0.27596 AU		2539 May 08 10:07	0°♊	
morning rise	2536 Oct 25 17:23	25°♏02'04		asc. node	2539 May 11 02:12	3°♊17'12	
direct	2536 Nov 10 20:18	19°♏57'54			2539 Jun 01 20:55	0°♌	
asc. node	2536 Nov 23 06:53	22°♏49'18			2539 Jun 26 12:23	0°♍	
greatest brilliancy	2536 Nov 25 00:32	23°♏37'04	-4.6m		2539 Jul 21 09:51	0°♎	
	2536 Dec 05 12:10	0°♌			2539 Aug 15 16:18	0°♏	
morning max el	2536 Dec 31 13:30	23°♌15'50	46°55'13	desc. node	2539 Aug 30 15:30	17°♏28'00	
	2537 Jan 07 01:03	0°♏			2539 Sep 10 13:19	0°♌	
	2537 Feb 02 23:50	0°♐			2539 Oct 07 13:40	0°♏	
	2537 Feb 28 11:59	0°♒		evening max el	2539 Oct 25 04:51	18°♏14'57	46°50'30
desc. node	2537 Mar 14 20:34	17°♒13'08			2539 Nov 06 16:35	0°♐	
	2537 Mar 25 10:41	0°♓		greatest brilliancy	2539 Dec 02 20:44	18°♐02'01	-4.7m
	2537 Apr 19 03:48	0°♑		retrograde	2539 Dec 14 11:05	20°♐31'45	
	2537 May 13 18:52	0°♒		asc. node	2539 Dec 21 18:49	19°♐25'25	
	2537 Jun 07 09:03	0°♊		evening set	2539 Dec 28 19:45	16°♐24'35	
	2537 Jul 01 21:59	0°♌		inferior conj	2540 Jan 03 23:01	12°♐48'55	3°21'23
morning set	2537 Jul 04 04:05	2°♐45'39		minimum elong	2540 Jan 03 15:47	12°♐59'58	3°19'10
asc. node	2537 Jul 05 23:52	4°♐59'47		min. Earth dist.	2540 Jan 03 12:46	13°♐04'34	0.26482 AU
	2537 Jul 26 08:43	0°♍		morning rise	2540 Jan 09 12:05	9°♐33'34	
max. Earth dist.	2537 Aug 07 02:04	14°♍26'10	1.73319 AU	direct	2540 Jan 24 08:51	5°♐11'36	
				greatest brilliancy	2540 Feb 04 20:01	7°♐40'06	-4.7m
superior conj	2537 Aug 09 14:35	17°♍32'46	1°10'09		2540 Mar 06 14:39	0°♒	
minimum elong	2537 Aug 09 06:19	17°♍07'14	1°09'55	morning max el	2540 Mar 14 15:08	7°♒46'12	46°43'25
	2537 Aug 19 16:43	0°♎			2540 Apr 04 18:26	0°♓	
	2537 Sep 12 22:35	0°♏		desc. node	2540 Apr 11 08:22	7°♓16'07	
evening rise	2537 Sep 14 19:04	2°♏17'49			2540 May 01 09:19	0°♑	
	2537 Oct 07 03:28	0°♌			2540 May 27 02:32	0°♒	
desc. node	2537 Oct 25 13:22	22°♌49'17			2540 Jun 21 09:16	0°♊	
	2537 Oct 31 08:25	0°♏			2540 Jul 16 08:52	0°♌	
	2537 Nov 24 14:11	0°♐		asc. node	2540 Aug 02 11:40	20°♐44'50	
	2537 Dec 18 22:04	0°♒			2540 Aug 10 01:49	0°♍	
	2538 Jan 12 11:42	0°♓			2540 Sep 03 12:16	0°♎	
	2538 Feb 06 15:14	0°♑		morning set	2540 Sep 10 05:55	8°♎19'23	
asc. node	2538 Feb 15 16:28	10°♑29'47			2540 Sep 27 17:14	0°♏	
	2538 Mar 05 02:57	0°♒		max. Earth dist.	2540 Oct 14 08:19	20°♏43'35	1.72011 AU
evening max el	2538 Mar 20 13:59	16°♒07'32	46°18'50				
	2538 Apr 04 12:11	0°♊		superior conj	2540 Oct 17 10:27	24°♏34'59	1°11'44
greatest brilliancy	2538 Apr 24 13:29	13°♊53'57	-4.5m	minimum elong	2540 Oct 17 19:33	25°♏03'23	1°11'30
retrograde	2538 May 09 07:31	17°♊46'00			2540 Oct 21 18:31	0°♌	
evening set	2538 May 24 14:58	13°♊10'35			2540 Nov 14 17:52	0°♏	
inferior conj	2538 May 30 16:33	9°♊30'52	1°47'18	desc. node	2540 Nov 22 01:20	9°♏09'27	
minimum elong	2538 May 30 20:26	9°♊24'46	1°46'10	evening rise	2540 Nov 25 20:53	13°♏56'12	
min. Earth dist.	2538 May 30 15:18	9°♊32'50	0.28729 AU		2540 Dec 08 16:30	0°♐	
morning rise	2538 Jun 06 02:12	5°♊40'23			2541 Jan 01 15:21	0°♒	
desc. node	2538 Jun 07 05:57	5°♊03'25			2541 Jan 25 15:57	0°♓	
direct	2538 Jun 21 03:08	1°♊17'13			2541 Feb 18 21:12	0°♑	
greatest brilliancy	2538 Jul 04 03:05	4°♊15'20	-4.5m	asc. node	2541 Mar 15 04:22	29°♑37'52	
	2538 Aug 07 20:21	0°♌			2541 Mar 15 11:42	0°♒	
morning max el	2538 Aug 08 21:28	0°♐59'37	45°44'12		2541 Apr 09 18:33	0°♊	
	2538 Sep 05 23:20	0°♍			2541 May 06 07:19	0°♌	
asc. node	2538 Sep 28 09:18	25°♍18'34		evening max el	2541 May 30 06:26	24°♐46'28	45°28'08
	2538 Oct 02 10:06	0°♎			2541 Jun 04 19:38	0°♍	
	2538 Oct 27 14:51	0°♏		greatest brilliancy	2541 Jul 04 05:08	21°♍18'48	-4.5m

desc. node	2541 Jul 04 17:57	21°032'58		superior conj	2544 Jan 01 03:33	9°359'02	0°-27'-23
retrograde	2541 Jul 17 20:49	24°034'08		minimum elong	2543 Dec 31 20:30	9°36'52	0°27'03
evening set	2541 Aug 03 07:38	19°027'31		max. Earth dist.	2544 Jan 01 06:02	10°306'51	1.71086 AU
inferior conj	2541 Aug 08 08:48	16°023'21	-6°-59'-43		2544 Jan 17 01:24	0°≈	
minimum elong	2541 Aug 07 23:19	16°038'11	6°58'06		2544 Feb 09 22:28	0°✕	
min. Earth dist.	2541 Aug 08 09:06	16°022'52	0.28997 AU	evening rise	2544 Feb 11 11:42	1°✕56'42	
morning rise	2541 Aug 12 14:51	13°046'32			2544 Mar 04 22:06	0°Υ	
direct	2541 Aug 30 00:13	8°006'15			2544 Mar 29 02:26	0°8	
greatest brilliancy	2541 Sep 13 04:00	11°036'59	-4.5m	asc. node	2544 Apr 11 16:25	16°842'07	
	2541 Oct 08 19:59	0°♐			2544 Apr 22 13:48	0°Π	
morning max el	2541 Oct 18 13:08	9°♐11'21	46°15'19		2544 May 17 10:49	0°☾	
asc. node	2541 Oct 25 21:12	16°♐36'59			2544 Jun 11 21:48	0°0	
	2541 Nov 07 09:31	0°♊			2544 Jul 08 08:24	0°♐	
	2541 Dec 03 14:31	0°♋		desc. node	2544 Aug 01 05:41	25°♐20'05	
	2541 Dec 28 14:02	0°♌			2544 Aug 05 22:19	0°♊	
	2542 Jan 22 00:50	0°♍		evening max el	2544 Aug 09 13:08	3°♊30'01	45°43'15
desc. node	2542 Feb 14 10:42	28°359'01			2544 Sep 13 10:31	0°♋	
	2542 Feb 15 06:21	0°≈		greatest brilliancy	2544 Sep 16 13:29	1°♋17'59	-4.5m
	2542 Mar 11 10:13	0°✕		retrograde	2544 Sep 27 11:25	3°♋26'33	
	2542 Apr 04 14:25	0°Υ			2544 Oct 10 18:14	30°♋♊	
morning set	2542 Apr 24 02:27	24°Υ08'40		evening set	2544 Oct 14 11:58	27°♊58'46	
	2542 Apr 28 20:11	0°8		inferior conj	2544 Oct 18 10:33	25°♊36'46	-7°-24'-7
	2542 May 23 03:55	0°Π		minimum elong	2544 Oct 18 20:09	25°♊22'05	7°22'33
				min. Earth dist.	2544 Oct 19 09:47	25°♊01'13	0.27668 AU
superior conj	2542 May 31 17:53	10°Π33'45	0°-16'-13	morning rise	2544 Oct 23 03:51	22°♊46'51	
minimum elong	2542 May 31 21:19	10°Π44'20	0°16'04	direct	2544 Nov 08 11:16	17°♊36'40	
max. Earth dist.	2542 Jun 02 02:23	12°Π13'43	1.73380 AU	asc. node	2544 Nov 22 08:57	21°♊08'32	
asc. node	2542 Jun 07 14:07	18°Π58'47		greatest brilliancy	2544 Nov 22 16:56	21°♊18'07	-4.6m
	2542 Jun 16 13:14	0°☾			2544 Dec 06 06:43	0°♋	
evening rise	2542 Jul 07 07:24	25°☾29'50		morning max el	2544 Dec 29 04:50	20°♋55'39	46°54'30
	2542 Jul 10 23:25	0°0			2545 Jan 06 21:06	0°♌	
	2542 Aug 04 10:20	0°♐			2545 Feb 02 15:21	0°3	
	2542 Aug 28 22:47	0°♊			2545 Feb 28 01:34	0°≈	
	2542 Sep 22 14:08	0°♋		desc. node	2545 Mar 13 22:34	16°≈40'08	
desc. node	2542 Sep 27 03:29	5°♋31'26			2545 Mar 24 23:12	0°✕	
	2542 Oct 17 10:01	0°♌			2545 Apr 18 15:38	0°Υ	
	2542 Nov 11 13:05	0°3			2545 May 13 06:12	0°8	
	2542 Dec 07 06:51	0°≈			2545 Jun 06 20:02	0°Π	
	2543 Jan 03 15:48	0°✕			2545 Jul 01 08:45	0°☾	
evening max el	2543 Jan 05 15:24	2°✕02'13	47°14'45	morning set	2545 Jul 01 22:18	0°☾41'31	
asc. node	2543 Jan 18 06:43	14°✕18'57		asc. node	2545 Jul 05 01:52	4°☾33'00	
	2543 Feb 07 15:24	0°Υ			2545 Jul 25 19:22	0°0	
greatest brilliancy	2543 Feb 12 10:33	2°Υ31'02	-4.7m	max. Earth dist.	2545 Aug 05 00:35	12°034'43	1.73350 AU
retrograde	2543 Feb 25 13:15	5°Υ43'22					
	2543 Mar 14 16:25	30°♋✕		superior conj	2545 Aug 07 09:04	15°028'49	1°08'20
evening set	2543 Mar 15 14:28	29°♋26'36		minimum elong	2545 Aug 07 00:35	15°020'40	1°08'05
min. Earth dist.	2543 Mar 18 01:10	27°♋55'19	0.27772 AU		2545 Aug 19 03:25	0°♐	
inferior conj	2543 Mar 18 12:47	27°♋37'04	8°47'22		2545 Sep 12 09:25	0°♊	
minimum elong	2543 Mar 18 15:19	27°♋33'04	8°47'16	evening rise	2545 Sep 12 12:13	0°♊08'41	
morning rise	2543 Mar 21 16:20	25°♋39'49			2545 Oct 06 14:32	0°♋	
direct	2543 Apr 08 08:15	19°♋40'31		desc. node	2545 Oct 24 15:30	22°♋21'01	
greatest brilliancy	2543 Apr 19 09:05	21°♋53'54	-4.6m		2545 Oct 30 19:46	0°♌	
	2543 May 03 19:14	0°Υ			2545 Nov 24 01:54	0°3	
desc. node	2543 May 09 20:10	4°Υ33'27			2545 Dec 18 10:17	0°≈	
morning max el	2543 May 27 13:10	20°Υ19'13	45°59'35		2546 Jan 12 00:43	0°✕	
	2543 Jun 06 06:41	0°8			2546 Feb 06 05:42	0°Υ	
	2543 Jul 04 05:42	0°Π		asc. node	2546 Feb 14 18:26	9°Υ51'46	
	2543 Jul 30 14:03	0°☾			2546 Mar 04 20:47	0°8	
	2543 Aug 25 01:31	0°0		evening max el	2546 Mar 18 06:16	13°854'42	46°21'14
asc. node	2543 Aug 30 23:29	7°004'48			2546 Apr 04 19:36	0°Π	
	2543 Sep 18 22:10	0°♐		greatest brilliancy	2546 Apr 22 07:04	11°Π44'43	-4.5m
	2543 Oct 13 07:49	0°♊		retrograde	2546 May 07 00:30	15°Π35'28	
	2543 Nov 06 10:11	0°♋		evening set	2546 May 22 08:52	10°Π58'01	
morning set	2543 Nov 21 10:34	18°♋48'21		inferior conj	2546 May 28 08:42	7°Π20'21	2°07'08
	2543 Nov 30 08:33	0°♌		minimum elong	2546 May 28 13:16	7°Π13'11	2°05'48
desc. node	2543 Dec 20 13:06	25°♌23'00		min. Earth dist.	2546 May 28 07:13	7°Π22'42	0.28704 AU
	2543 Dec 24 05:10	0°3		morning rise	2546 Jun 03 18:05	3°Π30'29	

desc. node	2546 Jun 06 07:58	2°II11'13		2548 Dec 08 03:30	0°☾	
	2546 Jun 12 04:11	30°☿8		2549 Jan 01 02:33	0°≈	
direct	2546 Jun 18 19:29	29°☿07'18		2549 Jan 25 03:22	0°☿	
	2546 Jun 25 16:15	0°II		2549 Feb 18 08:55	0°☿	
greatest brilliancy	2546 Jul 01 16:41	2°II03'10	-4.5m	asc. node	2549 Mar 14 06:31	29°☿07'18
morning max el	2546 Aug 06 13:48	28°II51'18	45°43'51		2549 Mar 15 00:01	0°☿
	2546 Aug 07 18:31	0°☾			2549 Apr 09 08:04	0°II
	2546 Sep 05 14:46	0°☿			2549 May 05 23:33	0°☾
asc. node	2546 Sep 27 11:29	24°☿45'59		evening max el	2549 May 27 20:59	22°☾32'45 45°28'55
	2546 Oct 01 23:16	0°☿			2549 Jun 04 20:54	0°☿
	2546 Oct 27 03:01	0°☿		greatest brilliancy	2549 Jul 01 19:05	19°☿07'17 -4.5m
	2546 Nov 20 14:35	0°☿		desc. node	2549 Jul 03 19:56	19°☿59'07
	2546 Dec 14 17:28	0°☿		retrograde	2549 Jul 15 12:29	22°☿25'21
	2547 Jan 07 16:20	0°☾		evening set	2549 Jul 31 20:43	17°☿22'38
desc. node	2547 Jan 17 00:53	11°☾44'28		inferior conj	2549 Aug 06 00:58	14°☿14'13 -6°-47'-41
	2547 Jan 31 13:54	0°≈		minimum elong	2549 Aug 05 15:18	14°☿29'20 6°45'57
morning set	2547 Feb 05 23:17	6°≈45'56		min. Earth dist.	2549 Aug 06 01:02	14°☿14'07 0.29006 AU
	2547 Feb 24 11:53	0°☿		morning rise	2549 Aug 10 09:43	11°☿33'23
				direct	2549 Aug 27 15:53	5°☿56'53
superior conj	2547 Mar 18 20:47	27°☿58'47	-1°-25'-41	greatest brilliancy	2549 Sep 10 20:05	9°☿27'12 -4.5m
minimum elong	2547 Mar 18 23:27	28°☿07'07	1°25'41		2549 Oct 08 21:41	0°☿
	2547 Mar 20 11:37	0°☿		morning max el	2549 Oct 16 03:26	6°☿54'52 46°13'56
max. Earth dist.	2547 Mar 22 21:55	3°☿01'49	1.71970 AU	asc. node	2549 Oct 24 23:15	15°☿52'41
	2547 Apr 13 14:21	0°☿			2549 Nov 07 01:59	0°☿
evening rise	2547 Apr 27 06:47	16°☿56'24			2549 Dec 03 04:16	0°☿
	2547 May 07 20:57	0°II			2549 Dec 28 02:36	0°☿
asc. node	2547 May 10 04:20	2°II50'23			2550 Jan 21 12:45	0°☾
	2547 Jun 01 07:53	0°☾		desc. node	2550 Feb 13 12:45	28°☾29'37
	2547 Jun 25 23:38	0°☿			2550 Feb 14 17:52	0°≈
	2547 Jul 20 21:39	0°☿			2550 Mar 10 21:25	0°☿
	2547 Aug 15 05:04	0°☿			2550 Apr 04 01:22	0°☿
desc. node	2547 Aug 29 17:34	16°☿54'34		morning set	2550 Apr 21 17:22	21°☿52'58
	2547 Sep 10 03:53	0°☿			2550 Apr 28 06:56	0°☿
	2547 Oct 07 08:05	0°☿			2550 May 22 14:33	0°II
evening max el	2547 Oct 22 18:46	15°☿53'03	46°48'09			
	2547 Nov 07 00:25	0°☾		superior conj	2550 May 29 10:42	8°II25'13 0°-19'-28
greatest brilliancy	2547 Nov 30 11:19	15°☾35'52	-4.7m	minimum elong	2550 May 29 14:48	8°II37'51 0°19'16
retrograde	2547 Dec 11 23:06	18°☾02'31		max. Earth dist.	2550 May 30 20:41	10°II09'47 1.73352 AU
asc. node	2547 Dec 20 20:50	16°☾25'15		asc. node	2550 Jun 06 16:03	18°II32'09
evening set	2547 Dec 26 06:55	13°☾57'44			2550 Jun 15 23:50	0°☾
inferior conj	2548 Jan 01 11:14	10°☾20'36	2°58'13	evening rise	2550 Jul 05 01:58	23°☾26'48
minimum elong	2548 Jan 01 04:43	10°☾30'32	2°56'12		2550 Jul 10 10:06	0°☿
min. Earth dist.	2548 Jan 01 02:28	10°☾33'59	0.26468 AU		2550 Aug 03 21:12	0°☿
morning rise	2548 Jan 07 02:45	7°☾01'40			2550 Aug 28 09:59	0°☿
direct	2548 Jan 21 21:05	2°☾43'32			2550 Sep 22 01:51	0°☿
greatest brilliancy	2548 Feb 02 10:04	5°☾13'28	-4.7m	desc. node	2550 Sep 26 05:39	5°☿02'13
	2548 Mar 06 16:58	0°≈			2550 Oct 16 22:30	0°☿
morning max el	2548 Mar 12 03:11	5°≈18'58	46°44'38		2550 Nov 11 02:47	0°☾
	2548 Apr 04 11:39	0°☿			2550 Dec 06 22:48	0°≈
desc. node	2548 Apr 10 10:35	6°☿36'56		evening max el	2551 Jan 03 04:52	29°≈37'54 47°15'21
	2548 Apr 30 23:27	0°☿			2551 Jan 03 13:32	0°☿
	2548 May 26 15:09	0°☿		asc. node	2551 Jan 17 08:41	13°☿17'32
	2548 Jun 20 21:00	0°II			2551 Feb 09 16:47	0°☿
	2548 Jul 15 20:03	0°☾		greatest brilliancy	2551 Feb 10 01:49	0°☿10'32 -4.7m
asc. node	2548 Aug 01 13:41	20°☾17'40		retrograde	2551 Feb 23 03:49	3°☿22'43
	2548 Aug 09 12:40	0°☿			2551 Mar 08 01:14	30°☿☿
	2548 Sep 02 22:57	0°☿		evening set	2551 Mar 13 05:10	27°☿05'29
morning set	2548 Sep 07 22:57	6°☿10'42		min. Earth dist.	2551 Mar 15 14:45	25°☿36'09 0.27729 AU
	2548 Sep 27 03:52	0°☿		inferior conj	2551 Mar 16 03:04	25°☿16'50 8°49'59
max. Earth dist.	2548 Oct 11 21:32	18°☿21'47	1.72064 AU	minimum elong	2551 Mar 16 04:46	25°☿14'11 8°49'57
				morning rise	2551 Mar 19 04:32	23°☿23'02
superior conj	2548 Oct 15 01:47	22°☿19'44	1°13'32	direct	2551 Apr 05 21:37	17°☿20'49
minimum elong	2548 Oct 15 10:28	22°☿46'50	1°13'19	greatest brilliancy	2551 Apr 16 22:44	19°☿34'42 -4.6m
	2548 Oct 21 05:12	0°☿			2551 May 04 12:41	0°☿
	2548 Nov 14 04:41	0°☿		desc. node	2551 May 08 22:10	3°☿28'02
desc. node	2548 Nov 21 03:23	8°☿41'48		morning max el	2551 May 25 03:51	18°☿03'37 46°00'56
evening rise	2548 Nov 23 08:57	11°☿29'33			2551 Jun 06 01:57	0°☿

	2551 Jul 03 20:24	0°♈		2554 Jan 11 13:44	0°♉	
	2551 Jul 30 02:50	0°♉		2554 Feb 05 20:12	0°♊	
asc. node	2551 Aug 24 13:19	0°♊		asc. node	2554 Feb 13 20:38	9°♊14'29
	2551 Aug 30 01:36	6°♊36'12			2554 Mar 04 14:50	0°♋
	2551 Sep 18 09:26	0°♋		evening max el	2554 Mar 15 22:19	11°♋41'38 46°23'33
	2551 Oct 12 18:49	0°♌			2554 Apr 05 05:30	0°♈
greatest brilliancy	2551 Oct 14 14:43	2°♌15'59 -3.9m	greatest brilliancy	2554 Apr 20 01:11	9°♈36'29 -4.5m	
	2551 Nov 05 21:04	0°♍		retrograde	2554 May 04 17:03	13°♈25'01
morning set	2551 Nov 18 23:43	16°♍25'02		evening set	2554 May 20 02:58	8°♈45'31
	2551 Nov 29 19:23	0°♎		inferior conj	2554 May 26 00:55	5°♈10'03 2°26'44
desc. node	2551 Dec 19 15:05	24°♎55'11		minimum elong	2554 May 26 06:08	5°♈01'51 2°25'13
	2551 Dec 23 16:00	0°♏		min. Earth dist.	2554 May 25 23:22	5°♈12'28 0.28683 AU
			morning rise	2554 Jun 01 09:47	1°♈20'44	
superior conj	2551 Dec 29 13:49	7°♏26'14 0°-23'-34			2554 Jun 04 00:57	30°♈8
minimum elong	2551 Dec 29 07:41	7°♏06'55 0°23'18	desc. node	2554 Jun 05 09:59	29°♈22'45	
max. Earth dist.	2551 Dec 29 15:33	7°♏31'42 1.71091 AU	direct	2554 Jun 16 11:51	26°♈57'33	
	2552 Jan 16 12:14	0°♐	greatest brilliancy	2554 Jun 29 06:03	29°♈50'28 -4.5m	
evening rise	2552 Feb 08 22:22	29°♐25'35			2554 Jun 29 14:55	0°♈
	2552 Feb 09 09:21	0°♉		morning max el	2554 Aug 04 05:25	26°♈40'52 45°43'25
	2552 Mar 04 09:03	0°♊			2554 Aug 07 15:57	0°♉
	2552 Mar 28 13:33	0°♋			2554 Sep 05 06:06	0°♊
asc. node	2552 Apr 10 18:27	16°♋13'55	asc. node	2554 Sep 26 13:33	24°♊12'52	
	2552 Apr 22 01:13	0°♌		2554 Oct 01 12:26	0°♋	
	2552 May 16 22:49	0°♍		2554 Oct 26 15:12	0°♌	
	2552 Jun 11 10:54	0°♎		2554 Nov 20 02:17	0°♍	
	2552 Jul 07 23:53	0°♏		2554 Dec 14 04:53	0°♎	
desc. node	2552 Jul 31 07:46	24°♏34'30		2555 Jan 07 03:35	0°♏	
	2552 Aug 05 20:19	0°♐	desc. node	2555 Jan 16 02:56	11°♏15'43	
evening max el	2552 Aug 07 03:59	1°♐15'57 45°41'38		2555 Jan 31 01:02	0°♐	
greatest brilliancy	2552 Sep 14 00:36	28°♐57'20 -4.5m	morning set	2555 Feb 03 09:09	4°♐11'28	
	2552 Sep 17 05:10	0°♑		2555 Feb 23 22:53	0°♉	
retrograde	2552 Sep 25 01:14	1°♑07'43				
	2552 Oct 02 13:57	30°♑8	superior conj	2555 Mar 16 09:12	25°♉33'42 -1°-26'-3	
evening set	2552 Oct 12 04:35	25°♑35'12	minimum elong	2555 Mar 16 10:55	25°♉39'03 1°26'05	
inferior conj	2552 Oct 16 00:21	23°♑16'57 -7°-35'-26		2555 Mar 19 22:31	0°♊	
minimum elong	2552 Oct 16 09:34	23°♑02'50 7°34'01	max. Earth dist.	2555 Mar 20 13:01	0°♊45'12 1.71911 AU	
min. Earth dist.	2552 Oct 16 23:02	22°♑42'12 0.27736 AU		2555 Apr 13 01:11	0°♋	
morning rise	2552 Oct 20 14:11	20°♑31'59	evening rise	2555 Apr 24 21:37	14°♋40'25	
direct	2552 Nov 06 02:24	15°♑16'00		2555 May 07 07:49	0°♈	
greatest brilliancy	2552 Nov 20 08:10	18°♑58'03 -4.6m	asc. node	2555 May 09 06:17	2°♈22'58	
asc. node	2552 Nov 21 10:56	19°♑31'33		2555 May 31 18:54	0°♉	
	2552 Dec 06 20:23	0°♒		2555 Jun 25 11:01	0°♊	
morning max el	2552 Dec 26 20:05	18°♒35'50 46°53'53		2555 Jul 20 09:39	0°♋	
	2553 Jan 06 16:21	0°♌		2555 Aug 14 18:06	0°♌	
	2553 Feb 02 06:26	0°♍	desc. node	2555 Aug 28 19:42	16°♌20'30	
	2553 Feb 27 14:49	0°♎		2555 Sep 09 18:50	0°♍	
desc. node	2553 Mar 13 00:44	16°♎08'31		2555 Oct 07 03:14	0°♎	
	2553 Mar 24 11:26	0°♏	evening max el	2555 Oct 20 07:35	13°♏27'56 46°45'51	
	2553 Apr 18 03:16	0°♉		2555 Nov 07 11:21	0°♏	
	2553 May 12 17:25	0°♊	greatest brilliancy	2555 Nov 28 02:14	13°♏09'27 -4.7m	
	2553 Jun 06 06:57	0°♋	retrograde	2555 Dec 09 10:40	15°♏32'48	
morning set	2553 Jun 29 16:15	28°♋36'40	asc. node	2555 Dec 19 22:53	13°♏18'44	
	2553 Jun 30 19:28	0°♌	evening set	2555 Dec 23 18:14	11°♏29'42	
asc. node	2553 Jul 04 03:55	4°♌06'27	inferior conj	2555 Dec 29 23:24	7°♏51'42 2°34'41	
	2553 Jul 25 06:00	0°♍	minimum elong	2555 Dec 29 17:41	8°♏00'26 2°32'54	
max. Earth dist.	2553 Aug 02 21:46	10°♍39'20 1.73375 AU	min. Earth dist.	2555 Dec 29 16:29	8°♏02'17 0.26459 AU	
			morning rise	2556 Jan 04 17:12	4°♏29'22	
superior conj	2553 Aug 05 03:14	13°♍24'02 1°06'24	direct	2556 Jan 19 08:51	0°♏14'28	
minimum elong	2553 Aug 04 18:35	12°♍57'25 1°06'08	greatest brilliancy	2556 Jan 31 01:07	2°♏47'12 -4.7m	
	2553 Aug 18 14:05	0°♎		2556 Mar 06 18:11	0°♐	
evening rise	2553 Sep 10 05:10	27°♎59'04	morning max el	2556 Mar 09 15:04	2°♐50'29 46°46'03	
	2553 Sep 11 20:14	0°♏		2556 Apr 04 04:42	0°♑	
	2553 Oct 06 01:35	0°♐	desc. node	2556 Apr 09 12:30	5°♑56'49	
desc. node	2553 Oct 23 17:28	21°♐52'18		2556 Apr 30 13:35	0°♊	
	2553 Oct 30 07:08	0°♑		2556 May 26 03:48	0°♋	
	2553 Nov 23 13:38	0°♏		2556 Jun 20 08:47	0°♌	
	2553 Dec 17 22:31	0°♐		2556 Jul 15 07:21	0°♍	

asc. node	2556 Jul 31 15:49	19°☿50'19		retrograde	2559 Feb 20 18:53	1°♊00'21	
	2556 Aug 08 23:42	0°♌			2559 Feb 27 17:15	30°♋	
	2556 Sep 02 09:52	0°♍		evening set	2559 Mar 10 19:17	24°♋43'15	
morning set	2556 Sep 05 15:55	4°♍01'02		min. Earth dist.	2559 Mar 13 03:50	23°♋15'42	0.27682 AU
	2556 Sep 26 14:47	0°♎		inferior conj	2559 Mar 13 17:12	22°♋54'49	8°51'44
max. Earth dist.	2556 Oct 09 12:05	16°♎03'22	1.72117 AU	minimum elong	2559 Mar 13 18:01	22°♋53'32	8°51'45
				morning rise	2559 Mar 16 16:55	21°♋03'56	
superior conj	2556 Oct 12 17:01	20°♎03'21	1°15'13	direct	2559 Apr 03 11:15	14°♋59'28	
minimum elong	2556 Oct 13 01:14	20°♎28'57	1°15'01	greatest brilliancy	2559 Apr 14 11:16	17°♋12'51	-4.6m
	2556 Oct 20 16:10	0°♏			2559 May 05 02:16	0°♊	
	2556 Nov 13 15:47	0°♐		desc. node	2559 May 08 00:12	2°♊23'11	
desc. node	2556 Nov 20 05:20	8°♐13'06		morning max el	2559 May 22 19:17	15°♊48'44	46°02'23
evening rise	2556 Nov 20 20:57	9°♐01'56			2559 Jun 05 21:05	0°♋	
	2556 Dec 07 14:46	0°♑			2559 Jul 03 11:15	0°♌	
	2556 Dec 31 14:00	0°♒			2559 Jul 29 15:49	0°♍	
	2557 Jan 24 15:03	0°♓			2559 Aug 24 01:19	0°♎	
	2557 Feb 17 20:58	0°♑		asc. node	2559 Aug 29 03:41	6°♎06'45	
asc. node	2557 Mar 13 08:32	28°♑35'23			2559 Sep 17 20:55	0°♍	
	2557 Mar 14 12:40	0°♒			2559 Oct 12 06:03	0°♎	
	2557 Apr 08 21:57	0°♌		greatest brilliancy	2559 Oct 26 23:15	18°♎17'34	-3.9m
	2557 May 05 16:17	0°♍			2559 Nov 05 08:14	0°♏	
evening max el	2557 May 25 11:47	20°♍19'20	45°29'56	morning set	2559 Nov 16 12:56	14°♏01'01	
	2557 Jun 04 23:45	0°♎			2559 Nov 29 06:35	0°♐	
greatest brilliancy	2557 Jun 29 07:53	16°♎54'20	-4.5m	desc. node	2559 Dec 18 17:14	24°♐26'41	
desc. node	2557 Jul 02 22:00	18°♎21'59			2559 Dec 23 03:13	0°♑	
retrograde	2557 Jul 13 04:46	20°♎16'49					
evening set	2557 Jul 29 10:05	15°♎17'34		superior conj	2559 Dec 26 23:47	4°♑51'13	0°-19'-41
inferior conj	2557 Aug 03 17:21	12°♎05'05	-6°-35'-5	minimum elong	2559 Dec 26 18:38	4°♑34'59	0°19'28
minimum elong	2557 Aug 03 07:33	12°♎20'24	6°33'15	max. Earth dist.	2559 Dec 27 00:28	4°♑53'19	1.71100 AU
min. Earth dist.	2557 Aug 03 16:57	12°♎05'43	0.29019 AU		2560 Jan 15 23:29	0°♒	
morning rise	2557 Aug 08 04:49	9°♎20'22		evening rise	2560 Feb 06 08:30	26°♒51'30	
direct	2557 Aug 25 07:53	3°♎47'23			2560 Feb 08 20:37	0°♓	
greatest brilliancy	2557 Sep 08 13:04	7°♎18'22	-4.5m		2560 Mar 03 20:24	0°♑	
	2557 Oct 08 22:25	0°♍			2560 Mar 28 01:03	0°♒	
morning max el	2557 Oct 13 18:54	4°♍40'32	46°12'22	asc. node	2560 Apr 09 20:26	15°♒44'25	
asc. node	2557 Oct 24 01:12	15°♍07'43			2560 Apr 21 13:01	0°♌	
	2557 Nov 06 18:32	0°♎			2560 May 16 11:11	0°♍	
	2557 Dec 02 18:17	0°♏			2560 Jun 11 00:26	0°♎	
	2557 Dec 27 15:28	0°♐			2560 Jul 07 15:53	0°♍	
	2558 Jan 21 00:59	0°♑		desc. node	2560 Jul 30 09:55	23°♍47'48	
desc. node	2558 Feb 12 14:53	27°♑59'29		evening max el	2560 Aug 04 19:19	29°♍02'40	45°40'09
	2558 Feb 14 05:41	0°♒			2560 Aug 05 19:25	0°♎	
	2558 Mar 10 08:55	0°♓		greatest brilliancy	2560 Sep 11 12:44	26°♎38'16	-4.5m
	2558 Apr 03 12:38	0°♑		retrograde	2560 Sep 22 14:58	28°♎49'33	
morning set	2558 Apr 19 08:14	19°♑35'57		evening set	2560 Oct 09 21:24	23°♎12'50	
	2558 Apr 27 18:00	0°♒		inferior conj	2560 Oct 13 14:34	20°♎58'02	-7°-45'-38
	2558 May 22 01:30	0°♌		minimum elong	2560 Oct 13 23:19	20°♎44'35	7°44'24
				min. Earth dist.	2560 Oct 14 12:41	20°♎24'03	0.27805 AU
superior conj	2558 May 27 03:39	6°♌16'07	0°-22'-39	morning rise	2560 Oct 18 00:54	18°♎17'45	
minimum elong	2558 May 27 08:26	6°♌30'48	0°22'26	direct	2560 Nov 03 17:48	12°♎56'21	
max. Earth dist.	2558 May 28 15:19	8°♌05'53	1.73319 AU	greatest brilliancy	2560 Nov 17 22:40	16°♎37'15	-4.6m
asc. node	2558 Jun 05 18:10	18°♌05'10		asc. node	2560 Nov 20 13:02	17°♎58'13	
	2558 Jun 15 10:44	0°♍			2560 Dec 07 06:42	0°♏	
evening rise	2558 Jul 02 20:51	21°♍23'59		morning max el	2560 Dec 24 10:48	16°♏14'03	46°52'49
	2558 Jul 09 21:02	0°♎			2561 Jan 06 11:23	0°♐	
	2558 Aug 03 08:20	0°♍			2561 Feb 01 21:41	0°♑	
	2558 Aug 27 21:28	0°♎			2561 Feb 27 04:22	0°♒	
	2558 Sep 21 13:56	0°♏		desc. node	2561 Mar 12 02:41	15°♒35'06	
desc. node	2558 Sep 25 07:36	4°♏31'14			2561 Mar 24 00:01	0°♓	
	2558 Oct 16 11:27	0°♐			2561 Apr 17 15:12	0°♑	
	2558 Nov 10 17:04	0°♑			2561 May 12 04:54	0°♒	
	2558 Dec 06 15:32	0°♒			2561 Jun 05 18:07	0°♌	
evening max el	2558 Dec 31 19:15	27°♒14'34	47°15'59	morning set	2561 Jun 27 10:10	26°♌30'57	
	2559 Jan 03 12:44	0°♓			2561 Jun 30 06:25	0°♍	
asc. node	2559 Jan 16 10:51	12°♓13'34		asc. node	2561 Jul 03 06:02	3°♍39'23	
greatest brilliancy	2559 Feb 07 16:35	27°♓47'51	-4.7m		2561 Jul 24 16:52	0°♎	
	2559 Feb 13 15:24	0°♑		max. Earth dist.	2561 Jul 31 17:29	8°♎38'48	1.73396 AU

superior conj	2561 Aug 02 21:36	11°♌19'19	1°04'24			2564 Jan 06 10:12	30°♊♌		
minimum elong	2561 Aug 02 12:52	10°♌52'24	1°04'07	direct		2564 Jan 16 20:40	27°♌♌46'30		
	2561 Aug 18 00:57	0°♎				2564 Jan 27 18:11	0°♌		
evening rise	2561 Sep 07 22:31	25°♎50'15		greatest brilliancy		2564 Jan 28 16:48	0°♌22'51	-4.7m	
	2561 Sep 11 07:13	0°♏				2564 Mar 06 17:58	0°♏		
	2561 Oct 05 12:46	0°♎		morning max el		2564 Mar 07 03:44	0°♏24'22	46°47'12	
desc. node	2561 Oct 22 19:31	21°♎23'24				2564 Apr 03 21:19	0°♋		
	2561 Oct 29 18:37	0°♌		desc. node		2564 Apr 08 14:33	5°♋17'42		
	2561 Nov 23 01:31	0°♌				2564 Apr 30 03:33	0°♎		
	2561 Dec 17 11:00	0°♏				2564 May 25 16:24	0°♏		
	2562 Jan 11 03:06	0°♋				2564 Jun 19 20:35	0°♏		
	2562 Feb 05 11:12	0°♎				2564 Jul 14 18:37	0°♏		
asc. node	2562 Feb 12 22:36	8°♎35'03		asc. node		2564 Jul 30 17:49	19°♏22'47		
	2562 Mar 04 09:49	0°♏				2564 Aug 08 10:40	0°♌		
evening max el	2562 Mar 13 13:36	9°♏25'10	46°25'49			2564 Sep 01 20:41	0°♎		
	2562 Apr 05 19:40	0°♏		morning set		2564 Sep 03 08:42	1°♎51'13		
greatest brilliancy	2562 Apr 17 19:37	7°♏27'02	-4.6m			2564 Sep 26 01:34	0°♏		
retrograde	2562 May 02 08:58	11°♏12'55		max. Earth dist.		2564 Oct 07 04:17	13°♏50'27	1.72168 AU	
evening set	2562 May 17 20:57	6°♏31'15							
inferior conj	2562 May 23 16:56	2°♏58'20	2°46'11	superior conj		2564 Oct 10 08:19	17°♏47'32	1°16'46	
minimum elong	2562 May 23 22:46	2°♏49'08	2°44'32	minimum elong		2564 Oct 10 16:00	18°♏11'33	1°16'37	
min. Earth dist.	2562 May 23 15:39	3°♏00'21	0.28657 AU			2564 Oct 20 03:01	0°♎		
	2562 May 28 13:21	30°♊♏				2564 Nov 13 02:44	0°♌		
morning rise	2562 May 30 01:02	29°♏09'41		evening rise		2564 Nov 18 09:16	6°♌35'54		
desc. node	2562 Jun 04 12:05	26°♏36'28		desc. node		2564 Nov 19 07:29	7°♌45'24		
direct	2562 Jun 14 03:30	24°♏46'23				2564 Dec 07 01:52	0°♌		
greatest brilliancy	2562 Jun 26 19:20	27°♏36'33	-4.5m			2564 Dec 31 01:15	0°♏		
	2562 Jul 01 17:36	0°♏				2565 Jan 24 02:30	0°♋		
morning max el	2562 Aug 01 20:14	24°♏27'56	45°43'12			2565 Feb 17 08:45	0°♎		
	2562 Aug 07 12:52	0°♏		asc. node		2565 Mar 12 10:30	28°♎03'55		
	2562 Sep 04 21:20	0°♌				2565 Mar 14 01:08	0°♏		
asc. node	2562 Sep 25 15:27	23°♌39'14				2565 Apr 08 11:46	0°♏		
	2562 Oct 01 01:36	0°♎				2565 May 05 09:15	0°♏		
	2562 Oct 26 03:22	0°♏		evening max el		2565 May 23 03:22	18°♏07'59	45°30'54	
	2562 Nov 19 13:56	0°♎				2565 Jun 05 04:20	0°♌		
	2562 Dec 13 16:15	0°♌		greatest brilliancy		2565 Jun 26 20:31	14°♌40'58	-4.5m	
	2563 Jan 06 14:48	0°♌		desc. node		2565 Jul 02 00:05	16°♌41'04		
desc. node	2563 Jan 15 05:02	10°♌47'14		retrograde		2565 Jul 10 21:15	18°♌07'49		
	2563 Jan 30 12:10	0°♏		evening set		2565 Jul 26 23:19	13°♌11'59		
morning set	2563 Jan 31 19:02	1°♏36'55		inferior conj		2565 Aug 01 09:29	9°♌55'33	-6°-21'-54	
	2563 Feb 23 09:58	0°♋		minimum elong		2565 Jul 31 23:36	10°♌10'58	6°19'57	
				min. Earth dist.		2565 Aug 01 08:23	9°♌57'16	0.29028 AU	
superior conj	2563 Mar 13 21:15	23°♋06'59	-1°-26'-16	morning rise		2565 Aug 05 23:43	7°♌07'02		
minimum elong	2563 Mar 13 21:58	23°♋09'14	1°26'18	direct		2565 Aug 23 00:03	1°♌37'39		
max. Earth dist.	2563 Mar 18 00:29	28°♋16'49	1.71859 AU	greatest brilliancy		2565 Sep 06 05:34	5°♌09'12	-4.5m	
	2563 Mar 19 09:33	0°♎				2565 Oct 08 21:49	0°♎		
	2563 Apr 12 12:10	0°♏		morning max el		2565 Oct 11 10:58	2°♎28'28	46°10'52	
evening rise	2563 Apr 22 11:41	12°♏21'33		asc. node		2565 Oct 23 03:23	14°♎24'34		
	2563 May 06 18:49	0°♏				2565 Nov 06 10:32	0°♏		
asc. node	2563 May 08 08:22	1°♏55'29				2565 Dec 02 07:54	0°♎		
	2563 May 31 06:04	0°♏				2565 Dec 27 03:58	0°♌		
	2563 Jun 24 22:31	0°♌				2566 Jan 20 12:52	0°♌		
	2563 Jul 19 21:45	0°♎		desc. node		2566 Feb 11 16:49	27°♌29'51		
	2563 Aug 14 07:17	0°♏				2566 Feb 13 17:08	0°♏		
desc. node	2563 Aug 27 21:37	15°♏45'33				2566 Mar 09 20:03	0°♋		
	2563 Sep 09 09:59	0°♎				2566 Apr 02 23:30	0°♎		
	2563 Oct 06 22:51	0°♌		morning set		2566 Apr 16 23:08	17°♎20'09		
evening max el	2563 Oct 17 20:04	11°♌02'32	46°43'43			2566 Apr 27 04:43	0°♏		
	2563 Nov 08 01:35	0°♌				2566 May 21 12:08	0°♏		
greatest brilliancy	2563 Nov 25 16:45	10°♌43'30	-4.6m						
retrograde	2563 Dec 06 22:31	13°♌04'37		superior conj		2566 May 24 20:25	4°♏07'16	0°-25'-49	
asc. node	2563 Dec 19 00:57	10°♌08'37		minimum elong		2566 May 25 01:50	4°♏23'56	0°25'35	
evening set	2563 Dec 21 06:00	9°♌02'24		max. Earth dist.		2566 May 26 11:07	6°♏06'25	1.73293 AU	
inferior conj	2563 Dec 27 11:48	5°♌24'06	2°11'04	asc. node		2566 Jun 04 20:15	17°♏38'59		
minimum elong	2563 Dec 27 06:54	5°♌31'36	2°09'30			2566 Jun 14 21:21	0°♏		
min. Earth dist.	2563 Dec 27 06:41	5°♌31'55	0.26455 AU	evening rise		2566 Jun 30 15:24	19°♏20'55		
morning rise	2564 Jan 02 07:44	1°♌58'50				2566 Jul 09 07:44	0°♌		

	2566 Aug 02 19:14	0°♍			2569 Feb 01 12:21	0°♌		
	2566 Aug 27 08:45	0°♌			2569 Feb 26 17:26	0°♍		
	2566 Sep 21 01:47	0°♍		desc. node	2569 Mar 11 04:42	15°♍03'13		
desc. node	2566 Sep 24 09:38	4°♍01'17			2569 Mar 23 12:10	0°♋		
	2566 Oct 16 00:10	0°♊			2569 Apr 17 02:44	0°♑		
	2566 Nov 10 07:10	0°♌			2569 May 11 16:00	0°♉		
	2566 Dec 06 08:13	0°♍			2569 Jun 05 04:53	0°♈		
evening max el	2566 Dec 29 10:41	24°♍54'58	47°16'33	morning set	2569 Jun 25 04:15	24°♈26'57		
	2567 Jan 03 12:31	0°♋			2569 Jun 29 16:59	0°♎		
asc. node	2567 Jan 15 12:51	11°♋08'43		asc. node	2569 Jul 02 08:00	3°♎13'05		
greatest brilliancy	2567 Feb 05 07:40	25°♋26'45	-4.7m		2569 Jul 24 03:22	0°♏		
retrograde	2567 Feb 18 10:07	28°♋38'52		max. Earth dist.	2569 Jul 29 12:40	6°♏37'48	1.73422 AU	
evening set	2567 Mar 08 08:59	22°♋22'50						
min. Earth dist.	2567 Mar 10 16:43	20°♋56'38	0.27630 AU	superior conj	2569 Jul 31 16:07	9°♏16'11	1°02'19	
inferior conj	2567 Mar 11 07:17	20°♋33'53	8°52'41	minimum elong	2569 Jul 31 07:20	8°♏49'07	1°02'01	
minimum elong	2567 Mar 11 07:14	20°♋33'58	8°52'41		2569 Aug 17 11:31	0°♍		
morning rise	2567 Mar 14 05:40	18°♋45'14		evening rise	2569 Sep 05 15:56	23°♍42'34		
direct	2567 Apr 01 01:14	12°♋39'32			2569 Sep 10 17:57	0°♌		
greatest brilliancy	2567 Apr 11 22:43	14°♋51'09	-4.6m		2569 Oct 04 23:44	0°♍		
	2567 May 05 11:43	0°♑		desc. node	2569 Oct 21 21:39	20°♍55'23		
desc. node	2567 May 07 02:20	1°♑21'37			2569 Oct 29 05:54	0°♊		
morning max el	2567 May 20 10:35	13°♑34'57	46°03'42		2569 Nov 22 13:14	0°♌		
	2567 Jun 05 15:12	0°♉			2569 Dec 16 23:17	0°♍		
	2567 Jul 03 01:29	0°♈			2570 Jan 10 16:17	0°♋		
	2567 Jul 29 04:21	0°♎			2570 Feb 05 02:04	0°♑		
	2567 Aug 23 12:58	0°♏		asc. node	2570 Feb 12 00:35	7°♑56'20		
asc. node	2567 Aug 28 05:37	5°♏37'52			2570 Mar 04 04:55	0°♉		
	2567 Sep 17 08:05	0°♍		evening max el	2570 Mar 11 04:01	7°♉07'22	46°28'09	
	2567 Oct 11 16:59	0°♌			2570 Apr 06 14:02	0°♈		
	2567 Nov 04 19:05	0°♍		greatest brilliancy	2570 Apr 15 13:31	5°♈17'48	-4.6m	
greatest brilliancy	2567 Nov 05 02:38	0°♍23'37	-3.9m	retrograde	2570 Apr 30 00:48	9°♈02'05		
morning set	2567 Nov 14 02:06	11°♍38'01		evening set	2570 May 15 15:08	4°♈17'49		
	2567 Nov 28 17:24	0°♊		inferior conj	2570 May 21 09:04	0°♈47'51	3°05'28	
desc. node	2567 Dec 17 19:14	23°♊58'55		minimum elong	2570 May 21 15:30	0°♈37'42	3°03'40	
	2567 Dec 22 14:04	0°♌		min. Earth dist.	2570 May 21 08:18	0°♈49'03	0.28631 AU	
					2570 May 22 15:28	30°♉		
superior conj	2567 Dec 24 09:49	2°♌17'36	0°-15'-47	morning rise	2570 May 27 16:14	27°♉00'07		
minimum elong	2567 Dec 24 05:39	2°♌04'32	0°15'35	desc. node	2570 Jun 03 14:07	23°♉55'52		
behind sun begin	2567 Dec 23 21:43	1°♌39'34		direct	2570 Jun 11 18:44	22°♉36'16		
behind sun end	2567 Dec 24 13:36	2°♌29'30		greatest brilliancy	2570 Jun 24 09:31	25°♉24'43	-4.5m	
max. Earth dist.	2567 Dec 24 08:00	2°♌11'54	1.71109 AU		2570 Jul 03 02:30	0°♈		
	2568 Jan 15 10:21	0°♍		morning max el	2570 Jul 30 10:58	22°♈15'46	45°43'06	
evening rise	2568 Feb 03 18:39	24°♍18'29			2570 Aug 07 08:40	0°♎		
	2568 Feb 08 07:32	0°♋			2570 Sep 04 12:02	0°♏		
	2568 Mar 03 07:23	0°♑		asc. node	2570 Sep 24 17:38	23°♏07'23		
	2568 Mar 27 12:09	0°♉			2570 Sep 30 14:24	0°♍		
asc. node	2568 Apr 08 22:33	15°♉16'36			2570 Oct 25 15:19	0°♌		
	2568 Apr 21 00:24	0°♈			2570 Nov 19 01:26	0°♍		
	2568 May 15 23:10	0°♎			2570 Dec 13 03:31	0°♊		
	2568 Jun 10 13:38	0°♏			2571 Jan 06 01:54	0°♌		
	2568 Jul 07 07:46	0°♍		desc. node	2571 Jan 14 07:01	10°♌18'42		
desc. node	2568 Jul 29 11:49	23°♍00'36		morning set	2571 Jan 29 04:36	29°♌01'42		
evening max el	2568 Aug 02 10:00	26°♍48'37	45°38'26		2571 Jan 29 23:10	0°♍		
	2568 Aug 05 19:17	0°♌			2571 Feb 22 20:52	0°♋		
greatest brilliancy	2568 Sep 09 01:38	24°♌20'28	-4.5m					
retrograde	2568 Sep 20 04:00	26°♌31'46		superior conj	2571 Mar 11 09:07	20°♋40'17	-1°-26'-20	
evening set	2568 Oct 07 13:56	20°♌51'09		minimum elong	2571 Mar 11 08:48	20°♋39'19	1°26'20	
inferior conj	2568 Oct 11 04:38	18°♌39'40	-7°-55'-5	max. Earth dist.	2571 Mar 15 09:52	25°♋42'31	1.71804 AU	
minimum elong	2568 Oct 11 12:51	18°♌27'01	7°54'02		2571 Mar 18 20:22	0°♑		
min. Earth dist.	2568 Oct 12 02:32	18°♌05'56	0.27872 AU		2571 Apr 11 22:57	0°♉		
morning rise	2568 Oct 15 11:26	16°♌04'04		evening rise	2571 Apr 20 01:44	10°♉03'10		
direct	2568 Nov 01 08:36	10°♌37'09			2571 May 06 05:39	0°♈		
greatest brilliancy	2568 Nov 15 13:16	14°♌17'07	-4.6m	asc. node	2571 May 07 10:27	1°♈28'36		
asc. node	2568 Nov 19 15:05	16°♌28'28			2571 May 30 17:04	0°♎		
	2568 Dec 07 13:56	0°♍			2571 Jun 24 09:51	0°♏		
morning max el	2568 Dec 22 00:19	13°♍50'05	46°51'53		2571 Jul 19 09:42	0°♍		
	2569 Jan 06 05:34	0°♊			2571 Aug 13 20:20	0°♌		

desc. node	2571 Aug 26 23:43	15°♄11'28		desc. node	2574 Feb 10 18:55	27°♄00'07	
	2571 Sep 09 01:09	0°♌			2574 Feb 13 04:47	0°♌	
	2571 Oct 06 18:57	0°♌			2574 Mar 09 07:24	0°♌	
evening max el	2571 Oct 15 08:24	8°♌37'11	46°41'20		2574 Apr 02 10:38	0°♌	
	2571 Nov 08 20:43	0°♄		morning set	2574 Apr 14 13:34	15°♌01'58	
greatest brilliancy	2571 Nov 23 06:00	8°♄15'36	-4.6m		2574 Apr 26 15:41	0°♄	
retrograde	2571 Dec 04 10:25	10°♄35'37			2574 May 20 22:59	0°♌	
asc. node	2571 Dec 18 02:57	6°♄52'42		superior conj	2574 May 22 12:50	1°♌56'35	0°-29'00
evening set	2571 Dec 18 17:39	6°♄33'36		minimum elong	2574 May 22 18:51	2°♌15'09	0°28'44
inferior conj	2571 Dec 24 23:52	2°♄55'21	1°46'50	max. Earth dist.	2574 May 24 08:32	4°♌11'11	1.73260 AU
minimum elong	2571 Dec 24 19:49	3°♄01'31	1°45'32	asc. node	2574 Jun 03 22:11	17°♌11'44	
min. Earth dist.	2571 Dec 24 20:28	3°♄00'32	0.26458 AU		2574 Jun 14 08:10	0°♄	
	2571 Dec 29 22:12	30°♌♄		evening rise	2574 Jun 28 09:53	17°♄17'05	
morning rise	2571 Dec 30 21:50	29°♌27'33			2574 Jul 08 18:38	0°♌	
direct	2572 Jan 14 08:36	25°♌17'09			2574 Aug 02 06:21	0°♌	
greatest brilliancy	2572 Jan 26 08:26	27°♌57'37	-4.7m		2574 Aug 26 20:15	0°♄	
	2572 Jan 30 14:09	0°♄			2574 Sep 20 13:53	0°♌	
morning max el	2572 Mar 04 17:12	27°♄59'55	46°48'30	desc. node	2574 Sep 23 11:47	3°♌31'01	
	2572 Mar 06 16:52	0°♌			2574 Oct 15 13:08	0°♌	
	2572 Apr 03 13:39	0°♌			2574 Nov 09 21:32	0°♄	
desc. node	2572 Apr 07 16:44	4°♌39'19			2574 Dec 06 01:22	0°♌	
	2572 Apr 29 17:19	0°♌		evening max el	2574 Dec 27 02:24	22°♌35'31	47°16'45
	2572 May 25 04:50	0°♄			2575 Jan 03 13:41	0°♌	
	2572 Jun 19 08:14	0°♌		asc. node	2575 Jan 14 14:49	10°♌01'23	
asc. node	2572 Jul 29 19:50	18°♄55'32		greatest brilliancy	2575 Feb 02 23:18	23°♌05'17	-4.7m
	2572 Aug 07 21:33	0°♌		retrograde	2575 Feb 16 00:53	26°♌15'48	
morning set	2572 Sep 01 01:58	29°♌043'10		evening set	2575 Mar 05 22:08	20°♌01'49	
	2572 Sep 01 07:25	0°♌		min. Earth dist.	2575 Mar 08 05:41	18°♌35'51	0.27580 AU
	2572 Sep 25 12:17	0°♄		inferior conj	2575 Mar 08 21:16	18°♌11'30	8°52'38
max. Earth dist.	2572 Oct 04 21:53	11°♄42'10	1.72219 AU	minimum elong	2575 Mar 08 20:21	18°♌12'56	8°52'37
				morning rise	2575 Mar 11 18:46	16°♌24'12	
superior conj	2572 Oct 08 00:04	15°♄33'25	1°18'10	direct	2575 Mar 29 15:20	10°♌18'13	
minimum elong	2572 Oct 08 07:13	15°♄55'42	1°18'02	greatest brilliancy	2575 Apr 09 10:08	12°♌27'42	-4.6m
	2572 Oct 19 13:49	0°♌			2575 May 05 19:10	0°♌	
	2572 Nov 12 13:42	0°♌		desc. node	2575 May 06 04:20	0°♌19'55	
evening rise	2572 Nov 15 21:54	4°♌10'53		morning max el	2575 May 18 01:14	11°♌18'09	46°05'03
desc. node	2572 Nov 18 09:31	7°♌17'22			2575 Jun 05 09:19	0°♄	
	2572 Dec 06 13:02	0°♄			2575 Jul 02 15:55	0°♌	
	2572 Dec 30 12:37	0°♌			2575 Jul 28 17:06	0°♄	
	2573 Jan 23 14:07	0°♌			2575 Aug 23 00:51	0°♌	
	2573 Feb 16 20:45	0°♌		asc. node	2575 Aug 27 07:45	5°♌08'54	
asc. node	2573 Mar 11 12:39	27°♌32'28			2575 Sep 16 19:29	0°♌	
	2573 Mar 13 13:49	0°♄			2575 Oct 11 04:11	0°♄	
	2573 Apr 08 01:49	0°♌			2575 Nov 04 06:12	0°♌	
	2573 May 05 02:38	0°♄		greatest brilliancy	2575 Nov 10 02:02	7°♌17'36	-3.9m
evening max el	2573 May 20 19:44	15°♄58'29	45°32'04	morning set	2575 Nov 11 15:46	9°♌15'46	
	2573 Jun 05 11:01	0°♌			2575 Nov 28 04:30	0°♌	
greatest brilliancy	2573 Jun 24 10:15	12°♌29'16	-4.5m	desc. node	2575 Dec 16 21:15	23°♌30'25	
desc. node	2573 Jul 01 02:04	14°♌56'40		superior conj	2575 Dec 21 20:29	29°♌45'20	0°-11'-53
retrograde	2573 Jul 08 14:01	15°♌59'06		minimum elong	2575 Dec 21 17:21	29°♌35'28	0°11'45
evening set	2573 Jul 24 12:56	11°♌06'42		behind sun begin	2575 Dec 20 22:54	28°♌37'28	
inferior conj	2573 Jul 30 01:46	7°♌046'18	-6°-8'-14	behind sun end	2575 Dec 22 11:47	0°♄33'28	
minimum elong	2573 Jul 29 15:53	8°♌01'43	6°06'12	max. Earth dist.	2575 Dec 21 13:35	29°♌23'39	1.71117 AU
min. Earth dist.	2573 Jul 29 23:47	7°♌049'24	0.29032 AU		2575 Dec 22 01:09	0°♄	
morning rise	2573 Aug 03 18:45	4°♌53'58			2576 Jan 14 21:28	0°♌	
	2573 Aug 15 13:23	30°♌♄		evening rise	2576 Feb 01 05:09	21°♌45'45	
direct	2573 Aug 20 16:51	29°♄28'25			2576 Feb 07 18:43	0°♌	
	2573 Aug 25 23:41	0°♌			2576 Mar 02 18:40	0°♌	
greatest brilliancy	2573 Sep 03 21:12	2°♌59'11	-4.5m		2576 Mar 26 23:37	0°♄	
	2573 Oct 08 20:13	0°♌		asc. node	2576 Apr 08 00:35	14°♌47'17	
morning max el	2573 Oct 09 03:27	0°♌17'42	46°09'25		2576 Apr 20 12:12	0°♌	
asc. node	2573 Oct 22 05:22	13°♌41'28			2576 May 15 11:37	0°♄	
	2573 Nov 06 02:18	0°♄			2576 Jun 10 03:22	0°♌	
	2573 Dec 01 21:27	0°♌			2576 Jul 07 00:21	0°♌	
	2573 Dec 26 16:32	0°♌		desc. node	2576 Jul 28 13:57	22°♌12'10	
	2574 Jan 20 00:52	0°♄					

evening max el	2576 Jul 30 23:53	24° \mathbb{M} 31'42	45°36'57		2579 Jan 29 10:26	0° \approx	
	2576 Aug 05 20:45	0° $\underline{\mathbf{A}}$			2579 Feb 22 08:02	0° \mathbb{H}	
greatest brilliancy	2576 Sep 06 14:45	22° $\underline{\mathbf{A}}$ 02'28	-4.5m				
retrograde	2576 Sep 17 17:03	24° $\underline{\mathbf{A}}$ 14'02		superior conj	2579 Mar 08 20:59	18° \mathbb{H} 12'41	-1°-26'-12
evening set	2576 Oct 05 06:32	18° $\underline{\mathbf{A}}$ 29'30		minimum elong	2579 Mar 08 19:38	18° \mathbb{H} 08'27	1°26'13
inferior conj	2576 Oct 08 18:58	16° $\underline{\mathbf{A}}$ 21'15	-8°-3'-43	max. Earth dist.	2579 Mar 12 17:29	23° \mathbb{H} 01'46	1.71749 AU
minimum elong	2576 Oct 09 02:35	16° $\underline{\mathbf{A}}$ 09'28	8°02'48		2579 Mar 18 07:26	0° \mathbb{Y}	
min. Earth dist.	2576 Oct 09 16:49	15° $\underline{\mathbf{A}}$ 47'31	0.27938 AU		2579 Apr 11 09:58	0° \mathbb{B}	
morning rise	2576 Oct 12 22:19	13° $\underline{\mathbf{A}}$ 50'19		evening rise	2579 Apr 17 15:52	7° \mathbb{B} 44'16	
direct	2576 Oct 29 23:10	8° $\underline{\mathbf{A}}$ 17'40			2579 May 05 16:43	0° \mathbb{H}	
greatest brilliancy	2576 Nov 13 05:05	11° $\underline{\mathbf{A}}$ 58'06	-4.6m	asc. node	2579 May 06 12:25	1° \mathbb{H} 00'34	
asc. node	2576 Nov 18 17:04	15° $\underline{\mathbf{A}}$ 01'00			2579 May 30 04:19	0° \mathbb{B}	
	2576 Dec 07 19:21	0° \mathbb{M}			2579 Jun 23 21:29	0° \mathbb{Q}	
morning max el	2576 Dec 19 13:38	11° \mathbb{M} 24'43	46°51'04		2579 Jul 18 22:00	0° \mathbb{M}	
	2577 Jan 05 23:38	0° \mathbb{A}			2579 Aug 13 09:47	0° $\underline{\mathbf{A}}$	
	2577 Feb 01 03:08	0° \mathbb{B}		desc. node	2579 Aug 26 01:50	14° $\underline{\mathbf{A}}$ 36'16	
	2577 Feb 26 06:41	0° \approx			2579 Sep 08 16:52	0° \mathbb{M}	
desc. node	2577 Mar 10 06:53	14° \approx 31'08			2579 Oct 06 16:01	0° \mathbb{A}	
	2577 Mar 23 00:32	0° \mathbb{H}		evening max el	2579 Oct 12 21:36	6° \mathbb{A} 13'36	46°39'09
	2577 Apr 16 14:32	0° \mathbb{Y}			2579 Nov 09 22:53	0° \mathbb{B}	
	2577 May 11 03:24	0° \mathbb{B}		greatest brilliancy	2579 Nov 20 18:25	5° \mathbb{B} 46'41	-4.6m
	2577 Jun 04 16:00	0° \mathbb{H}		retrograde	2579 Dec 01 22:54	8° \mathbb{B} 06'39	
morning set	2577 Jun 22 22:08	22° \mathbb{H} 21'04		evening set	2579 Dec 16 05:43	4° \mathbb{B} 04'28	
	2577 Jun 29 03:56	0° \mathbb{B}		asc. node	2579 Dec 17 05:01	3° \mathbb{B} 33'05	
asc. node	2577 Jul 01 10:04	2° \mathbb{B} 45'56		inferior conj	2579 Dec 22 12:02	0° \mathbb{B} 26'24	1°22'26
	2577 Jul 23 14:14	0° \mathbb{Q}		minimum elong	2579 Dec 22 08:54	0° \mathbb{B} 31'11	1°21'26
max. Earth dist.	2577 Jul 27 07:30	4° \mathbb{Q} 34'36	1.73444 AU	min. Earth dist.	2579 Dec 22 09:59	0° \mathbb{B} 29'32	0.26465 AU
					2579 Dec 23 05:26	30° \mathbb{R} \mathbb{A}	
superior conj	2577 Jul 29 10:30	7° \mathbb{Q} 11'35	1°00'08	morning rise	2579 Dec 28 11:54	26° \mathbb{A} 56'30	
minimum elong	2577 Jul 29 01:41	6° \mathbb{Q} 44'27	0°59'49	direct	2580 Jan 11 21:21	22° \mathbb{A} 47'46	
	2577 Aug 16 22:26	0° \mathbb{M}		greatest brilliancy	2580 Jan 23 23:36	25° \mathbb{A} 31'35	-4.7m
evening rise	2577 Sep 03 09:25	21° \mathbb{M} 34'13			2580 Feb 01 07:56	0° \mathbb{B}	
	2577 Sep 10 05:00	0° $\underline{\mathbf{A}}$		morning max el	2580 Mar 02 07:33	25° \mathbb{B} 37'08	46°49'39
	2577 Oct 04 11:02	0° \mathbb{M}			2580 Mar 06 15:02	0° \approx	
desc. node	2577 Oct 20 23:36	20° \mathbb{M} 25'51			2580 Apr 03 05:52	0° \mathbb{H}	
	2577 Oct 28 17:32	0° \mathbb{A}		desc. node	2580 Apr 06 18:38	4° \mathbb{H} 00'03	
	2577 Nov 22 01:18	0° \mathbb{B}			2580 Apr 29 07:07	0° \mathbb{Y}	
	2577 Dec 16 11:56	0° \approx			2580 May 24 17:22	0° \mathbb{B}	
	2578 Jan 10 05:51	0° \mathbb{H}			2580 Jun 18 20:00	0° \mathbb{H}	
	2578 Feb 04 17:24	0° \mathbb{Y}			2580 Jul 13 17:06	0° \mathbb{B}	
asc. node	2578 Feb 11 02:46	7° \mathbb{Y} 17'00		asc. node	2580 Jul 28 21:58	18° \mathbb{B} 28'11	
	2578 Mar 04 00:51	0° \mathbb{B}			2580 Aug 07 08:36	0° \mathbb{Q}	
evening max el	2578 Mar 08 17:55	4° \mathbb{B} 47'30	46°30'30	morning set	2580 Aug 29 19:14	27° \mathbb{Q} 34'35	
	2578 Apr 07 15:37	0° \mathbb{H}			2580 Aug 31 18:22	0° \mathbb{M}	
greatest brilliancy	2578 Apr 13 06:11	3° \mathbb{H} 06'08	-4.6m		2580 Sep 24 23:12	0° $\underline{\mathbf{A}}$	
retrograde	2578 Apr 27 16:45	6° \mathbb{H} 50'37		max. Earth dist.	2580 Oct 02 13:47	9° $\underline{\mathbf{A}}$ 28'06	1.72267 AU
evening set	2578 May 13 09:25	2° \mathbb{H} 03'11					
	2578 May 16 19:58	30° \mathbb{R} \mathbb{B}		superior conj	2580 Oct 05 15:48	13° $\underline{\mathbf{A}}$ 18'38	1°19'27
inferior conj	2578 May 19 01:14	28° \mathbb{B} 36'30	3°24'27	minimum elong	2580 Oct 05 22:20	13° $\underline{\mathbf{A}}$ 39'01	1°19'20
minimum elong	2578 May 19 08:14	28° \mathbb{B} 25'28	3°22'30		2580 Oct 19 00:49	0° \mathbb{M}	
min. Earth dist.	2578 May 19 00:58	28° \mathbb{B} 36'56	0.28611 AU		2580 Nov 12 00:50	0° \mathbb{A}	
morning rise	2578 May 25 07:19	24° \mathbb{B} 50'04		evening rise	2580 Nov 13 10:25	1° \mathbb{A} 45'02	
desc. node	2578 Jun 02 16:08	21° \mathbb{B} 19'03		desc. node	2580 Nov 17 11:30	6° \mathbb{A} 48'40	
direct	2578 Jun 09 09:53	20° \mathbb{B} 25'01			2580 Dec 06 00:19	0° \mathbb{B}	
greatest brilliancy	2578 Jun 22 00:56	23° \mathbb{B} 13'18	-4.5m		2580 Dec 30 00:06	0° \approx	
	2578 Jul 04 02:34	0° \mathbb{H}			2581 Jan 23 01:51	0° \mathbb{H}	
morning max el	2578 Jul 28 02:21	20° \mathbb{H} 03'57	45°43'02		2581 Feb 16 08:54	0° \mathbb{Y}	
	2578 Aug 07 04:20	0° \mathbb{B}		asc. node	2581 Mar 10 14:38	26° \mathbb{Y} 59'59	
	2578 Sep 04 02:57	0° \mathbb{Q}			2581 Mar 13 02:42	0° \mathbb{B}	
asc. node	2578 Sep 23 19:40	22° \mathbb{Q} 34'16			2581 Apr 07 16:10	0° \mathbb{H}	
	2578 Sep 30 03:28	0° \mathbb{M}			2581 May 04 20:32	0° \mathbb{B}	
	2578 Oct 25 03:30	0° $\underline{\mathbf{A}}$		evening max el	2581 May 18 12:31	13° \mathbb{B} 49'40	45°33'16
	2578 Nov 18 13:10	0° \mathbb{M}			2581 Jun 05 20:21	0° \mathbb{Q}	
	2578 Dec 12 15:00	0° \mathbb{A}		greatest brilliancy	2581 Jun 22 01:06	10° \mathbb{Q} 18'52	-4.5m
	2579 Jan 05 13:16	0° \mathbb{B}		desc. node	2581 Jun 30 04:09	13° \mathbb{Q} 08'28	
desc. node	2579 Jan 13 09:05	9° \mathbb{B} 49'41		retrograde	2581 Jul 06 06:37	13° \mathbb{Q} 50'09	
morning set	2579 Jan 26 14:11	26° \mathbb{B} 25'37		evening set	2581 Jul 22 02:44	9° \mathbb{Q} 01'21	

inferior conj	2581 Jul 27 18:04	5°♌37'01	-5°-54'-1	behind sun begin	2583 Dec 18 05:37	25°♏53'08	
minimum elong	2581 Jul 27 08:14	5°♌52'22	5°51'56	behind sun end	2583 Dec 20 03:59	28°♏18'56	
min. Earth dist.	2581 Jul 27 15:15	5°♌41'25	0.29035 AU		2583 Dec 21 12:08	0°♎	
morning rise	2581 Aug 01 13:43	2°♌40'48			2584 Jan 14 08:29	0°♊	
	2581 Aug 06 17:37	30°♋♎		evening rise	2584 Jan 29 15:06	19°♊11'36	
direct	2581 Aug 18 09:53	27°♎19'20			2584 Feb 07 05:47	0°♋	
	2581 Aug 30 16:03	0°♌			2584 Mar 02 05:48	0°♎	
greatest brilliancy	2581 Sep 01 11:45	0°♌47'46	-4.5m		2584 Mar 26 10:55	0°♏	
morning max el	2581 Oct 06 19:17	28°♌05'07	46°07'48	asc. node	2584 Apr 07 02:34	14°♏18'22	
	2581 Oct 08 17:54	0°♐			2584 Apr 19 23:50	0°♐	
asc. node	2581 Oct 21 07:22	12°♐58'33			2584 May 14 23:55	0°♎	
	2581 Nov 05 17:58	0°♊			2584 Jun 09 17:01	0°♌	
	2581 Dec 01 11:02	0°♍			2584 Jul 06 17:00	0°♐	
	2581 Dec 26 05:07	0°♏		desc. node	2584 Jul 27 16:04	21°♐23'42	
	2582 Jan 19 12:52	0°♎		evening max el	2584 Jul 28 13:04	22°♐14'00	45°35'36
desc. node	2582 Feb 09 21:02	26°♎30'33			2584 Aug 05 23:18	0°♊	
	2582 Feb 12 16:23	0°♊		greatest brilliancy	2584 Sep 04 03:18	19°♊45'01	-4.5m
	2582 Mar 08 18:43	0°♋		retrograde	2584 Sep 15 06:26	21°♊57'55	
	2582 Apr 01 21:45	0°♎		evening set	2584 Oct 02 22:57	16°♊09'31	
morning set	2582 Apr 12 03:52	12°♎43'24		inferior conj	2584 Oct 06 09:24	14°♊04'17	-8°-11'-17
	2582 Apr 26 02:38	0°♏		minimum elong	2584 Oct 06 16:24	13°♊53'28	8°10'33
				min. Earth dist.	2584 Oct 07 07:10	13°♊30'41	0.28006 AU
superior conj	2582 May 20 05:13	29°♏45'48	0°-32'-8	morning rise	2584 Oct 10 09:30	11°♊38'01	
minimum elong	2582 May 20 11:50	0°♐06'11	0°31'51	direct	2584 Oct 27 13:39	5°♊59'33	
	2582 May 20 09:50	0°♐		greatest brilliancy	2584 Nov 10 21:47	9°♊41'42	-4.6m
max. Earth dist.	2582 May 22 06:25	2°♐17'24	1.73223 AU	asc. node	2584 Nov 17 19:11	13°♊37'46	
asc. node	2582 Jun 03 00:19	16°♐45'04			2584 Dec 07 22:32	0°♍	
	2582 Jun 13 18:58	0°♎		morning max el	2584 Dec 17 03:15	9°♍01'05	46°50'04
evening rise	2582 Jun 26 04:24	15°♎13'22			2585 Jan 05 17:02	0°♏	
	2582 Jul 08 05:29	0°♌			2585 Jan 31 17:33	0°♎	
	2582 Aug 01 17:25	0°♐			2585 Feb 25 19:40	0°♊	
	2582 Aug 26 07:44	0°♊		desc. node	2585 Mar 09 08:48	13°♊58'58	
	2582 Sep 20 01:59	0°♍			2585 Mar 22 12:40	0°♋	
desc. node	2582 Sep 22 13:44	3°♍00'08			2585 Apr 16 02:05	0°♎	
	2582 Oct 15 02:10	0°♏			2585 May 10 14:31	0°♏	
	2582 Nov 09 12:06	0°♎			2585 Jun 04 02:49	0°♐	
	2582 Dec 05 18:55	0°♊		morning set	2585 Jun 20 15:50	20°♐15'29	
evening max el	2582 Dec 24 17:28	20°♊14'10	47°16'56		2585 Jun 28 14:35	0°♎	
	2583 Jan 03 16:16	0°♋		asc. node	2585 Jun 30 12:10	2°♎19'43	
asc. node	2583 Jan 13 17:00	8°♋52'36			2585 Jul 23 00:50	0°♌	
greatest brilliancy	2583 Jan 31 15:51	20°♋44'48	-4.7m	max. Earth dist.	2585 Jul 25 03:16	2°♌35'09	1.73466 AU
retrograde	2583 Feb 13 15:12	23°♋52'27					
evening set	2583 Mar 03 10:44	17°♋41'33		superior conj	2585 Jul 27 04:54	5°♌07'51	0°57'52
inferior conj	2583 Mar 06 11:11	15°♋49'06	8°51'37	minimum elong	2585 Jul 26 20:06	4°♌40'48	0°57'33
minimum elong	2583 Mar 06 09:22	15°♋51'56	8°51'34		2585 Aug 16 09:04	0°♐	
min. Earth dist.	2583 Mar 05 18:51	16°♋14'39	0.27526 AU	evening rise	2585 Sep 01 03:09	19°♐27'37	
morning rise	2583 Mar 09 08:14	14°♋02'24			2585 Sep 09 15:46	0°♊	
direct	2583 Mar 27 04:59	7°♋57'00			2585 Oct 03 22:01	0°♍	
greatest brilliancy	2583 Apr 06 21:56	10°♋04'40	-4.6m	desc. node	2585 Oct 20 01:40	19°♍57'39	
desc. node	2583 May 05 06:23	29°♋20'11			2585 Oct 28 04:50	0°♏	
	2583 May 06 00:16	0°♎			2585 Nov 21 13:02	0°♎	
morning max el	2583 May 15 14:50	8°♎58'59	46°06'22		2585 Dec 16 00:19	0°♊	
	2583 Jun 05 02:52	0°♏			2586 Jan 09 19:14	0°♋	
	2583 Jul 02 06:02	0°♐			2586 Feb 04 08:42	0°♎	
	2583 Jul 28 05:38	0°♎		asc. node	2586 Feb 10 04:44	6°♎37'16	
	2583 Aug 22 12:31	0°♌			2586 Mar 03 21:14	0°♏	
asc. node	2583 Aug 26 09:47	4°♌40'11		evening max el	2586 Mar 06 08:04	2°♏28'40	46°32'54
	2583 Sep 16 06:42	0°♐			2586 Apr 09 03:48	0°♐	
	2583 Oct 10 15:11	0°♊		greatest brilliancy	2586 Apr 10 22:16	0°♐53'56	-4.6m
	2583 Nov 03 17:08	0°♍		retrograde	2586 Apr 25 08:58	4°♐39'20	
morning set	2583 Nov 09 05:24	6°♍53'53			2586 May 10 19:22	30°♋♎	
	2583 Nov 27 15:27	0°♏		evening set	2586 May 11 03:37	29°♏48'22	
desc. node	2583 Dec 15 23:24	23°♏02'39		inferior conj	2586 May 16 17:13	26°♏25'09	3°43'09
max. Earth dist.	2583 Dec 18 15:52	26°♏25'19	1.71133 AU	minimum elong	2586 May 17 00:44	26°♏13'19	3°41'07
				min. Earth dist.	2586 May 16 17:06	26°♏25'20	0.28589 AU
superior conj	2583 Dec 19 06:54	27°♏12'39	0°-7'-57	morning rise	2586 May 22 22:05	22°♏40'34	
minimum elong	2583 Dec 19 04:48	27°♏06'02	0°07'52	desc. node	2586 Jun 01 18:14	18°♏47'07	

direct	2586 Jun 07 01:02	18°♄13'49		2588 Dec 05 11:21	0°♄	
greatest brilliancy	2586 Jun 19 16:19	21°♄02'27	-4.5m	2588 Dec 29 11:18	0°♁	
	2586 Jul 04 19:58	0°♂		2589 Jan 22 13:17	0°♂	
morning max el	2586 Jul 25 18:22	17°♂54'37	45°43'03	2589 Feb 15 20:45	0°♄	
	2586 Aug 06 23:06	0°♄		2589 Mar 09 16:39	26°♄28'32	
	2586 Sep 03 17:20	0°♂		2589 Mar 12 15:18	0°♄	
asc. node	2586 Sep 22 21:35	22°♂01'59		2589 Apr 07 06:19	0°♂	
	2586 Sep 29 16:07	0°♄		2589 May 04 14:33	0°♄	
	2586 Oct 24 15:17	0°♄		2589 May 16 05:11	11°♄41'12	45°34'21
	2586 Nov 18 00:30	0°♄		2589 Jun 06 08:36	0°♂	
	2586 Dec 12 02:06	0°♄		2589 Jun 19 17:10	8°♂10'30	-4.5m
	2587 Jan 05 00:14	0°♄		2589 Jun 29 06:14	11°♂16'59	
desc. node	2587 Jan 12 11:11	9°♄21'56		2589 Jul 03 22:53	11°♂41'49	
morning set	2587 Jan 24 00:01	23°♄51'26		2589 Jul 19 16:44	6°♂56'39	
	2587 Jan 28 21:19	0°♁		2589 Jul 25 10:26	3°♂28'36	-5°-39'-21
	2587 Feb 21 18:52	0°♂		2589 Jul 25 00:42	3°♂43'49	5°37'13
				2589 Jul 25 07:05	3°♂33'50	0.29034 AU
superior conj	2587 Mar 06 08:37	15°♂45'08	-1°-25'-54	2589 Jul 30 08:42	0°♂28'23	
minimum elong	2587 Mar 06 06:14	15°♂37'42	1°25'55	2589 Jul 31 04:38	30°♄	
max. Earth dist.	2587 Mar 10 01:11	20°♂22'10	1.71703 AU	2589 Aug 16 02:41	25°♄11'13	
	2587 Mar 17 18:12	0°♄		2589 Aug 30 01:51	28°♄36'28	-4.5m
	2587 Apr 10 20:43	0°♄		2589 Sep 01 21:28	0°♂	
evening rise	2587 Apr 15 05:36	5°♄24'54		2589 Oct 04 10:08	25°♂50'59	46°06'12
	2587 May 05 03:31	0°♂		2589 Oct 08 14:31	0°♄	
asc. node	2587 May 05 14:32	0°♂33'51		2589 Oct 20 09:33	12°♄17'27	
	2587 May 29 15:18	0°♄		2589 Nov 05 09:08	0°♄	
	2587 Jun 23 08:49	0°♂		2589 Dec 01 00:16	0°♄	
	2587 Jul 18 10:01	0°♄		2589 Dec 25 17:25	0°♄	
	2587 Aug 12 23:02	0°♄		2590 Jan 19 00:38	0°♄	
desc. node	2587 Aug 25 03:46	14°♄01'19		2590 Feb 08 22:58	26°♄01'03	
	2587 Sep 08 08:29	0°♄		2590 Feb 12 03:45	0°♁	
	2587 Oct 06 13:27	0°♄		2590 Mar 08 05:48	0°♂	
evening max el	2587 Oct 10 11:49	3°♄53'45	46°36'57	2590 Apr 01 08:36	0°♄	
	2587 Nov 11 10:45	0°♄		2590 Apr 09 18:22	10°♄26'08	
greatest brilliancy	2587 Nov 18 06:47	3°♄19'19	-4.6m	2590 Apr 25 13:21	0°♄	
retrograde	2587 Nov 29 11:44	5°♄39'08				
evening set	2587 Dec 13 18:12	1°♄36'49		2590 May 17 21:46	27°♄36'09	0°-35'-12
asc. node	2587 Dec 16 07:06	0°♄12'11		2590 May 18 04:56	27°♄58'14	0°34'54
	2587 Dec 16 15:29	30°♄		2590 May 19 20:26	0°♂	
inferior conj	2587 Dec 20 00:17	27°♄58'56	0°58'02	2590 May 20 04:12	0°♂23'55	1.73187 AU
minimum elong	2587 Dec 19 22:03	28°♄02'19	0°57'18	2590 Jun 02 02:24	16°♂18'55	
min. Earth dist.	2587 Dec 19 23:17	28°♄00'27	0.26471 AU	2590 Jun 13 05:34	0°♄	
morning rise	2587 Dec 26 01:49	24°♄27'13		2590 Jun 23 22:52	13°♄10'02	
direct	2588 Jan 09 10:29	20°♄20'13		2590 Jul 07 16:12	0°♂	
greatest brilliancy	2588 Jan 21 13:41	23°♄05'50	-4.7m	2590 Aug 01 04:22	0°♄	
	2588 Feb 02 12:06	0°♄		2590 Aug 25 19:06	0°♄	
morning max el	2588 Feb 28 21:52	23°♄15'41	46°50'36	2590 Sep 19 14:00	0°♄	
	2588 Mar 06 11:53	0°♁		2590 Sep 21 15:47	2°♄29'56	
	2588 Apr 02 21:24	0°♂		2590 Oct 14 15:10	0°♄	
desc. node	2588 Apr 05 20:43	3°♄22'46		2590 Nov 09 02:42	0°♄	
	2588 Apr 28 20:28	0°♄		2590 Dec 05 12:44	0°♁	
	2588 May 24 05:32	0°♄		2590 Dec 22 07:32	17°♁50'24	47°16'55
	2588 Jun 18 07:28	0°♂		2591 Jan 03 20:24	0°♂	
	2588 Jul 13 04:07	0°♄		2591 Jan 12 18:59	7°♄41'41	
asc. node	2588 Jul 27 23:57	18°♄01'21		2591 Jan 29 08:53	18°♄24'46	-4.7m
	2588 Aug 06 19:20	0°♂		2591 Feb 11 05:01	21°♄29'03	
morning set	2588 Aug 27 12:28	25°♂26'58		2591 Feb 28 22:50	15°♄22'01	
	2588 Aug 31 04:58	0°♄		2591 Mar 03 08:22	13°♄52'59	0.27469 AU
	2588 Sep 24 09:49	0°♄		2591 Mar 04 01:04	13°♄26'50	8°49'42
max. Earth dist.	2588 Sep 30 04:20	7°♄10'50	1.72317 AU	2591 Mar 03 22:21	13°♄31'05	8°49'36
				2591 Mar 06 22:05	11°♄40'06	
superior conj	2588 Oct 03 07:38	11°♄05'15	1°20'36	2591 Mar 24 18:02	5°♄35'45	
minimum elong	2588 Oct 03 13:32	11°♄23'37	1°20'31	2591 Apr 04 10:42	7°♄42'45	-4.6m
	2588 Oct 18 11:32	0°♄		2591 May 04 08:30	28°♄22'21	
evening rise	2588 Nov 10 23:05	29°♄20'32		2591 May 06 03:23	0°♄	
	2588 Nov 11 11:43	0°♄		2591 May 13 03:36	6°♄37'58	46°07'55
desc. node	2588 Nov 16 13:39	6°♄21'19		2591 Jun 04 19:53	0°♄	

	2591 Jul 01 19:53	0°♄			2594 Feb 04 00:32	0°♅	
	2591 Jul 27 18:01	0°♅		asc. node	2594 Feb 09 06:45	5°♅56'27	
	2591 Aug 22 00:07	0°♄			2594 Mar 03 18:41	0°♄	
asc. node	2591 Aug 25 11:46	4°♄11'26		evening max el	2594 Mar 03 22:52	0°♄10'30	46°35'17
	2591 Sep 15 17:54	0°♄		greatest brilliancy	2594 Apr 08 14:19	28°♄40'32	-4.6m
	2591 Oct 10 02:11	0°♄			2594 Apr 11 13:45	0°♄	
	2591 Nov 03 04:04	0°♄		retrograde	2594 Apr 23 01:35	2°♄26'38	
morning set	2591 Nov 06 19:07	4°♄32'21			2594 May 04 01:15	30°♄	
	2591 Nov 27 02:23	0°♄		evening set	2594 May 08 21:50	27°♄32'02	
desc. node	2591 Dec 15 01:24	22°♄34'28		inferior conj	2594 May 14 09:03	24°♄12'19	4°01'43
max. Earth dist.	2591 Dec 15 20:30	23°♄34'30	1.71154 AU	minimum elong	2594 May 14 17:03	23°♄59'44	3°59'35
				min. Earth dist.	2594 May 14 08:48	24°♄12'43	0.28565 AU
superior conj	2591 Dec 16 17:26	24°♄40'20	0°-4'-1	morning rise	2594 May 20 12:33	20°♄30'02	
minimum elong	2591 Dec 16 16:22	24°♄36'58	0°03'59	desc. node	2594 May 31 20:16	16°♄18'54	
behind sun begin	2591 Dec 15 14:53	23°♄16'52		direct	2594 Jun 04 16:31	16°♄01'15	
behind sun end	2591 Dec 17 17:50	25°♄57'05		greatest brilliancy	2594 Jun 17 06:58	18°♄49'40	-4.5m
	2591 Dec 20 23:06	0°♄			2594 Jul 05 09:23	0°♄	
	2592 Jan 13 19:32	0°♄		morning max el	2594 Jul 23 10:56	15°♄45'52	45°43'14
evening rise	2592 Jan 27 01:09	16°♄37'39			2594 Aug 06 17:39	0°♄	
	2592 Feb 06 16:54	0°♄			2594 Sep 03 07:48	0°♄	
	2592 Mar 01 17:01	0°♄		asc. node	2594 Sep 21 23:48	21°♄30'03	
	2592 Mar 25 22:17	0°♄			2594 Sep 29 04:56	0°♄	
asc. node	2592 Apr 06 04:42	13°♄49'45			2594 Oct 24 03:19	0°♄	
	2592 Apr 19 11:31	0°♄			2594 Nov 17 12:09	0°♄	
	2592 May 14 12:17	0°♄			2594 Dec 11 13:33	0°♄	
	2592 Jun 09 06:48	0°♄			2595 Jan 04 11:35	0°♄	
	2592 Jul 06 10:01	0°♄		desc. node	2595 Jan 11 13:10	8°♄52'38	
evening max el	2592 Jul 26 02:27	19°♄56'47	45°34'17	morning set	2595 Jan 21 09:39	21°♄15'32	
desc. node	2592 Jul 26 17:58	20°♄33'45			2595 Jan 28 08:35	0°♄	
	2592 Aug 06 03:35	0°♄			2595 Feb 21 06:02	0°♄	
greatest brilliancy	2592 Sep 01 14:52	17°♄26'29	-4.5m				
retrograde	2592 Sep 12 20:25	19°♄41'58		superior conj	2595 Mar 03 19:51	13°♄15'12	-1°-25'-26
evening set	2592 Sep 30 15:14	13°♄49'45		minimum elong	2595 Mar 03 16:26	13°♄04'32	1°25'26
inferior conj	2592 Oct 03 23:57	11°♄47'13	-8°-17'-57	max. Earth dist.	2595 Mar 07 11:23	17°♄49'08	1.71658 AU
minimum elong	2592 Oct 04 06:17	11°♄37'28	8°17'23		2595 Mar 17 05:18	0°♄	
min. Earth dist.	2592 Oct 04 21:22	11°♄14'11	0.28075 AU		2595 Apr 10 07:49	0°♄	
morning rise	2592 Oct 07 20:59	9°♄25'35		evening rise	2595 Apr 12 19:05	3°♄03'39	
direct	2592 Oct 25 04:31	3°♄41'17		asc. node	2595 May 04 16:35	0°♄05'45	
greatest brilliancy	2592 Nov 08 15:14	7°♄26'15	-4.6m		2595 May 04 14:43	0°♄	
asc. node	2592 Nov 16 21:14	12°♄16'47			2595 May 29 02:41	0°♄	
	2592 Dec 08 00:22	0°♄			2595 Jun 22 20:34	0°♄	
morning max el	2592 Dec 14 17:48	6°♄39'32	46°49'04		2595 Jul 17 22:25	0°♄	
	2593 Jan 05 10:12	0°♄			2595 Aug 12 12:42	0°♄	
	2593 Jan 31 07:56	0°♄		desc. node	2595 Aug 24 05:53	13°♄25'45	
	2593 Feb 25 08:43	0°♄			2595 Sep 08 00:40	0°♄	
desc. node	2593 Mar 08 10:53	13°♄26'55			2595 Oct 06 12:06	0°♄	
	2593 Mar 22 00:55	0°♄		evening max el	2595 Oct 08 02:11	1°♄33'31	46°34'32
	2593 Apr 15 13:48	0°♄			2595 Nov 13 18:49	0°♄	
	2593 May 10 01:49	0°♄		greatest brilliancy	2595 Nov 15 19:37	0°♄51'19	-4.6m
	2593 Jun 03 13:49	0°♄		retrograde	2595 Nov 27 00:14	3°♄09'50	
morning set	2593 Jun 18 09:45	18°♄10'00			2595 Dec 09 13:20	30°♄	
	2593 Jun 28 01:23	0°♄		evening set	2595 Dec 11 06:48	29°♄07'23	
asc. node	2593 Jun 29 14:09	1°♄52'42		asc. node	2595 Dec 15 09:05	26°♄47'23	
	2593 Jul 22 11:35	0°♄		inferior conj	2595 Dec 17 12:24	25°♄29'49	0°33'24
max. Earth dist.	2593 Jul 23 01:32	0°♄42'56	1.73486 AU	minimum elong	2595 Dec 17 11:06	25°♄31'46	0°32'58
				min. Earth dist.	2595 Dec 17 12:37	25°♄29'28	0.26484 AU
superior conj	2593 Jul 24 23:29	3°♄04'18	0°55'32	morning rise	2595 Dec 23 15:21	21°♄56'14	
minimum elong	2593 Jul 24 14:46	2°♄37'29	0°55'13	direct	2596 Jan 06 23:30	17°♄51'00	
	2593 Aug 15 19:52	0°♄		greatest brilliancy	2596 Jan 19 03:23	20°♄37'38	-4.7m
evening rise	2593 Aug 29 21:10	17°♄21'23			2596 Feb 03 09:31	0°♄	
	2593 Sep 09 02:44	0°♄		morning max el	2596 Feb 26 11:25	20°♄50'28	46°51'29
	2593 Oct 03 09:15	0°♄			2596 Mar 06 08:39	0°♄	
desc. node	2593 Oct 19 03:47	19°♄28'44			2596 Apr 02 13:13	0°♄	
	2593 Oct 27 16:26	0°♄		desc. node	2596 Apr 04 22:53	2°♄44'35	
	2593 Nov 21 01:07	0°♄			2596 Apr 28 10:10	0°♄	
	2593 Dec 15 13:04	0°♄			2596 May 23 18:05	0°♄	
	2594 Jan 09 09:01	0°♄			2596 Jun 17 19:19	0°♄	

	2596 Jul 12 15:31	0°☿		asc. node	2599 Jan 11 20:58	6°♄28'20	
asc. node	2596 Jul 27 01:58	17°☿33'21		greatest brilliancy	2599 Jan 27 01:07	16°♄03'02	-4.7m
	2596 Aug 06 06:28	0°♌		retrograde	2599 Feb 08 18:35	19°♄05'00	
morning set	2596 Aug 25 05:52	23°♌18'49		evening set	2599 Feb 26 10:24	13°♄02'11	
	2596 Aug 30 15:56	0°♍		min. Earth dist.	2599 Feb 28 21:58	11°♄30'13	0.27420 AU
	2596 Sep 23 20:46	0°♎		inferior conj	2599 Mar 01 14:53	11°♄03'44	8°46'46
max. Earth dist.	2596 Sep 27 18:20	4°♎50'56	1.72364 AU	minimum elong	2599 Mar 01 11:19	11°♄09'20	8°46'34
				morning rise	2599 Mar 04 12:24	9°♄16'15	
superior conj	2596 Sep 30 23:54	8°♎52'18	1°21'36	direct	2599 Mar 22 06:44	3°♄13'19	
minimum elong	2596 Oct 01 05:09	9°♎08'37	1°21'32	greatest brilliancy	2599 Apr 02 00:26	5°♄20'53	-4.6m
	2596 Oct 17 22:34	0°♏		desc. node	2599 May 03 10:29	27°♄24'36	
evening rise	2596 Nov 08 12:07	26°♏56'16			2599 May 06 05:26	0°♑	
	2596 Nov 10 22:54	0°♑		morning max el	2599 May 10 16:38	4°♑16'25	46°09'24
desc. node	2596 Nov 15 15:38	5°♑52'25			2599 Jun 04 12:54	0°♒	
	2596 Dec 04 22:44	0°♓			2599 Jul 01 09:54	0°♓	
	2596 Dec 28 22:55	0°♈			2599 Jul 27 06:34	0°☿	
	2597 Jan 22 01:12	0°♉			2599 Aug 21 11:54	0°♌	
	2597 Feb 15 09:06	0°♊		asc. node	2599 Aug 24 13:54	3°♌42'38	
asc. node	2597 Mar 08 18:47	25°♊55'53			2599 Sep 15 05:16	0°♍	
	2597 Mar 12 04:28	0°♋			2599 Oct 09 13:21	0°♎	
	2597 Apr 06 21:07	0°♌			2599 Nov 02 15:09	0°♏	
	2597 May 04 09:34	0°☿		morning set	2599 Nov 04 09:01	2°♏10'59	
evening max el	2597 May 13 20:49	9°☿28'43	45°35'33		2599 Nov 26 13:26	0°♑	
	2597 Jun 07 01:59	0°♌		max. Earth dist.	2599 Dec 13 04:30	20°♑54'00	1.71171 AU
greatest brilliancy	2597 Jun 17 09:12	6°♌00'31	-4.5m				
desc. node	2597 Jun 28 08:12	9°♌19'49		superior conj	2599 Dec 14 04:19	22°♑08'54	0°00'-5
retrograde	2597 Jul 01 14:39	9°♌31'57		minimum elong	2599 Dec 14 04:16	22°♑08'45	0°00'05
evening set	2597 Jul 17 06:46	4°♌50'10		behind sun begin	2599 Dec 13 02:55	20°♑49'00	
inferior conj	2597 Jul 23 02:42	1°♌18'45	-5°-24'-13	behind sun end	2599 Dec 15 05:38	23°♑28'30	
minimum elong	2597 Jul 22 17:08	1°♌33'45	5°22'02	desc. node	2599 Dec 14 03:25	22°♑06'04	
min. Earth dist.	2597 Jul 22 23:14	1°♌24'10	0.29030 AU		2599 Dec 20 10:10	0°♓	
	2597 Jul 25 05:11	30°♒☿			2600 Jan 13 06:37	0°♈	
morning rise	2597 Jul 28 03:30	28°☿14'30		evening rise	2600 Jan 24 11:39	14°♈05'06	
direct	2597 Aug 13 18:48	23°☿01'31			2600 Feb 06 04:02	0°♉	
greatest brilliancy	2597 Aug 27 16:07	26°☿23'58	-4.5m		2600 Mar 02 04:15	0°♊	
	2597 Sep 03 09:01	0°♌			2600 Mar 26 09:42	0°♋	
morning max el	2597 Oct 02 00:20	23°♌34'14	46°04'53	asc. node	2600 Apr 06 06:42	13°♋20'23	
	2597 Oct 08 10:52	0°♍			2600 Apr 19 23:20	0°♌	
asc. node	2597 Oct 19 11:31	11°♍35'22			2600 May 15 00:52	0°☿	
	2597 Nov 05 00:24	0°♎			2600 Jun 09 20:53	0°♌	
	2597 Nov 30 13:40	0°♏			2600 Jul 07 03:36	0°♍	
	2597 Dec 25 05:55	0°♑		evening max el	2600 Jul 24 16:31	17°♍40'56	45°33'10
	2598 Jan 18 12:37	0°♓		desc. node	2600 Jul 26 20:07	19°♍43'02	
desc. node	2598 Feb 08 01:04	25°♓31'11			2600 Aug 07 10:07	0°♎	
	2598 Feb 11 15:24	0°♈		greatest brilliancy	2600 Aug 31 01:25	15°♎06'36	-4.5m
	2598 Mar 07 17:13	0°♉		retrograde	2600 Sep 11 10:48	17°♎25'34	
	2598 Mar 31 19:51	0°♊		evening set	2600 Sep 29 07:11	11°♎29'50	
morning set	2598 Apr 07 08:13	8°♊05'32		inferior conj	2600 Oct 02 14:21	9°♎29'37	-8°-23'-56
	2598 Apr 25 00:26	0°♋		minimum elong	2600 Oct 02 19:58	9°♎20'58	8°23'28
				min. Earth dist.	2600 Oct 03 11:01	8°♎57'46	0.28142 AU
superior conj	2598 May 15 13:45	25°♋23'38	0°-38'-17	morning rise	2600 Oct 06 08:27	7°♎12'28	
minimum elong	2598 May 15 21:26	25°♋47'20	0°37'57	direct	2600 Oct 23 19:41	1°♎22'38	
max. Earth dist.	2598 May 17 23:54	28°♋22'52	1.73145 AU	greatest brilliancy	2600 Nov 07 08:07	5°♎09'58	-4.6m
	2598 May 19 07:25	0°♌		asc. node	2600 Nov 16 23:13	10°♎57'58	
asc. node	2598 Jun 01 04:20	15°♌51'08			2600 Dec 09 00:59	0°♏	
	2598 Jun 12 16:31	0°☿		morning max el	2600 Dec 13 09:18	4°♏20'33	46°48'09
evening rise	2598 Jun 21 16:54	11°☿04'16					
	2598 Jul 07 03:15	0°♌					
	2598 Jul 31 15:42	0°♍					
	2598 Aug 25 06:50	0°♎					
	2598 Sep 19 02:21	0°♏					
desc. node	2598 Sep 20 17:54	1°♏58'57					
	2598 Oct 14 04:29	0°♑					
	2598 Nov 08 17:39	0°♓					
	2598 Dec 05 07:08	0°♈					
evening max el	2598 Dec 19 20:37	15°♈23'49	47°16'49				
	2599 Jan 04 02:37	0°♉					

superior conj	2601 Jul 23 17:41	0°♌59'43	0°53'07	minimum elong	2603 Dec 16 00:13	23°♏02'28	0°08'37
minimum elong	2601 Jul 23 09:05	0°♌33'16	0°52'46	transit middle	2603 Dec 16 00:13	23°♏02'28	0°08'37
	2601 Aug 16 06:37	0°♍		transit begin	2603 Dec 15 20:43	23°♏07'47	
evening rise	2601 Aug 28 14:53	15°♍14'31		transit end	2603 Dec 16 03:43	22°♏57'09	
	2601 Sep 09 13:38	0°♎		min. Earth dist.	2603 Dec 16 02:20	22°♏59'15	0.26499 AU
	2601 Oct 03 20:25	0°♏		morning rise	2603 Dec 22 04:39	19°♏26'32	
desc. node	2601 Oct 19 05:44	18°♏59'34		direct	2604 Jan 05 12:11	15°♏22'57	
	2601 Oct 28 03:58	0°♐		greatest brilliancy	2604 Jan 17 17:27	18°♏10'48	-4.7m
	2601 Nov 21 13:09	0°♑			2604 Feb 05 01:00	0°♑	
	2601 Dec 16 01:44	0°♒		morning max el	2604 Feb 25 00:08	18°♑24'02	46°52'22
	2602 Jan 09 22:43	0°♓			2604 Mar 07 04:22	0°♒	
	2602 Feb 04 16:20	0°♑			2604 Apr 03 04:24	0°♓	
asc. node	2602 Feb 09 08:55	5°♑16'29		desc. node	2604 Apr 05 00:47	2°♓07'09	
evening max el	2602 Mar 02 14:41	27°♑55'52	46°37'46		2604 Apr 28 23:20	0°♑	
	2602 Mar 04 16:31	0°♒			2604 May 24 06:08	0°♓	
greatest brilliancy	2602 Apr 07 06:56	26°♒29'14	-4.6m		2604 Jun 18 06:40	0°♑	
	2602 Apr 18 04:26	0°♑			2604 Jul 13 02:26	0°♓	
retrograde	2602 Apr 21 18:30	0°♑15'12		asc. node	2604 Jul 27 04:07	17°♓07'07	
	2602 Apr 25 07:02	30°♒♓			2604 Aug 06 17:08	0°♌	
evening set	2602 May 07 16:20	25°♒17'04		morning set	2604 Aug 23 23:22	21°♌12'12	
inferior conj	2602 May 13 01:02	22°♒00'45	4°19'52		2604 Aug 31 02:31	0°♍	
minimum elong	2602 May 13 09:29	21°♒47'30	4°17'39		2604 Sep 24 07:23	0°♎	
min. Earth dist.	2602 May 13 00:19	22°♒01'53	0.28541 AU	max. Earth dist.	2604 Sep 26 07:48	2°♎30'29	1.72417 AU
morning rise	2602 May 19 02:59	18°♒20'58					
desc. node	2602 May 31 22:15	13°♒57'13		superior conj	2604 Sep 29 16:14	6°♎40'40	1°22'29
direct	2602 Jun 03 08:34	13°♒50'11		minimum elong	2604 Sep 29 20:47	6°♎54'50	1°22'25
greatest brilliancy	2602 Jun 15 20:47	16°♒37'03	-4.5m		2604 Oct 18 09:18	0°♏	
	2602 Jul 06 18:56	0°♑		evening rise	2604 Nov 07 01:05	24°♏32'52	
morning max el	2602 Jul 22 03:41	13°♑38'18	45°43'10		2604 Nov 11 09:47	0°♐	
	2602 Aug 07 11:30	0°♓		desc. node	2604 Nov 15 17:40	5°♐24'38	
	2602 Sep 03 21:55	0°♌			2604 Dec 05 09:47	0°♑	
asc. node	2602 Sep 22 01:46	20°♌58'07			2604 Dec 29 10:11	0°♒	
	2602 Sep 29 17:29	0°♍			2605 Jan 22 12:46	0°♓	
	2602 Oct 24 15:06	0°♎			2605 Feb 15 21:09	0°♑	
	2602 Nov 17 23:32	0°♏		asc. node	2605 Mar 08 20:45	25°♑23'45	
	2602 Dec 12 00:44	0°♐			2605 Mar 12 17:20	0°♓	
	2603 Jan 04 22:40	0°♑			2605 Apr 07 11:40	0°♑	
desc. node	2603 Jan 11 15:15	8°♑24'30			2605 May 05 04:32	0°♓	
morning set	2603 Jan 19 19:20	18°♑40'35		evening max el	2605 May 12 11:58	7°♓16'32	45°36'58
	2603 Jan 28 19:34	0°♒			2605 Jun 09 00:16	0°♌	
	2603 Feb 21 16:55	0°♓		greatest brilliancy	2605 Jun 16 00:29	3°♌51'36	-4.5m
				desc. node	2605 Jun 28 10:18	7°♌20'51	
superior conj	2603 Mar 02 07:08	10°♓46'13	-1°-24'-48	retrograde	2605 Jun 30 06:38	7°♌24'46	
minimum elong	2603 Mar 02 02:41	10°♓32'19	1°24'46	evening set	2605 Jul 15 21:14	2°♌45'45	
max. Earth dist.	2603 Mar 05 22:53	15°♓21'00	1.71607 AU		2605 Jul 20 12:19	30°♒♓	
	2603 Mar 17 16:06	0°♑		inferior conj	2605 Jul 21 19:18	29°♓11'29	-5°-8'-43
	2603 Apr 10 18:35	0°♒		minimum elong	2605 Jul 21 09:57	29°♓26'10	5°06'31
evening rise	2603 Apr 11 08:42	0°♒43'48		min. Earth dist.	2605 Jul 21 15:56	29°♓16'47	0.29027 AU
asc. node	2603 May 04 18:33	29°♒38'34		morning rise	2605 Jul 26 22:36	26°♓03'23	
	2603 May 05 01:31	0°♑		direct	2605 Aug 12 10:51	20°♓54'14	
	2603 May 29 13:40	0°♓		greatest brilliancy	2605 Aug 26 07:30	24°♓15'00	-4.5m
	2603 Jun 23 07:58	0°♌			2605 Sep 05 09:05	0°♌	
	2603 Jul 18 10:34	0°♍		morning max el	2605 Sep 30 14:44	21°♌19'30	46°03'23
	2603 Aug 13 02:12	0°♎			2605 Oct 09 06:04	0°♍	
desc. node	2603 Aug 24 07:57	12°♎50'40		asc. node	2605 Oct 19 13:31	10°♍55'06	
	2603 Sep 08 16:51	0°♏			2605 Nov 05 15:07	0°♎	
evening max el	2603 Oct 06 16:20	29°♏13'34	46°32'05		2605 Dec 01 02:40	0°♏	
	2603 Oct 07 11:25	0°♐			2605 Dec 25 18:04	0°♑	
greatest brilliancy	2603 Nov 14 09:25	28°♐25'29	-4.6m		2606 Jan 19 00:16	0°♑	
	2603 Nov 19 11:51	0°♑		desc. node	2606 Feb 08 03:11	25°♑02'27	
retrograde	2603 Nov 25 12:13	0°♑41'32			2606 Feb 12 02:42	0°♒	
	2603 Dec 01 08:17	30°♒♐			2606 Mar 08 04:17	0°♓	
evening set	2603 Dec 09 19:40	26°♐38'50			2606 Apr 01 06:43	0°♑	
asc. node	2603 Dec 15 11:08	23°♐22'23		morning set	2606 Apr 05 21:51	5°♑45'17	
inferior conj	2603 Dec 16 00:33	23°♐01'57	0°08'44		2606 Apr 25 11:09	0°♒	

superior conj	2606 May 14 05:50	23°♄12'29	0°-41'-17	morning rise	2608 Oct 03 20:32	5°♁00'53	
minimum elong	2606 May 14 14:00	23°♄37'40	0°40'56		2608 Oct 14 20:35	30°♁	
max. Earth dist.	2606 May 16 17:27	26°♄16'19	1.73101 AU	direct	2608 Oct 21 11:33	29°♁06'17	
	2606 May 19 18:01	0°♂			2608 Oct 28 07:19	0°♁	
asc. node	2606 Jun 01 06:28	15°♂25'07		greatest brilliancy	2608 Nov 04 23:56	2°♁54'00	-4.6m
	2606 Jun 13 03:06	0°♄		asc. node	2608 Nov 16 01:20	9°♁43'09	
evening rise	2606 Jun 20 11:07	9°♄00'23			2608 Dec 09 00:07	0°♁	
	2606 Jul 07 13:55	0°♁		morning max el	2608 Dec 11 01:13	2°♁03'39	46°46'52
	2606 Aug 01 02:36	0°♁			2609 Jan 05 19:21	0°♄	
	2606 Aug 25 18:10	0°♁			2609 Jan 31 12:04	0°♄	
	2606 Sep 19 14:23	0°♁			2609 Feb 25 10:20	0°♁	
desc. node	2606 Sep 20 19:51	1°♁28'32		desc. node	2609 Mar 07 14:56	12°♁23'42	
	2606 Oct 14 17:34	0°♄			2609 Mar 22 01:00	0°♄	
	2606 Nov 09 08:32	0°♄			2609 Apr 15 12:49	0°♄	
	2606 Dec 06 01:48	0°♁			2609 May 10 00:04	0°♄	
evening max el	2606 Dec 18 09:40	12°♁57'37	47°16'41		2609 Jun 03 11:34	0°♂	
	2607 Jan 05 11:04	0°♄		morning set	2609 Jun 14 21:05	13°♂57'57	
asc. node	2607 Jan 11 23:08	5°♄13'31			2609 Jun 27 22:51	0°♄	
greatest brilliancy	2607 Jan 25 16:35	13°♄40'23	-4.7m	asc. node	2609 Jun 28 18:17	0°♄59'39	
retrograde	2607 Feb 07 08:22	16°♄41'09		max. Earth dist.	2609 Jul 19 23:09	27°♄02'14	1.73519 AU
evening set	2607 Feb 24 21:22	10°♄42'53					
min. Earth dist.	2607 Feb 27 11:18	9°♄07'36	0.27368 AU	superior conj	2609 Jul 21 11:59	28°♄55'33	0°50'36
inferior conj	2607 Feb 28 04:33	8°♄40'41	8°42'46	minimum elong	2609 Jul 21 03:34	28°♄29'37	0°50'17
minimum elong	2607 Feb 28 00:06	8°♄47'37	8°42'28		2609 Jul 22 08:57	0°♁	
morning rise	2607 Mar 03 03:02	6°♄51'55			2609 Aug 15 17:20	0°♁	
direct	2607 Mar 20 19:14	0°♄50'50		evening rise	2609 Aug 26 08:58	13°♁08'54	
greatest brilliancy	2607 Mar 31 14:05	2°♄59'26	-4.6m		2609 Sep 09 00:29	0°♁	
desc. node	2607 May 03 12:34	26°♄29'11			2609 Oct 03 07:30	0°♁	
	2607 May 07 05:48	0°♄		desc. node	2609 Oct 18 07:49	18°♁31'05	
morning max el	2607 May 09 06:29	1°♄57'35	46°11'01		2609 Oct 27 15:26	0°♄	
	2607 Jun 05 05:15	0°♄			2609 Nov 21 01:07	0°♄	
	2607 Jul 01 23:26	0°♂			2609 Dec 15 14:24	0°♁	
	2607 Jul 27 18:43	0°♄			2610 Jan 09 12:33	0°♄	
	2607 Aug 21 23:18	0°♁			2610 Feb 04 08:31	0°♄	
asc. node	2607 Aug 24 15:54	3°♁14'32		asc. node	2610 Feb 08 10:51	4°♄35'00	
	2607 Sep 15 16:16	0°♁		evening max el	2610 Feb 28 06:53	25°♄41'17	46°39'58
	2607 Oct 10 00:10	0°♁			2610 Mar 04 15:34	0°♄	
morning set	2607 Nov 02 23:20	29°♁51'54		greatest brilliancy	2610 Apr 05 00:41	24°♄18'04	-4.6m
	2607 Nov 03 01:56	0°♁		retrograde	2610 Apr 19 10:58	28°♄01'55	
	2607 Nov 27 00:15	0°♄		evening set	2610 May 05 10:43	23°♄00'29	
max. Earth dist.	2607 Dec 11 14:23	18°♄19'58	1.71198 AU	inferior conj	2610 May 10 16:45	19°♄47'40	4°37'46
				minimum elong	2610 May 11 01:35	19°♄33'46	4°35'31
superior conj	2607 Dec 12 15:09	19°♄37'49	0°03'52	min. Earth dist.	2610 May 10 15:39	19°♄49'22	0.28514 AU
minimum elong	2607 Dec 12 16:08	19°♄40'57	0°03'49	morning rise	2610 May 16 16:54	16°♄10'25	
behind sun begin	2607 Dec 11 14:43	18°♄21'01		desc. node	2610 May 31 00:23	11°♄38'57	
behind sun end	2607 Dec 13 17:33	21°♄00'52		direct	2610 Jun 01 00:23	11°♄37'46	
desc. node	2607 Dec 14 05:33	21°♄38'35		greatest brilliancy	2610 Jun 13 09:18	14°♄21'41	-4.5m
	2607 Dec 20 21:03	0°♄			2610 Jul 07 02:10	0°♂	
	2608 Jan 13 17:35	0°♁		morning max el	2610 Jul 19 19:40	11°♂28'18	45°43'15
evening rise	2608 Jan 22 21:45	11°♁31'41			2610 Aug 07 05:06	0°♄	
	2608 Feb 06 15:04	0°♄			2610 Sep 03 11:59	0°♁	
	2608 Mar 01 15:22	0°♄		asc. node	2610 Sep 21 03:44	20°♁26'01	
	2608 Mar 25 21:00	0°♄			2610 Sep 29 06:02	0°♁	
asc. node	2608 Apr 05 08:41	12°♄51'27			2610 Oct 24 02:54	0°♁	
	2608 Apr 19 11:02	0°♂			2610 Nov 17 10:57	0°♁	
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	2608 Jun 09 10:56	0°♁			2611 Jan 04 09:47	0°♄	
	2608 Jul 06 21:19	0°♁		desc. node	2611 Jan 10 17:19	7°♄56'11	
evening max el	2608 Jul 22 07:49	15°♁29'01	45°32'14	morning set	2611 Jan 17 05:26	16°♄06'45	
desc. node	2608 Jul 25 22:13	18°♁52'11			2611 Jan 28 06:37	0°♁	
	2608 Aug 07 18:38	0°♁			2611 Feb 21 03:55	0°♄	
greatest brilliancy	2608 Aug 28 12:18	12°♁48'45	-4.5m				
retrograde	2608 Sep 09 01:39	15°♁11'02		superior conj	2611 Feb 27 18:19	8°♄16'27	-1°-23'-59
evening set	2608 Sep 26 23:13	9°♁12'29		minimum elong	2611 Feb 27 12:54	7°♄59'29	1°23'57
inferior conj	2608 Sep 30 05:06	7°♁14'02	-8°-28'-57	max. Earth dist.	2611 Mar 03 10:33	12°♄52'49	1.71564 AU
minimum elong	2608 Sep 30 10:00	7°♁06'29	8°28'37		2611 Mar 17 03:05	0°♄	
min. Earth dist.	2608 Oct 01 00:41	6°♁43'51	0.28205 AU	evening rise	2611 Apr 08 21:48	28°♄21'25	




































































































































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asc. node	2611 May 03 20:39	29°♄10'57		morning max el	2613 Sep 28 05:39	19°♄04'49	46°02'07
	2611 May 04 12:37	0°♄			2613 Oct 09 01:15	0°♄	
	2611 May 29 00:58	0°♄		asc. node	2613 Oct 18 15:42	10°♄14'37	
	2611 Jun 22 19:39	0°♄			2613 Nov 05 06:01	0°♄	
	2611 Jul 17 23:02	0°♄			2613 Nov 30 15:56	0°♄	
	2611 Aug 12 16:05	0°♄			2613 Dec 25 06:30	0°♄	
desc. node	2611 Aug 23 09:54	12°♄14'17			2614 Jan 18 12:12	0°♄	
	2611 Sep 08 09:36	0°♄		desc. node	2614 Feb 07 05:06	24°♄32'06	
evening max el	2611 Oct 04 05:50	26°♄51'36	46°29'40		2614 Feb 11 14:18	0°♄	
	2611 Oct 07 12:04	0°♄			2614 Mar 07 15:37	0°♄	
greatest brilliancy	2611 Nov 12 00:00	26°♄00'31	-4.6m		2614 Mar 31 17:51	0°♄	
retrograde	2611 Nov 22 23:52	28°♄13'38		morning set	2614 Apr 03 11:37	3°♄24'25	
evening set	2611 Dec 07 08:57	24°♄10'14			2614 Apr 24 22:07	0°♄	
inferior conj	2611 Dec 13 12:58	20°♄34'36	0°-15'-46				
minimum elong	2611 Dec 13 13:34	20°♄33'40	0°15'35	superior conj	2614 May 11 22:01	21°♄00'42	0°-44'-12
transit middle	2611 Dec 13 13:34	20°♄33'40	0°15'35	minimum elong	2614 May 12 06:38	21°♄27'16	0°43'52
transit begin	2611 Dec 13 12:04	20°♄35'57		max. Earth dist.	2614 May 14 10:32	24°♄07'22	1.73062 AU
transit end	2611 Dec 13 15:04	20°♄31'24			2614 May 19 04:56	0°♄	
min. Earth dist.	2611 Dec 13 16:35	20°♄29'04	0.26514 AU	asc. node	2614 May 31 08:32	14°♄57'53	
asc. node	2611 Dec 14 13:14	19°♄57'38			2614 Jun 12 14:01	0°♄	
morning rise	2611 Dec 19 17:56	16°♄57'33		evening rise	2614 Jun 18 05:21	6°♄55'24	
direct	2612 Jan 03 00:33	12°♄55'11			2614 Jul 07 00:59	0°♄	
greatest brilliancy	2612 Jan 15 08:22	15°♄45'09	-4.7m		2614 Jul 31 13:56	0°♄	
	2612 Feb 05 12:34	0°♄			2614 Aug 25 05:58	0°♄	
morning max el	2612 Feb 22 12:20	15°♄56'00	46°53'11		2614 Sep 19 02:52	0°♄	
	2612 Mar 06 23:35	0°♄		desc. node	2614 Sep 19 21:56	0°♄57'12	
	2612 Apr 02 19:32	0°♄			2614 Oct 14 07:08	0°♄	
desc. node	2612 Apr 04 02:54	1°♄30'11			2614 Nov 09 00:00	0°♄	
	2612 Apr 28 12:39	0°♄			2614 Dec 05 21:22	0°♄	
	2612 May 23 18:27	0°♄		evening max el	2614 Dec 15 23:31	10°♄32'38	47°16'33
	2612 Jun 17 18:21	0°♄			2615 Jan 05 23:00	0°♄	
	2612 Jul 12 13:41	0°♄		asc. node	2615 Jan 11 01:07	3°♄55'02	
asc. node	2612 Jul 26 06:04	16°♄39'16		greatest brilliancy	2615 Jan 23 07:05	11°♄15'27	-4.7m
	2612 Aug 06 04:08	0°♄		retrograde	2615 Feb 04 22:38	14°♄16'13	
morning set	2612 Aug 21 16:37	19°♄03'50		evening set	2615 Feb 22 07:56	8°♄22'48	
	2612 Aug 30 13:25	0°♄		min. Earth dist.	2615 Feb 25 00:20	6°♄44'07	0.27315 AU
	2612 Sep 23 18:18	0°♄		inferior conj	2615 Feb 25 18:09	6°♄16'23	8°37'46
max. Earth dist.	2612 Sep 23 23:03	0°♄14'47	1.72470 AU	minimum elong	2615 Feb 25 12:53	6°♄24'35	8°37'22
				morning rise	2615 Feb 28 18:01	4°♄25'49	
superior conj	2612 Sep 27 08:33	4°♄28'08	1°23'13		2615 Mar 09 15:52	30°♄	
minimum elong	2612 Sep 27 12:23	4°♄40'05	1°23'11	direct	2615 Mar 18 08:06	28°♄27'11	
	2612 Oct 17 20:20	0°♄			2615 Mar 27 10:00	0°♄	
evening rise	2612 Nov 04 14:17	22°♄09'24		greatest brilliancy	2615 Mar 29 03:11	0°♄36'24	-4.6m
	2612 Nov 10 20:58	0°♄		desc. node	2615 May 02 14:39	25°♄34'14	
desc. node	2612 Nov 14 19:47	4°♄56'13		morning max el	2615 May 06 21:11	29°♄40'01	46°12'41
	2612 Dec 04 21:08	0°♄			2615 May 07 05:23	0°♄	
	2612 Dec 28 21:44	0°♄			2615 Jun 04 21:34	0°♄	
	2613 Jan 22 00:36	0°♄			2615 Jul 01 13:08	0°♄	
	2613 Feb 15 09:27	0°♄			2615 Jul 27 07:09	0°♄	
asc. node	2613 Mar 07 22:47	24°♄51'03			2615 Aug 21 11:03	0°♄	
	2613 Mar 12 06:30	0°♄		asc. node	2615 Aug 23 17:54	2°♄45'15	
	2613 Apr 07 02:40	0°♄			2615 Sep 15 03:40	0°♄	
	2613 May 05 00:31	0°♄			2615 Oct 09 11:23	0°♄	
evening max el	2613 May 10 02:43	5°♄02'06	45°38'15	morning set	2615 Oct 31 13:37	27°♄31'38	
	2613 Jun 10 08:44	0°♄			2615 Nov 02 13:04	0°♄	
greatest brilliancy	2613 Jun 13 14:42	1°♄39'29	-4.5m		2615 Nov 26 11:23	0°♄	
retrograde	2613 Jun 27 22:40	5°♄15'38		max. Earth dist.	2615 Dec 09 01:16	15°♄48'11	1.71221 AU
desc. node	2613 Jun 27 12:22	5°♄15'26					
evening set	2613 Jul 13 11:32	0°♄38'55		superior conj	2615 Dec 10 01:56	17°♄05'43	0°07'47
	2613 Jul 14 15:00	30°♄		minimum elong	2615 Dec 10 03:57	17°♄12'02	0°07'40
inferior conj	2613 Jul 19 11:39	27°♄02'06	-4°-52'-32	behind sun begin	2615 Dec 09 04:50	15°♄59'21	
minimum elong	2613 Jul 19 02:33	27°♄16'22	4°50'21	behind sun end	2615 Dec 11 03:04	18°♄24'42	
min. Earth dist.	2613 Jul 19 08:23	27°♄07'14	0.29025 AU	desc. node	2615 Dec 13 07:33	21°♄09'40	
morning rise	2613 Jul 24 17:27	23°♄50'24			2615 Dec 20 08:14	0°♄	
direct	2613 Aug 10 02:32	18°♄44'41			2616 Jan 13 04:51	0°♄	
greatest brilliancy	2613 Aug 23 23:45	22°♄05'24	-4.5m	evening rise	2616 Jan 20 07:54	8°♄57'23	

	2616 Feb 06 02:25	0° Υ			2618 Sep 03 01:55	0° Ω	
	2616 Mar 01 02:48	0° Υ		asc. node	2618 Sep 20 05:56	19° Ω 54'43	
	2616 Mar 25 08:38	0° Υ			2618 Sep 28 18:34	0° Υ	
asc. node	2616 Apr 04 10:50	12° Υ 22'05			2618 Oct 23 14:44	0° Ω	
	2616 Apr 18 23:03	0° Π			2618 Nov 16 22:28	0° Ω	
	2616 May 14 02:09	0° Υ			2618 Dec 10 23:20	0° Υ	
	2616 Jun 09 01:23	0° Ω			2619 Jan 03 21:02	0° Υ	
	2616 Jul 06 15:48	0° Υ		desc. node	2619 Jan 09 19:19	7° Υ 27'09	
evening max el	2616 Jul 19 23:32	13° Υ 17'09	45°31'04	morning set	2619 Jan 14 15:04	13° Υ 30'59	
desc. node	2616 Jul 25 00:08	17° Υ 58'59			2619 Jan 27 17:47	0° \approx	
	2616 Aug 08 06:47	0° Ω			2619 Feb 20 14:59	0° Υ	
greatest brilliancy	2616 Aug 25 23:45	10° Ω 30'25	-4.5m				
retrograde	2616 Sep 06 16:01	12° Ω 54'57		superior conj	2619 Feb 25 05:07	5° Υ 45'15	-1°-23'00
evening set	2616 Sep 24 14:50	6° Ω 54'19		minimum elong	2619 Feb 24 22:46	5° Υ 25'20	1°22'55
inferior conj	2616 Sep 27 19:43	4° Ω 57'05	-8°-33'-6	max. Earth dist.	2619 Feb 28 20:31	10° Υ 19'04	1.71515 AU
minimum elong	2616 Sep 27 23:51	4° Ω 50'42	8°32'53		2619 Mar 16 14:06	0° Υ	
min. Earth dist.	2616 Sep 28 14:14	4° Ω 28'31	0.28267 AU	evening rise	2619 Apr 06 10:38	25° Υ 58'06	
morning rise	2616 Oct 01 08:40	2° Ω 47'28			2619 Apr 09 16:36	0° Υ	
	2616 Oct 06 11:30	30° Ω		asc. node	2619 May 02 22:44	28° Υ 43'12	
direct	2616 Oct 19 03:29	26° Ω 48'42			2619 May 03 23:42	0° Π	
	2616 Nov 01 08:42	0° Ω			2619 May 28 12:15	0° Υ	
greatest brilliancy	2616 Nov 02 14:51	0° Ω 35'30	-4.6m		2619 Jun 22 07:21	0° Ω	
asc. node	2616 Nov 15 03:22	8° Ω 29'04			2619 Jul 17 11:29	0° Υ	
morning max el	2616 Dec 08 16:25	29° Ω 43'52	46°45'37		2619 Aug 12 05:59	0° Ω	
	2616 Dec 08 22:46	0° Ω		desc. node	2619 Aug 22 12:03	11° Ω 38'33	
	2617 Jan 05 11:45	0° Υ			2619 Sep 08 02:33	0° Ω	
	2617 Jan 31 02:10	0° Υ		evening max el	2619 Oct 01 18:14	24° Ω 27'26	46°27'06
	2617 Feb 24 23:16	0° \approx			2619 Oct 07 13:53	0° Υ	
desc. node	2617 Mar 06 17:03	11° \approx 51'48		greatest brilliancy	2619 Nov 09 14:06	23° Υ 35'01	-4.6m
	2617 Mar 21 13:12	0° Υ		retrograde	2619 Nov 20 11:13	25° Υ 45'50	
	2617 Apr 15 00:29	0° Υ		evening set	2619 Dec 04 22:17	21° Υ 40'56	
	2617 May 09 11:22	0° Υ		inferior conj	2619 Dec 11 01:16	18° Υ 07'01	0°-40'-13
	2617 Jun 02 22:36	0° Π		minimum elong	2619 Dec 11 02:49	18° Υ 04'39	0°39'43
morning set	2617 Jun 12 14:56	11° Π 52'00		min. Earth dist.	2619 Dec 11 06:55	17° Υ 58'24	0.26541 AU
	2617 Jun 27 09:43	0° Υ		asc. node	2619 Dec 13 15:12	16° Υ 33'16	
asc. node	2617 Jun 27 20:17	0° Υ 32'25		morning rise	2619 Dec 17 06:56	14° Υ 28'42	
max. Earth dist.	2617 Jul 17 21:40	25° Υ 10'37	1.73530 AU	direct	2619 Dec 31 12:40	10° Υ 26'45	
				greatest brilliancy	2620 Jan 13 00:33	13° Υ 20'34	-4.7m
superior conj	2617 Jul 19 06:30	26° Υ 51'34	0°48'03		2620 Feb 05 21:20	0° Υ	
minimum elong	2617 Jul 18 22:17	26° Υ 26'21	0°47'44	morning max el	2620 Feb 20 00:45	13° Υ 27'56	46°54'03
	2617 Jul 21 19:46	0° Ω			2620 Mar 06 18:25	0° \approx	
	2617 Aug 15 04:13	0° Υ			2620 Apr 02 10:30	0° Υ	
evening rise	2617 Aug 24 03:12	11° Υ 03'13		desc. node	2620 Apr 03 05:02	0° Υ 53'28	
	2617 Sep 08 11:32	0° Ω			2620 Apr 28 01:49	0° Υ	
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desc. node	2617 Oct 17 09:56	18° Ω 01'53			2620 Jun 17 05:51	0° Π	
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	2617 Nov 20 13:23	0° Υ		asc. node	2620 Jul 25 08:08	16° Υ 12'15	
	2617 Dec 15 03:23	0° \approx			2620 Aug 05 14:57	0° Ω	
	2618 Jan 09 02:42	0° Υ		morning set	2620 Aug 19 10:14	16° Ω 57'10	
	2618 Feb 04 01:09	0° Υ			2620 Aug 30 00:07	0° Υ	
asc. node	2618 Feb 07 12:54	3° Υ 52'59		max. Earth dist.	2620 Sep 21 16:56	28° Υ 07'52	1.72520 AU
evening max el	2618 Feb 25 22:29	23° Υ 24'40	46°42'12		2620 Sep 23 05:01	0° Ω	
	2618 Mar 04 15:48	0° Υ					
greatest brilliancy	2618 Apr 02 19:07	22° Υ 07'24	-4.6m	superior conj	2620 Sep 25 01:21	2° Ω 17'49	1°23'49
retrograde	2618 Apr 17 02:58	25° Υ 48'16		minimum elong	2620 Sep 25 04:29	2° Ω 27'34	1°23'48
evening set	2618 May 03 05:15	20° Υ 43'35			2620 Oct 17 07:09	0° Ω	
inferior conj	2618 May 08 08:32	17° Υ 34'24	4°55'15	evening rise	2620 Nov 02 04:02	19° Ω 48'27	
minimum elong	2618 May 08 17:42	17° Υ 19'58	4°52'59		2620 Nov 10 07:56	0° Υ	
min. Earth dist.	2618 May 08 07:19	17° Υ 36'18	0.28484 AU	desc. node	2620 Nov 13 21:47	4° Υ 28'06	
morning rise	2618 May 14 06:37	13° Υ 59'46			2620 Dec 04 08:19	0° Υ	
direct	2618 May 29 16:01	9° Υ 25'12			2620 Dec 28 09:10	0° \approx	
desc. node	2618 May 30 02:24	9° Υ 25'25			2621 Jan 21 12:23	0° Υ	
greatest brilliancy	2618 Jun 10 21:50	12° Υ 05'58	-4.5m		2621 Feb 14 21:44	0° Υ	
	2618 Jul 07 07:17	0° Π		asc. node	2621 Mar 07 00:55	24° Υ 18'45	
morning max el	2618 Jul 17 10:52	9° Π 16'16	45°43'27		2621 Mar 11 19:41	0° Υ	
	2618 Aug 06 22:20	0° Υ			2621 Apr 06 17:46	0° Π	

	2621 May 04 20:57	0°☿			2623 Oct 08 22:12	0°♊		
evening max el	2621 May 07 17:43	2°☿48'51	45°39'53	morning set	2623 Oct 29 04:08	25°♊13'27		
greatest brilliancy	2621 Jun 11 04:29	29°☿27'45	-4.5m		2623 Nov 01 23:49	0°♋		
	2621 Jun 12 08:40	0°♌			2623 Nov 25 22:09	0°♈		
retrograde	2621 Jun 25 15:18	3°♌07'38		max. Earth dist.	2623 Dec 06 10:06	13°♈11'12	1.71241 AU	
desc. node	2621 Jun 26 14:20	3°♌06'33						
	2621 Jul 08 06:37	30°☿☿		superior conj	2623 Dec 07 13:14	14°♈36'26	0°11'37	
evening set	2621 Jul 11 02:07	28°☿32'48		minimum elong	2623 Dec 07 16:12	14°♈45'48	0°11'29	
inferior conj	2621 Jul 17 04:05	24°☿53'42	-4°-36'-6	behind sun begin	2623 Dec 06 21:39	13°♈47'28		
minimum elong	2621 Jul 16 19:17	25°☿07'28	4°33'55	behind sun end	2623 Dec 08 10:46	15°♈44'08		
min. Earth dist.	2621 Jul 17 00:39	24°☿59'05	0.29020 AU	desc. node	2623 Dec 12 09:34	20°♈42'04		
morning rise	2621 Jul 22 12:21	21°☿38'41			2623 Dec 19 19:02	0°☿		
direct	2621 Aug 07 18:33	16°☿36'08			2624 Jan 12 15:42	0°♊		
greatest brilliancy	2621 Aug 21 16:25	19°☿57'29	-4.5m	evening rise	2624 Jan 17 18:24	6°♊25'32		
	2621 Sep 06 16:57	0°♌			2624 Feb 05 13:19	0°♈		
morning max el	2621 Sep 25 21:39	16°♌53'58	46°00'57		2624 Feb 29 13:49	0°♊		
	2621 Oct 08 19:32	0°♎			2624 Mar 24 19:53	0°♈		
asc. node	2621 Oct 17 17:40	9°♎35'00		asc. node	2624 Apr 03 12:49	11°♈53'18		
	2621 Nov 04 20:24	0°♊			2624 Apr 18 10:45	0°♊		
	2621 Nov 30 04:44	0°♋			2624 May 13 14:43	0°☿		
	2621 Dec 24 18:31	0°♈			2624 Jun 08 15:41	0°♌		
	2622 Jan 17 23:47	0°☿			2624 Jul 06 10:22	0°♎		
desc. node	2622 Feb 06 07:14	24°☿03'22		evening max el	2624 Jul 17 15:01	11°♎05'48	45°30'07	
	2622 Feb 11 01:36	0°♊		desc. node	2624 Jul 24 02:17	17°♎06'23		
	2622 Mar 07 02:43	0°♈			2624 Aug 08 22:19	0°♊		
	2622 Mar 31 04:47	0°♊		greatest brilliancy	2624 Aug 23 12:28	8°♊15'03	-4.5m	
morning set	2622 Apr 01 00:47	1°♊02'12		retrograde	2624 Sep 04 06:10	10°♊40'41		
	2622 Apr 24 08:54	0°♈		evening set	2624 Sep 22 06:22	4°♊38'40		
				inferior conj	2624 Sep 25 10:35	2°♊42'08	-8°-36'-30	
superior conj	2622 May 09 13:39	18°♈47'49	0°-47'-7	minimum elong	2624 Sep 25 13:54	2°♊36'59	8°36'22	
minimum elong	2622 May 09 22:41	19°♈15'40	0°46'46	min. Earth dist.	2624 Sep 26 04:07	2°♊14'58	0.28324 AU	
max. Earth dist.	2622 May 12 03:30	21°♈58'42	1.73018 AU	morning rise	2624 Sep 28 21:16	0°♊35'36		
	2622 May 18 15:36	0°♊			2624 Sep 29 21:24	30°☿♎		
asc. node	2622 May 30 10:29	14°♊31'05		direct	2624 Oct 16 19:18	24°♎33'12		
	2622 Jun 12 00:40	0°☿		greatest brilliancy	2624 Oct 31 05:23	28°♎18'09	-4.6m	
evening rise	2622 Jun 15 23:16	4°☿50'21			2624 Nov 03 10:36	0°♊		
	2622 Jul 06 11:45	0°♌		asc. node	2624 Nov 14 05:23	7°♊18'31		
	2622 Jul 31 00:59	0°♎		morning max el	2624 Dec 06 06:50	27°♊23'29	46°44'19	
	2622 Aug 24 17:28	0°♊			2624 Dec 08 20:04	0°♋		
	2622 Sep 18 15:03	0°♋			2625 Jan 05 03:26	0°♈		
desc. node	2622 Sep 19 00:02	0°♋26'55			2625 Jan 30 15:43	0°☿		
	2622 Oct 13 20:25	0°♈			2625 Feb 24 11:41	0°♊		
	2622 Nov 08 15:14	0°☿		desc. node	2625 Mar 05 19:08	11°♊21'15		
	2622 Dec 05 16:59	0°♊			2625 Mar 21 00:55	0°♈		
evening max el	2622 Dec 13 14:18	8°♊11'28	47°16'15		2625 Apr 14 11:44	0°♊		
	2623 Jan 06 14:10	0°♈			2625 May 08 22:17	0°♈		
asc. node	2623 Jan 10 03:08	2°♈35'28			2625 Jun 02 09:18	0°♊		
greatest brilliancy	2623 Jan 20 20:51	8°♈50'54	-4.7m	morning set	2625 Jun 10 08:36	9°♊46'26		
retrograde	2623 Feb 02 13:05	11°♈52'08		asc. node	2625 Jun 26 22:22	0°☿06'23		
evening set	2623 Feb 19 18:08	6°♈03'57			2625 Jun 26 20:18	0°☿		
min. Earth dist.	2623 Feb 22 13:00	4°♈21'47	0.27267 AU	max. Earth dist.	2625 Jul 15 17:53	23°☿12'55	1.73539 AU	
inferior conj	2623 Feb 23 07:39	3°♈52'50	8°31'49					
minimum elong	2623 Feb 23 01:36	4°♈02'13	8°31'15	superior conj	2625 Jul 17 00:47	24°☿47'52	0°45'26	
morning rise	2623 Feb 26 09:18	1°♈59'54		minimum elong	2625 Jul 16 16:50	24°☿23'28	0°45'05	
	2623 Mar 01 21:45	30°☿♊			2625 Jul 21 06:17	0°♌		
direct	2623 Mar 15 21:32	26°♊04'22			2625 Aug 14 14:47	0°♎		
greatest brilliancy	2623 Mar 26 15:36	28°♊13'19	-4.6m	evening rise	2625 Aug 21 21:14	8°♎57'57		
	2623 Mar 30 17:11	0°♈			2625 Sep 07 22:16	0°♊		
desc. node	2623 May 01 16:39	24°♈40'50			2625 Oct 02 05:53	0°♋		
morning max el	2623 May 04 12:18	27°♈24'07	46°14'11	desc. node	2625 Oct 16 11:52	17°♋33'10		
	2623 May 07 03:41	0°♊			2625 Oct 26 14:38	0°♈		
	2623 Jun 04 13:21	0°♈			2625 Nov 20 01:22	0°☿		
	2623 Jul 01 02:26	0°♊			2625 Dec 14 16:07	0°♊		
	2623 Jul 26 19:12	0°☿			2626 Jan 08 16:40	0°♈		
	2623 Aug 20 22:24	0°♌			2626 Feb 03 17:44	0°♊		
asc. node	2623 Aug 22 20:03	2°♌17'39		asc. node	2626 Feb 06 15:05	3°♊11'52		
	2623 Sep 14 14:39	0°♎		evening max el	2626 Feb 23 13:15	21°♊06'47	46°44'23	

	2626 Mar 04 16:49	0°♄		superior conj	2628 Sep 22 17:58	0°♁06'47	1°24'18
greatest brilliancy	2626 Mar 31 13:24	19°♄57'29	-4.6m	minimum elong	2628 Sep 22 20:23	0°♁14'18	1°24'17
retrograde	2626 Apr 14 18:32	23°♄35'45			2628 Sep 22 15:47	0°♁	
evening set	2626 Apr 30 23:50	18°♄27'38			2628 Oct 16 18:02	0°♍	
inferior conj	2626 May 06 00:22	15°♄22'18	5°12'18	evening rise	2628 Oct 30 17:35	17°♍26'44	
minimum elong	2626 May 06 09:48	15°♄07'25	5°10'01		2628 Nov 09 18:58	0°♂	
min. Earth dist.	2626 May 05 23:15	15°♄24'04	0.28456 AU	desc. node	2628 Nov 12 23:48	3°♂59'50	
morning rise	2626 May 11 20:12	11°♄50'28			2628 Dec 03 19:32	0°♂	
direct	2626 May 27 07:16	7°♄13'40			2628 Dec 27 20:39	0°≈	
desc. node	2626 May 29 04:24	7°♄17'46			2629 Jan 21 00:13	0°♂	
greatest brilliancy	2626 Jun 08 11:17	9°♄52'14	-4.5m		2629 Feb 14 10:06	0°♄	
	2626 Jul 07 10:15	0°♁		asc. node	2629 Mar 06 02:51	23°♄45'33	
morning max el	2626 Jul 15 01:30	7°♁03'28	45°43'38		2629 Mar 11 09:00	0°♄	
	2626 Aug 06 14:59	0°♄			2629 Apr 06 09:09	0°♁	
	2626 Sep 02 15:31	0°♁			2629 May 04 18:11	0°♄	
asc. node	2626 Sep 19 07:54	19°♁23'24		evening max el	2629 May 05 09:31	0°♄37'21	45°41'36
	2626 Sep 28 06:48	0°♎		greatest brilliancy	2629 Jun 08 18:40	27°♄16'20	-4.5m
	2626 Oct 23 02:18	0°♁			2629 Jun 16 01:42	0°♁	
	2626 Nov 16 09:42	0°♍		retrograde	2629 Jun 23 08:15	0°♁59'18	
	2626 Dec 10 10:24	0°♂		desc. node	2629 Jun 25 16:27	0°♁52'47	
	2627 Jan 03 08:02	0°♂			2629 Jun 30 09:03	30°♎♄	
desc. node	2627 Jan 08 21:24	6°♂59'10		evening set	2629 Jul 08 16:53	26°♄26'16	
morning set	2627 Jan 12 00:47	10°♂56'11		inferior conj	2629 Jul 14 20:28	22°♄44'56	-4°-19'-13
	2627 Jan 27 04:42	0°≈		minimum elong	2629 Jul 14 12:02	22°♄58'07	4°17'04
	2627 Feb 20 01:51	0°♂		min. Earth dist.	2629 Jul 14 16:33	22°♄51'03	0.29014 AU
				morning rise	2629 Jul 20 07:09	19°♄26'46	
superior conj	2627 Feb 22 16:01	3°♂14'56	-1°-21'-50	direct	2629 Aug 05 11:05	14°♄27'23	
minimum elong	2627 Feb 22 08:45	2°♂52'08	1°21'44	greatest brilliancy	2629 Aug 19 08:27	17°♄48'42	-4.5m
max. Earth dist.	2627 Feb 26 03:07	7°♂35'21	1.71468 AU		2629 Sep 07 02:56	0°♁	
	2627 Mar 16 00:55	0°♄		morning max el	2629 Sep 23 14:01	14°♁43'53	45°59'35
evening rise	2627 Apr 03 23:28	23°♄35'22			2629 Oct 08 13:33	0°♎	
	2627 Apr 09 03:25	0°♄		asc. node	2629 Oct 16 19:41	8°♎55'27	
asc. node	2627 May 02 00:42	28°♄15'50			2629 Nov 04 10:49	0°♁	
	2627 May 03 10:35	0°♁			2629 Nov 29 17:41	0°♍	
	2627 May 27 23:21	0°♄			2629 Dec 24 06:44	0°♂	
	2627 Jun 21 18:54	0°♁			2630 Jan 17 11:32	0°♂	
	2627 Jul 16 23:53	0°♎		desc. node	2630 Feb 05 09:19	23°♂33'53	
	2627 Aug 11 19:57	0°♁			2630 Feb 10 13:04	0°≈	
desc. node	2627 Aug 21 14:05	11°♁02'32			2630 Mar 06 13:58	0°♂	
	2627 Sep 07 19:47	0°♍		morning set	2630 Mar 29 13:43	28°♂38'43	
evening max el	2627 Sep 29 06:24	22°♍03'10	46°24'44		2630 Mar 30 15:51	0°♄	
	2627 Oct 07 17:04	0°♂			2630 Apr 23 19:51	0°♄	
greatest brilliancy	2627 Nov 07 03:23	21°♂09'13	-4.6m				
retrograde	2627 Nov 17 22:58	23°♂18'59		superior conj	2630 May 07 05:08	16°♄33'40	0°-49'-58
evening set	2627 Dec 02 11:51	19°♂11'53		minimum elong	2630 May 07 14:30	17°♄02'38	0°49'36
inferior conj	2627 Dec 08 13:38	15°♂40'02	-1°-4'-29	max. Earth dist.	2630 May 09 21:49	19°♄53'26	1.72976 AU
minimum elong	2627 Dec 08 16:06	15°♂36'17	1°03'42		2630 May 18 02:28	0°♁	
min. Earth dist.	2627 Dec 08 21:04	15°♂28'44	0.26572 AU	asc. node	2630 May 29 12:36	14°♁04'09	
asc. node	2627 Dec 12 17:17	13°♂11'07			2630 Jun 11 11:33	0°♄	
morning rise	2627 Dec 14 19:49	12°♂01'02		evening rise	2630 Jun 13 17:07	2°♄44'26	
direct	2627 Dec 29 01:01	7°♂58'47			2630 Jul 05 22:46	0°♁	
greatest brilliancy	2628 Jan 10 17:04	10°♂57'08	-4.7m		2630 Jul 30 12:15	0°♎	
	2628 Feb 06 03:28	0°♂			2630 Aug 24 05:12	0°♁	
morning max el	2628 Feb 17 14:00	11°♂02'18	46°54'48	desc. node	2630 Sep 18 01:59	29°♁55'22	
	2628 Mar 06 12:39	0°≈			2630 Sep 18 03:32	0°♍	
desc. node	2628 Apr 02 06:55	0°♂16'33			2630 Oct 13 10:07	0°♂	
	2628 Apr 02 01:12	0°♂			2630 Nov 08 07:05	0°♂	
	2628 Apr 27 14:50	0°♄			2630 Dec 05 13:44	0°≈	
	2628 May 22 18:38	0°♄		evening max el	2630 Dec 11 05:33	5°≈50'10	47°15'46
	2628 Jun 16 17:15	0°♁			2631 Jan 07 11:29	0°♂	
	2628 Jul 11 11:46	0°♄		asc. node	2631 Jan 09 05:16	1°♂11'51	
asc. node	2628 Jul 24 10:15	15°♄45'30		greatest brilliancy	2631 Jan 18 11:18	6°♂25'28	-4.7m
	2628 Aug 05 01:44	0°♁		retrograde	2631 Jan 31 03:19	9°♂25'49	
morning set	2628 Aug 17 03:46	14°♁50'21		evening set	2631 Feb 17 03:55	3°♂43'32	
	2628 Aug 29 10:50	0°♎		min. Earth dist.	2631 Feb 20 01:27	1°♂57'26	0.27213 AU
max. Earth dist.	2628 Sep 19 11:41	26°♎03'35	1.72572 AU	inferior conj	2631 Feb 20 20:54	1°♂27'17	8°24'52
				minimum elong	2631 Feb 20 14:08	1°♂37'46	8°24'09

	2631 Feb 23 05:37	30° \approx		minimum elong	2633 Jul 14 11:21	22° \approx 19'20	0°42'24
morning rise	2631 Feb 24 00:36	29° \approx 31'27			2633 Jul 20 17:12	0° Ω	
direct	2631 Mar 13 10:59	23° \approx 39'54			2633 Aug 14 01:46	0° η	
greatest brilliancy	2631 Mar 24 03:06	25° \approx 47'37	-4.6m	evening rise	2633 Aug 19 15:24	6° η 51'55	
	2631 Apr 01 15:39	0° \mathcal{H}			2633 Sep 07 09:26	0° $\underline{\Omega}$	
desc. node	2631 Apr 30 18:44	23° \mathcal{H} 47'44			2633 Oct 01 17:20	0° \mathcal{M}	
morning max el	2631 May 02 02:35	25° \mathcal{H} 05'09	46°15'39	desc. node	2633 Oct 15 13:58	17° \mathcal{M} 03'48	
	2631 May 07 01:30	0° \mathcal{Y}			2633 Oct 26 02:28	0° \mathcal{Z}	
	2631 Jun 04 05:12	0° \mathcal{B}			2633 Nov 19 13:44	0° \approx	
	2631 Jun 30 15:56	0° \mathcal{H}			2633 Dec 14 05:15	0° \mathcal{H}	
	2631 Jul 26 07:31	0° \approx			2634 Jan 08 07:09	0° \mathcal{Y}	
	2631 Aug 20 10:03	0° Ω			2634 Feb 03 11:06	2° \mathcal{Y} 28'08	
asc. node	2631 Aug 21 22:01	1° Ω 48'32		asc. node	2634 Feb 05 16:58	18° \mathcal{Y} 44'48	46°46'26
	2631 Sep 14 01:55	0° η		evening max el	2634 Feb 21 03:02	0° \mathcal{B}	
	2631 Oct 08 09:18	0° $\underline{\Omega}$			2634 Mar 04 19:55	17° \mathcal{B} 44'48	-4.6m
morning set	2631 Oct 26 18:51	22° $\underline{\Omega}$ 55'00		greatest brilliancy	2634 Mar 29 07:08	21° \mathcal{B} 21'17	
	2631 Nov 01 10:53	0° \mathcal{M}		retrograde	2634 Apr 12 09:57	16° \mathcal{B} 09'20	
	2631 Nov 25 09:15	0° \mathcal{Z}		evening set	2634 Apr 28 18:19	13° \mathcal{B} 08'13	5°28'59
max. Earth dist.	2631 Dec 03 16:34	10° \mathcal{Z} 25'46	1.71269 AU	inferior conj	2634 May 03 16:03	12° \mathcal{B} 52'58	5°26'42
				minimum elong	2634 May 04 01:43	13° \mathcal{B} 09'37	0.28428 AU
superior conj	2631 Dec 05 00:34	12° \mathcal{Z} 06'18	0°15'26	min. Earth dist.	2634 May 03 15:10	9° \mathcal{B} 39'32	
minimum elong	2631 Dec 05 04:29	12° \mathcal{Z} 18'35	0°15'15	morning rise	2634 May 09 09:27	5° \mathcal{B} 00'00	
behind sun begin	2631 Dec 04 19:22	11° \mathcal{Z} 49'57		direct	2634 May 24 21:54	5° \mathcal{B} 12'54	
behind sun end	2631 Dec 05 13:36	12° \mathcal{Z} 47'13		desc. node	2634 May 28 06:31	7° \mathcal{B} 37'42	-4.5m
desc. node	2631 Dec 11 11:43	20° \mathcal{Z} 13'43		greatest brilliancy	2634 Jun 06 01:34	0° \mathcal{H}	
	2631 Dec 19 06:14	0° \approx			2634 Jul 07 12:16	4° \mathcal{H} 49'04	45°43'58
	2632 Jan 12 02:58	0° \approx		morning max el	2634 Jul 12 16:01	0° \approx	
evening rise	2632 Jan 15 04:29	3° \approx 50'58			2634 Aug 06 07:42	0° Ω	
	2632 Feb 05 00:40	0° \mathcal{H}			2634 Sep 02 05:20	18° Ω 51'13	
	2632 Feb 29 01:16	0° \mathcal{Y}		asc. node	2634 Sep 18 09:52	0° η	
	2632 Mar 24 07:33	0° \mathcal{B}			2634 Sep 27 19:19	0° $\underline{\Omega}$	
asc. node	2632 Apr 02 14:49	11° \mathcal{B} 23'20			2634 Oct 22 14:11	0° \mathcal{M}	
	2632 Apr 17 22:54	0° \mathcal{H}			2634 Nov 15 21:14	0° \mathcal{Z}	
	2632 May 13 03:46	0° \approx			2634 Dec 09 21:46	0° \mathcal{B}	
	2632 Jun 08 06:34	0° Ω			2635 Jan 02 19:16	6° \mathcal{B} 30'23	
	2632 Jul 06 05:57	0° η		desc. node	2635 Jan 07 23:28	8° \mathcal{B} 22'00	
evening max el	2632 Jul 15 05:44	8° η 51'24	45°29'13	morning set	2635 Jan 09 10:58	0° \approx	
desc. node	2632 Jul 23 04:21	16° η 11'16			2635 Jan 26 15:51	0° \mathcal{H}	
	2632 Aug 09 19:57	0° $\underline{\Omega}$			2635 Feb 19 12:57		
greatest brilliancy	2632 Aug 21 02:00	5° $\underline{\Omega}$ 59'36	-4.5m				
retrograde	2632 Sep 01 20:08	8° $\underline{\Omega}$ 25'48		superior conj	2635 Feb 20 03:01	0° \mathcal{H} 44'05	-1°-20'-30
evening set	2632 Sep 19 21:38	2° $\underline{\Omega}$ 22'58		minimum elong	2635 Feb 19 18:53	0° \mathcal{H} 18'35	1°20'23
inferior conj	2632 Sep 23 01:33	0° $\underline{\Omega}$ 26'40	-8°-39'-4	max. Earth dist.	2635 Feb 23 08:22	4° \mathcal{H} 46'39	1.71429 AU
minimum elong	2632 Sep 23 04:03	0° $\underline{\Omega}$ 22'47	8°38'59		2635 Mar 15 12:01	0° \mathcal{Y}	
	2632 Sep 23 18:45	30° \mathcal{R} η		evening rise	2635 Apr 01 12:08	21° \mathcal{Y} 11'09	
min. Earth dist.	2632 Sep 23 18:26	0° $\underline{\Omega}$ 00'28	0.28377 AU		2635 Apr 08 14:32	0° \mathcal{B}	
morning rise	2632 Sep 26 10:17	28° η 22'45		asc. node	2635 May 01 02:48	27° \mathcal{B} 47'54	
direct	2632 Oct 14 10:35	22° η 17'07			2635 May 02 21:47	0° \mathcal{H}	
greatest brilliancy	2632 Oct 28 20:15	26° η 00'34	-4.6m		2635 May 27 10:46	0° \approx	
	2632 Nov 04 20:07	0° $\underline{\Omega}$			2635 Jun 21 06:47	0° Ω	
asc. node	2632 Nov 13 07:28	6° $\underline{\Omega}$ 09'15			2635 Jul 16 12:39	0° η	
morning max el	2632 Dec 03 20:14	24° $\underline{\Omega}$ 59'38	46°42'58		2635 Aug 11 10:22	0° $\underline{\Omega}$	
	2632 Dec 08 17:00	0° \mathcal{M}		desc. node	2635 Aug 20 16:02	10° $\underline{\Omega}$ 25'05	
	2633 Jan 04 19:17	0° \mathcal{Z}			2635 Sep 07 13:44	0° \mathcal{M}	
	2633 Jan 30 05:35	0° \approx		evening max el	2635 Sep 26 19:05	19° \mathcal{M} 39'37	46°22'23
	2633 Feb 24 00:31	10° \approx 48'50			2635 Oct 07 22:24	0° \mathcal{Z}	
desc. node	2633 Mar 04 21:04	0° \mathcal{H}		greatest brilliancy	2635 Nov 04 15:53	18° \mathcal{Z} 42'02	-4.6m
	2633 Mar 20 13:04	0° \mathcal{Y}		retrograde	2635 Nov 15 11:18	20° \mathcal{Z} 51'41	
	2633 Apr 13 23:24	0° \mathcal{B}		evening set	2635 Nov 30 01:39	16° \mathcal{Z} 42'03	
	2633 May 08 09:36	0° \mathcal{H}		inferior conj	2635 Dec 06 01:58	13° \mathcal{Z} 12'25	-1°-28'-41
	2633 Jun 01 20:23	7° \mathcal{H} 38'49		minimum elong	2635 Dec 06 05:20	12° \mathcal{Z} 07'17	1°27'36
morning set	2633 Jun 08 02:00	29° \mathcal{H} 39'04		min. Earth dist.	2635 Dec 06 10:51	9° \mathcal{Z} 50'58	0.26604 AU
asc. node	2633 Jun 26 00:26	21° \mathcal{H} 10'29	1.73548 AU	asc. node	2635 Dec 11 19:21	9° \mathcal{Z} 33'17	
	2633 Jun 26 07:15	22° \mathcal{H} 42'49	0°42'44	morning rise	2635 Dec 12 08:29	5° \mathcal{Z} 30'18	
max. Earth dist.	2633 Jul 13 12:57			direct	2635 Dec 26 13:49	8° \mathcal{Z} 32'34	-4.7m
				greatest brilliancy	2636 Jan 08 08:56	0° \mathcal{B}	
superior conj	2633 Jul 14 19:00				2636 Feb 06 07:47		

morning max el	2636 Feb 15 04:10	8°  38'43	46°55'38		2638 Oct 12 23:48	0° 	
	2636 Mar 06 06:33	0° 			2638 Nov 07 23:03	0° 	
desc. node	2636 Apr 01 09:04	29°  40'22			2638 Dec 05 11:02	0° 	
	2636 Apr 01 15:50	0° 		evening max el	2638 Dec 08 20:38	3°  28'52	47°15'03
	2636 Apr 27 03:54	0° 		asc. node	2639 Jan 08 07:13	29°  45'24	
	2636 May 22 06:46	0° 			2639 Jan 08 16:24	0° 	
	2636 Jun 16 04:48	0° 		greatest brilliancy	2639 Jan 16 02:45	4°  01'37	-4.7m
	2636 Jul 10 22:55	0° 		retrograde	2639 Jan 28 17:12	6°  59'34	
asc. node	2636 Jul 23 12:13	15°  17'49		evening set	2639 Feb 14 13:30	1°  23'52	
	2636 Aug 04 12:40	0° 			2639 Feb 16 20:44	30° 	
morning set	2636 Aug 14 21:18	12°  43'09		min. Earth dist.	2639 Feb 17 14:13	29°  32'57	0.27156 AU
	2636 Aug 28 21:41	0° 		inferior conj	2639 Feb 18 10:07	29°  02'05	8°16'54
max. Earth dist.	2636 Sep 17 06:46	24°  00'04	1.72621 AU	minimum elong	2639 Feb 18 02:39	29°  13'39	8°16'02
				morning rise	2639 Feb 21 16:07	27°  02'50	
superior conj	2636 Sep 20 10:38	27°  55'37	1°24'39	direct	2639 Mar 11 00:15	21°  15'55	
minimum elong	2636 Sep 20 12:18	28°  00'48	1°24'39	greatest brilliancy	2639 Mar 21 14:52	23°  22'24	-4.6m
	2636 Sep 22 02:40	0° 			2639 Apr 02 22:52	0° 	
	2636 Oct 16 05:02	0° 		morning max el	2639 Apr 29 15:57	22°  44'26	46°17'18
evening rise	2636 Oct 28 07:19	15°  05'14		desc. node	2639 Apr 29 20:48	22°  56'19	
	2636 Nov 09 06:09	0° 			2639 May 06 22:14	0° 	
desc. node	2636 Nov 12 01:56	3°  21'30			2639 Jun 03 20:29	0° 	
	2636 Dec 03 06:55	0° 			2639 Jun 30 05:01	0° 	
	2636 Dec 27 08:16	0° 			2639 Jul 25 19:29	0° 	
	2637 Jan 20 12:08	0° 			2639 Aug 19 21:25	0° 	
	2637 Feb 13 22:31	0° 		asc. node	2639 Aug 21 00:02	1°  02'24	
asc. node	2637 Mar 05 04:55	23°  01'24			2639 Sep 13 12:57	0° 	
	2637 Mar 10 22:24	0° 			2639 Oct 07 20:10	0° 	
	2637 Apr 06 00:42	0° 		morning set	2639 Oct 24 09:38	20°  37'29	
evening max el	2637 May 03 02:08	28°  27'55	45°43'13		2639 Oct 31 21:42	0° 	
	2637 May 04 16:13	0° 			2639 Nov 24 20:06	0° 	
greatest brilliancy	2637 Jun 06 10:06	25°  06'34	-4.5m	max. Earth dist.	2639 Nov 30 22:20	7°  27'39	01 1.71300 AU
retrograde	2637 Jun 21 01:20	28°  50'53					
desc. node	2637 Jun 24 18:29	28°  34'24		superior conj	2639 Dec 02 12:05	9°  27'33	0°19'13
evening set	2637 Jul 06 07:58	24°  19'48		minimum elong	2639 Dec 02 16:52	9°  25'36	0°18'58
inferior conj	2637 Jul 12 12:56	20°  36'11	-4°-1'-53	desc. node	2639 Dec 10 13:41	19°  24'54	
minimum elong	2637 Jul 12 04:54	20°  48'44	3°59'49		2639 Dec 18 17:09	0° 	
min. Earth dist.	2637 Jul 12 08:26	20°  43'13	0.29007 AU		2640 Jan 11 13:59	0° 	
morning rise	2637 Jul 18 01:57	17°  14'59		evening rise	2640 Jan 12 14:35	1°  17'19	
direct	2637 Aug 03 04:02	12°  18'56			2640 Feb 04 11:46	0° 	
greatest brilliancy	2637 Aug 16 23:43	15°  39'02	-4.5m		2640 Feb 28 12:29	0° 	
	2637 Sep 07 10:13	0° 			2640 Mar 23 19:01	0° 	
morning max el	2637 Sep 21 06:23	12°  34'00	45°58'13	asc. node	2640 Apr 01 16:57	10°  08'54	33
	2637 Oct 08 07:08	0° 			2640 Apr 17 10:48	0° 	
asc. node	2637 Oct 15 21:52	8°  16'47			2640 May 12 16:32	0° 	
	2637 Nov 04 01:02	0° 			2640 Jun 07 21:14	0° 	
	2637 Nov 29 06:31	0° 			2640 Jul 06 01:37	0° 	
	2637 Dec 23 18:51	0° 		evening max el	2640 Jul 12 19:45	6°  06'35	45°28'20
	2638 Jan 16 23:14	0° 		desc. node	2640 Jul 22 06:16	15°  07'57	
desc. node	2638 Feb 04 11:14	23°  04'03			2640 Aug 11 00:49	0° 	
	2638 Feb 10 00:29	0° 		greatest brilliancy	2640 Aug 18 15:00	3°  04'44	54 -4.5m
	2638 Mar 06 01:09	0° 		retrograde	2640 Aug 30 10:08	6°  01'23	39
morning set	2638 Mar 27 02:54	26°  16'14		evening set	2640 Sep 17 12:37	0° 	
	2638 Mar 30 02:49	0° 			2640 Sep 17 18:51	30° 	
	2638 Apr 23 06:39	0° 		inferior conj	2640 Sep 20 16:41	28°  07'47	-8°-40'-39
superior conj	2638 May 04 20:49	14°  20'35	0°-52'-43	minimum elong	2640 Sep 20 18:22	28°  07'10	8°40'38
minimum elong	2638 May 05 06:30	14°  25'08	0°52'22	min. Earth dist.	2640 Sep 21 09:07	27°  07'16	0.28434 AU
max. Earth dist.	2638 May 07 18:25	17°  25'36	1.72932 AU	morning rise	2640 Sep 23 23:54	26°  07'58	
	2638 May 17 13:11	0° 		direct	2640 Oct 12 01:41	20°  07'19	
asc. node	2638 May 28 14:40	13°  37'28		greatest brilliancy	2640 Oct 26 12:30	23°  07'45	58 -4.6m
	2638 Jun 10 22:18	0° 			2640 Nov 05 19:31	0° 	
evening rise	2638 Jun 11 11:09	0° 		asc. node	2640 Nov 12 09:29	5°  02'33	
	2638 Jul 05 09:39	0° 		morning max el	2640 Dec 01 09:47	22°  03'37	03 46°41'39
	2638 Jul 29 23:27	0° 			2640 Dec 08 12:57	0° 	
	2638 Aug 23 16:51	0° 			2641 Jan 04 10:35	0° 	
desc. node	2638 Sep 17 04:04	29°  04'24	30		2641 Jan 29 19:01	0° 	
	2638 Sep 17 15:57	0° 		desc. node	2641 Feb 23 12:56	0° 	
					2641 Mar 03 23:12	10°  08'18	08

	2641 Mar 20 00:50	0° H		retrograde	2643 Nov 13 00:04	18° J 25'49	
	2641 Apr 13 10:43	0° Y		evening set	2643 Nov 27 15:45	14° J 13'30	
	2641 May 07 20:36	0° B		inferior conj	2643 Dec 03 14:22	10° J 46'02	-1°-52'-30
	2641 Jun 01 07:08	0° II		minimum elong	2643 Dec 03 18:38	10° J 39'34	1°51'10
morning set	2641 Jun 05 19:29	5° II 32'28		min. Earth dist.	2643 Dec 04 00:21	10° J 30'53	0.26643 AU
asc. node	2641 Jun 25 02:24	29° II 12'39		morning rise	2643 Dec 09 21:01	7° J 07'05	
	2641 Jun 25 17:50	0° S		asc. node	2643 Dec 10 21:19	6° J 35'36	
max. Earth dist.	2641 Jul 11 08:35	19° S 11'02	1.73554 AU	direct	2643 Dec 24 03:16	3° J 03'10	
				greatest brilliancy	2644 Jan 06 00:09	6° J 08'10	-4.7m
superior conj	2641 Jul 12 13:29	20° S 39'50	0°39'59		2644 Feb 06 10:14	0° S	
minimum elong	2641 Jul 12 06:11	20° S 17'23	0°39'40	morning max el	2644 Feb 12 18:54	6° S 17'06	46°56'09
	2641 Jul 20 03:43	0° Q			2644 Mar 05 23:53	0° \approx	
	2641 Aug 13 12:20	0° P		desc. node	2644 Mar 31 11:09	29° \approx 04'43	
evening rise	2641 Aug 17 09:58	4° P 48'31			2644 Apr 01 06:07	0° H	
	2641 Sep 06 20:13	0° A			2644 Apr 26 16:41	0° Y	
	2641 Oct 01 04:26	0° M			2644 May 21 18:38	0° B	
desc. node	2641 Oct 14 16:04	16° M 35'28			2644 Jun 15 16:05	0° II	
	2641 Oct 25 14:01	0° J			2644 Jul 10 09:50	0° S	
	2641 Nov 19 01:50	0° S		asc. node	2644 Jul 22 14:16	14° S 51'04	
	2641 Dec 13 18:10	0° \approx			2644 Aug 03 23:22	0° Q	
	2642 Jan 07 21:27	0° H		morning set	2644 Aug 12 14:59	10° Q 37'13	
	2642 Feb 03 04:30	0° Y			2644 Aug 28 08:19	0° P	
asc. node	2642 Feb 04 19:03	1° Y 45'22		max. Earth dist.	2644 Sep 15 00:36	21° P 53'27	1.72663 AU
evening max el	2642 Feb 18 16:24	16° Y 22'41	46°48'35				
	2642 Mar 05 00:18	0° B		superior conj	2644 Sep 18 03:40	25° P 46'26	1°24'52
greatest brilliancy	2642 Mar 26 23:46	15° B 31'27	-4.6m	minimum elong	2644 Sep 18 04:36	25° P 49'20	1°24'53
retrograde	2642 Apr 10 01:34	19° B 07'39			2644 Sep 21 13:18	0° A	
evening set	2642 Apr 26 12:44	13° B 51'26			2644 Oct 15 15:45	0° M	
inferior conj	2642 May 01 07:39	10° B 54'45	5°45'09	evening rise	2644 Oct 25 21:30	12° M 46'03	
minimum elong	2642 May 01 17:29	10° B 39'15	5°42'55		2644 Nov 08 17:02	0° J	
min. Earth dist.	2642 May 01 06:51	10° B 56'00	0.28401 AU	desc. node	2644 Nov 11 03:54	3° J 03'38	
morning rise	2642 May 06 22:29	7° B 29'42			2644 Dec 02 18:02	0° S	
direct	2642 May 22 12:24	2° B 46'46			2644 Dec 26 19:40	0° \approx	
desc. node	2642 May 27 08:32	3° B 13'17			2645 Jan 19 23:56	0° H	
greatest brilliancy	2642 Jun 03 16:26	5° B 24'39	-4.5m		2645 Feb 13 10:53	0° Y	
	2642 Jul 07 12:32	0° II		asc. node	2645 Mar 04 07:02	22° Y 40'02	
morning max el	2642 Jul 10 07:19	2° II 37'31	45°44'33		2645 Mar 10 11:49	0° B	
	2642 Aug 05 23:41	0° S			2645 Apr 05 16:27	0° II	
	2642 Sep 01 18:36	0° Q		evening max el	2645 Apr 30 18:42	26° II 18'20	45°44'56
asc. node	2642 Sep 17 12:03	18° Q 21'03			2645 May 04 15:07	0° S	
	2642 Sep 27 07:21	0° P		greatest brilliancy	2645 Jun 04 02:25	22° S 57'52	-4.5m
	2642 Oct 22 01:38	0° A		retrograde	2645 Jun 18 18:00	26° S 42'02	
	2642 Nov 15 08:25	0° M		desc. node	2645 Jun 23 20:28	26° S 10'55	
	2642 Dec 09 08:49	0° J		evening set	2645 Jul 03 23:03	22° S 12'59	
	2643 Jan 02 06:14	0° S		inferior conj	2645 Jul 10 05:12	18° S 27'15	-3°-44'-13
morning set	2643 Jan 06 20:53	5° S 47'48		minimum elong	2645 Jul 09 21:38	18° S 39'06	3°42'14
desc. node	2643 Jan 07 01:27	6° S 02'10		min. Earth dist.	2645 Jul 10 00:22	18° S 34'50	0.28996 AU
	2643 Jan 26 02:45	0° \approx		morning rise	2645 Jul 15 20:25	15° S 02'52	
				direct	2645 Jul 31 20:45	10° S 10'21	
superior conj	2643 Feb 17 13:26	28° \approx 12'11	-1°-18'-59	greatest brilliancy	2645 Aug 14 13:42	13° S 27'43	-4.5m
minimum elong	2643 Feb 17 04:31	27° \approx 44'11	1°18'49		2645 Sep 07 15:14	0° Q	
	2643 Feb 18 23:48	0° H		morning max el	2645 Sep 18 22:04	10° Q 22'44	45°57'01
max. Earth dist.	2643 Feb 20 13:12	1° H 57'17	1.71391 AU		2645 Oct 08 00:13	0° P	
	2643 Mar 14 22:50	0° Y		asc. node	2645 Oct 14 23:47	7° P 38'09	
evening rise	2643 Mar 30 00:26	18° Y 46'35			2645 Nov 03 14:58	0° A	
	2643 Apr 08 01:22	0° B			2645 Nov 28 19:05	0° M	
asc. node	2643 Apr 30 04:50	27° B 20'36			2645 Dec 23 06:44	0° J	
	2643 May 02 08:43	0° II			2646 Jan 16 10:44	0° S	
	2643 May 26 21:57	0° S		desc. node	2646 Feb 03 13:23	22° S 35'26	
	2643 Jun 20 18:26	0° Q			2646 Feb 09 11:44	0° \approx	
	2643 Jul 16 01:11	0° P			2646 Mar 05 12:13	0° H	
	2643 Aug 11 00:34	0° A		morning set	2646 Mar 24 15:35	23° H 52'12	
desc. node	2643 Aug 19 18:12	9° A 49'06			2646 Mar 29 13:44	0° Y	
	2643 Sep 07 07:37	0° M			2646 Apr 22 17:27	0° B	
evening max el	2643 Sep 24 08:38	17° M 19'47	46°20'05				
	2643 Oct 08 05:14	0° J		superior conj	2646 May 02 11:55	12° B 05'34	0°-55'-26
greatest brilliancy	2643 Nov 02 03:41	16° J 15'48	-4.6m	minimum elong	2646 May 02 21:50	12° B 36'13	0°55'05

max. Earth dist.	2646 May 05 14:35	15°♄56'23	1.72884 AU	direct	2648 Oct 09 16:42	17°♎46'35	
	2646 May 16 23:55	0°♈		greatest brilliancy	2648 Oct 24 05:23	21°♎31'40	-4.6m
asc. node	2646 May 27 16:36	13°♈10'27			2648 Nov 06 13:10	0°♈	
evening rise	2646 Jun 09 04:34	28°♈32'31		asc. node	2648 Nov 11 11:32	3°♈56'53	
	2646 Jun 10 09:04	0°♈		morning max el	2648 Nov 29 00:10	20°♈16'03	46°40'24
	2646 Jul 04 20:34	0°♈			2648 Dec 08 08:35	0°♈	
	2646 Jul 29 10:39	0°♈			2649 Jan 04 01:54	0°♈	
	2646 Aug 23 04:34	0°♈			2649 Jan 29 08:32	0°♈	
desc. node	2646 Sep 16 06:09	28°♈53'30			2649 Feb 23 01:25	0°♈	
	2646 Sep 17 04:28	0°♈		desc. node	2649 Mar 03 01:16	9°♈46'56	
	2646 Oct 12 13:35	0°♈			2649 Mar 19 12:41	0°♈	
	2646 Nov 07 15:11	0°♈			2649 Apr 12 22:07	0°♈	
	2646 Dec 05 08:55	0°♈			2649 May 07 07:43	0°♈	
evening max el	2646 Dec 06 10:58	1°♈06'09	47°14'23		2649 May 31 18:03	0°♈	
asc. node	2647 Jan 07 09:16	28°♈16'45		morning set	2649 Jun 03 12:57	3°♈25'19	
	2647 Jan 10 09:36	0°♈		asc. node	2649 Jun 24 04:31	28°♈45'58	
greatest brilliancy	2647 Jan 13 18:51	1°♈39'12	-4.7m		2649 Jun 25 04:38	0°♈	
retrograde	2647 Jan 26 06:42	4°♈34'02		max. Earth dist.	2649 Jul 09 05:01	17°♈13'09	1.73564 AU
	2647 Feb 10 09:03	30°♈					
evening set	2647 Feb 11 23:08	29°♈05'07		superior conj	2649 Jul 10 07:48	18°♈35'27	0°37'11
min. Earth dist.	2647 Feb 15 03:29	27°♈08'45	0.27104 AU	minimum elong	2649 Jul 10 00:52	18°♈14'10	0°36'52
inferior conj	2647 Feb 15 23:29	26°♈37'40	8°08'05		2649 Jul 19 14:30	0°♈	
minimum elong	2647 Feb 15 15:24	26°♈50'14	8°07'01		2649 Aug 12 23:13	0°♈	
morning rise	2647 Feb 19 07:59	24°♈34'36		evening rise	2649 Aug 15 04:23	2°♈43'47	
direct	2647 Mar 08 13:06	18°♈52'30			2649 Sep 06 07:18	0°♈	
greatest brilliancy	2647 Mar 19 03:38	20°♈58'29	-4.6m		2649 Sep 30 15:51	0°♈	
	2647 Apr 03 21:16	0°♈		desc. node	2649 Oct 13 18:00	16°♈05'45	
morning max el	2647 Apr 27 04:40	20°♈21'44	46°18'44		2649 Oct 25 01:52	0°♈	
desc. node	2647 Apr 28 22:48	22°♈05'27			2649 Nov 18 14:16	0°♈	
	2647 May 06 18:23	0°♈			2649 Dec 13 07:27	0°♈	
	2647 Jun 03 11:41	0°♈			2650 Jan 07 12:14	0°♈	
	2647 Jun 29 18:10	0°♈			2650 Feb 02 22:33	0°♈	
	2647 Jul 25 07:32	0°♈		asc. node	2650 Feb 03 21:13	1°♈01'32	
	2647 Aug 19 08:52	0°♈		evening max el	2650 Feb 16 06:46	14°♈02'30	46°50'54
asc. node	2647 Aug 20 02:11	0°♈52'21			2650 Mar 05 06:56	0°♈	
	2647 Sep 13 00:04	0°♈		greatest brilliancy	2650 Mar 24 15:44	13°♈16'58	-4.6m
	2647 Oct 07 07:08	0°♈		retrograde	2650 Apr 07 17:50	16°♈54'01	
morning set	2647 Oct 22 00:22	18°♈19'30		evening set	2650 Apr 24 07:21	11°♈33'18	
	2647 Oct 31 08:38	0°♈		inferior conj	2650 Apr 28 23:23	8°♈41'05	6°00'43
	2647 Nov 24 07:04	0°♈		minimum elong	2650 Apr 29 09:20	8°♈25'27	5°58'33
max. Earth dist.	2647 Nov 28 04:33	4°♈53'26	1.71329 AU	min. Earth dist.	2650 Apr 28 22:17	8°♈42'49	0.28374 AU
				morning rise	2650 May 04 11:34	5°♈20'07	
superior conj	2647 Nov 29 23:50	7°♈09'20	0°22'55	direct	2650 May 20 03:25	0°♈33'23	
minimum elong	2647 Nov 30 05:28	7°♈27'00	0°22'39	desc. node	2650 May 26 10:33	1°♈18'00	
desc. node	2647 Dec 09 15:43	19°♈17'33		greatest brilliancy	2650 Jun 01 06:58	3°♈11'08	-4.5m
	2647 Dec 18 04:10	0°♈			2650 Jul 07 11:56	0°♈	
evening rise	2648 Jan 10 01:02	28°♈44'39		morning max el	2650 Jul 07 23:37	0°♈27'47	45°44'57
	2648 Jan 11 01:02	0°♈			2650 Aug 05 15:41	0°♈	
	2648 Feb 03 22:52	0°♈			2650 Sep 01 08:06	0°♈	
	2648 Feb 27 23:45	0°♈		asc. node	2650 Sep 16 14:01	17°♈49'13	
	2648 Mar 23 06:33	0°♈			2650 Sep 26 19:42	0°♈	
asc. node	2648 Mar 31 18:56	10°♈24'59			2650 Oct 21 13:24	0°♈	
	2648 Apr 16 22:51	0°♈			2650 Nov 14 19:54	0°♈	
	2648 May 12 05:35	0°♈			2650 Dec 08 20:09	0°♈	
	2648 Jun 07 12:21	0°♈			2651 Jan 01 17:30	0°♈	
	2648 Jul 05 22:16	0°♈		morning set	2651 Jan 04 06:51	3°♈12'51	
evening max el	2648 Jul 10 09:28	4°♈20'17	45°27'38	desc. node	2651 Jan 06 03:34	5°♈33'25	
desc. node	2648 Jul 21 08:27	14°♈19'03			2651 Jan 25 13:58	0°♈	
	2648 Aug 12 19:34	0°♈					
greatest brilliancy	2648 Aug 16 02:56	1°♈28'10	-4.5m	superior conj	2651 Feb 14 23:46	25°♈38'51	-1°-17'-18
retrograde	2648 Aug 28 00:26	3°♈58'50		minimum elong	2651 Feb 14 14:07	25°♈08'34	1°17'06
	2648 Sep 11 10:37	30°♈		max. Earth dist.	2651 Feb 17 19:26	29°♈11'13	1.71354 AU
evening set	2648 Sep 15 03:07	27°♈55'19			2651 Feb 18 10:58	0°♈	
inferior conj	2648 Sep 18 07:44	25°♈58'03	-8°-41'-25		2651 Mar 14 09:58	0°♈	
minimum elong	2648 Sep 18 08:34	25°♈56'45	8°41'26	evening rise	2651 Mar 27 12:47	16°♈21'16	
min. Earth dist.	2648 Sep 18 23:36	25°♈33'26	0.28490 AU		2651 Apr 07 12:29	0°♈	
morning rise	2648 Sep 21 13:48	23°♈57'58		asc. node	2651 Apr 29 06:50	26°♈52'24	

	2651 May 01 19:55	0°♁			2654 Jan 15 22:33	0°♁		
	2651 May 26 09:22	0°♁		desc. node	2654 Feb 02 15:28	22°♁05'40		
	2651 Jun 20 06:23	0°♁			2654 Feb 08 23:17	0°♁		
	2651 Jul 15 14:05	0°♁			2654 Mar 04 23:33	0°♁		
	2651 Aug 10 15:18	0°♁		morning set	2654 Mar 22 03:59	21°♁26'33		
desc. node	2651 Aug 18 20:13	9°♁11'15			2654 Mar 29 00:54	0°♁		
	2651 Sep 07 02:25	0°♁			2654 Apr 22 04:28	0°♁		
evening max el	2651 Sep 21 23:09	15°♁01'11	46°17'41					
	2651 Oct 08 15:17	0°♁		superior conj	2654 Apr 30 03:00	9°♁49'44	0°-58'-4	
greatest brilliancy	2651 Oct 30 15:50	13°♁48'59	-4.6m	minimum elong	2654 Apr 30 13:05	10°♁20'55	0°57'43	
retrograde	2651 Nov 10 12:44	15°♁58'38		max. Earth dist.	2654 May 03 09:43	13°♁53'08	1.72833 AU	
evening set	2651 Nov 25 06:03	11°♁43'49			2654 May 16 10:53	0°♁		
inferior conj	2651 Dec 01 02:45	8°♁18'34	-2°-16'00	asc. node	2654 May 26 18:45	12°♁43'21		
minimum elong	2651 Dec 01 07:51	8°♁10'49	2°14'26	evening rise	2654 Jun 06 22:03	26°♁25'01		
min. Earth dist.	2651 Dec 01 13:45	8°♁01'52	0.26683 AU		2654 Jun 09 20:03	0°♁		
morning rise	2651 Dec 07 09:14	4°♁39'54			2654 Jul 04 07:40	0°♁		
asc. node	2651 Dec 09 23:25	3°♁22'50			2654 Jul 28 22:01	0°♁		
direct	2651 Dec 21 16:51	0°♁35'10			2654 Aug 22 16:26	0°♁		
greatest brilliancy	2652 Jan 03 14:22	3°♁41'24	-4.7m	desc. node	2654 Sep 15 08:07	28°♁21'37		
	2652 Feb 06 11:42	0°♁			2654 Sep 16 17:09	0°♁		
morning max el	2652 Feb 10 09:14	3°♁53'26	46°56'34		2654 Oct 12 03:42	0°♁		
	2652 Mar 05 17:14	0°♁			2654 Nov 07 07:52	0°♁		
desc. node	2652 Mar 30 13:05	28°♁27'52		evening max el	2654 Dec 04 00:20	28°♁39'51	47°13'22	
	2652 Mar 31 20:36	0°♁			2654 Dec 05 08:09	0°♁		
	2652 Apr 26 05:41	0°♁		asc. node	2655 Jan 06 11:24	26°♁43'23		
	2652 May 21 06:45	0°♁		greatest brilliancy	2655 Jan 11 11:01	29°♁14'58	-4.7m	
	2652 Jun 15 03:36	0°♁			2655 Jan 13 06:49	0°♁		
	2652 Jul 09 20:58	0°♁		retrograde	2655 Jan 23 19:37	2°♁06'32		
asc. node	2652 Jul 21 16:24	14°♁23'52			2655 Feb 02 22:28	30°♁		
	2652 Aug 03 10:19	0°♁		evening set	2655 Feb 09 08:20	26°♁44'27		
morning set	2652 Aug 10 08:57	8°♁31'25		min. Earth dist.	2655 Feb 12 16:56	24°♁42'00	0.27051 AU	
	2652 Aug 27 19:13	0°♁		inferior conj	2655 Feb 13 12:35	24°♁11'27	7°58'11	
max. Earth dist.	2652 Sep 12 16:52	19°♁41'10	1.72712 AU	minimum elong	2655 Feb 13 03:55	24°♁24'55	7°56'55	
				morning rise	2655 Feb 16 23:48	22°♁04'16		
superior conj	2652 Sep 15 20:52	23°♁36'54	1°24'58	direct	2655 Mar 06 01:11	16°♁27'01		
minimum elong	2652 Sep 15 21:05	23°♁37'35	1°24'58	greatest brilliancy	2655 Mar 16 17:15	18°♁33'56	-4.6m	
	2652 Sep 21 00:16	0°♁			2655 Apr 04 14:26	0°♁		
	2652 Oct 15 02:51	0°♁		morning max el	2655 Apr 24 16:57	17°♁57'00	46°20'23	
evening rise	2652 Oct 23 11:36	10°♁25'35		desc. node	2655 Apr 28 00:54	21°♁15'02		
	2652 Nov 08 04:18	0°♁			2655 May 06 14:10	0°♁		
desc. node	2652 Nov 10 05:58	2°♁34'50			2655 Jun 03 02:51	0°♁		
	2652 Dec 02 05:31	0°♁			2655 Jun 29 07:21	0°♁		
	2652 Dec 26 07:27	0°♁			2655 Jul 24 19:39	0°♁		
	2653 Jan 19 12:05	0°♁			2655 Aug 18 20:21	0°♁		
	2653 Feb 12 23:38	0°♁		asc. node	2655 Aug 19 04:08	0°♁23'32		
asc. node	2653 Mar 03 08:58	22°♁05'40			2655 Sep 12 11:12	0°♁		
	2653 Mar 10 01:41	0°♁			2655 Oct 06 18:06	0°♁		
	2653 Apr 05 08:49	0°♁		morning set	2655 Oct 19 15:36	16°♁03'07		
evening max el	2653 Apr 28 11:08	24°♁07'28	45°46'43		2655 Oct 30 19:35	0°♁		
	2653 May 04 15:25	0°♁			2655 Nov 23 18:05	0°♁		
greatest brilliancy	2653 Jun 01 19:32	20°♁49'42	-4.5m	max. Earth dist.	2655 Nov 25 14:15	2°♁18'36	1.71369 AU	
retrograde	2653 Jun 16 10:25	24°♁33'09						
desc. node	2653 Jun 22 22:36	23°♁42'40		superior conj	2655 Nov 27 11:53	4°♁41'50	0°26'33	
evening set	2653 Jul 01 14:34	20°♁06'00		minimum elong	2655 Nov 27 18:17	5°♁01'57	0°26'15	
inferior conj	2653 Jul 07 21:45	16°♁18'32	-3°-26'-25	desc. node	2655 Dec 08 17:52	18°♁49'32		
minimum elong	2653 Jul 07 14:41	16°♁29'37	3°24'30		2655 Dec 17 15:17	0°♁		
min. Earth dist.	2653 Jul 07 16:53	16°♁26'10	0.28980 AU	evening rise	2656 Jan 07 11:23	26°♁11'14		
morning rise	2653 Jul 13 15:00	12°♁50'58			2656 Jan 10 12:14	0°♁		
direct	2653 Jul 29 13:19	8°♁02'04			2656 Feb 03 10:10	0°♁		
greatest brilliancy	2653 Aug 12 03:23	11°♁15'56	-4.5m		2656 Feb 27 11:12	0°♁		
	2653 Sep 07 18:35	0°♁			2656 Mar 22 18:16	0°♁		
morning max el	2653 Sep 16 12:58	8°♁09'14	45°55'42	asc. node	2656 Mar 30 20:58	9°♁55'07		
	2653 Oct 07 17:10	0°♁			2656 Apr 16 11:05	0°♁		
asc. node	2653 Oct 14 01:51	6°♁59'39			2656 May 11 18:48	0°♁		
	2653 Nov 03 05:01	0°♁			2656 Jun 07 03:43	0°♁		
	2653 Nov 28 07:55	0°♁			2656 Jul 05 19:38	0°♁		
	2653 Dec 22 18:55	0°♁		evening max el	2656 Jul 07 23:53	2°♁05'53	45°27'10	

desc. node	2656 Jul 20 10:29	13° $\mathring{\text{M}}$ 20'39		morning set	2659 Jan 01 17:29	0° $\mathring{\text{Z}}$ 41'07	
greatest brilliancy	2656 Aug 13 14:06	29° $\mathring{\text{M}}$ 11'21	-4.5m	desc. node	2659 Jan 05 05:36	5° $\mathring{\text{Z}}$ 05'30	
	2656 Aug 15 18:08	0° $\mathring{\text{A}}$			2659 Jan 25 00:49	0° \approx	
retrograde	2656 Aug 25 15:34	1° $\mathring{\text{A}}$ 46'11					
	2656 Sep 04 03:12	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		superior conj	2659 Feb 12 10:20	23° \approx 07'18	-1°-15'-28
evening set	2656 Sep 12 17:31	25° $\mathring{\text{M}}$ 42'51		minimum elong	2659 Feb 12 00:03	22° \approx 35'00	1°15'13
inferior conj	2656 Sep 15 23:02	23° $\mathring{\text{M}}$ 44'24	-8°-41'-26	max. Earth dist.	2659 Feb 15 05:28	26° \approx 38'02	1.71324 AU
minimum elong	2656 Sep 15 23:02	23° $\mathring{\text{M}}$ 44'24	8°41'28		2659 Feb 17 21:49	0° $\mathring{\text{H}}$	
min. Earth dist.	2656 Sep 16 14:00	23° $\mathring{\text{M}}$ 21'12	0.28540 AU		2659 Mar 13 20:48	0° $\mathring{\text{Y}}$	
morning rise	2656 Sep 19 04:21	21° $\mathring{\text{M}}$ 45'36		evening rise	2659 Mar 25 01:04	13° $\mathring{\text{Y}}$ 56'23	
direct	2656 Oct 07 08:16	15° $\mathring{\text{M}}$ 32'07			2659 Apr 06 23:22	0° $\mathring{\text{B}}$	
greatest brilliancy	2656 Oct 21 22:22	19° $\mathring{\text{M}}$ 18'48	-4.6m	asc. node	2659 Apr 28 08:57	26° $\mathring{\text{B}}$ 25'11	
	2656 Nov 07 01:55	0° $\mathring{\text{A}}$			2659 May 01 06:54	0° $\mathring{\text{H}}$	
asc. node	2656 Nov 10 13:37	2° $\mathring{\text{A}}$ 53'44			2659 May 25 20:38	0° $\mathring{\text{S}}$	
morning max el	2656 Nov 26 15:31	17° $\mathring{\text{A}}$ 58'27	46°39'02		2659 Jun 19 18:11	0° $\mathring{\text{Q}}$	
	2656 Dec 08 03:25	0° $\mathring{\text{M}}$			2659 Jul 15 02:52	0° $\mathring{\text{M}}$	
	2657 Jan 03 16:52	0° $\mathring{\text{X}}$			2659 Aug 10 05:58	0° $\mathring{\text{A}}$	
	2657 Jan 28 21:52	0° $\mathring{\text{Z}}$		desc. node	2659 Aug 17 22:10	8° $\mathring{\text{A}}$ 33'37	
	2657 Feb 22 13:52	0° \approx			2659 Sep 06 21:25	0° $\mathring{\text{M}}$	
desc. node	2657 Mar 02 03:12	9° \approx 15'18		evening max el	2659 Sep 19 13:40	12° $\mathring{\text{M}}$ 43'35	46°15'19
	2657 Mar 19 00:32	0° $\mathring{\text{H}}$			2659 Oct 09 04:11	0° $\mathring{\text{X}}$	
	2657 Apr 12 09:34	0° $\mathring{\text{Y}}$		greatest brilliancy	2659 Oct 28 04:56	11° $\mathring{\text{X}}$ 24'35	-4.6m
	2657 May 06 18:51	0° $\mathring{\text{B}}$		retrograde	2659 Nov 08 01:03	13° $\mathring{\text{X}}$ 32'47	
	2657 May 31 04:57	0° $\mathring{\text{H}}$		evening set	2659 Nov 22 20:39	9° $\mathring{\text{X}}$ 15'30	
morning set	2657 Jun 01 06:00	1° $\mathring{\text{H}}$ 16'55		inferior conj	2659 Nov 28 15:15	5° $\mathring{\text{X}}$ 52'41	-2°-39'-14
asc. node	2657 Jun 23 06:34	28° $\mathring{\text{H}}$ 19'13		minimum elong	2659 Nov 28 21:09	5° $\mathring{\text{X}}$ 43'43	2°37'26
	2657 Jun 24 15:23	0° $\mathring{\text{S}}$		min. Earth dist.	2659 Nov 29 03:26	5° $\mathring{\text{X}}$ 34'09	0.26720 AU
max. Earth dist.	2657 Jul 07 03:02	15° $\mathring{\text{S}}$ 20'24	1.73569 AU	morning rise	2659 Dec 04 21:13	2° $\mathring{\text{X}}$ 14'23	
				asc. node	2659 Dec 09 01:28	0° $\mathring{\text{X}}$ 16'05	
superior conj	2657 Jul 08 01:50	16° $\mathring{\text{S}}$ 30'26	0°34'18		2659 Dec 09 17:48	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
minimum elong	2657 Jul 07 19:19	16° $\mathring{\text{S}}$ 10'24	0°34'00	direct	2659 Dec 19 06:16	28° $\mathring{\text{M}}$ 08'49	
	2657 Jul 19 01:13	0° $\mathring{\text{Q}}$			2659 Dec 29 02:22	0° $\mathring{\text{X}}$	
	2657 Aug 12 10:00	0° $\mathring{\text{M}}$		greatest brilliancy	2660 Jan 01 04:22	1° $\mathring{\text{X}}$ 15'40	-4.7m
evening rise	2657 Aug 12 22:51	0° $\mathring{\text{M}}$ 39'33			2660 Feb 06 11:25	0° $\mathring{\text{Z}}$	
	2657 Sep 05 18:17	0° $\mathring{\text{A}}$		morning max el	2660 Feb 07 22:44	1° $\mathring{\text{Z}}$ 29'00	46°57'00
	2657 Sep 30 03:07	0° $\mathring{\text{M}}$			2660 Mar 05 09:44	0° \approx	
desc. node	2657 Oct 12 20:07	15° $\mathring{\text{M}}$ 37'03		desc. node	2660 Mar 29 15:12	27° \approx 53'14	
	2657 Oct 24 13:32	0° $\mathring{\text{X}}$			2660 Mar 31 10:28	0° $\mathring{\text{H}}$	
	2657 Nov 18 02:31	0° $\mathring{\text{Z}}$			2660 Apr 25 18:13	0° $\mathring{\text{Y}}$	
	2657 Dec 12 20:35	0° \approx			2660 May 20 18:28	0° $\mathring{\text{B}}$	
	2658 Jan 07 02:58	0° $\mathring{\text{H}}$			2660 Jun 14 14:48	0° $\mathring{\text{H}}$	
asc. node	2658 Feb 02 23:06	0° $\mathring{\text{Y}}$ 16'37			2660 Jul 09 07:51	0° $\mathring{\text{S}}$	
	2658 Feb 02 16:56	0° $\mathring{\text{Y}}$		asc. node	2660 Jul 20 18:21	13° $\mathring{\text{S}}$ 56'56	
evening max el	2658 Feb 13 21:58	11° $\mathring{\text{Y}}$ 44'28	46°52'50		2660 Aug 02 20:59	0° $\mathring{\text{Q}}$	
	2658 Mar 05 16:14	0° $\mathring{\text{B}}$		morning set	2660 Aug 08 02:32	6° $\mathring{\text{Q}}$ 25'17	
greatest brilliancy	2658 Mar 22 07:35	11° $\mathring{\text{B}}$ 01'36	-4.6m		2660 Aug 27 05:49	0° $\mathring{\text{M}}$	
retrograde	2658 Apr 05 10:06	14° $\mathring{\text{B}}$ 38'54		max. Earth dist.	2660 Sep 10 07:53	17° $\mathring{\text{M}}$ 26'05	1.72758 AU
evening set	2658 Apr 22 01:39	9° $\mathring{\text{B}}$ 13'45					
inferior conj	2658 Apr 26 14:41	6° $\mathring{\text{B}}$ 25'59	6°16'01	superior conj	2660 Sep 13 13:52	21° $\mathring{\text{M}}$ 27'51	1°24'56
minimum elong	2658 Apr 27 00:42	6° $\mathring{\text{B}}$ 10'16	6°13'54	minimum elong	2660 Sep 13 13:21	21° $\mathring{\text{M}}$ 26'16	1°24'56
min. Earth dist.	2658 Apr 26 13:03	6° $\mathring{\text{B}}$ 28'34	0.28347 AU		2660 Sep 20 10:54	0° $\mathring{\text{A}}$	
morning rise	2658 May 02 00:02	3° $\mathring{\text{B}}$ 09'25			2660 Oct 14 13:36	0° $\mathring{\text{M}}$	
	2658 May 08 15:02	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		evening rise	2660 Oct 21 01:42	8° $\mathring{\text{M}}$ 06'14	
direct	2658 May 17 18:28	28° $\mathring{\text{Y}}$ 18'46			2660 Nov 07 15:14	0° $\mathring{\text{X}}$	
desc. node	2658 May 25 12:39	29° $\mathring{\text{Y}}$ 26'01		desc. node	2660 Nov 09 08:04	2° $\mathring{\text{X}}$ 07'14	
	2658 May 27 08:47	0° $\mathring{\text{B}}$			2660 Dec 01 16:42	0° $\mathring{\text{Z}}$	
greatest brilliancy	2658 May 29 20:17	0° $\mathring{\text{B}}$ 55'26	-4.5m		2660 Dec 25 18:53	0° \approx	
morning max el	2658 Jul 05 16:04	28° $\mathring{\text{B}}$ 18'31	45°45'29		2661 Jan 18 23:52	0° $\mathring{\text{H}}$	
	2658 Jul 07 10:20	0° $\mathring{\text{H}}$			2661 Feb 12 11:59	0° $\mathring{\text{Y}}$	
	2658 Aug 05 07:18	0° $\mathring{\text{S}}$		asc. node	2661 Mar 02 11:03	21° $\mathring{\text{Y}}$ 33'01	
	2658 Aug 31 21:17	0° $\mathring{\text{Q}}$			2661 Mar 09 15:10	0° $\mathring{\text{B}}$	
asc. node	2658 Sep 15 16:00	17° $\mathring{\text{Q}}$ 18'15			2661 Apr 05 00:56	0° $\mathring{\text{H}}$	
	2658 Sep 26 07:46	0° $\mathring{\text{M}}$		evening max el	2661 Apr 26 02:35	21° $\mathring{\text{H}}$ 55'20	45°48'19
	2658 Oct 21 00:54	0° $\mathring{\text{A}}$			2661 May 04 16:27	0° $\mathring{\text{S}}$	
	2658 Nov 14 07:06	0° $\mathring{\text{M}}$		greatest brilliancy	2661 May 30 12:04	18° $\mathring{\text{S}}$ 41'28	-4.5m
	2658 Dec 08 07:10	0° $\mathring{\text{X}}$		retrograde	2661 Jun 14 02:15	22° $\mathring{\text{S}}$ 24'51	
	2659 Jan 01 04:25	0° $\mathring{\text{Z}}$		desc. node	2661 Jun 22 00:35	21° $\mathring{\text{S}}$ 10'07	

evening set	2661 Jun 29 06:03	17°☿59'08			2663 Dec 17 02:11	0°☿	
inferior conj	2661 Jul 05 14:10	14°☿10'22	-3°-8'-4	evening rise	2664 Jan 04 21:41	23°☿38'27	
minimum elong	2661 Jul 05 07:38	14°☿20'37	3°06'17		2664 Jan 09 23:12	0°≈	
min. Earth dist.	2661 Jul 05 09:40	14°☿17'27	0.28969 AU		2664 Feb 02 21:15	0°✕	
morning rise	2661 Jul 11 09:22	10°☿39'41			2664 Feb 26 22:26	0°Υ	
direct	2661 Jul 27 05:20	5°☿54'05			2664 Mar 22 05:47	0°♄	
greatest brilliancy	2661 Aug 09 17:56	9°☿05'38	-4.5m	asc. node	2664 Mar 29 23:05	9°♄26'07	
	2661 Sep 07 20:09	0°♁			2664 Apr 15 23:07	0°♁	
morning max el	2661 Sep 14 03:23	5°♁55'14	45°54'33		2664 May 11 07:51	0°☿	
	2661 Oct 07 09:30	0°♁			2664 Jun 06 19:01	0°♁	
asc. node	2661 Oct 13 04:00	6°♁22'33		evening max el	2664 Jul 05 15:01	29°♁54'03	45°26'42
	2661 Nov 02 18:36	0°♁			2664 Jul 05 17:31	0°♁	
	2661 Nov 27 20:17	0°♁		desc. node	2664 Jul 19 12:25	12°♁21'23	
	2661 Dec 22 06:41	0°♁		greatest brilliancy	2664 Aug 11 00:34	26°♁54'19	-4.5m
	2662 Jan 15 09:57	0°☿		retrograde	2664 Aug 23 06:50	29°♁33'42	
desc. node	2662 Feb 01 17:22	21°☿36'35		evening set	2664 Sep 10 07:27	23°♁31'07	
	2662 Feb 08 10:26	0°≈		inferior conj	2664 Sep 13 14:13	21°♁30'48	-8°-40'-35
	2662 Mar 04 10:29	0°✕		minimum elong	2664 Sep 13 13:25	21°♁32'02	8°40'35
morning set	2662 Mar 19 16:28	19°✕02'12		min. Earth dist.	2664 Sep 14 03:57	21°♁09'31	0.28594 AU
	2662 Mar 28 11:38	0°Υ		morning rise	2664 Sep 16 19:12	19°♁32'37	
	2662 Apr 21 15:05	0°♄		direct	2664 Oct 05 00:19	13°♁17'47	
				greatest brilliancy	2664 Oct 19 15:02	17°♁05'38	-4.6m
superior conj	2662 Apr 27 18:15	7°♄35'42	-1°00'-36		2664 Nov 07 11:25	0°♁	
minimum elong	2662 Apr 28 04:26	8°♄07'13	1°00'15	asc. node	2664 Nov 09 15:38	1°♁51'49	
max. Earth dist.	2662 May 01 03:44	11°♄47'46	1.72782 AU	morning max el	2664 Nov 24 07:27	15°♁42'26	46°37'37
	2662 May 15 21:26	0°♁			2664 Dec 07 21:50	0°♁	
asc. node	2662 May 25 20:47	12°♁17'08			2665 Jan 03 07:38	0°♁	
evening rise	2662 Jun 04 15:32	24°♁18'44			2665 Jan 28 11:02	0°☿	
	2662 Jun 09 06:40	0°☿			2665 Feb 22 02:08	0°≈	
	2662 Jul 03 18:27	0°♁		desc. node	2665 Mar 01 05:22	8°≈44'52	
	2662 Jul 28 09:07	0°♁			2665 Mar 18 12:14	0°✕	
	2662 Aug 22 04:04	0°♁			2665 Apr 11 20:52	0°Υ	
desc. node	2662 Sep 14 10:12	27°♁50'46			2665 May 06 05:51	0°♄	
	2662 Sep 16 05:40	0°♁		morning set	2665 May 29 23:14	29°♄09'18	
	2662 Oct 11 17:39	0°♁			2665 May 30 15:44	0°♁	
	2662 Nov 07 00:34	0°☿		asc. node	2665 Jun 22 08:32	27°♁52'37	
evening max el	2662 Dec 01 13:04	26°☿13'03	47°12'26		2665 Jun 24 02:02	0°☿	
	2662 Dec 05 08:02	0°≈		max. Earth dist.	2665 Jul 05 02:32	13°☿32'28	1.73569 AU
asc. node	2663 Jan 05 13:20	25°≈07'08					
greatest brilliancy	2663 Jan 09 02:12	26°≈50'18	-4.7m	superior conj	2665 Jul 05 20:03	14°☿26'16	0°31'23
retrograde	2663 Jan 21 08:26	29°≈39'59		minimum elong	2665 Jul 05 13:59	14°☿07'38	0°31'06
evening set	2663 Feb 06 17:21	24°≈24'20			2665 Jul 18 11:49	0°♁	
min. Earth dist.	2663 Feb 10 06:19	22°≈15'49	0.27001 AU	evening rise	2665 Aug 10 17:34	28°♁36'27	
inferior conj	2663 Feb 11 01:36	21°≈45'55	7°47'13		2665 Aug 11 20:42	0°♁	
minimum elong	2663 Feb 10 16:25	22°≈00'10	7°45'47		2665 Sep 05 05:13	0°♁	
morning rise	2663 Feb 14 15:45	19°≈34'31			2665 Sep 29 14:25	0°♁	
direct	2663 Mar 03 13:06	14°≈01'56		desc. node	2665 Oct 11 22:12	15°♁08'06	
greatest brilliancy	2663 Mar 14 07:26	16°≈10'49	-4.6m		2665 Oct 24 01:18	0°♁	
	2663 Apr 05 02:50	0°✕			2665 Nov 17 14:56	0°☿	
morning max el	2663 Apr 22 05:54	15°✕34'50	46°22'12		2665 Dec 12 09:57	0°≈	
desc. node	2663 Apr 27 02:57	20°✕26'20			2666 Jan 06 18:00	0°✕	
	2663 May 06 08:59	0°Υ		asc. node	2666 Feb 02 01:12	29°✕31'29	
	2663 Jun 02 17:25	0°♄			2666 Feb 02 11:52	0°Υ	
	2663 Jun 28 20:04	0°♁		evening max el	2666 Feb 11 13:49	9°Υ27'53	46°54'55
	2663 Jul 24 07:24	0°☿			2666 Mar 06 04:48	0°♄	
asc. node	2663 Aug 18 06:11	29°☿55'50		greatest brilliancy	2666 Mar 20 00:14	8°♄47'20	-4.6m
	2663 Aug 18 07:33	0°♁		retrograde	2666 Apr 03 02:22	12°♄23'39	
	2663 Sep 11 22:07	0°♁		evening set	2666 Apr 19 20:05	6°♄54'14	
	2663 Oct 06 04:53	0°♁		inferior conj	2666 Apr 24 06:03	4°♄10'51	6°30'43
morning set	2663 Oct 17 06:38	13°♁46'39		minimum elong	2666 Apr 24 16:03	3°♄55'08	6°28'42
	2663 Oct 30 06:22	0°♁		min. Earth dist.	2666 Apr 24 03:41	4°♄14'35	0.28315 AU
max. Earth dist.	2663 Nov 23 01:43	29°♁49'57	1.71404 AU	morning rise	2666 Apr 29 12:22	0°♄58'48	
	2663 Nov 23 04:55	0°♁			2666 May 01 07:11	30°♄Υ	
				direct	2666 May 15 09:52	26°Υ04'18	
superior conj	2663 Nov 24 23:42	2°♁14'19	0°30'09	desc. node	2666 May 24 14:40	27°Υ38'07	
minimum elong	2663 Nov 25 06:51	2°♁36'42	0°29'49	greatest brilliancy	2666 May 27 08:43	28°Υ38'39	-4.5m
desc. node	2663 Dec 07 19:49	18°♁21'36			2666 May 30 09:33	0°♄	

morning max el	2666 Jul 03 08:20	26°♄08'44	45°46'03		2669 Jan 18 12:03	0°♄	
	2666 Jul 07 07:52	0°♄			2669 Feb 12 00:50	0°♄	
	2666 Aug 04 22:40	0°♄		asc. node	2669 Mar 01 13:08	20°♄58'45	
	2666 Aug 31 10:23	0°♄			2669 Mar 09 05:15	0°♄	
asc. node	2666 Sep 14 18:11	16°♄47'54			2669 Apr 04 17:53	0°♄	
	2666 Sep 25 19:49	0°♄		evening max el	2669 Apr 23 17:14	19°♄39'48	45°50'14
	2666 Oct 20 12:27	0°♄			2669 May 04 19:28	0°♄	
	2666 Nov 13 18:24	0°♄		greatest brilliancy	2669 May 28 03:56	16°♄31'12	-4.5m
	2666 Dec 07 18:22	0°♄		retrograde	2669 Jun 11 18:18	20°♄15'51	
morning set	2666 Dec 30 03:48	28°♄07'36		desc. node	2669 Jun 21 02:35	18°♄32'12	
	2666 Dec 31 15:33	0°♄		evening set	2669 Jun 26 21:46	15°♄51'00	
desc. node	2667 Jan 04 07:36	4°♄36'47		inferior conj	2669 Jul 03 06:40	12°♄01'22	-2°-49'-32
	2667 Jan 24 11:56	0°♄		minimum elong	2669 Jul 03 00:42	12°♄10'44	2°47'54
				min. Earth dist.	2669 Jul 03 02:35	12°♄07'47	0.28955 AU
superior conj	2667 Feb 09 20:23	20°♄33'18	-1°-13'-26	morning rise	2669 Jul 09 03:42	8°♄27'53	
minimum elong	2667 Feb 09 09:34	19°♄59'19	1°13'10	direct	2669 Jul 24 21:06	3°♄45'08	
max. Earth dist.	2667 Feb 12 15:05	24°♄02'47	1.71289 AU	greatest brilliancy	2669 Aug 07 09:32	6°♄55'46	-4.5m
	2667 Feb 17 08:53	0°♄			2669 Sep 07 20:47	0°♄	
	2667 Mar 13 07:51	0°♄		morning max el	2669 Sep 11 18:09	3°♄41'19	45°53'32
evening rise	2667 Mar 22 12:54	11°♄29'25			2669 Oct 07 01:50	0°♄	
	2667 Apr 06 10:25	0°♄		asc. node	2669 Oct 12 05:55	5°♄44'17	
asc. node	2667 Apr 27 10:57	25°♄57'07			2669 Nov 02 08:21	0°♄	
	2667 Apr 30 18:04	0°♄			2669 Nov 27 08:53	0°♄	
	2667 May 25 08:05	0°♄			2669 Dec 21 18:41	0°♄	
	2667 Jun 19 06:11	0°♄			2670 Jan 14 21:38	0°♄	
	2667 Jul 14 15:52	0°♄		desc. node	2670 Jan 31 19:31	21°♄07'24	
	2667 Aug 09 20:55	0°♄			2670 Feb 07 21:54	0°♄	
desc. node	2667 Aug 17 00:21	7°♄55'56			2670 Mar 03 21:47	0°♄	
	2667 Sep 06 17:03	0°♄		morning set	2670 Mar 17 04:28	16°♄34'58	
evening max el	2667 Sep 17 03:26	10°♄24'01	46°12'52		2670 Mar 27 22:47	0°♄	
	2667 Oct 09 21:30	0°♄			2670 Apr 21 02:07	0°♄	
greatest brilliancy	2667 Oct 25 18:31	9°♄00'43	-4.6m				
retrograde	2667 Nov 05 12:43	11°♄06'56		superior conj	2670 Apr 25 09:01	5°♄18'43	-1°-3'-3
evening set	2667 Nov 20 11:29	6°♄46'51		minimum elong	2670 Apr 25 19:15	5°♄50'24	1°02'43
inferior conj	2667 Nov 26 03:54	3°♄26'47	-3°-1'-55	max. Earth dist.	2670 Apr 28 18:54	9°♄32'06	1.72729 AU
minimum elong	2667 Nov 26 10:32	3°♄16'40	2°59'54		2670 May 15 08:26	0°♄	
min. Earth dist.	2667 Nov 26 17:31	3°♄06'01	0.26767 AU	asc. node	2670 May 24 22:44	11°♄49'20	
morning rise	2667 Dec 02 09:05	29°♄48'56		evening rise	2670 Jun 02 08:34	22°♄09'51	
	2667 Dec 02 00:50	30°♄			2670 Jun 08 17:41	0°♄	
asc. node	2667 Dec 08 03:26	27°♄14'06			2670 Jul 03 05:37	0°♄	
direct	2667 Dec 16 19:27	25°♄42'06			2670 Jul 27 20:37	0°♄	
greatest brilliancy	2667 Dec 29 19:29	28°♄50'34	-4.7m		2670 Aug 21 16:07	0°♄	
	2668 Jan 01 04:17	0°♄		desc. node	2670 Sep 13 12:16	27°♄18'38	
morning max el	2668 Feb 05 11:23	29°♄01'02	46°57'16		2670 Sep 15 18:38	0°♄	
	2668 Feb 06 10:34	0°♄			2670 Oct 11 08:07	0°♄	
	2668 Mar 05 02:23	0°♄			2670 Nov 06 17:54	0°♄	
desc. node	2668 Mar 28 17:17	27°♄17'24		evening max el	2670 Nov 29 02:15	23°♄46'51	47°11'32
	2668 Mar 31 00:37	0°♄			2670 Dec 05 09:21	0°♄	
	2668 Apr 25 07:01	0°♄		asc. node	2671 Jan 04 15:24	23°♄26'59	
	2668 May 20 06:27	0°♄		greatest brilliancy	2671 Jan 06 16:20	24°♄23'52	-4.7m
	2668 Jun 14 02:14	0°♄		retrograde	2671 Jan 18 21:48	27°♄13'12	
asc. node	2668 Jul 08 18:56	0°♄		evening set	2671 Feb 04 02:27	22°♄03'33	
	2668 Jul 19 20:25	13°♄29'39		min. Earth dist.	2671 Feb 07 19:31	19°♄49'31	0.26955 AU
	2668 Aug 02 07:54	0°♄		inferior conj	2671 Feb 08 14:43	19°♄19'50	7°35'20
morning set	2668 Aug 05 20:19	4°♄19'02		minimum elong	2671 Feb 08 05:04	19°♄34'45	7°33'42
	2668 Aug 26 16:40	0°♄		morning rise	2671 Feb 12 07:56	17°♄04'13	
max. Earth dist.	2668 Sep 07 23:52	15°♄13'20	1.72804 AU	direct	2671 Mar 01 01:29	11°♄36'14	
				greatest brilliancy	2671 Mar 11 21:32	13°♄47'00	-4.6m
superior conj	2668 Sep 11 07:21	19°♄19'36	1°24'46		2671 Apr 05 12:23	0°♄	
minimum elong	2668 Sep 11 06:07	19°♄15'47	1°24'46	morning max el	2671 Apr 19 19:55	13°♄14'07	46°23'48
	2668 Sep 19 21:47	0°♄		desc. node	2671 Apr 26 04:57	19°♄37'18	
	2668 Oct 14 00:35	0°♄			2671 May 06 03:44	0°♄	
evening rise	2668 Oct 18 16:25	5°♄48'10			2671 Jun 02 08:16	0°♄	
	2668 Nov 07 02:25	0°♄			2671 Jun 28 09:09	0°♄	
desc. node	2668 Nov 08 10:01	1°♄38'29			2671 Jul 23 19:30	0°♄	
	2668 Dec 01 04:08	0°♄		asc. node	2671 Aug 17 08:18	29°♄27'26	
	2668 Dec 25 06:39	0°♄			2671 Aug 17 19:04	0°♄	

	2671 Sep 11 09:18	0° \mathbb{M}		evening set	2674 Apr 17 14:34	4° \mathbb{R} 34'47	
	2671 Oct 05 15:57	0° \mathbb{A}		inferior conj	2674 Apr 21 21:27	1° \mathbb{R} 55'42	6°44'45
morning set	2671 Oct 14 21:56	11° \mathbb{A} 30'18		minimum elong	2674 Apr 22 07:22	1° \mathbb{R} 40'07	6°42'51
	2671 Oct 29 17:26	0° \mathbb{M}		min. Earth dist.	2674 Apr 21 18:24	2° \mathbb{R} 00'31	0.28280 AU
max. Earth dist.	2671 Nov 20 13:40	27° \mathbb{M} 21'58	1.71439 AU		2674 Apr 24 23:56	30° \mathbb{R} \mathbb{Y}	
				morning rise	2674 Apr 27 00:34	28° \mathbb{Y} 48'11	
superior conj	2671 Nov 22 11:57	29° \mathbb{M} 47'10	0°33'39	direct	2674 May 13 01:19	23° \mathbb{Y} 50'01	
minimum elong	2671 Nov 22 19:44	0° \mathbb{A} 11'36	0°33'18	desc. node	2674 May 23 16:41	25° \mathbb{Y} 54'09	
	2671 Nov 22 16:02	0° \mathbb{A}		greatest brilliancy	2674 May 24 20:41	26° \mathbb{Y} 21'14	-4.5m
desc. node	2671 Dec 06 21:52	17° \mathbb{A} 53'01			2674 Jun 01 04:42	0° \mathbb{R}	
	2671 Dec 16 13:22	0° \mathbb{Z}		morning max el	2674 Jun 30 23:43	23° \mathbb{R} 56'44	45°46'31
evening rise	2672 Jan 02 08:23	21° \mathbb{Z} 06'04			2674 Jul 07 04:40	0° \mathbb{II}	
	2672 Jan 09 10:26	0° \mathbb{A}			2674 Aug 04 13:53	0° \mathbb{S}	
	2672 Feb 02 08:34	0° \mathbb{H}			2674 Aug 30 23:30	0° \mathbb{Q}	
	2672 Feb 26 09:56	0° \mathbb{Y}		asc. node	2674 Sep 13 20:06	16° \mathbb{Q} 16'34	
asc. node	2672 Mar 21 17:35	0° \mathbb{R}			2674 Sep 25 07:56	0° \mathbb{M}	
	2672 Mar 29 01:02	8° \mathbb{R} 55'46			2674 Oct 20 00:02	0° \mathbb{A}	
	2672 Apr 15 11:28	0° \mathbb{II}			2674 Nov 13 05:43	0° \mathbb{M}	
	2672 May 10 21:19	0° \mathbb{S}			2674 Dec 07 05:32	0° \mathbb{A}	
evening max el	2672 Jun 06 10:57	0° \mathbb{Q}		morning set	2674 Dec 27 14:12	25° \mathbb{A} 34'30	
	2672 Jul 03 07:00	27° \mathbb{Q} 43'13	45°26'20		2674 Dec 31 02:40	0° \mathbb{Z}	
	2672 Jul 05 16:46	0° \mathbb{M}		desc. node	2675 Jan 03 09:42	4° \mathbb{Z} 08'29	
desc. node	2672 Jul 18 14:36	11° \mathbb{M} 20'13			2675 Jan 23 23:01	0° \mathbb{A}	
greatest brilliancy	2672 Aug 08 12:18	24° \mathbb{M} 38'10	-4.5m				
retrograde	2672 Aug 20 22:16	27° \mathbb{M} 20'43		superior conj	2675 Feb 07 06:26	17° \mathbb{A} 59'19	-1°-11'-15
evening set	2672 Sep 07 21:14	21° \mathbb{M} 19'46		minimum elong	2675 Feb 06 19:11	17° \mathbb{A} 23'59	1°10'57
inferior conj	2672 Sep 11 05:33	19° \mathbb{M} 16'56	-8°-38'-55	max. Earth dist.	2675 Feb 09 22:40	21° \mathbb{A} 21'04	1.71257 AU
minimum elong	2672 Sep 11 03:57	19° \mathbb{M} 19'25	8°38'55		2675 Feb 16 19:57	0° \mathbb{H}	
min. Earth dist.	2672 Sep 11 17:49	18° \mathbb{M} 57'56	0.28640 AU		2675 Mar 12 18:53	0° \mathbb{Y}	
morning rise	2672 Sep 14 10:31	17° \mathbb{M} 18'47		evening rise	2675 Mar 20 00:34	9° \mathbb{Y} 01'49	
direct	2672 Oct 02 16:46	11° \mathbb{M} 03'32			2675 Apr 05 21:27	0° \mathbb{R}	
greatest brilliancy	2672 Oct 17 06:31	14° \mathbb{M} 50'43	-4.6m	asc. node	2675 Apr 26 12:57	25° \mathbb{R} 29'05	
	2672 Nov 07 18:31	0° \mathbb{A}			2675 Apr 30 05:12	0° \mathbb{II}	
asc. node	2672 Nov 08 17:40	0° \mathbb{A} 50'56			2675 May 24 19:30	0° \mathbb{S}	
morning max el	2672 Nov 21 23:15	13° \mathbb{A} 25'48	46°36'02		2675 Jun 18 18:10	0° \mathbb{Q}	
	2672 Dec 07 15:59	0° \mathbb{M}			2675 Jul 14 04:56	0° \mathbb{M}	
	2673 Jan 02 22:25	0° \mathbb{A}			2675 Aug 09 12:05	0° \mathbb{A}	
	2673 Jan 28 00:18	0° \mathbb{Z}		desc. node	2675 Aug 16 02:20	7° \mathbb{A} 17'19	
	2673 Feb 21 14:31	0° \mathbb{A}			2675 Sep 06 13:20	0° \mathbb{M}	
desc. node	2673 Feb 28 07:22	8° \mathbb{A} 13'30		evening max el	2675 Sep 14 16:17	8° \mathbb{M} 02'15	46°10'24
	2673 Mar 18 00:04	0° \mathbb{H}			2675 Oct 10 20:51	0° \mathbb{A}	
	2673 Apr 11 08:18	0° \mathbb{Y}		greatest brilliancy	2675 Oct 23 08:26	6° \mathbb{A} 37'18	-4.6m
	2673 May 05 17:00	0° \mathbb{R}		retrograde	2675 Nov 03 00:18	8° \mathbb{A} 41'34	
morning set	2673 May 27 16:28	27° \mathbb{R} 01'14		evening set	2675 Nov 18 02:28	4° \mathbb{A} 18'12	
	2673 May 30 02:41	0° \mathbb{II}		inferior conj	2675 Nov 23 16:35	1° \mathbb{A} 01'19	-3°-24'-2
asc. node	2673 Jun 21 10:39	27° \mathbb{II} 25'49		minimum elong	2675 Nov 23 23:55	0° \mathbb{A} 50'08	3°21'53
	2673 Jun 23 12:52	0° \mathbb{S}		min. Earth dist.	2675 Nov 24 07:47	0° \mathbb{A} 38'07	0.26815 AU
max. Earth dist.	2673 Jul 03 01:37	11° \mathbb{S} 42'36	1.73570 AU		2675 Nov 25 08:52	30° \mathbb{R} \mathbb{M}	
				morning rise	2675 Nov 29 20:45	27° \mathbb{M} 24'22	
superior conj	2673 Jul 03 14:09	12° \mathbb{S} 21'06	0°28'25	asc. node	2675 Dec 07 05:31	24° \mathbb{M} 17'43	
minimum elong	2673 Jul 03 08:34	12° \mathbb{S} 03'59	0°28'09	direct	2675 Dec 14 08:12	23° \mathbb{M} 15'41	
	2673 Jul 17 22:38	0° \mathbb{Q}		greatest brilliancy	2675 Dec 27 11:24	26° \mathbb{M} 27'00	-4.7m
evening rise	2673 Aug 08 12:09	26° \mathbb{Q} 32'16			2676 Jan 02 23:59	0° \mathbb{A}	
	2673 Aug 11 07:38	0° \mathbb{M}		morning max el	2676 Feb 02 23:41	26° \mathbb{A} 32'33	46°57'31
	2673 Sep 04 16:21	0° \mathbb{A}			2676 Feb 06 08:38	0° \mathbb{Z}	
	2673 Sep 29 01:52	0° \mathbb{M}			2676 Mar 04 18:35	0° \mathbb{A}	
desc. node	2673 Oct 11 00:08	14° \mathbb{M} 38'16		desc. node	2676 Mar 27 19:12	26° \mathbb{A} 41'51	
	2673 Oct 23 13:14	0° \mathbb{A}			2676 Mar 30 14:28	0° \mathbb{H}	
	2673 Nov 17 03:30	0° \mathbb{Z}			2676 Apr 24 19:36	0° \mathbb{Y}	
	2673 Dec 11 23:32	0° \mathbb{A}			2676 May 19 18:14	0° \mathbb{R}	
asc. node	2674 Jan 06 09:22	0° \mathbb{H}			2676 Jun 13 13:29	0° \mathbb{II}	
	2674 Feb 01 03:20	28° \mathbb{H} 45'28			2676 Jul 08 05:52	0° \mathbb{S}	
	2674 Feb 02 07:26	0° \mathbb{Y}		asc. node	2676 Jul 18 22:31	13° \mathbb{S} 03'02	
evening max el	2674 Feb 09 05:47	7° \mathbb{Y} 11'08	46°56'51		2676 Aug 01 18:39	0° \mathbb{Q}	
	2674 Mar 06 21:46	0° \mathbb{R}		morning set	2676 Aug 03 14:11	2° \mathbb{Q} 13'38	
greatest brilliancy	2674 Mar 17 17:59	6° \mathbb{R} 34'16	-4.6m		2676 Aug 26 03:22	0° \mathbb{M}	
retrograde	2674 Mar 31 18:19	10° \mathbb{R} 08'07		max. Earth dist.	2676 Sep 05 17:56	13° \mathbb{M} 07'25	1.72854 AU

superior conj	2676 Sep 09 00:52	17° $\mathring{\text{M}}$ 11'57	1°24'29			2679 Apr 05 19:06	0° H	
minimum elong	2676 Sep 08 22:57	17° $\mathring{\text{M}}$ 06'01	1°24'29	morning max el		2679 Apr 17 10:12	10° H 54'48	46°25'26
	2676 Sep 19 08:32	0° $\underline{\text{A}}$		desc. node		2679 Apr 25 07:04	18° H 50'10	
	2676 Oct 13 11:28	0° $\mathring{\text{M}}$				2679 May 05 21:41	0° Y	
evening rise	2676 Oct 16 07:08	3° $\mathring{\text{M}}$ 30'35				2679 Jun 01 22:36	0° B	
	2676 Nov 06 13:30	0° A				2679 Jun 27 21:47	0° II	
desc. node	2676 Nov 07 12:06	1° A 10'24				2679 Jul 23 07:12	0° $\underline{\text{B}}$	
	2676 Nov 30 15:28	0° $\underline{\text{B}}$		asc. node		2679 Aug 16 10:15	28° $\underline{\text{B}}$ 59'31	
	2676 Dec 24 18:16	0° \approx				2679 Aug 17 06:14	0° Ω	
	2677 Jan 18 00:04	0° H				2679 Sep 10 20:09	0° $\mathring{\text{M}}$	
	2677 Feb 11 13:31	0° Y				2679 Oct 05 02:41	0° $\underline{\text{A}}$	
asc. node	2677 Feb 28 15:04	20° Y 24'30		morning set		2679 Oct 12 13:36	9° $\underline{\text{A}}$ 16'18	
	2677 Mar 08 19:16	0° B				2679 Oct 29 04:09	0° $\mathring{\text{M}}$	
	2677 Apr 04 10:58	0° II		max. Earth dist.		2679 Nov 18 01:33	24° $\mathring{\text{M}}$ 54'54	1.71477 AU
evening max el	2677 Apr 21 07:46	17° II 24'34	45°52'12					
	2677 May 04 23:58	0° $\underline{\text{B}}$		superior conj		2679 Nov 20 00:28	27° $\mathring{\text{M}}$ 22'04	0°37'04
greatest brilliancy	2677 May 25 19:02	14° $\underline{\text{B}}$ 20'29	-4.5m	minimum elong		2679 Nov 20 08:50	27° $\mathring{\text{M}}$ 48'17	0°36'42
retrograde	2677 Jun 09 10:45	18° $\underline{\text{B}}$ 07'33				2679 Nov 22 02:49	0° A	
desc. node	2677 Jun 20 04:44	15° $\underline{\text{B}}$ 50'24		desc. node		2679 Dec 06 00:01	17° A 25'47	
evening set	2677 Jun 24 13:34	13° $\underline{\text{B}}$ 43'05				2679 Dec 16 00:14	0° $\underline{\text{B}}$	
inferior conj	2677 Jun 30 23:07	9° $\underline{\text{B}}$ 52'56	-2°-30'-46	evening rise		2679 Dec 30 18:57	18° $\underline{\text{B}}$ 34'10	
minimum elong	2677 Jun 30 17:45	10° $\underline{\text{B}}$ 01'21	2°29'15			2680 Jan 08 21:25	0° \approx	
min. Earth dist.	2677 Jun 30 19:18	9° $\underline{\text{B}}$ 58'55	0.28942 AU			2680 Feb 01 19:40	0° H	
morning rise	2677 Jul 06 21:56	6° $\underline{\text{B}}$ 17'01				2680 Feb 25 21:12	0° Y	
direct	2677 Jul 22 12:47	1° $\underline{\text{B}}$ 36'41				2680 Mar 21 05:09	0° B	
greatest brilliancy	2677 Aug 05 01:52	4° $\underline{\text{B}}$ 47'42	-4.5m	asc. node		2680 Mar 28 03:05	8° B 26'23	
	2677 Sep 07 19:56	0° Ω				2680 Apr 14 23:36	0° II	
morning max el	2677 Sep 09 09:31	1° Ω 29'49	45°52'35			2680 May 10 10:37	0° $\underline{\text{B}}$	
	2677 Oct 06 17:36	0° $\mathring{\text{M}}$				2680 Jun 06 02:50	0° Ω	
asc. node	2677 Oct 11 07:59	5° $\mathring{\text{M}}$ 07'35		evening max el		2680 Jun 30 23:04	25° Ω 33'28	45°25'59
	2677 Nov 01 21:45	0° $\underline{\text{A}}$				2680 Jul 05 16:44	0° $\mathring{\text{M}}$	
	2677 Nov 26 21:14	0° $\mathring{\text{M}}$		desc. node		2680 Jul 17 16:36	10° $\mathring{\text{M}}$ 18'05	
	2677 Dec 21 06:29	0° A		greatest brilliancy		2680 Aug 06 01:19	22° $\mathring{\text{M}}$ 24'28	-4.5m
	2678 Jan 14 09:06	0° $\underline{\text{B}}$		retrograde		2680 Aug 18 13:24	25° $\mathring{\text{M}}$ 08'41	
desc. node	2678 Jan 30 21:35	20° $\underline{\text{B}}$ 38'35		evening set		2680 Sep 05 10:46	19° $\mathring{\text{M}}$ 10'11	
	2678 Feb 07 09:07	0° \approx		inferior conj		2680 Sep 08 20:55	17° $\mathring{\text{M}}$ 04'18	-8°-36'-36
	2678 Mar 03 08:47	0° H		minimum elong		2680 Sep 08 18:30	17° $\mathring{\text{M}}$ 08'02	8°36'32
morning set	2678 Mar 14 16:09	14° H 07'29		min. Earth dist.		2680 Sep 09 07:53	16° $\mathring{\text{M}}$ 47'16	0.28681 AU
	2678 Mar 27 09:38	0° Y		morning rise		2680 Sep 12 02:08	15° $\mathring{\text{M}}$ 05'35	
	2678 Apr 20 12:53	0° B		direct		2680 Sep 30 09:08	8° $\mathring{\text{M}}$ 50'40	
				greatest brilliancy		2680 Oct 14 20:56	12° $\mathring{\text{M}}$ 35'35	-4.6m
superior conj	2678 Apr 22 23:37	3° B 02'02	-1°-5'-25	asc. node		2680 Nov 07 19:45	29° $\mathring{\text{M}}$ 52'41	
minimum elong	2678 Apr 23 09:51	3° B 33'43	1°05'06			2680 Nov 07 23:00	0° $\underline{\text{A}}$	
max. Earth dist.	2678 Apr 26 09:26	7° B 15'23	1.72679 AU	morning max el		2680 Nov 19 14:08	11° $\underline{\text{A}}$ 08'05	46°34'31
	2678 May 14 19:09	0° II				2680 Dec 07 09:19	0° $\mathring{\text{M}}$	
asc. node	2678 May 24 00:53	11° II 23'02				2681 Jan 02 12:40	0° A	
evening rise	2678 May 31 01:36	20° II 01'46				2681 Jan 27 13:09	0° $\underline{\text{B}}$	
	2678 Jun 08 04:26	0° $\underline{\text{B}}$				2681 Feb 21 02:36	0° \approx	
	2678 Jul 02 16:31	0° Ω		desc. node		2681 Feb 27 09:20	7° \approx 42'53	
	2678 Jul 27 07:49	0° $\mathring{\text{M}}$				2681 Mar 17 11:38	0° H	
	2678 Aug 21 03:53	0° $\underline{\text{A}}$				2681 Apr 10 19:30	0° Y	
desc. node	2678 Sep 12 14:14	26° $\underline{\text{A}}$ 47'07				2681 May 05 03:54	0° B	
	2678 Sep 15 07:20	0° $\mathring{\text{M}}$		morning set		2681 May 25 09:24	24° B 52'55	
	2678 Oct 10 22:25	0° A				2681 May 29 13:21	0° II	
	2678 Nov 06 11:19	0° $\underline{\text{B}}$		asc. node		2681 Jun 20 12:41	26° II 59'37	
evening max el	2678 Nov 26 16:08	21° $\underline{\text{B}}$ 23'08	47°10'26			2681 Jun 22 23:25	0° $\underline{\text{B}}$	
	2678 Dec 05 11:51	0° \approx						
asc. node	2679 Jan 03 17:31	21° \approx 43'02		superior conj		2681 Jul 01 08:04	10° $\underline{\text{B}}$ 16'14	0°25'24
greatest brilliancy	2679 Jan 04 05:44	21° \approx 56'34	-4.7m	minimum elong		2681 Jul 01 03:01	10° $\underline{\text{B}}$ 00'44	0°25'09
retrograde	2679 Jan 16 11:25	24° \approx 46'00		max. Earth dist.		2681 Jun 30 23:48	9° $\underline{\text{B}}$ 50'52	1.73566 AU
evening set	2679 Feb 01 11:18	19° \approx 42'17				2681 Jul 17 09:12	0° Ω	
min. Earth dist.	2679 Feb 05 08:10	17° \approx 23'06	0.26908 AU	evening rise		2681 Aug 06 06:43	24° Ω 28'51	
inferior conj	2679 Feb 06 03:31	16° \approx 53'18	7°22'28			2681 Aug 10 18:19	0° $\mathring{\text{M}}$	
minimum elong	2679 Feb 05 17:30	17° \approx 08'43	7°20'38			2681 Sep 04 03:15	0° $\underline{\text{A}}$	
morning rise	2679 Feb 09 23:58	14° \approx 33'22				2681 Sep 28 13:07	0° $\mathring{\text{M}}$	
direct	2679 Feb 26 14:09	9° \approx 10'17		desc. node		2681 Oct 10 02:15	14° $\mathring{\text{M}}$ 09'43	
greatest brilliancy	2679 Mar 09 10:40	11° \approx 22'11	-4.6m			2681 Oct 23 00:54	0° A	

	2681 Nov 16 15:50	0°☾			2684 Apr 24 07:59	0°☿		
	2681 Dec 11 12:53	0°♊			2684 May 19 05:54	0°♋		
	2682 Jan 06 00:35	0°♌			2684 Jun 13 00:41	0°♍		
asc. node	2682 Jan 31 05:13	27°♌58'58			2684 Jul 07 16:46	0°☾		
	2682 Feb 02 03:17	0°☿		asc. node	2684 Jul 18 00:28	12°☾36'00		
evening max el	2682 Feb 06 20:46	4°☿52'24 46°58'31		morning set	2684 Aug 01 08:00	0°♌08'00		
	2682 Mar 07 20:28	0°♋			2684 Aug 01 05:23	0°♌		
greatest brilliancy	2682 Mar 15 12:23	4°♋22'05 -4.6m			2684 Aug 25 14:02	0°♍		
retrograde	2682 Mar 29 09:42	7°♋52'28		max. Earth dist.	2684 Sep 03 13:56	11°♍07'39 1.72900 AU		
evening set	2682 Apr 15 08:58	2°♋15'18						
	2682 Apr 19 00:27	30°♌☿		superior conj	2684 Sep 06 18:20	15°♍04'13 1°24'05		
inferior conj	2682 Apr 19 12:46	29°☿40'35 6°58'20		minimum elong	2684 Sep 06 15:44	14°♍56'11 1°24'03		
minimum elong	2682 Apr 19 22:31	29°☿25'13 6°56'33			2684 Sep 18 19:15	0°♎		
min. Earth dist.	2682 Apr 19 09:19	29°☿46'00 0.28246 AU			2684 Oct 12 22:21	0°♏		
morning rise	2682 Apr 24 12:28	26°☿37'43		evening rise	2684 Oct 13 22:01	1°♏13'39		
direct	2682 May 10 16:18	21°☿35'43			2684 Nov 06 00:36	0°♐		
greatest brilliancy	2682 May 22 09:11	24°☿04'20 -4.5m		desc. node	2684 Nov 06 14:11	0°♐42'17		
desc. node	2682 May 22 18:49	24°☿14'07			2684 Nov 30 02:51	0°☾		
	2682 Jun 02 10:11	0°♋			2684 Dec 24 05:57	0°♊		
morning max el	2682 Jun 28 14:08	21°♋42'33 45°47'08			2685 Jan 17 12:09	0°♌		
	2682 Jul 07 00:37	0°♍			2685 Feb 11 02:17	0°☿		
	2682 Aug 04 04:41	0°☾		asc. node	2685 Feb 27 17:12	19°☿50'43		
	2682 Aug 30 12:19	0°♌			2685 Mar 08 09:23	0°♋		
asc. node	2682 Sep 12 22:09	15°♌46'26			2685 Apr 04 04:21	0°♍		
	2682 Sep 24 19:47	0°♍		evening max el	2685 Apr 18 22:51	15°♍10'53 45°54'12		
	2682 Oct 19 11:24	0°♎			2685 May 05 06:28	0°☾		
	2682 Nov 12 16:50	0°♏		greatest brilliancy	2685 May 23 09:48	12°☾09'29 -4.5m		
	2682 Dec 06 16:31	0°♐		retrograde	2685 Jun 07 03:42	15°☾59'19		
morning set	2682 Dec 25 01:04	23°♐03'25		desc. node	2685 Jun 19 06:42	13°☾04'53		
	2682 Dec 30 13:34	0°☾		evening set	2685 Jun 22 05:38	11°☾34'56		
desc. node	2683 Jan 02 11:44	3°☾40'37		inferior conj	2685 Jun 28 15:36	7°☾44'21 -2°-11'-42		
	2683 Jan 23 09:53	0°♊		minimum elong	2685 Jun 28 10:52	7°☾51'46 2°10'21		
				min. Earth dist.	2685 Jun 28 11:46	7°☾50'21 0.28931 AU		
superior conj	2683 Feb 04 16:52	15°♊27'16 -1°-8'-56		morning rise	2685 Jul 04 16:09	4°☾06'20		
minimum elong	2683 Feb 04 05:16	14°♊50'50 1°08'36			2685 Jul 15 00:22	30°♌♍		
max. Earth dist.	2683 Feb 07 04:30	18°♊34'36 1.71226 AU		direct	2685 Jul 20 04:57	29°♍28'05		
	2683 Feb 16 06:47	0°♌			2685 Jul 25 13:10	0°☾		
	2683 Mar 12 05:43	0°☿		greatest brilliancy	2685 Aug 02 18:25	2°☾39'45 -4.5m		
evening rise	2683 Mar 17 12:21	6°☿35'06		morning max el	2685 Sep 07 01:55	29°☾20'37 45°51'37		
	2683 Apr 05 08:20	0°♋			2685 Sep 07 18:16	0°♌		
asc. node	2683 Apr 25 15:05	25°♋01'47			2685 Oct 06 09:14	0°♍		
	2683 Apr 29 16:15	0°♍		asc. node	2685 Oct 10 10:08	4°♍31'02		
	2683 May 24 06:52	0°☾			2685 Nov 01 11:08	0°♎		
	2683 Jun 18 06:07	0°♌			2685 Nov 26 09:36	0°♏		
	2683 Jul 13 17:58	0°♍			2685 Dec 20 18:21	0°♐		
	2683 Aug 09 03:21	0°♎			2686 Jan 13 20:40	0°☾		
desc. node	2683 Aug 15 04:20	6°♎38'43		desc. node	2686 Jan 29 23:30	20°☾08'57		
	2683 Sep 06 10:10	0°♏			2686 Feb 06 20:28	0°♊		
evening max el	2683 Sep 12 04:24	5°♏39'14 46°08'03			2686 Mar 02 19:56	0°♌		
	2683 Oct 12 04:53	0°♐		morning set	2686 Mar 12 03:52	11°♌39'36		
greatest brilliancy	2683 Oct 20 21:55	4°♐13'59 -4.6m			2686 Mar 26 20:37	0°☿		
retrograde	2683 Oct 31 12:12	6°♐17'07			2686 Apr 19 23:45	0°♋		
evening set	2683 Nov 15 17:37	1°♐49'50						
	2683 Nov 18 22:10	30°♌♏		superior conj	2686 Apr 20 14:21	0°♋45'16 -1°-7'-40		
inferior conj	2683 Nov 21 05:21	28°♏36'28 -3°-45'-44		minimum elong	2686 Apr 21 00:29	1°♋16'42 1°07'22		
minimum elong	2683 Nov 21 13:19	28°♏24'20 3°43'27		max. Earth dist.	2686 Apr 24 01:16	5°♋02'11 1.72626 AU		
min. Earth dist.	2683 Nov 21 22:07	28°♏10'54 0.26867 AU			2686 May 14 05:59	0°♍		
morning rise	2683 Nov 27 08:19	25°♏00'55		asc. node	2686 May 23 02:54	10°♍55'58		
asc. node	2683 Dec 06 07:36	21°♏27'34		evening rise	2686 May 28 18:50	17°♍53'58		
direct	2683 Dec 11 20:56	20°♏49'33			2686 Jun 07 15:18	0°☾		
greatest brilliancy	2683 Dec 25 04:05	24°♏04'53 -4.7m			2686 Jul 02 03:33	0°♌		
	2684 Jan 04 05:48	0°♐			2686 Jul 26 19:13	0°♍		
morning max el	2684 Jan 31 12:50	24°♐06'31 46°57'58			2686 Aug 20 15:54	0°♎		
	2684 Feb 06 05:46	0°☾		desc. node	2686 Sep 11 16:20	26°♎15'13		
	2684 Mar 04 10:22	0°♊			2686 Sep 14 20:20	0°♏		
desc. node	2684 Mar 26 21:22	26°♊07'45			2686 Oct 10 13:05	0°♐		
	2684 Mar 30 04:02	0°♌			2686 Nov 06 05:21	0°☾		

evening max el	2686 Nov 24 06:47	19°00'52	47°09'14		2689 Jun 22 10:20	0°00	
	2686 Dec 05 16:14	0°00					
greatest brilliancy	2687 Jan 01 19:11	19°00'28'40	-4.7m	superior conj	2689 Jun 29 02:07	8°00'10'46	0°22'20
asc. node	2687 Jan 02 19:27	19°00'54'05		minimum elong	2689 Jun 28 21:37	7°00'56'57	0°22'08
retrograde	2687 Jan 14 01:05	22°00'17'43		max. Earth dist.	2689 Jun 28 20:23	7°00'53'10	1.73555 AU
evening set	2687 Jan 29 20:13	17°00'19'57			2689 Jul 16 20:06	0°00	
min. Earth dist.	2687 Feb 02 20:40	14°00'55'42	0.26862 AU	evening rise	2689 Aug 04 01:30	22°00'25'10	
inferior conj	2687 Feb 03 16:12	14°00'25'38	7°08'36		2689 Aug 10 05:18	0°00	
minimum elong	2687 Feb 03 05:56	14°00'41'27	7°06'36		2689 Sep 03 14:28	0°00	
morning rise	2687 Feb 07 16:00	12°00'01'13			2689 Sep 28 00:41	0°00	
direct	2687 Feb 24 03:10	6°00'43'24		desc. node	2689 Oct 09 04:20	13°00'39'55	
greatest brilliancy	2687 Mar 06 22:58	8°00'55'19	-4.6m		2689 Oct 22 13:00	0°00	
	2687 Apr 06 00:07	0°00			2689 Nov 16 04:39	0°00	
morning max el	2687 Apr 15 00:30	8°00'34'36	46°27'07		2689 Dec 11 02:48	0°00	
desc. node	2687 Apr 24 09:06	18°00'02'47			2690 Jan 05 16:32	0°00	
	2687 May 05 15:31	0°00		asc. node	2690 Jan 30 07:21	27°00'31'05'9	
	2687 Jun 01 13:00	0°00			2690 Feb 02 00:20	0°00	
	2687 Jun 27 10:34	0°00		evening max el	2690 Feb 04 10:37	2°00'29'13	47°00'13
	2687 Jul 22 19:05	0°00			2690 Mar 09 05:17	0°00	
asc. node	2687 Aug 15 12:19	28°00'31'21		greatest brilliancy	2690 Mar 13 06:21	2°00'07'34	-4.6m
	2687 Aug 16 17:36	0°00		retrograde	2690 Mar 27 00:38	5°00'35'04	
	2687 Sep 10 07:16	0°00			2690 Apr 12 23:06	30°00'00'00	
	2687 Oct 04 13:42	0°00		evening set	2690 Apr 13 03:10	29°00'53'55	
morning set	2687 Oct 10 05:16	7°00'01'26		inferior conj	2690 Apr 17 03:55	27°00'23'43	7°11'18
	2687 Oct 28 15:11	0°00		minimum elong	2690 Apr 17 13:27	27°00'08'40	7°09'38
max. Earth dist.	2687 Nov 15 10:59	22°00'19'21	1.71513 AU	min. Earth dist.	2690 Apr 17 00:20	27°00'29'22	0.28212 AU
				morning rise	2690 Apr 22 00:04	24°00'25'41	
superior conj	2687 Nov 17 13:03	24°00'56'19	0°40'24	direct	2690 May 08 06:33	19°00'19'28	
minimum elong	2687 Nov 17 21:55	25°00'24'05	0°40'00	greatest brilliancy	2690 May 19 22:29	21°00'46'39	-4.5m
	2687 Nov 21 13:54	0°00		desc. node	2690 May 21 20:48	22°00'36'00	
desc. node	2687 Dec 05 01:58	16°00'27'00			2690 Jun 03 08:18	0°00	
	2687 Dec 15 11:23	0°00		morning max el	2690 Jun 26 04:07	19°00'25'55	45°47'58
evening rise	2687 Dec 28 05:26	16°00'01'03			2690 Jul 06 20:25	0°00	
	2688 Jan 08 08:41	0°00			2690 Aug 03 19:41	0°00	
	2688 Feb 01 07:05	0°00			2690 Aug 30 01:22	0°00	
	2688 Feb 25 08:49	0°00		asc. node	2690 Sep 12 00:18	15°00'15'48	
asc. node	2688 Mar 20 17:06	0°00			2690 Sep 24 07:53	0°00	
	2688 Mar 27 05:12	7°00'56'05			2690 Oct 18 23:01	0°00	
	2688 Apr 14 12:08	0°00			2690 Nov 12 04:12	0°00	
	2688 May 10 00:20	0°00			2690 Dec 06 03:48	0°00	
	2688 Jun 05 19:17	0°00		morning set	2690 Dec 22 11:44	20°00'27'30'41	
evening max el	2688 Jun 28 14:44	23°00'22'06	45°25'42		2690 Dec 30 00:49	0°00	
	2688 Jul 05 18:12	0°00		desc. node	2691 Jan 01 13:45	3°00'31'35	
desc. node	2688 Jul 16 18:34	9°00'13'47			2691 Jan 22 21:07	0°00	
greatest brilliancy	2688 Aug 03 15:03	20°00'11'13	-4.5m				
retrograde	2688 Aug 16 04:16	22°00'56'32		superior conj	2691 Feb 02 02:48	12°00'52'26	-1°-6'-26
evening set	2688 Sep 03 00:15	17°00'00'59		minimum elong	2691 Feb 01 14:56	12°00'15'10	1°06'05
inferior conj	2688 Sep 06 12:31	14°00'51'38	-8°-33'-32	max. Earth dist.	2691 Feb 04 06:08	15°00'33'47	1.71200 AU
minimum elong	2688 Sep 06 09:21	14°00'56'34	8°33'24		2691 Feb 15 18:00	0°00	
min. Earth dist.	2688 Sep 06 22:30	14°00'36'05	0.28721 AU		2691 Mar 11 16:54	0°00	
morning rise	2688 Sep 09 18:19	12°00'51'45		evening rise	2691 Mar 14 23:35	4°00'05'32	
direct	2688 Sep 28 01:13	6°00'37'41			2691 Apr 04 19:34	0°00	
greatest brilliancy	2688 Oct 12 11:31	10°00'20'05	-4.6m	asc. node	2691 Apr 24 17:04	24°00'33'00	
asc. node	2688 Nov 06 21:46	28°00'54'34			2691 Apr 29 03:37	0°00	
	2688 Nov 08 02:12	0°00			2691 May 23 18:34	0°00	
morning max el	2688 Nov 17 04:21	8°00'47'43	46°32'53		2691 Jun 17 18:27	0°00	
	2688 Dec 07 02:42	0°00			2691 Jul 13 07:26	0°00	
	2689 Jan 02 03:09	0°00		desc. node	2691 Aug 08 19:07	0°00	
	2689 Jan 27 02:17	0°00			2691 Aug 14 06:29	5°00'59'27	
	2689 Feb 20 14:58	0°00			2691 Sep 06 07:59	0°00	
desc. node	2689 Feb 26 11:30	7°00'11'57		evening max el	2691 Sep 09 16:52	3°00'16'50	46°05'56
	2689 Mar 16 23:31	0°00			2691 Oct 14 04:17	0°00	
	2689 Apr 10 07:02	0°00		greatest brilliancy	2691 Oct 18 10:16	1°00'27'49'31	-4.6m
	2689 May 04 15:09	0°00		retrograde	2691 Oct 29 00:40	3°00'27'52'56	
morning set	2689 May 23 02:18	22°00'43'17			2691 Nov 12 03:51	30°00'00'00	
	2689 May 29 00:24	0°00		evening set	2691 Nov 13 08:59	29°00'21'15	
asc. node	2689 Jun 19 14:40	26°00'32'11		inferior conj	2691 Nov 18 18:14	26°00'11'33	-4°-6'-48

minimum elong	2691 Nov 19 02:46	25° \mathbb{M} 58'33	4°04'24	max. Earth dist.	2694 Apr 21 17:35	2° \mathcal{C} 50'20	1.72578 AU
min. Earth dist.	2691 Nov 19 12:10	25° \mathbb{M} 44'14	0.26925 AU		2694 May 13 16:50	0° \mathbb{I}	
morning rise	2691 Nov 24 19:49	22° \mathbb{M} 37'58		asc. node	2694 May 22 04:52	10° \mathbb{I} 28'36	
asc. node	2691 Dec 05 09:33	18° \mathbb{M} 43'25		evening rise	2694 May 26 11:28	15° \mathbb{I} 44'11	
direct	2691 Dec 09 10:14	18° \mathbb{M} 23'21			2694 Jun 07 02:12	0° \mathcal{C}	
greatest brilliancy	2691 Dec 22 20:50	21° \mathbb{M} 42'48	-4.7m		2694 Jul 01 14:37	0° \mathcal{Q}	
	2692 Jan 05 03:40	0° \mathcal{X}			2694 Jul 26 06:39	0° \mathbb{M}	
morning max el	2692 Jan 29 03:03	21° \mathcal{X} 42'28	46°58'04		2694 Aug 20 03:58	0° \mathcal{A}	
	2692 Feb 06 02:29	0° \mathcal{C}		desc. node	2694 Sep 10 18:21	25° \mathcal{A} 43'01	
	2692 Mar 04 02:14	0° \approx			2694 Sep 14 09:25	0° \mathbb{M}	
desc. node	2692 Mar 25 23:23	25° \approx 32'24			2694 Oct 10 03:54	0° \mathcal{X}	
	2692 Mar 29 17:50	0° \mathcal{H}			2694 Nov 05 23:42	0° \mathcal{C}	
	2692 Apr 23 20:37	0° \mathcal{V}		evening max el	2694 Nov 21 21:53	16° \mathcal{C} 40'18	47°08'05
	2692 May 18 17:47	0° \mathcal{B}			2694 Dec 05 22:16	0° \approx	
	2692 Jun 12 12:06	0° \mathbb{I}		greatest brilliancy	2694 Dec 30 09:35	17° \approx 02'58	-4.7m
	2692 Jul 07 03:53	0° \mathcal{C}		asc. node	2695 Jan 01 21:32	18° \approx 02'02	
asc. node	2692 Jul 17 02:33	12° \mathcal{C} 08'42		retrograde	2695 Jan 11 14:45	19° \approx 50'22	
morning set	2692 Jul 30 01:40	28° \mathcal{C} 01'20		evening set	2695 Jan 27 05:27	14° \approx 58'47	
	2692 Jul 31 16:20	0° \mathcal{Q}		min. Earth dist.	2695 Jan 31 09:29	12° \approx 29'16	0.26814 AU
	2692 Aug 25 00:55	0° \mathbb{M}		inferior conj	2695 Feb 01 05:02	11° \approx 59'11	6°53'56
max. Earth dist.	2692 Sep 01 10:23	9° \mathbb{M} 08'40	1.72941 AU	minimum elong	2695 Jan 31 18:34	12° \approx 15'17	6°51'48
				morning rise	2695 Feb 05 08:07	9° \approx 30'08	
superior conj	2692 Sep 04 11:50	12° \mathbb{M} 56'02	1°23'33	direct	2695 Feb 21 16:14	4° \approx 17'57	
minimum elong	2692 Sep 04 08:34	12° \mathbb{M} 45'56	1°23'31	greatest brilliancy	2695 Mar 04 10:58	6° \approx 29'06	-4.6m
	2692 Sep 18 06:09	0° \mathcal{A}			2695 Apr 06 02:59	0° \mathcal{H}	
evening rise	2692 Oct 11 13:11	28° \mathcal{A} 57'15		morning max el	2695 Apr 12 14:08	6° \mathcal{H} 13'28	46°28'30
	2692 Oct 12 09:22	0° \mathbb{M}		desc. node	2695 Apr 23 11:06	17° \mathcal{H} 16'49	
	2692 Nov 05 11:49	0° \mathcal{X}			2695 May 05 08:44	0° \mathcal{V}	
desc. node	2692 Nov 05 16:09	0° \mathcal{X} 13'28			2695 Jun 01 03:06	0° \mathcal{B}	
	2692 Nov 29 14:19	0° \mathcal{C}			2695 Jun 26 23:09	0° \mathbb{I}	
	2692 Dec 23 17:45	0° \approx			2695 Jul 22 06:48	0° \mathcal{C}	
	2693 Jan 17 00:24	0° \mathcal{H}		asc. node	2695 Aug 14 14:27	28° \mathcal{C} 03'48	
	2693 Feb 10 15:18	0° \mathcal{V}			2695 Aug 16 04:47	0° \mathcal{Q}	
asc. node	2693 Feb 26 19:14	19° \mathcal{V} 15'52			2695 Sep 09 18:12	0° \mathbb{M}	
	2693 Mar 07 23:53	0° \mathcal{B}			2695 Oct 04 00:32	0° \mathcal{A}	
	2693 Apr 03 22:26	0° \mathbb{I}		morning set	2695 Oct 07 20:43	4° \mathcal{A} 46'33	
evening max el	2693 Apr 16 14:39	12° \mathbb{I} 58'04	45°56'20		2695 Oct 28 02:01	0° \mathbb{M}	
	2693 May 05 15:59	0° \mathcal{C}		max. Earth dist.	2695 Nov 12 18:03	19° \mathbb{M} 37'02	1.71552 AU
greatest brilliancy	2693 May 21 01:04	9° \mathcal{C} 58'10	-4.5m				
retrograde	2693 Jun 04 20:43	13° \mathcal{C} 49'42		superior conj	2695 Nov 15 01:45	22° \mathbb{M} 31'33	0°43'39
desc. node	2693 Jun 18 08:42	10° \mathcal{C} 14'13		minimum elong	2695 Nov 15 11:02	23° \mathbb{M} 00'38	0°43'14
evening set	2693 Jun 19 21:40	9° \mathcal{C} 25'26			2695 Nov 21 00:48	0° \mathcal{X}	
inferior conj	2693 Jun 26 07:49	5° \mathcal{C} 34'28	-1°-52'-17	desc. node	2695 Dec 04 04:01	16° \mathcal{X} 29'08	
minimum elong	2693 Jun 26 03:45	5° \mathcal{C} 40'50	1°51'07		2695 Dec 14 22:21	0° \mathcal{C}	
min. Earth dist.	2693 Jun 26 03:46	5° \mathcal{C} 40'47	0.28916 AU	evening rise	2695 Dec 25 16:02	13° \mathcal{C} 29'02	
morning rise	2693 Jul 02 10:00	1° \mathcal{C} 54'32			2696 Jan 07 19:42	0° \approx	
	2693 Jul 06 04:40	30° \mathcal{R} \mathbb{I}			2696 Jan 31 18:12	0° \mathcal{H}	
direct	2693 Jul 17 21:17	27° \mathbb{I} 18'23			2696 Feb 24 20:06	0° \mathcal{V}	
	2693 Jul 30 05:58	0° \mathcal{C}			2696 Mar 20 04:42	0° \mathcal{B}	
greatest brilliancy	2693 Jul 31 09:42	0° \mathcal{C} 29'33	-4.5m	asc. node	2696 Mar 26 07:09	7° \mathcal{B} 26'20	
morning max el	2693 Sep 04 18:33	27° \mathcal{C} 11'43	45°50'41		2696 Apr 14 00:22	0° \mathbb{I}	
	2693 Sep 07 15:54	0° \mathcal{Q}			2696 May 09 13:51	0° \mathcal{C}	
	2693 Oct 06 00:43	0° \mathbb{M}			2696 Jun 05 11:47	0° \mathcal{Q}	
asc. node	2693 Oct 09 12:03	3° \mathbb{M} 53'58		evening max el	2696 Jun 26 05:38	21° \mathcal{Q} 09'23	45°25'23
	2693 Nov 01 00:27	0° \mathcal{A}			2696 Jul 05 20:52	0° \mathbb{M}	
	2693 Nov 25 21:55	0° \mathbb{M}		desc. node	2696 Jul 15 20:45	8° \mathbb{M} 08'46	
	2693 Dec 20 06:08	0° \mathcal{X}		greatest brilliancy	2696 Aug 01 04:43	17° \mathbb{M} 58'15	-4.5m
	2694 Jan 13 08:08	0° \mathcal{C}		retrograde	2696 Aug 13 18:49	20° \mathbb{M} 44'59	
desc. node	2694 Jan 29 01:40	19° \mathcal{C} 40'26		evening set	2696 Aug 31 13:20	14° \mathbb{M} 52'45	
	2694 Feb 06 07:42	0° \approx		inferior conj	2696 Sep 04 04:04	12° \mathbb{M} 39'38	-8°-29'-33
	2694 Mar 02 07:01	0° \mathcal{H}		minimum elong	2696 Sep 04 00:08	12° \mathbb{M} 45'45	8°29'21
morning set	2694 Mar 09 15:25	9° \mathcal{H} 11'13		min. Earth dist.	2696 Sep 04 13:26	12° \mathbb{M} 25'01	0.28760 AU
	2694 Mar 26 07:35	0° \mathcal{V}		morning rise	2696 Sep 07 10:47	10° \mathbb{M} 38'06	
				direct	2696 Sep 25 16:43	4° \mathbb{M} 25'12	
superior conj	2694 Apr 18 04:34	28° \mathcal{V} 26'43	-1°-9'-49	greatest brilliancy	2696 Oct 10 02:33	8° \mathbb{M} 05'53	-4.6m
minimum elong	2694 Apr 18 14:33	28° \mathcal{V} 57'42	1°09'33	asc. node	2696 Nov 05 23:49	27° \mathbb{M} 58'35	
	2694 Apr 19 10:39	0° \mathcal{B}			2696 Nov 08 03:35	0° \mathcal{A}	

morning max el	2696 Nov 14 18:01	6° Ω 26'49	46°31'18		2699 Jun 17 06:20	0° Ω	
	2696 Dec 06 19:26	0° \mathbb{M}			2699 Jul 12 20:31	0° \mathbb{M}	
	2697 Jan 01 17:10	0° \mathcal{Z}			2699 Aug 08 10:42	0° Ω	
	2697 Jan 26 15:01	0° \mathcal{Z}		desc. node	2699 Aug 13 08:27	5° Ω 20'29	
	2697 Feb 20 02:56	0° \approx			2699 Sep 06 06:16	0° \mathbb{M}	
desc. node	2697 Feb 25 13:29	6° \approx 41'42		evening max el	2699 Sep 07 06:24	0° \mathbb{M} 58'11	46°03'39
	2697 Mar 16 10:58	0° \mathcal{H}		greatest brilliancy	2699 Oct 15 21:46	29° \mathbb{M} 25'07	-4.6m
	2697 Apr 09 18:06	0° \mathcal{Y}			2699 Oct 17 14:10	0° \mathcal{Z}	
	2697 May 04 01:56	0° \mathcal{B}		retrograde	2699 Oct 26 13:31	1° \mathcal{Z} 29'33	
morning set	2697 May 20 19:19	20° \mathcal{B} 35'21			2699 Nov 04 04:32	30° $\mathbb{R}\mathbb{M}$	
	2697 May 28 11:00	0° \mathbb{I}		evening set	2699 Nov 11 00:26	26° \mathbb{M} 53'23	
asc. node	2697 Jun 18 16:47	26° \mathbb{I} 06'22		inferior conj	2699 Nov 16 07:03	23° \mathbb{M} 47'20	-4°-27'-16
	2697 Jun 21 20:51	0° \mathcal{E}		minimum elong	2699 Nov 16 16:06	23° \mathbb{M} 33'34	4°24'47
				min. Earth dist.	2699 Nov 17 01:49	23° \mathbb{M} 18'47	0.26986 AU
superior conj	2697 Jun 26 20:11	6° \mathcal{E} 06'34	0°19'16	morning rise	2699 Nov 22 07:03	20° \mathbb{M} 16'08	
minimum elong	2697 Jun 26 16:17	5° \mathcal{E} 54'33	0°19'04	asc. node	2699 Dec 04 11:40	16° \mathbb{M} 05'52	
max. Earth dist.	2697 Jun 26 15:54	5° \mathcal{E} 53'22	1.73551 AU	direct	2699 Dec 07 00:03	15° \mathbb{M} 58'02	
	2697 Jul 16 06:38	0° Ω		greatest brilliancy	2699 Dec 20 12:48	19° \mathbb{M} 20'39	-4.7m
evening rise	2697 Aug 01 20:11	20° Ω 22'21			2700 Jan 05 19:33	0° \mathcal{Z}	
	2697 Aug 09 15:58	0° \mathbb{M}		morning max el	2700 Jan 26 18:02	19° \mathcal{Z} 21'23	46°58'08
	2697 Sep 03 01:22	0° Ω			2700 Feb 05 22:14	0° \mathcal{Z}	
	2697 Sep 27 11:56	0° \mathbb{M}			2700 Mar 04 17:32	0° \approx	
desc. node	2697 Oct 08 06:15	13° \mathbb{M} 10'40		desc. node	2700 Mar 26 01:20	24° \approx 58'05	
	2697 Oct 22 00:46	0° \mathcal{Z}			2700 Mar 30 07:10	0° \mathcal{H}	
	2697 Nov 15 17:11	0° \mathcal{Z}			2700 Apr 24 08:51	0° \mathcal{Y}	
	2697 Dec 10 16:30	0° \approx			2700 May 19 05:18	0° \mathcal{B}	
	2698 Jan 05 08:21	0° \mathcal{H}			2700 Jun 12 23:09	0° \mathbb{I}	
asc. node	2698 Jan 29 09:27	26° \mathcal{H} 23'24			2700 Jul 07 14:37	0° \mathcal{E}	
	2698 Feb 01 21:39	0° \mathcal{Y}		asc. node	2700 Jul 17 04:38	11° \mathcal{E} 42'35	
evening max el	2698 Feb 02 00:09	0° \mathcal{Y} 06'21	47°02'01	morning set	2700 Jul 28 19:49	25° \mathcal{E} 57'23	
greatest brilliancy	2698 Mar 10 23:39	29° \mathcal{Y} 53'34	-4.6m		2700 Aug 01 02:53	0° Ω	
	2698 Mar 11 05:09	0° \mathcal{B}			2700 Aug 25 11:25	0° \mathbb{M}	
retrograde	2698 Mar 24 15:49	3° \mathcal{B} 19'32		max. Earth dist.	2700 Aug 31 07:10	7° \mathbb{M} 11'54	1.72984 AU
	2698 Apr 06 12:11	30° $\mathbb{R}\mathcal{Y}$					
evening set	2698 Apr 10 21:25	27° \mathcal{Y} 34'16		superior conj	2700 Sep 03 05:40	10° \mathbb{M} 50'01	1°22'54
inferior conj	2698 Apr 14 19:13	25° \mathcal{Y} 08'41	7°23'27	minimum elong	2700 Sep 03 01:47	10° \mathbb{M} 37'59	1°22'52
minimum elong	2698 Apr 15 04:28	24° \mathcal{Y} 54'05	7°21'56		2700 Sep 18 16:45	0° Ω	
min. Earth dist.	2698 Apr 14 15:27	25° \mathcal{Y} 14'37	0.28174 AU	evening rise	2700 Oct 10 04:34	26° Ω 42'18	
morning rise	2698 Apr 19 11:47	22° \mathcal{Y} 15'48			2700 Oct 12 20:09	0° \mathbb{M}	
direct	2698 May 05 20:34	17° \mathcal{Y} 04'57		desc. node	2700 Nov 05 18:14	29° \mathbb{M} 45'40	
greatest brilliancy	2698 May 17 12:21	19° \mathcal{Y} 31'34	-4.5m		2700 Nov 05 22:51	0° \mathcal{Z}	
desc. node	2698 May 20 22:49	21° \mathcal{Y} 03'18			2700 Nov 30 01:37	0° \mathcal{Z}	
	2698 Jun 03 23:48	0° \mathcal{B}			2700 Dec 24 05:22	0° \approx	
morning max el	2698 Jun 23 18:44	17° \mathcal{B} 12'27	45°48'47		2701 Jan 17 12:29	0° \mathcal{H}	
	2698 Jul 06 15:01	0° \mathbb{I}			2701 Feb 11 04:11	0° \mathcal{Y}	
	2698 Aug 03 09:58	0° \mathcal{E}		asc. node	2701 Feb 26 21:11	18° \mathcal{Y} 41'12	
	2698 Aug 29 13:54	0° Ω			2701 Mar 08 14:19	0° \mathcal{B}	
asc. node	2698 Sep 11 02:12	14° Ω 45'45			2701 Apr 04 16:41	0° \mathbb{I}	
	2698 Sep 23 19:34	0° \mathbb{M}		evening max el	2701 Apr 15 07:23	10° \mathbb{I} 48'16	45°58'30
	2698 Oct 18 10:15	0° Ω			2701 May 07 04:20	0° \mathcal{E}	
	2698 Nov 11 15:13	0° \mathbb{M}		greatest brilliancy	2701 May 19 17:46	7° \mathcal{E} 49'47	-4.5m
	2698 Dec 05 14:42	0° \mathcal{Z}		retrograde	2701 Jun 03 13:51	11° \mathcal{E} 41'13	
morning set	2698 Dec 19 22:27	17° \mathcal{Z} 59'13		desc. node	2701 Jun 18 10:51	7° \mathcal{E} 21'42	
	2698 Dec 29 11:42	0° \mathcal{Z}		evening set	2701 Jun 18 14:07	7° \mathcal{E} 17'14	
desc. node	2698 Dec 31 15:51	2° \mathcal{Z} 44'01		inferior conj	2701 Jun 25 00:14	3° \mathcal{E} 25'56	-1°-32'-50
	2699 Jan 22 07:59	0° \approx		minimum elong	2701 Jun 24 20:51	3° \mathcal{E} 31'14	1°31'52
				min. Earth dist.	2701 Jun 24 19:57	3° \mathcal{E} 32'38	0.28895 AU
superior conj	2699 Jan 30 12:36	10° \approx 18'17	-1°-3'-48		2701 Jun 30 16:31	30° $\mathbb{R}\mathbb{I}$	
minimum elong	2699 Jan 30 00:35	9° \approx 40'32	1°03'25	morning rise	2701 Jul 01 03:52	29° \mathbb{I} 44'11	
max. Earth dist.	2699 Feb 01 08:36	12° \approx 36'37	1.71179 AU	direct	2701 Jul 16 14:01	25° \mathbb{I} 10'19	
	2699 Feb 15 04:50	0° \mathcal{H}		greatest brilliancy	2701 Jul 29 23:50	28° \mathbb{I} 19'16	-4.5m
	2699 Mar 11 03:44	0° \mathcal{Y}			2701 Aug 02 11:11	0° \mathcal{E}	
evening rise	2699 Mar 12 10:52	1° \mathcal{Y} 37'11		morning max el	2701 Sep 03 10:56	25° \mathcal{E} 03'27	45°49'44
	2699 Apr 04 06:24	0° \mathcal{B}			2701 Sep 08 12:20	0° Ω	
asc. node	2699 Apr 23 19:05	24° \mathcal{B} 05'37			2701 Oct 06 15:39	0° \mathbb{M}	
	2699 Apr 28 14:35	0° \mathbb{I}		asc. node	2701 Oct 09 14:08	3° \mathbb{M} 18'37	
	2699 May 23 05:51	0° \mathcal{E}			2701 Nov 01 13:26	0° Ω	

	2701 Nov 26 10:02	0°♌		desc. node	2704 Jul 15 22:42	7°♐01'13	
	2701 Dec 20 17:49	0°♏		greatest brilliancy	2704 Jul 30 17:38	15°♐44'11	-4.5m
	2702 Jan 13 19:32	0°♐		retrograde	2704 Aug 12 09:39	18°♐33'43	
desc. node	2702 Jan 29 03:41	19°♐11'30		evening set	2704 Aug 30 02:20	12°♐44'49	
	2702 Feb 06 18:53	0°♑		inferior conj	2704 Sep 02 19:47	10°♐27'47	-8°-24'-53
	2702 Mar 02 18:01	0°♒		minimum elong	2704 Sep 02 15:07	10°♐35'04	8°24'36
morning set	2702 Mar 08 02:35	6°♒41'51		min. Earth dist.	2704 Sep 03 04:38	10°♐14'00	0.28793 AU
	2702 Mar 26 18:28	0°♓		morning rise	2704 Sep 06 03:42	8°♐24'23	
				direct	2704 Sep 24 08:11	2°♐12'44	
superior conj	2702 Apr 16 18:32	26°♑07'38	-1°-11'-53	greatest brilliancy	2704 Oct 08 18:37	5°♐53'09	-4.6m
minimum elong	2702 Apr 17 04:18	26°♑37'57	1°11'38	asc. node	2704 Nov 06 01:52	27°♐03'43	
	2702 Apr 19 21:26	0°♒			2704 Nov 09 03:47	0°♑	
max. Earth dist.	2702 Apr 20 11:24	0°♒43'17	1.72525 AU	morning max el	2704 Nov 13 08:05	4°♑06'57	46°29'54
	2702 May 14 03:36	0°♓			2704 Dec 07 11:54	0°♌	
asc. node	2702 May 22 07:01	10°♓02'03			2705 Jan 02 07:09	0°♏	
evening rise	2702 May 25 04:01	13°♓34'21			2705 Jan 27 03:50	0°♐	
	2702 Jun 07 13:00	0°♑			2705 Feb 20 15:06	0°♑	
	2702 Jul 02 01:35	0°♒		desc. node	2705 Feb 25 15:27	6°♑10'36	
	2702 Jul 26 17:58	0°♓			2705 Mar 16 22:43	0°♒	
	2702 Aug 20 15:54	0°♑			2705 Apr 10 05:31	0°♓	
desc. node	2702 Sep 10 20:21	25°♑11'09			2705 May 04 13:05	0°♒	
	2702 Sep 14 22:25	0°♌		morning set	2705 May 19 11:44	18°♒24'22	
	2702 Oct 10 18:44	0°♏			2705 May 28 21:56	0°♓	
evening max el	2702 Nov 06 18:27	0°♐		asc. node	2705 Jun 18 18:47	25°♓39'10	
	2702 Nov 20 12:23	14°♐18'09	47°06'25		2705 Jun 22 07:41	0°♑	
	2702 Dec 07 06:51	0°♑					
greatest brilliancy	2702 Dec 29 00:38	14°♑37'01	-4.7m	superior conj	2705 Jun 25 13:54	4°♑00'16	0°16'08
asc. node	2703 Jan 01 23:37	16°♑04'19		minimum elong	2705 Jun 25 10:36	3°♑50'06	0°15'58
retrograde	2703 Jan 10 03:37	17°♑21'24		max. Earth dist.	2705 Jun 25 11:17	3°♑52'14	1.73543 AU
evening set	2703 Jan 25 14:27	12°♑36'06			2705 Jul 16 17:29	0°♒	
min. Earth dist.	2703 Jan 29 22:35	10°♑00'38	0.26770 AU	evening rise	2705 Jul 31 14:51	18°♒18'36	
inferior conj	2703 Jan 30 17:34	9°♑31'24	6°38'16		2705 Aug 10 02:56	0°♓	
minimum elong	2703 Jan 30 06:59	9°♑47'42	6°35'59		2705 Sep 03 12:35	0°♑	
morning rise	2703 Feb 03 23:56	6°♑57'28			2705 Sep 27 23:30	0°♌	
direct	2703 Feb 20 04:38	1°♑51'01		desc. node	2705 Oct 08 08:23	12°♌41'10	
greatest brilliancy	2703 Mar 02 23:47	4°♑02'19	-4.6m		2705 Oct 22 12:50	0°♏	
	2703 Apr 07 04:41	0°♒			2705 Nov 16 05:59	0°♐	
morning max el	2703 Apr 11 02:35	3°♒48'31	46°30'03		2705 Dec 11 06:29	0°♑	
desc. node	2703 Apr 23 13:12	16°♒31'21			2706 Jan 06 00:36	0°♒	
	2703 May 06 01:45	0°♓		asc. node	2706 Jan 29 11:20	25°♒33'47	
	2703 Jun 01 17:07	0°♒		evening max el	2706 Jan 31 13:49	27°♒43'01	47°03'32
	2703 Jun 27 11:41	0°♓			2706 Feb 02 20:05	0°♓	
	2703 Jul 22 18:29	0°♑		greatest brilliancy	2706 Mar 09 15:34	27°♓36'11	-4.6m
asc. node	2703 Aug 14 16:20	27°♑35'31			2706 Mar 15 23:51	0°♒	
	2703 Aug 16 15:59	0°♒		retrograde	2706 Mar 23 07:06	1°♒02'10	
	2703 Sep 10 05:08	0°♓			2706 Mar 30 09:15	30°♒♓	
	2703 Oct 04 11:22	0°♑		evening set	2706 Apr 09 15:23	25°♓12'28	
morning set	2703 Oct 06 12:48	2°♑33'38		inferior conj	2706 Apr 13 10:17	22°♓51'31	7°34'59
	2703 Oct 28 12:51	0°♌		minimum elong	2706 Apr 13 19:12	22°♓37'29	7°33'37
max. Earth dist.	2703 Nov 11 03:17	17°♌01'34	1.71596 AU	min. Earth dist.	2706 Apr 13 06:12	22°♓57'58	0.28144 AU
				morning rise	2706 Apr 17 23:14	20°♓04'06	
superior conj	2703 Nov 13 15:07	20°♌09'02	0°46'45	direct	2706 May 04 10:36	14°♓48'04	
minimum elong	2703 Nov 14 00:45	20°♌39'11	0°46'21	greatest brilliancy	2706 May 16 02:31	17°♓14'50	-4.5m
	2703 Nov 21 11:42	0°♏		desc. node	2706 May 21 00:56	19°♓32'07	
desc. node	2703 Dec 04 06:09	16°♏01'21			2706 Jun 05 12:10	0°♒	
	2703 Dec 15 09:22	0°♐		morning max el	2706 Jun 22 10:08	14°♒59'09	45°49'42
evening rise	2703 Dec 24 02:55	10°♐57'43			2706 Jul 07 09:44	0°♓	
	2704 Jan 08 06:52	0°♑			2706 Aug 04 00:35	0°♑	
	2704 Feb 01 05:33	0°♒			2706 Aug 30 02:47	0°♒	
	2704 Feb 25 07:39	0°♓		asc. node	2706 Sep 11 04:17	14°♒15'07	
	2704 Mar 20 16:35	0°♒			2706 Sep 24 07:35	0°♓	
asc. node	2704 Mar 26 09:12	6°♒56'01			2706 Oct 18 21:49	0°♑	
	2704 Apr 14 12:55	0°♓			2706 Nov 12 02:33	0°♌	
	2704 May 10 03:45	0°♑			2706 Dec 06 01:55	0°♏	
	2704 Jun 06 04:51	0°♒		morning set	2706 Dec 18 09:48	15°♏28'55	
evening max el	2704 Jun 24 19:59	18°♒54'49	45°25'19		2706 Dec 29 22:52	0°♐	
	2704 Jul 07 01:30	0°♓		desc. node	2706 Dec 31 17:51	2°♐15'14	

	2707 Jan 22 19:07	0°♊			2709 Jun 24 17:31	30°♊	
			morning rise		2709 Jun 28 21:31	27°♊32'39	
superior conj	2707 Jan 28 22:48	7°♊44'32 -1°-1'-3	direct		2709 Jul 14 06:38	23°♊01'08	
minimum elong	2707 Jan 28 10:45	7°♊06'38 1°00'38	greatest brilliancy		2709 Jul 27 13:28	26°♊06'59 -4.5m	
max. Earth dist.	2707 Jan 30 15:40	9°♊53'00 1.71160 AU			2709 Aug 03 22:34	0°♊	
	2707 Feb 15 15:57	0°♋	morning max el		2709 Sep 01 02:35	22°♊52'09 45°48'46	
evening rise	2707 Mar 10 22:23	29°♋08'38			2709 Sep 08 08:35	0°♋	
	2707 Mar 11 14:51	0°♌			2709 Oct 06 06:47	0°♌	
	2707 Apr 04 17:36	0°♍	asc. node		2709 Oct 08 16:15	2°♌42'29	
asc. node	2707 Apr 23 21:11	23°♍37'12			2709 Nov 01 02:41	0°♍	
	2707 Apr 29 01:59	0°♎			2709 Nov 25 22:24	0°♎	
	2707 May 23 17:37	0°♏			2709 Dec 20 05:43	0°♏	
	2707 Jun 17 18:46	0°♐			2710 Jan 13 07:08	0°♐	
	2707 Jul 13 10:13	0°♑	desc. node		2710 Jan 28 05:38	18°♐41'43	
	2707 Aug 09 03:03	0°♒			2710 Feb 06 06:17	0°♒	
desc. node	2707 Aug 13 10:28	4°♒39'49			2710 Mar 02 05:15	0°♓	
evening max el	2707 Sep 05 20:39	28°♒40'11 46°01'31	morning set		2710 Mar 05 13:46	4°♓11'49	
	2707 Sep 07 06:04	0°♔			2710 Mar 26 05:33	0°♔	
greatest brilliancy	2707 Oct 14 09:08	26°♔59'53 -4.6m					
retrograde	2707 Oct 25 02:32	29°♔05'10	superior conj		2710 Apr 14 08:39	23°♔48'21 -1°-13'-49	
evening set	2707 Nov 09 16:05	24°♔24'41	minimum elong		2710 Apr 14 18:07	24°♔17'42 1°13'35	
inferior conj	2707 Nov 14 19:53	21°♔22'12 -4°-47'-12	max. Earth dist.		2710 Apr 18 05:42	28°♔37'08 1.72468 AU	
minimum elong	2707 Nov 15 05:22	21°♔07'46 4°44'41			2710 Apr 19 08:25	0°♕	
min. Earth dist.	2707 Nov 15 15:12	20°♔52'49 0.27045 AU			2710 May 13 14:31	0°♖	
morning rise	2707 Nov 20 18:02	17°♔53'36	asc. node		2710 May 21 09:01	9°♖34'32	
asc. node	2707 Dec 04 13:42	13°♔33'20	evening rise		2710 May 22 20:38	11°♖24'09	
direct	2707 Dec 05 14:12	13°♔32'02			2710 Jun 06 23:59	0°♗	
greatest brilliancy	2707 Dec 19 03:50	16°♔56'21 -4.7m			2710 Jul 01 12:47	0°♘	
	2708 Jan 07 07:52	0°♙			2710 Jul 26 05:34	0°♙	
morning max el	2708 Jan 25 09:04	16°♙59'32 46°58'14			2710 Aug 20 04:12	0°♚	
	2708 Feb 06 17:43	0°♛	desc. node		2710 Sep 09 22:27	24°♚38'33	
	2708 Mar 04 08:52	0°♜			2710 Sep 14 11:48	0°♛	
desc. node	2708 Mar 25 03:30	24°♜23'53			2710 Oct 10 10:04	0°♞	
	2708 Mar 29 20:39	0°♝			2710 Nov 06 13:59	0°♟	
	2708 Apr 23 21:17	0°♞	evening max el		2710 Nov 18 01:58	11°♟53'06 47°04'52	
	2708 May 18 17:06	0°♟			2710 Dec 07 18:38	0°♠	
	2708 Jun 12 10:33	0°♠	greatest brilliancy		2710 Dec 26 16:01	12°♠11'04 -4.7m	
	2708 Jul 07 01:45	0°♡	asc. node		2711 Jan 01 01:33	14°♠01'21	
asc. node	2708 Jul 16 06:35	11°♡14'47	retrograde		2711 Jan 07 15:56	14°♠52'14	
morning set	2708 Jul 26 13:40	23°♡51'17	evening set		2711 Jan 22 23:41	10°♠12'48	
	2708 Jul 31 13:51	0°♢	min. Earth dist.		2711 Jan 27 12:07	7°♠31'20 0.26727 AU	
	2708 Aug 24 22:20	0°♣	inferior conj		2711 Jan 28 06:11	7°♠03'29 6°21'51	
max. Earth dist.	2708 Aug 29 01:51	5°♣07'29 1.73023 AU	minimum elong		2711 Jan 27 19:35	7°♠19'50 6°19'26	
			morning rise		2711 Feb 01 15:50	4°♠24'41	
superior conj	2708 Aug 31 23:15	8°♣42'03 1°22'08			2711 Feb 12 06:00	30°♠	
minimum elong	2708 Aug 31 18:46	8°♣28'12 1°22'05	direct		2711 Feb 17 16:38	29°♠23'41	
	2708 Sep 18 03:43	0°♤			2711 Feb 23 06:28	0°♠	
evening rise	2708 Oct 07 19:47	24°♤25'50	greatest brilliancy		2711 Feb 28 13:46	1°♠36'26 -4.6m	
	2708 Oct 12 07:17	0°♥			2711 Apr 07 05:14	0°♋	
desc. node	2708 Nov 04 20:18	29°♥16'42	morning max el		2711 Apr 08 14:41	1°♋22'13 46°31'41	
	2708 Nov 05 10:13	0°♦	desc. node		2711 Apr 22 15:15	15°♋46'08	
	2708 Nov 29 13:16	0°♧			2711 May 05 18:30	0°♌	
	2708 Dec 23 17:20	0°♨			2711 Jun 01 07:04	0°♍	
	2709 Jan 17 00:56	0°♩			2711 Jun 27 00:13	0°♎	
	2709 Feb 10 17:25	0°♪			2711 Jul 22 06:12	0°♏	
asc. node	2709 Feb 25 23:18	18°♪06'10	asc. node		2711 Aug 13 18:28	27°♏07'43	
	2709 Mar 08 05:10	0°♫			2711 Aug 16 03:15	0°♐	
	2709 Apr 04 11:40	0°♬			2711 Sep 09 16:11	0°♑	
evening max el	2709 Apr 12 23:55	8°♬37'12 46°00'33			2711 Oct 03 22:21	0°♒	
	2709 May 07 21:25	0°♭	morning set		2711 Oct 04 04:40	0°♓19'37	
greatest brilliancy	2709 May 17 11:08	5°♭41'19 -4.5m			2711 Oct 27 23:51	0°♔	
retrograde	2709 Jun 01 06:26	9°♭31'33	max. Earth dist.		2711 Nov 08 13:30	14°♔28'45 1.71641 AU	
evening set	2709 Jun 16 06:43	5°♭07'47					
desc. node	2709 Jun 17 12:48	4°♭25'23	superior conj		2711 Nov 11 04:18	17°♔45'27 0°49'46	
inferior conj	2709 Jun 22 16:37	1°♭16'20 -1°-13'-13	minimum elong		2711 Nov 11 14:13	18°♔16'30 0°49'23	
minimum elong	2709 Jun 22 13:56	1°♭20'32 1°12'26			2711 Nov 20 22:45	0°♕	
min. Earth dist.	2709 Jun 22 12:21	1°♭23'02 0.28878 AU	desc. node		2711 Dec 03 08:06	15°♕32'40	

	2711 Dec 14 20:29	0°☾		morning max el	2714 Jun 20 02:14	12°☾48'23	45°50'38
evening rise	2711 Dec 21 13:39	8°☾25'43			2714 Jul 07 03:40	0°☿	
	2712 Jan 07 18:07	0°☿			2714 Aug 03 14:44	0°☿	
	2712 Jan 31 16:56	0°☿			2714 Aug 29 15:17	0°☿	
	2712 Feb 24 19:15	0°☿		asc. node	2714 Sep 10 06:24	13°☿45'41	
	2712 Mar 20 04:32	0°☿			2714 Sep 23 19:15	0°☿	
asc. node	2712 Mar 25 11:18	6°☿25'44			2714 Oct 18 09:03	0°☿	
	2712 Apr 14 01:32	0°☿			2714 Nov 11 13:35	0°☿	
	2712 May 09 17:46	0°☿			2714 Dec 05 12:54	0°☿	
	2712 Jun 05 22:14	0°☿		morning set	2714 Dec 15 21:07	12°☿59'10	
evening max el	2712 Jun 22 10:24	16°☿40'44	45°25'24		2714 Dec 29 09:51	0°☿	
	2712 Jul 07 08:03	0°☿		desc. node	2714 Dec 30 19:54	1°☿47'07	
desc. node	2712 Jul 15 00:44	5°☿52'20			2715 Jan 22 06:05	0°☿	
greatest brilliancy	2712 Jul 28 05:20	13°☿29'11	-4.5m				
retrograde	2712 Aug 10 01:00	16°☿23'08		superior conj	2715 Jan 26 08:28	5°☿09'26	0°-58'-7
evening set	2712 Aug 27 15:11	10°☿37'30		minimum elong	2715 Jan 25 20:29	4°☿31'45	0°57'41
inferior conj	2712 Aug 31 11:33	8°☿16'19	-8°-19'-30	max. Earth dist.	2715 Jan 27 23:25	7°☿11'57	1.71143 AU
minimum elong	2712 Aug 31 06:12	8°☿24'40	8°19'05		2715 Feb 15 02:53	0°☿	
min. Earth dist.	2712 Aug 31 19:36	8°☿03'48	0.28832 AU	evening rise	2715 Mar 08 09:20	26°☿38'48	
morning rise	2712 Sep 03 21:00	6°☿10'44			2715 Mar 11 01:46	0°☿	
direct	2712 Sep 21 23:54	0°☿00'35			2715 Apr 04 04:35	0°☿	
greatest brilliancy	2712 Oct 06 11:46	3°☿42'11	-4.6m	asc. node	2715 Apr 22 23:11	23°☿09'14	
asc. node	2712 Nov 05 03:54	26°☿09'46			2715 Apr 28 13:08	0°☿	
	2712 Nov 09 02:59	0°☿			2715 May 23 05:07	0°☿	
morning max el	2712 Nov 10 23:05	1°☿49'26	46°28'21		2715 Jun 17 06:56	0°☿	
	2712 Dec 07 04:11	0°☿			2715 Jul 12 23:40	0°☿	
	2713 Jan 01 21:05	0°☿			2715 Aug 08 19:16	0°☿	
	2713 Jan 26 16:36	0°☿		desc. node	2715 Aug 12 12:39	4°☿00'26	
	2713 Feb 20 03:11	0°☿		evening max el	2715 Sep 03 11:28	26°☿25'05	45°59'25
desc. node	2713 Feb 24 17:40	5°☿40'31			2715 Sep 07 06:24	0°☿	
	2713 Mar 16 10:19	0°☿		greatest brilliancy	2715 Oct 11 21:10	24°☿37'34	-4.6m
	2713 Apr 09 16:46	0°☿		retrograde	2715 Oct 22 15:26	26°☿42'58	
	2713 May 04 00:04	0°☿		evening set	2715 Nov 07 08:07	21°☿58'22	
morning set	2713 May 17 04:12	16°☿13'47		inferior conj	2715 Nov 12 09:02	18°☿59'27	-5°-6'-20
	2713 May 28 08:45	0°☿		minimum elong	2715 Nov 12 18:52	18°☿44'27	5°03'48
asc. node	2713 Jun 17 20:48	25°☿12'23		min. Earth dist.	2715 Nov 13 04:47	18°☿29'20	0.27107 AU
	2713 Jun 21 18:24	0°☿		morning rise	2715 Nov 18 05:05	15°☿33'29	
				direct	2715 Dec 03 04:42	11°☿08'32	
superior conj	2713 Jun 23 07:48	1°☿54'55	0°12'59	asc. node	2715 Dec 03 15:40	11°☿08'47	
minimum elong	2713 Jun 23 05:06	1°☿46'38	0°12'51	greatest brilliancy	2715 Dec 16 18:29	14°☿33'17	-4.7m
behind sun begin	2713 Jun 22 15:39	1°☿05'19			2716 Jan 07 16:28	0°☿	
behind sun end	2713 Jun 23 18:33	2°☿27'57		morning max el	2716 Jan 22 23:21	14°☿36'48	46°57'56
max. Earth dist.	2713 Jun 23 07:43	1°☿54'39	1.73532 AU		2716 Feb 06 12:22	0°☿	
	2713 Jul 16 04:11	0°☿			2716 Mar 03 23:47	0°☿	
evening rise	2713 Jul 29 09:50	16°☿16'25		desc. node	2716 Mar 24 05:30	23°☿49'58	
	2713 Aug 09 13:45	0°☿			2716 Mar 29 09:48	0°☿	
	2713 Sep 02 23:37	0°☿			2716 Apr 23 09:26	0°☿	
	2713 Sep 27 10:56	0°☿			2716 May 18 04:36	0°☿	
desc. node	2713 Oct 07 10:27	12°☿11'52			2716 Jun 11 21:35	0°☿	
	2713 Oct 22 00:51	0°☿			2716 Jul 06 12:30	0°☿	
	2713 Nov 15 18:49	0°☿		asc. node	2716 Jul 15 08:41	10°☿48'33	
	2713 Dec 10 20:35	0°☿		morning set	2716 Jul 24 07:38	21°☿46'41	
	2714 Jan 05 17:06	0°☿			2716 Jul 31 00:27	0°☿	
asc. node	2714 Jan 28 13:30	24°☿44'15			2716 Aug 24 08:53	0°☿	
evening max el	2714 Jan 29 04:24	25°☿22'14	47°05'15	max. Earth dist.	2716 Aug 26 19:12	3°☿00'05	1.73060 AU
	2714 Feb 02 19:24	0°☿					
greatest brilliancy	2714 Mar 07 06:50	25°☿18'21	-4.6m	superior conj	2716 Aug 29 17:12	6°☿36'26	1°21'16
retrograde	2714 Mar 20 22:49	28°☿45'07		minimum elong	2716 Aug 29 12:08	6°☿20'49	1°21'11
evening set	2714 Apr 07 09:16	22°☿50'58			2716 Sep 17 14:20	0°☿	
inferior conj	2714 Apr 11 01:18	20°☿34'35	7°45'53	evening rise	2716 Oct 05 11:31	22°☿12'12	
minimum elong	2714 Apr 11 09:50	20°☿21'11	7°44'39		2716 Oct 11 18:03	0°☿	
min. Earth dist.	2714 Apr 10 20:29	20°☿42'09	0.28109 AU	desc. node	2716 Nov 03 22:17	28°☿48'46	
morning rise	2714 Apr 15 10:36	17°☿52'52			2716 Nov 04 21:12	0°☿	
direct	2714 May 02 01:05	12°☿31'36			2716 Nov 29 00:30	0°☿	
greatest brilliancy	2714 May 13 15:56	14°☿57'56	-4.5m		2716 Dec 23 04:57	0°☿	
desc. node	2714 May 20 02:56	18°☿04'38			2717 Jan 16 13:04	0°☿	
	2714 Jun 05 21:01	0°☿			2717 Feb 10 06:27	0°☿	

asc. node	2717 Feb 25 01:21	17° Υ 31'30		asc. node	2719 Aug 12 20:34	26° Ω 40'30	
	2717 Mar 07 19:57	0° \mathcal{B}			2719 Aug 15 14:17	0° Ω	
	2717 Apr 04 06:57	0° Π			2719 Sep 09 02:58	0° \mathfrak{M}	
evening max el	2717 Apr 10 15:42	6° Π 24'38	46°02'38	morning set	2719 Oct 01 20:34	28° \mathfrak{M} 06'40	
	2717 May 08 20:13	0° \mathfrak{S}			2719 Oct 03 09:03	0° \mathfrak{L}	
greatest brilliancy	2717 May 15 05:01	3° \mathfrak{S} 33'58	-4.5m		2719 Oct 27 10:34	0° \mathfrak{M}	
retrograde	2717 May 29 22:33	7° \mathfrak{S} 22'30		max. Earth dist.	2719 Nov 06 02:41	12° \mathfrak{M} 06'03	1.71688 AU
evening set	2717 Jun 13 23:25	2° \mathfrak{S} 58'47					
desc. node	2717 Jun 16 14:50	1° \mathfrak{S} 27'15		superior conj	2719 Nov 08 17:39	15° \mathfrak{M} 23'15	0°52'42
	2717 Jun 18 23:34	30° \mathfrak{R} Π		minimum elong	2719 Nov 09 03:47	15° \mathfrak{M} 54'57	0°52'18
inferior conj	2717 Jun 20 08:59	29° \mathfrak{I} 07'34	0°-53'-24		2719 Nov 20 09:32	0° \mathcal{A}	
minimum elong	2717 Jun 20 07:01	29° \mathfrak{I} 10'40	0°52'50	desc. node	2719 Dec 02 10:10	15° \mathcal{A} 05'04	
min. Earth dist.	2717 Jun 20 05:02	29° \mathfrak{I} 13'46	0.28856 AU		2719 Dec 14 07:24	0° \mathfrak{Z}	
morning rise	2717 Jun 26 14:57	25° \mathfrak{I} 22'02		evening rise	2719 Dec 19 00:40	5° \mathfrak{Z} 55'25	
direct	2717 Jul 11 22:48	20° \mathfrak{I} 52'49			2720 Jan 07 05:08	0° \approx	
greatest brilliancy	2717 Jul 25 03:15	23° \mathfrak{I} 55'45	-4.5m		2720 Jan 31 04:04	0° \mathcal{H}	
	2717 Aug 04 23:05	0° \mathfrak{S}			2720 Feb 24 06:35	0° Υ	
morning max el	2717 Aug 29 17:20	20° \mathfrak{S} 39'46	45°47'56		2720 Mar 19 16:14	0° \mathcal{B}	
	2717 Sep 08 03:48	0° Ω		asc. node	2720 Mar 24 13:16	5° \mathcal{B} 55'47	
	2717 Oct 05 21:19	0° \mathfrak{M}			2720 Apr 13 13:58	0° Π	
asc. node	2717 Oct 07 18:10	2° \mathfrak{M} 07'14			2720 May 09 07:44	0° \mathfrak{S}	
	2717 Oct 31 15:27	0° \mathfrak{L}			2720 Jun 05 15:51	0° Ω	
	2717 Nov 25 10:20	0° \mathfrak{M}		evening max el	2720 Jun 20 01:29	14° Ω 28'40	45°25'32
	2717 Dec 19 17:10	0° \mathcal{A}			2720 Jul 07 17:01	0° \mathfrak{M}	
	2718 Jan 12 18:18	0° \mathfrak{Z}		desc. node	2720 Jul 14 02:53	4° \mathfrak{M} 41'59	
desc. node	2718 Jan 27 07:49	18° \mathfrak{Z} 13'55		greatest brilliancy	2720 Jul 25 16:54	11° \mathfrak{M} 14'20	-4.5m
	2718 Feb 05 17:16	0° \approx		retrograde	2720 Aug 07 16:57	14° \mathfrak{M} 12'52	
	2718 Mar 01 16:07	0° \mathcal{H}		evening set	2720 Aug 25 03:53	8° \mathfrak{M} 30'44	
morning set	2718 Mar 03 00:52	1° \mathcal{H} 42'29		inferior conj	2720 Aug 29 03:19	6° \mathfrak{M} 05'10	-8°-13'-19
	2718 Mar 25 16:20	0° Υ		minimum elong	2720 Aug 28 21:19	6° \mathfrak{M} 14'29	8°12'48
				min. Earth dist.	2720 Aug 29 10:14	5° \mathfrak{M} 54'24	0.28865 AU
superior conj	2718 Apr 11 22:31	21° Υ 29'02	-1°-15'-38	morning rise	2720 Sep 01 14:33	3° \mathfrak{M} 57'05	
minimum elong	2718 Apr 12 07:34	21° Υ 57'09	1°15'26		2720 Sep 09 04:53	30° \mathfrak{R} Ω	
max. Earth dist.	2718 Apr 15 21:55	26° Υ 25'17	1.72413 AU	direct	2720 Sep 19 15:59	27° Ω 48'56	
	2718 Apr 18 19:07	0° \mathcal{B}			2720 Sep 30 15:20	0° \mathfrak{M}	
	2718 May 13 01:11	0° Π		greatest brilliancy	2720 Oct 04 04:41	1° \mathfrak{M} 31'40	-4.5m
asc. node	2718 May 20 11:01	9° \mathfrak{I} 07'47		asc. node	2720 Nov 04 05:57	25° \mathfrak{M} 17'32	
evening rise	2718 May 20 12:45	9° \mathfrak{I} 13'08		morning max el	2720 Nov 08 14:47	29° \mathfrak{M} 34'30	46°26'47
	2718 Jun 06 10:42	0° \mathfrak{S}			2720 Nov 09 00:59	0° \mathfrak{L}	
	2718 Jun 30 23:42	0° Ω			2720 Dec 06 19:59	0° \mathfrak{M}	
	2718 Jul 25 16:54	0° \mathfrak{M}			2721 Jan 01 10:41	0° \mathcal{A}	
	2718 Aug 19 16:12	0° \mathfrak{L}			2721 Jan 26 05:08	0° \mathfrak{Z}	
desc. node	2718 Sep 09 00:29	24° \mathfrak{L} 06'39			2721 Feb 19 15:05	0° \approx	
	2718 Sep 14 00:57	0° \mathfrak{M}		desc. node	2721 Feb 23 19:36	5° \approx 10'06	
	2718 Oct 10 01:15	0° \mathcal{A}			2721 Mar 15 21:46	0° \mathcal{H}	
	2718 Nov 06 09:39	0° \mathfrak{Z}			2721 Apr 09 03:53	0° Υ	
evening max el	2718 Nov 15 14:50	9° \mathfrak{Z} 27'31	47°03'19		2721 May 03 10:55	0° \mathcal{B}	
	2718 Dec 08 09:35	0° \approx		morning set	2721 May 14 20:45	14° \mathcal{B} 03'45	
greatest brilliancy	2718 Dec 24 07:13	9° \approx 46'16	-4.7m		2721 May 27 19:26	0° Π	
asc. node	2718 Dec 31 03:41	11° \approx 55'02		asc. node	2721 Jun 16 22:56	24° \mathfrak{I} 46'12	
retrograde	2719 Jan 05 04:17	12° \approx 24'57					
evening set	2719 Jan 20 09:11	7° \approx 50'39		superior conj	2721 Jun 21 01:35	29° \mathfrak{I} 49'25	0°09'48
min. Earth dist.	2719 Jan 25 01:56	5° \approx 03'29	0.26689 AU	minimum elong	2721 Jun 20 23:32	29° \mathfrak{I} 43'07	0°09'42
inferior conj	2719 Jan 25 18:57	4° \approx 37'17	6°04'35	behind sun begin	2721 Jun 20 05:21	28° \mathfrak{I} 47'13	
minimum elong	2719 Jan 25 08:24	4° \approx 53'32	6°02'05	behind sun end	2721 Jun 21 17:44	0° \mathfrak{S} 39'01	
morning rise	2719 Jan 30 07:53	1° \approx 53'47		max. Earth dist.	2721 Jun 21 05:35	0° \mathfrak{S} 01'43	1.73525 AU
	2719 Feb 02 22:09	30° \mathfrak{R} \mathfrak{Z}			2721 Jun 21 05:02	0° \mathfrak{S}	
direct	2719 Feb 15 04:32	26° \mathfrak{Z} 57'46			2721 Jul 15 14:52	0° Ω	
greatest brilliancy	2719 Feb 26 04:40	29° \mathfrak{Z} 13'05	-4.6m	evening rise	2721 Jul 27 04:41	14° Ω 13'55	
	2719 Feb 28 01:32	0° \approx			2721 Aug 09 00:33	0° \mathfrak{M}	
morning max el	2719 Apr 06 03:04	28° \approx 57'35	46°33'13		2721 Sep 02 10:40	0° \mathfrak{L}	
	2719 Apr 07 04:14	0° \mathcal{H}			2721 Sep 26 22:22	0° \mathfrak{M}	
desc. node	2719 Apr 21 17:15	15° \mathcal{H} 02'27		desc. node	2721 Oct 06 12:23	11° \mathfrak{M} 42'12	
	2719 May 05 10:38	0° Υ			2721 Oct 21 12:52	0° \mathcal{A}	
	2719 May 31 20:38	0° \mathcal{B}			2721 Nov 15 07:41	0° \mathfrak{Z}	
	2719 Jun 26 12:28	0° Π			2721 Dec 10 10:47	0° \approx	
	2719 Jul 21 17:41	0° \mathfrak{S}			2722 Jan 05 09:55	0° \mathcal{H}	

evening max el	2722 Jan 26 19:51	23° K 03'30	47°06'47			2724 Aug 23 19:43	0° M	
asc. node	2722 Jan 27 15:34	23° K 53'32		max. Earth dist.		2724 Aug 24 12:36	0° M 52'07	1.73100 AU
	2722 Feb 02 19:50	0° Y						
greatest brilliancy	2722 Mar 04 22:36	23° Y 00'48	-4.6m	superior conj		2724 Aug 27 11:13	4° M 30'18	1°20'16
retrograde	2722 Mar 18 14:42	26° Y 27'22		minimum elong		2724 Aug 27 05:38	4° M 13'01	1°20'11
evening set	2722 Apr 05 02:57	20° Y 29'07				2724 Sep 17 01:16	0° L	
inferior conj	2722 Apr 08 16:10	18° Y 17'01	7°55'59	evening rise		2724 Oct 03 03:15	19° L 57'39	
minimum elong	2722 Apr 09 00:15	18° Y 04'20	7°54'55			2724 Oct 11 05:10	0° M	
min. Earth dist.	2722 Apr 08 10:19	18° Y 26'12	0.28071 AU	desc. node		2724 Nov 03 00:22	28° M 19'59	
morning rise	2722 Apr 12 21:48	15° Y 41'00				2724 Nov 04 08:34	0° X	
direct	2722 Apr 29 15:50	10° Y 14'48				2724 Nov 28 12:10	0° Z	
greatest brilliancy	2722 May 11 04:11	12° Y 39'24	-4.5m			2724 Dec 22 16:58	0° \approx	
desc. node	2722 May 19 04:57	16° Y 39'55				2725 Jan 16 01:38	0° K	
	2722 Jun 06 03:24	0° X				2725 Feb 09 19:56	0° Y	
morning max el	2722 Jun 17 18:14	10° X 37'15	45°51'34	asc. node		2725 Feb 24 03:18	16° Y 55'16	
	2722 Jul 06 21:14	0° II				2725 Mar 07 11:17	0° X	
	2722 Aug 03 04:48	0° L				2725 Apr 04 03:13	0° II	
	2722 Aug 29 03:50	0° L		evening max el		2725 Apr 08 06:26	4° II 08'19	46°04'45
asc. node	2722 Sep 09 08:20	13° L 15'16				2725 May 10 05:03	0° L	
	2722 Sep 23 07:02	0° M		greatest brilliancy		2725 May 12 22:20	1° L 24'35	-4.5m
	2722 Oct 17 20:25	0° L		retrograde		2725 May 27 14:27	5° L 12'19	
	2722 Nov 11 00:45	0° M		evening set		2725 Jun 11 16:12	0° L 48'09	
	2722 Dec 04 23:59	0° X				2725 Jun 13 02:15	30° R II	
morning set	2722 Dec 13 08:31	10° X 29'30		desc. node		2725 Jun 15 16:59	28° II 25'42	
	2722 Dec 28 20:54	0° Z		inferior conj		2725 Jun 18 01:18	26° II 57'37	0°-33'-26
desc. node	2722 Dec 29 22:00	1° Z 18'56		minimum elong		2725 Jun 18 00:04	26° II 59'33	0°33'06
	2723 Jan 21 17:08	0° \approx		min. Earth dist.		2725 Jun 17 21:55	27° II 02'57	0.28835 AU
				morning rise		2725 Jun 24 08:12	23° II 10'27	
superior conj	2723 Jan 23 18:08	2° \approx 34'04	0°-55'-4	direct		2725 Jul 09 14:29	18° II 43'09	
minimum elong	2723 Jan 23 06:20	1° \approx 57'00	0°54'38	greatest brilliancy		2725 Jul 22 17:58	21° II 44'29	-4.5m
max. Earth dist.	2723 Jan 25 08:16	4° \approx 34'02	1.71129 AU			2725 Aug 05 17:37	0° L	
	2723 Feb 14 13:57	0° K		morning max el		2725 Aug 27 07:42	18° L 25'30	45°47'15
evening rise	2723 Mar 05 20:17	24° K 08'21				2725 Sep 07 22:50	0° L	
	2723 Mar 10 12:51	0° Y				2725 Oct 05 12:02	0° M	
	2723 Apr 03 15:44	0° X		asc. node		2725 Oct 06 20:17	1° M 31'48	
asc. node	2723 Apr 22 01:13	22° X 40'53				2725 Oct 31 04:30	0° L	
	2723 Apr 28 00:28	0° II				2725 Nov 24 22:36	0° M	
	2723 May 22 16:47	0° L				2725 Dec 19 05:03	0° X	
	2723 Jun 16 19:18	0° L				2726 Jan 12 05:55	0° Z	
	2723 Jul 12 13:26	0° M		desc. node		2726 Jan 26 09:48	17° Z 44'08	
	2723 Aug 08 12:04	0° L				2726 Feb 05 04:41	0° \approx	
desc. node	2723 Aug 11 14:34	3° L 19'12		morning set		2726 Feb 28 11:28	29° \approx 10'13	
evening max el	2723 Sep 01 01:43	24° L 07'42	45°57'08			2726 Mar 01 03:23	0° K	
	2723 Sep 07 08:26	0° M				2726 Mar 25 03:28	0° Y	
greatest brilliancy	2723 Oct 09 10:13	22° M 15'17	-4.6m					
retrograde	2723 Oct 20 03:44	24° M 19'36		superior conj		2726 Apr 09 12:06	19° Y 07'44	-1°-17'-19
evening set	2723 Nov 05 00:10	19° M 30'54		minimum elong		2726 Apr 09 20:42	19° Y 34'27	1°17'09
inferior conj	2723 Nov 09 22:08	16° M 35'42	-5°-24'-52	max. Earth dist.		2726 Apr 13 12:31	24° Y 07'15	1.72356 AU
minimum elong	2723 Nov 10 08:14	16° M 20'15	5°22'21			2726 Apr 18 06:10	0° X	
min. Earth dist.	2723 Nov 10 18:32	16° M 04'30	0.27168 AU			2726 May 12 12:14	0° II	
morning rise	2723 Nov 15 15:47	13° M 12'31		evening rise		2726 May 18 04:42	7° II 00'26	
direct	2723 Nov 30 18:39	8° M 44'00		asc. node		2726 May 19 13:09	8° II 40'17	
asc. node	2723 Dec 02 17:48	8° M 48'39				2726 Jun 05 21:49	0° L	
greatest brilliancy	2723 Dec 14 09:08	12° M 09'08	-4.7m			2726 Jun 30 11:02	0° L	
	2724 Jan 07 23:01	0° X				2726 Jul 25 04:38	0° M	
morning max el	2724 Jan 20 12:29	12° X 10'14	46°57'41			2726 Aug 19 04:38	0° L	
	2724 Feb 06 06:48	0° Z		desc. node		2726 Sep 08 02:28	23° L 33'28	
	2724 Mar 03 14:43	0° \approx				2726 Sep 13 14:33	0° M	
desc. node	2724 Mar 23 07:29	23° \approx 15'30				2726 Oct 09 17:02	0° X	
	2724 Mar 28 23:06	0° K				2726 Nov 06 06:27	0° Z	
	2724 Apr 22 21:46	0° Y		evening max el		2726 Nov 13 03:11	6° Z 59'30	47°01'33
	2724 May 17 16:20	0° X				2726 Dec 09 06:39	0° \approx	
	2724 Jun 11 08:54	0° II		greatest brilliancy		2726 Dec 21 21:15	7° \approx 17'55	-4.7m
	2724 Jul 05 23:31	0° L		asc. node		2726 Dec 30 05:43	9° \approx 40'57	
asc. node	2724 Jul 14 10:45	10° L 21'22		retrograde		2727 Jan 02 16:35	9° \approx 55'17	
morning set	2724 Jul 22 01:41	19° L 41'34		evening set		2727 Jan 17 18:27	5° \approx 25'29	
	2724 Jul 30 11:18	0° L		min. Earth dist.		2727 Jan 22 15:16	2° \approx 33'03	0.26655 AU

inferior conj	2727 Jan 23 07:21	2° \approx 08'23	5°46'18	behind sun begin	2729 Jun 17 20:42	26° Π 33'28	
minimum elong	2727 Jan 22 20:55	2° \approx 24'24	5°43'43	behind sun end	2729 Jun 19 14:38	28° Π 42'25	
	2727 Jan 26 20:13	30° \mathbb{R} \mathcal{Z}		max. Earth dist.	2729 Jun 19 04:27	28° Π 11'05	1.73510 AU
morning rise	2727 Jan 27 23:36	29° \mathcal{Z} 20'27			2729 Jun 20 15:53	0° \mathfrak{S}	
direct	2727 Feb 12 16:15	24° \mathcal{Z} 28'58			2729 Jul 15 01:44	0° Ω	
greatest brilliancy	2727 Feb 23 19:31	26° \mathcal{Z} 47'26	-4.6m	evening rise	2729 Jul 24 23:25	12° Ω 10'28	
	2727 Mar 02 10:11	0° \approx			2729 Aug 08 11:33	0° \mathfrak{M}	
morning max el	2727 Apr 03 16:00	26° \approx 32'33	46°34'53		2729 Sep 01 21:56	0° $\underline{\mathfrak{A}}$	
	2727 Apr 07 02:55	0° \mathfrak{H}			2729 Sep 26 10:03	0° \mathfrak{M}	
desc. node	2727 Apr 20 19:22	14° \mathfrak{H} 18'14		desc. node	2729 Oct 05 14:31	11° \mathfrak{M} 12'31	
	2727 May 05 02:57	0° \mathcal{Y}			2729 Oct 21 01:07	0° \mathcal{Z}	
	2727 May 31 10:28	0° \mathcal{B}			2729 Nov 14 20:46	0° \mathcal{Z}	
	2727 Jun 26 01:01	0° Π			2729 Dec 10 01:13	0° \approx	
	2727 Jul 21 05:29	0° \mathfrak{S}			2730 Jan 05 03:06	0° \mathfrak{H}	
asc. node	2727 Aug 11 22:28	26° \mathfrak{S} 11'41		evening max el	2730 Jan 24 11:31	20° \mathfrak{H} 45'01	47°08'05
	2727 Aug 15 01:39	0° Ω		asc. node	2730 Jan 26 17:28	23° \mathfrak{H} 01'18	
	2727 Sep 08 14:06	0° \mathfrak{M}			2730 Feb 02 21:35	0° \mathcal{Y}	
morning set	2727 Sep 29 12:49	25° \mathfrak{M} 53'50		greatest brilliancy	2730 Mar 02 15:13	20° \mathcal{Y} 43'54	-4.6m
	2727 Oct 02 20:05	0° $\underline{\mathfrak{A}}$		retrograde	2730 Mar 16 06:21	24° \mathcal{Y} 08'44	
	2727 Oct 26 21:36	0° \mathfrak{M}		evening set	2730 Apr 02 20:29	18° \mathcal{Y} 06'52	
max. Earth dist.	2727 Nov 03 18:02	9° \mathfrak{M} 49'16	1.71732 AU	inferior conj	2730 Apr 06 06:58	15° \mathcal{Y} 58'46	8°05'24
				minimum elong	2730 Apr 06 14:32	15° \mathcal{Y} 46'54	8°04'29
superior conj	2727 Nov 06 07:22	13° \mathfrak{M} 01'13	0°55'30	min. Earth dist.	2730 Apr 06 00:02	16° \mathcal{Y} 09'39	0.28033 AU
minimum elong	2727 Nov 06 17:37	13° \mathfrak{M} 33'17	0°55'07	morning rise	2730 Apr 10 08:52	13° \mathcal{Y} 28'21	
	2727 Nov 19 20:38	0° \mathcal{Z}		direct	2730 Apr 27 06:46	7° \mathcal{Y} 57'28	
desc. node	2727 Dec 01 12:17	14° \mathcal{Z} 36'37		greatest brilliancy	2730 May 08 15:53	10° \mathcal{Y} 19'28	-4.5m
	2727 Dec 13 18:37	0° \mathcal{Z}		desc. node	2730 May 18 07:04	15° \mathcal{Y} 17'34	
evening rise	2727 Dec 16 11:54	3° \mathcal{Z} 24'46			2730 Jun 06 08:00	0° \mathcal{B}	
	2728 Jan 06 16:30	0° \approx		morning max el	2730 Jun 15 09:35	8° \mathcal{B} 24'01	45°52'28
	2728 Jan 30 15:37	0° \mathfrak{H}			2730 Jul 06 14:34	0° Π	
	2728 Feb 23 18:21	0° \mathcal{Y}			2730 Aug 02 18:50	0° \mathfrak{S}	
	2728 Mar 19 04:23	0° \mathcal{B}			2730 Aug 28 16:22	0° Ω	
asc. node	2728 Mar 23 15:19	5° \mathcal{B} 24'52		asc. node	2730 Sep 08 10:25	12° Ω 45'23	
	2728 Apr 13 02:53	0° Π			2730 Sep 22 18:47	0° \mathfrak{M}	
	2728 May 08 22:14	0° \mathfrak{S}			2730 Oct 17 07:46	0° $\underline{\mathfrak{A}}$	
	2728 Jun 05 10:19	0° Ω			2730 Nov 10 11:55	0° \mathfrak{M}	
evening max el	2728 Jun 17 17:18	12° Ω 17'29	45°25'48		2730 Dec 04 11:06	0° \mathcal{Z}	
	2728 Jul 08 05:43	0° \mathfrak{M}		morning set	2730 Dec 10 20:14	8° \mathcal{Z} 00'47	
desc. node	2728 Jul 13 04:50	3° \mathfrak{M} 28'15			2730 Dec 28 07:58	0° \mathcal{Z}	
greatest brilliancy	2728 Jul 23 04:57	8° \mathfrak{M} 59'16	-4.5m	desc. node	2730 Dec 28 23:59	0° \mathcal{Z} 50'22	
retrograde	2728 Aug 05 09:02	12° \mathfrak{M} 01'37					
evening set	2728 Aug 22 16:30	6° \mathfrak{M} 23'24		superior conj	2731 Jan 21 04:10	0° \approx 00'04	0°-51'-55
inferior conj	2728 Aug 26 19:03	3° \mathfrak{M} 53'07	-8°-6'-26	minimum elong	2731 Jan 20 16:41	29° \mathcal{Z} 23'57	0°51'29
minimum elong	2728 Aug 26 12:27	4° \mathfrak{M} 03'23	8°05'47		2731 Jan 21 04:09	0° \approx	
min. Earth dist.	2728 Aug 27 00:37	3° \mathfrak{M} 44'28	0.28893 AU	max. Earth dist.	2731 Jan 22 15:17	1° \approx 50'29	1.71110 AU
morning rise	2728 Aug 30 08:15	1° \mathfrak{M} 42'12			2731 Feb 14 00:55	0° \mathfrak{H}	
	2728 Sep 02 07:24	30° \mathfrak{R} Ω		evening rise	2731 Mar 03 07:24	21° \mathfrak{H} 38'40	
direct	2728 Sep 17 08:29	25° Ω 36'36			2731 Mar 09 23:51	0° \mathcal{Y}	
greatest brilliancy	2728 Oct 01 20:44	29° Ω 19'20	-4.5m		2731 Apr 03 02:49	0° \mathcal{B}	
	2728 Oct 03 05:36	0° \mathfrak{M}		asc. node	2731 Apr 21 03:19	22° \mathcal{B} 12'59	
asc. node	2728 Nov 03 08:02	24° \mathfrak{M} 25'37			2731 Apr 27 11:44	0° Π	
morning max el	2728 Nov 06 06:48	27° \mathfrak{M} 19'52	46°25'17		2731 May 22 04:27	0° \mathfrak{S}	
	2728 Nov 08 22:28	0° $\underline{\mathfrak{A}}$			2731 Jun 16 07:42	0° Ω	
	2728 Dec 06 11:45	0° \mathfrak{M}			2731 Jul 12 03:16	0° \mathfrak{M}	
	2729 Jan 01 00:23	0° \mathcal{Z}			2731 Aug 08 05:06	0° $\underline{\mathfrak{A}}$	
	2729 Jan 25 17:50	0° \mathcal{Z}		desc. node	2731 Aug 10 16:37	2° $\underline{\mathfrak{A}}$ 38'05	
	2729 Feb 19 03:11	0° \approx		evening max el	2731 Aug 29 15:01	21° $\underline{\mathfrak{A}}$ 48'29	45°54'58
desc. node	2729 Feb 22 21:36	4° \approx 39'10			2731 Sep 07 11:50	0° \mathfrak{M}	
	2729 Mar 15 09:28	0° \mathfrak{H}		greatest brilliancy	2731 Oct 06 23:53	19° \mathfrak{M} 54'26	-4.6m
	2729 Apr 08 15:15	0° \mathcal{Y}		retrograde	2731 Oct 17 15:50	21° \mathfrak{M} 57'20	
	2729 May 02 22:02	0° \mathcal{B}		evening set	2731 Nov 02 16:21	17° \mathfrak{M} 04'13	
morning set	2729 May 12 12:56	11° \mathcal{B} 51'42		inferior conj	2731 Nov 07 11:22	14° \mathfrak{M} 12'59	-5°-42'-33
	2729 May 27 06:23	0° Π		minimum elong	2731 Nov 07 21:40	13° \mathfrak{M} 57'12	5°40'05
asc. node	2729 Jun 16 00:55	24° Π 18'54		min. Earth dist.	2731 Nov 08 08:41	13° \mathfrak{M} 40'20	0.27232 AU
				morning rise	2731 Nov 13 02:25	10° \mathfrak{M} 52'49	
superior conj	2729 Jun 18 19:03	27° Π 42'13	0°06'36	direct	2731 Nov 28 08:11	6° \mathfrak{M} 20'11	
minimum elong	2729 Jun 18 17:40	27° Π 37'56	0°06'31	asc. node	2731 Dec 01 19:49	6° \mathfrak{M} 34'35	

greatest brilliancy	2731 Dec 12 00:43	9° \mathbb{M} 46'47	-4.7m	evening rise	2734 May 15 20:47	4° \mathbb{I} 49'20	
	2732 Jan 08 03:23	0° \mathbb{X}		asc. node	2734 May 18 15:08	8° \mathbb{I} 13'38	
morning max el	2732 Jan 18 01:15	9° \mathbb{X} 43'03	46°57'33		2734 Jun 05 08:31	0° \mathbb{S}	
	2732 Feb 06 00:38	0° \mathbb{Z}			2734 Jun 29 21:58	0° \mathbb{Q}	
	2732 Mar 03 05:16	0° \approx			2734 Jul 24 16:00	0° \mathbb{P}	
desc. node	2732 Mar 22 09:37	22° \approx 42'20			2734 Aug 18 16:45	0° \mathbb{L}	
	2732 Mar 28 12:03	0° \mathbb{H}		desc. node	2734 Sep 07 04:34	23° \mathbb{L} 01'33	
	2732 Apr 22 09:49	0° \mathbb{Y}			2734 Sep 13 03:54	0° \mathbb{M}	
	2732 May 17 03:47	0° \mathbb{B}			2734 Oct 09 08:40	0° \mathbb{X}	
	2732 Jun 10 19:58	0° \mathbb{I}			2734 Nov 06 03:31	0° \mathbb{Z}	
	2732 Jul 05 10:19	0° \mathbb{S}		evening max el	2734 Nov 10 16:15	4° \mathbb{Z} 34'44	46°59'53
asc. node	2732 Jul 13 12:42	9° \mathbb{S} 54'26			2734 Dec 10 10:34	0° \approx	
morning set	2732 Jul 19 19:40	17° \mathbb{S} 36'46		greatest brilliancy	2734 Dec 19 10:24	4° \approx 49'52	-4.7m
	2732 Jul 29 21:57	0° \mathbb{Q}		asc. node	2734 Dec 29 07:39	7° \approx 22'33	
max. Earth dist.	2732 Aug 22 06:35	28° \mathbb{Q} 46'39	1.73140 AU	retrograde	2734 Dec 31 05:29	7° \approx 26'59	
	2732 Aug 23 06:20	0° \mathbb{P}		evening set	2735 Jan 15 03:58	3° \approx 01'08	
				min. Earth dist.	2735 Jan 20 04:19	0° \approx 04'07	0.26626 AU
superior conj	2732 Aug 25 05:14	2° \mathbb{P} 24'50	1°19'09		2735 Jan 20 07:01	30° \mathbb{R} \mathbb{Z}	
minimum elong	2732 Aug 24 23:08	2° \mathbb{P} 06'01	1°19'04	inferior conj	2735 Jan 20 19:43	29° \mathbb{Z} 40'33	5°27'21
	2732 Sep 16 11:59	0° \mathbb{L}		minimum elong	2735 Jan 20 09:30	29° \mathbb{Z} 56'12	5°24'43
evening rise	2732 Sep 30 19:07	17° \mathbb{L} 44'24		morning rise	2735 Jan 25 15:18	26° \mathbb{Z} 48'24	
	2732 Oct 10 16:04	0° \mathbb{M}		direct	2735 Feb 10 04:28	22° \mathbb{Z} 01'16	
desc. node	2732 Nov 02 02:25	27° \mathbb{M} 51'50		greatest brilliancy	2735 Feb 21 09:42	24° \mathbb{Z} 22'10	-4.6m
	2732 Nov 03 19:42	0° \mathbb{X}			2735 Mar 03 22:16	0° \approx	
	2732 Nov 27 23:36	0° \mathbb{Z}		morning max el	2735 Apr 01 06:03	24° \approx 11'21	46°36'30
	2732 Dec 22 04:48	0° \approx			2735 Apr 07 00:18	0° \mathbb{H}	
	2733 Jan 15 14:00	0° \mathbb{H}		desc. node	2735 Apr 19 21:22	13° \mathbb{H} 35'20	
	2733 Feb 09 09:14	0° \mathbb{Y}			2735 May 04 18:36	0° \mathbb{Y}	
asc. node	2733 Feb 23 05:26	16° \mathbb{Y} 20'21			2735 May 30 23:45	0° \mathbb{B}	
	2733 Mar 07 02:28	0° \mathbb{B}			2735 Jun 25 13:03	0° \mathbb{I}	
	2733 Apr 03 23:41	0° \mathbb{I}			2735 Jul 20 16:48	0° \mathbb{S}	
evening max el	2733 Apr 05 20:36	1° \mathbb{I} 51'41	46°07'01	asc. node	2735 Aug 11 00:36	25° \mathbb{S} 44'55	
greatest brilliancy	2733 May 10 14:40	29° \mathbb{I} 15'18	-4.5m		2735 Aug 14 12:33	0° \mathbb{Q}	
	2733 May 12 05:11	0° \mathbb{S}			2735 Sep 08 00:49	0° \mathbb{P}	
retrograde	2733 May 25 06:46	3° \mathbb{S} 03'58		morning set	2735 Sep 27 05:14	23° \mathbb{P} 42'47	
	2733 Jun 06 18:02	30° \mathbb{R} \mathbb{I}			2735 Oct 02 06:45	0° \mathbb{L}	
evening set	2733 Jun 09 09:16	28° \mathbb{I} 38'45			2735 Oct 26 08:17	0° \mathbb{M}	
desc. node	2733 Jun 14 18:53	25° \mathbb{I} 25'15		max. Earth dist.	2735 Nov 01 07:47	7° \mathbb{M} 28'36	1.71778 AU
inferior conj	2733 Jun 15 17:48	24° \mathbb{I} 49'16	0°-13'-37				
minimum elong	2733 Jun 15 17:18	24° \mathbb{I} 50'03	0°13'28	superior conj	2735 Nov 03 21:11	10° \mathbb{M} 40'40	0°58'12
transit middle	2733 Jun 15 17:18	24° \mathbb{I} 50'03	0°13'28	minimum elong	2735 Nov 04 07:28	11° \mathbb{M} 12'52	0°57'49
transit begin	2733 Jun 15 15:02	24° \mathbb{I} 53'37			2735 Nov 19 07:24	0° \mathbb{X}	
transit end	2733 Jun 15 19:34	24° \mathbb{I} 46'29		desc. node	2735 Nov 30 14:14	14° \mathbb{X} 08'49	
min. Earth dist.	2733 Jun 15 14:56	24° \mathbb{I} 53'46	0.28817 AU		2735 Dec 13 05:30	0° \mathbb{Z}	
morning rise	2733 Jun 22 01:32	21° \mathbb{I} 00'50		evening rise	2735 Dec 13 23:03	0° \mathbb{Z} 55'04	
direct	2733 Jul 07 06:05	16° \mathbb{I} 34'54			2736 Jan 06 03:32	0° \approx	
greatest brilliancy	2733 Jul 20 09:55	19° \mathbb{I} 36'01	-4.5m		2736 Jan 30 02:48	0° \mathbb{H}	
	2733 Aug 06 06:52	0° \mathbb{S}			2736 Feb 23 05:47	0° \mathbb{Y}	
morning max el	2733 Aug 24 22:58	16° \mathbb{S} 14'23	45°46'35		2736 Mar 18 16:14	0° \mathbb{B}	
	2733 Sep 07 17:00	0° \mathbb{Q}		asc. node	2736 Mar 22 17:24	4° \mathbb{B} 54'55	
	2733 Oct 05 02:14	0° \mathbb{P}			2736 Apr 12 15:32	0° \mathbb{I}	
asc. node	2733 Oct 05 22:21	0° \mathbb{P} 57'26			2736 May 08 12:32	0° \mathbb{S}	
	2733 Oct 30 17:08	0° \mathbb{L}			2736 Jun 05 04:46	0° \mathbb{Q}	
	2733 Nov 24 10:30	0° \mathbb{M}		evening max el	2736 Jun 15 09:50	10° \mathbb{Q} 09'20	45°26'14
	2733 Dec 18 16:31	0° \mathbb{X}			2736 Jul 08 21:50	0° \mathbb{P}	
	2734 Jan 11 17:09	0° \mathbb{Z}		desc. node	2736 Jul 12 06:52	2° \mathbb{P} 14'01	
desc. node	2734 Jan 25 11:46	17° \mathbb{Z} 15'20		greatest brilliancy	2736 Jul 20 18:09	6° \mathbb{P} 47'20	-4.5m
	2734 Feb 04 15:45	0° \approx		retrograde	2736 Aug 03 01:07	9° \mathbb{P} 52'10	
morning set	2734 Feb 25 21:56	26° \approx 38'24		evening set	2736 Aug 20 05:18	4° \mathbb{P} 18'16	
	2734 Feb 28 14:19	0° \mathbb{H}		inferior conj	2736 Aug 24 10:59	1° \mathbb{P} 43'03	-7°-58'-59
	2734 Mar 24 14:17	0° \mathbb{Y}		minimum elong	2736 Aug 24 03:49	1° \mathbb{P} 54'12	7°58'12
				min. Earth dist.	2736 Aug 24 15:10	1° \mathbb{P} 36'31	0.28918 AU
superior conj	2734 Apr 07 01:42	16° \mathbb{Y} 47'29	-1°-18'-53		2736 Aug 27 05:40	30° \mathbb{R} \mathbb{Q}	
minimum elong	2734 Apr 07 09:47	17° \mathbb{Y} 12'38	1°18'44	morning rise	2736 Aug 28 02:14	29° \mathbb{Q} 28'59	
max. Earth dist.	2734 Apr 11 00:57	21° \mathbb{Y} 43'32	1.72295 AU	direct	2736 Sep 15 01:18	23° \mathbb{Q} 26'29	
	2734 Apr 17 16:52	0° \mathbb{B}		greatest brilliancy	2736 Sep 29 11:37	27° \mathbb{Q} 07'15	-4.5m
	2734 May 11 22:52	0° \mathbb{I}			2736 Oct 04 19:24	0° \mathbb{P}	

asc. node	2736 Nov 02 10:01	23° \cap 35'34		2739 Apr 26 23:00	0° \cap	
morning max el	2736 Nov 03 22:34	25° \cap 05'58	46°23'31	2739 May 21 16:07	0° \ominus	
	2736 Nov 08 18:46	0° $\underline{\cap}$		2739 Jun 15 20:09	0° Ω	
	2736 Dec 06 02:58	0° \cap		2739 Jul 11 17:16	0° \cap	
	2736 Dec 31 13:42	0° \nearrow		2739 Aug 07 22:29	0° $\underline{\cap}$	
	2737 Jan 25 06:12	0° $\overline{\cap}$		2739 Aug 09 18:46	1° $\underline{\cap}$ 56'51	
	2737 Feb 18 14:58	0° \approx		2739 Aug 27 03:49	19° $\underline{\cap}$ 28'26	45°53'00
desc. node	2737 Feb 21 23:47	4° \approx 09'45		2739 Sep 07 16:54	0° \cap	
	2737 Mar 14 20:50	0° \nmid		2739 Oct 04 13:17	17° \cap 34'08	-4.6m
	2737 Apr 08 02:18	0° Υ		2739 Oct 15 04:10	19° \cap 36'26	
	2737 May 02 08:52	0° $\overline{\cap}$		2739 Oct 31 08:43	14° \cap 38'31	
morning set	2737 May 10 04:55	9° $\overline{\cap}$ 39'51		2739 Nov 05 00:51	11° \cap 51'30	-5°-59'-24
	2737 May 26 17:04	0° \cap		2739 Nov 05 11:15	11° \cap 35'32	5°57'01
asc. node	2737 Jun 15 02:55	23° \cap 52'28		2739 Nov 05 23:05	11° \cap 17'25	0.27297 AU
				2739 Nov 10 13:09	8° \cap 34'46	
superior conj	2737 Jun 16 12:28	25° \cap 35'36	0°03'22	2739 Nov 25 21:40	3° \cap 57'23	
minimum elong	2737 Jun 16 11:45	25° \cap 33'25	0°03'19	2739 Nov 30 21:47	4° \cap 26'44	
behind sun begin	2737 Jun 15 13:20	24° \cap 24'29		2739 Dec 09 17:08	7° \cap 26'33	-4.6m
behind sun end	2737 Jun 17 10:11	26° \cap 42'22		2740 Jan 08 05:54	0° \nearrow	
max. Earth dist.	2737 Jun 17 02:57	26° \cap 20'09	1.73490 AU	2740 Jan 15 14:24	7° \nearrow 17'09	46°57'13
	2737 Jun 20 02:29	0° \ominus		2740 Feb 05 18:02	0° $\overline{\cap}$	
	2737 Jul 14 12:19	0° Ω		2740 Mar 02 19:42	0° \approx	
evening rise	2737 Jul 22 18:14	10° Ω 08'10		2740 Mar 21 11:37	22° \approx 08'34	
	2737 Aug 07 22:15	0° \cap		2740 Mar 28 01:03	0° \nmid	
	2737 Sep 01 08:53	0° $\underline{\cap}$		2740 Apr 21 21:57	0° Υ	
	2737 Sep 25 21:26	0° \cap		2740 May 16 15:21	0° $\overline{\cap}$	
desc. node	2737 Oct 04 16:34	10° \cap 43'29		2740 Jun 10 07:07	0° \cap	
	2737 Oct 20 13:08	0° \nearrow		2740 Jul 04 21:12	0° \ominus	
	2737 Nov 14 09:42	0° $\overline{\cap}$		2740 Jul 12 14:49	9° \ominus 27'43	
	2737 Dec 09 15:37	0° \approx		2740 Jul 17 13:24	15° \ominus 30'54	
	2738 Jan 04 20:29	0° \nmid		2740 Jul 29 08:42	0° Ω	
evening max el	2738 Jan 22 02:50	18° \nmid 25'48	47°09'17	2740 Aug 20 01:57	26° Ω 45'04	1.73178 AU
asc. node	2738 Jan 25 19:38	22° \nmid 09'02				
	2738 Feb 03 00:42	0° Υ		2740 Aug 22 23:12	0° \cap 18'54	1°17'57
greatest brilliancy	2738 Feb 28 08:41	18° Υ 28'06	-4.6m	2740 Aug 22 16:39	29° Ω 58'38	1°17'49
retrograde	2738 Mar 13 21:29	21° Υ 49'53		2740 Aug 22 17:05	0° \cap	
evening set	2738 Mar 31 13:47	15° Υ 44'52		2740 Sep 15 22:49	0° $\underline{\cap}$	
inferior conj	2738 Apr 03 21:39	13° Υ 40'32	8°14'09	2740 Sep 28 11:17	15° $\underline{\cap}$ 31'47	
minimum elong	2738 Apr 04 04:38	13° Υ 29'33	8°13'22	2740 Oct 10 03:03	0° \cap	
min. Earth dist.	2738 Apr 03 13:51	13° Υ 52'48	0.27991 AU	2740 Nov 01 04:23	27° \cap 23'15	
morning rise	2738 Apr 07 19:47	11° Υ 15'35		2740 Nov 03 06:54	0° \nearrow	
direct	2738 Apr 24 21:20	5° Υ 40'15		2740 Nov 27 11:05	0° $\overline{\cap}$	
greatest brilliancy	2738 May 06 03:28	7° Υ 59'27	-4.5m	2740 Dec 21 16:41	0° \approx	
desc. node	2738 May 17 09:04	13° Υ 57'54		2741 Jan 15 02:30	0° \nmid	
	2738 Jun 06 10:44	0° $\overline{\cap}$		2741 Feb 08 22:45	0° Υ	
morning max el	2738 Jun 12 23:59	6° $\overline{\cap}$ 08'41	45°53'25	2741 Feb 22 07:27	15° Υ 44'16	
	2738 Jul 06 07:22	0° \cap		2741 Mar 06 18:05	0° $\overline{\cap}$	
	2738 Aug 02 08:32	0° \ominus		2741 Apr 03 10:58	29° $\overline{\cap}$ 34'38	46°09'16
	2738 Aug 28 04:38	0° Ω		2741 Apr 03 21:15	0° \cap	
asc. node	2738 Sep 07 12:30	12° Ω 16'05		2741 May 08 06:05	27° \cap 03'23	-4.5m
	2738 Sep 22 06:17	0° \cap		2741 May 16 01:57	0° \ominus	
	2738 Oct 16 18:54	0° $\underline{\cap}$		2741 May 22 23:14	0° \ominus 53'58	
	2738 Nov 09 22:54	0° \cap		2741 May 29 15:44	30° \cap	
	2738 Dec 03 22:02	0° \nearrow		2741 Jun 07 02:13	26° \cap 27'18	
morning set	2738 Dec 08 08:07	5° \nearrow 33'03		2741 Jun 13 10:02	22° \cap 39'09	0°06'30
	2738 Dec 27 18:54	0° $\overline{\cap}$		2741 Jun 13 10:17	22° \cap 38'46	0°06'26
desc. node	2738 Dec 28 02:02	0° $\overline{\cap}$ 22'26		2741 Jun 13 10:17	22° \cap 38'46	0°06'26
				2741 Jun 13 06:33	22° \cap 44'37	
superior conj	2739 Jan 18 14:00	27° $\overline{\cap}$ 25'36	0°-48'-39	2741 Jun 13 14:00	22° \cap 32'55	
minimum elong	2739 Jan 18 02:54	26° $\overline{\cap}$ 50'44	0°48'12	2741 Jun 13 07:32	22° \cap 43'05	0.28800 AU
max. Earth dist.	2739 Jan 19 18:26	28° $\overline{\cap}$ 55'03	1.71100 AU	2741 Jun 13 20:58	22° \cap 22'00	
	2739 Jan 20 15:05	0° \approx		2741 Jun 19 18:30	18° \cap 49'51	
	2739 Feb 13 11:52	0° \nmid		2741 Jul 04 21:31	14° \cap 24'48	
evening rise	2739 Feb 28 17:55	19° \nmid 07'03		2741 Jul 18 01:54	17° \cap 26'24	-4.5m
	2739 Mar 09 10:49	0° Υ		2741 Aug 06 17:10	0° \ominus	
	2739 Apr 02 13:53	0° $\overline{\cap}$		2741 Aug 22 14:53	14° \ominus 04'04	45°46'01
asc. node	2739 Apr 20 05:16	21° $\overline{\cap}$ 44'39		2741 Sep 07 11:03	0° Ω	

	2741 Oct 04 16:34	0°♍		2744 Apr 12 04:30	0°♊	
asc. node	2741 Oct 05 00:17	0°♍22'09		2744 May 08 03:18	0°♌	
	2741 Oct 30 05:57	0°♌		2744 Jun 05 00:11	0°♍	
	2741 Nov 23 22:32	0°♍	evening max el	2744 Jun 13 02:20	7°♍59'48	45°26'27
	2741 Dec 18 04:08	0°♎		2744 Jul 09 20:34	0°♍	
	2742 Jan 11 04:30	0°♎	desc. node	2744 Jul 11 09:02	0°♍56'16	
desc. node	2742 Jan 24 13:57	16°♎46'51	greatest brilliancy	2744 Jul 18 08:24	4°♍35'12	-4.5m
	2742 Feb 04 02:57	0°♎	retrograde	2744 Jul 31 16:44	7°♍41'12	
morning set	2742 Feb 23 08:34	24°♎06'37	evening set	2744 Aug 17 18:01	2°♍12'00	
	2742 Feb 28 01:24	0°♏		2744 Aug 21 08:46	30°♎♌	
	2742 Mar 24 01:17	0°♏	inferior conj	2744 Aug 22 02:54	29°♎31'44	-7°-50'-48
			minimum elong	2744 Aug 21 19:14	29°♎43'41	7°49'53
superior conj	2742 Apr 04 15:07	14°♏25'48	min. Earth dist.	2744 Aug 22 06:07	29°♎26'41	0.28941 AU
minimum elong	2742 Apr 04 22:36	14°♏49'05	morning rise	2744 Aug 25 20:22	27°♎14'06	
max. Earth dist.	2742 Apr 08 12:37	19°♏16'37	direct	2744 Sep 12 17:50	21°♎15'09	
	2742 Apr 17 03:48	0°♏	greatest brilliancy	2744 Sep 27 01:36	24°♎52'40	-4.5m
	2742 May 11 09:48	0°♊		2744 Oct 05 22:34	0°♍	
evening rise	2742 May 13 12:27	2°♊36'03	morning max el	2744 Nov 01 13:22	22°♍48'32	46°21'47
asc. node	2742 May 17 17:07	7°♊46'02	asc. node	2744 Nov 01 12:06	22°♍45'23	
	2742 Jun 04 19:33	0°♌		2744 Nov 08 14:54	0°♌	
	2742 Jun 29 09:15	0°♍		2744 Dec 05 18:22	0°♍	
	2742 Jul 24 03:45	0°♍		2744 Dec 31 03:18	0°♎	
	2742 Aug 18 05:15	0°♌		2745 Jan 24 18:52	0°♎	
desc. node	2742 Sep 06 06:35	22°♌28'10		2745 Feb 18 03:03	0°♎	
	2742 Sep 12 17:43	0°♍	desc. node	2745 Feb 21 01:43	3°♎38'33	
	2742 Oct 09 00:56	0°♎		2745 Mar 14 08:29	0°♏	
	2742 Nov 06 01:44	0°♎		2745 Apr 07 13:37	0°♏	
evening max el	2742 Nov 08 06:27	2°♎12'04		2745 May 01 19:56	0°♏	
	2742 Dec 12 02:58	0°♎	morning set	2745 May 07 21:15	7°♏28'18	
greatest brilliancy	2742 Dec 16 23:30	2°♎21'19		2745 May 26 03:59	0°♊	
asc. node	2742 Dec 28 09:49	4°♎57'59				
retrograde	2742 Dec 28 18:50	4°♎58'09	superior conj	2745 Jun 14 06:10	23°♊29'04	0°00'07
evening set	2743 Jan 12 13:50	0°♎36'08	minimum elong	2745 Jun 14 06:07	23°♊28'57	0°00'07
	2743 Jan 13 15:46	30°♎♌	behind sun begin	2745 Jun 13 07:37	22°♊19'45	
min. Earth dist.	2743 Jan 17 17:17	27°♌35'00	behind sun end	2745 Jun 15 04:38	24°♊38'10	
inferior conj	2743 Jan 18 08:09	27°♌12'17	asc. node	2745 Jun 14 05:04	23°♊25'43	
minimum elong	2743 Jan 17 22:15	27°♌27'24	max. Earth dist.	2745 Jun 15 01:19	24°♊27'58	1.73473 AU
morning rise	2743 Jan 23 06:58	24°♌16'02		2745 Jun 19 13:21	0°♌	
direct	2743 Feb 07 17:13	19°♌33'25		2745 Jul 13 23:14	0°♍	
greatest brilliancy	2743 Feb 18 22:49	21°♌55'25	evening rise	2745 Jul 20 13:09	8°♌05'10	
	2743 Mar 04 23:56	0°♎		2745 Aug 07 09:18	0°♍	
morning max el	2743 Mar 29 20:24	21°♎50'29		2745 Aug 31 20:14	0°♌	
	2743 Apr 06 21:06	0°♏		2745 Sep 25 09:13	0°♍	
desc. node	2743 Apr 18 23:25	12°♏52'33	desc. node	2745 Oct 03 18:31	10°♍13'00	
	2743 May 04 10:13	0°♏		2745 Oct 20 01:35	0°♎	
	2743 May 30 13:14	0°♏		2745 Nov 13 23:05	0°♎	
	2743 Jun 25 01:23	0°♊		2745 Dec 09 06:32	0°♎	
	2743 Jul 20 04:28	0°♌		2746 Jan 04 14:39	0°♏	
asc. node	2743 Aug 10 02:40	25°♌16'47	evening max el	2746 Jan 19 17:24	16°♏03'29	47°10'24
	2743 Aug 13 23:50	0°♍	asc. node	2746 Jan 24 21:41	21°♏14'26	
	2743 Sep 07 11:53	0°♍		2746 Feb 03 06:01	0°♏	
morning set	2743 Sep 24 21:29	21°♍30'17	greatest brilliancy	2746 Feb 26 02:47	16°♏12'01	-4.6m
	2743 Oct 01 17:44	0°♌	retrograde	2746 Mar 11 12:19	19°♏30'16	
	2743 Oct 25 19:18	0°♍	evening set	2746 Mar 29 07:01	13°♏22'30	
max. Earth dist.	2743 Oct 29 19:35	5°♍00'50	min. Earth dist.	2746 Apr 01 04:09	11°♏34'49	0.27944 AU
			inferior conj	2746 Apr 01 12:27	11°♏21'44	8°22'03
superior conj	2743 Nov 01 11:01	8°♍19'13	minimum elong	2746 Apr 01 18:49	11°♏11'44	8°21'25
minimum elong	2743 Nov 01 21:17	8°♍51'19	morning rise	2746 Apr 05 06:52	9°♏02'06	
	2743 Nov 18 18:32	0°♎	direct	2746 Apr 22 11:20	3°♏22'26	
desc. node	2743 Nov 29 16:19	13°♎40'18	greatest brilliancy	2746 May 03 15:45	5°♏39'33	-4.5m
evening rise	2743 Dec 11 10:14	28°♎24'19	desc. node	2746 May 16 11:07	12°♏40'15	
	2743 Dec 12 16:45	0°♎		2746 Jun 06 12:12	0°♏	
	2744 Jan 05 14:54	0°♎	morning max el	2746 Jun 10 13:49	3°♏51'23	45°54'32
	2744 Jan 29 14:18	0°♏		2746 Jul 06 00:01	0°♊	
	2744 Feb 22 17:28	0°♏		2746 Aug 01 22:19	0°♌	
	2744 Mar 18 04:21	0°♏		2746 Aug 27 17:05	0°♍	
asc. node	2744 Mar 21 19:22	4°♏23'54	asc. node	2746 Sep 06 14:26	11°♌45'36	

	2746 Sep 21 18:04	0°♎		retrograde	2749 May 20 16:11	28°♊44'02	
	2746 Oct 16 06:20	0°♏		evening set	2749 Jun 04 19:26	24°♊15'48	
	2746 Nov 09 10:10	0°♌		inferior conj	2749 Jun 11 02:18	20°♊29'03	0°26'40
	2746 Dec 03 09:14	0°♐		minimum elong	2749 Jun 11 03:17	20°♊27'31	0°26'22
morning set	2746 Dec 05 19:58	3°♐04'22		min. Earth dist.	2749 Jun 10 23:53	20°♊32'51	0.28779 AU
desc. node	2746 Dec 27 04:09	29°♐53'55		desc. node	2749 Jun 12 23:06	19°♊19'06	
	2746 Dec 27 06:05	0°♑		morning rise	2749 Jun 17 11:22	16°♊39'18	
				direct	2749 Jul 02 13:26	12°♊14'53	
superior conj	2747 Jan 15 23:46	24°♑50'11	0°-45'-16	greatest brilliancy	2749 Jul 15 17:22	15°♊16'29	-4.5m
minimum elong	2747 Jan 15 13:09	24°♑16'49	0°44'49		2749 Aug 07 00:33	0°♑	
max. Earth dist.	2747 Jan 16 20:36	25°♑55'44	1.71093 AU	morning max el	2749 Aug 20 07:41	11°♑56'23	45°45'34
	2747 Jan 20 02:16	0°♒			2749 Sep 07 04:31	0°♒	
	2747 Feb 12 23:04	0°♈		asc. node	2749 Oct 04 02:25	29°♒47'59	
evening rise	2747 Feb 26 04:27	16°♈34'38			2749 Oct 04 06:36	0°♎	
	2747 Mar 08 22:04	0°♑			2749 Oct 29 18:34	0°♏	
	2747 Apr 02 01:13	0°♉			2749 Nov 23 10:29	0°♌	
asc. node	2747 Apr 19 07:21	21°♉16'00			2749 Dec 17 15:44	0°♐	
	2747 Apr 26 10:30	0°♊			2750 Jan 10 15:53	0°♑	
	2747 May 21 03:59	0°♑		desc. node	2750 Jan 23 15:56	16°♑17'37	
	2747 Jun 15 08:48	0°♒			2750 Feb 03 14:11	0°♒	
	2747 Jul 11 07:31	0°♎		morning set	2750 Feb 20 18:44	21°♒33'13	
	2747 Aug 07 16:26	0°♏			2750 Feb 27 12:30	0°♈	
desc. node	2747 Aug 08 20:43	1°♏14'05			2750 Mar 23 12:15	0°♑	
evening max el	2747 Aug 24 16:33	17°♏07'53	45°50'56				
	2747 Sep 08 00:26	0°♌		superior conj	2750 Apr 02 04:06	12°♑02'44	-1°-21'-35
greatest brilliancy	2747 Oct 02 01:35	15°♌12'06	-4.6m	minimum elong	2750 Apr 02 10:55	12°♑23'59	1°21'30
retrograde	2747 Oct 12 16:51	17°♌15'07		max. Earth dist.	2750 Apr 06 01:28	16°♑53'20	1.72190 AU
evening set	2747 Oct 29 01:06	12°♌11'57			2750 Apr 16 14:42	0°♉	
inferior conj	2747 Nov 02 14:19	9°♌29'17	-6°-15'-33		2750 May 10 20:41	0°♊	
minimum elong	2747 Nov 03 00:47	9°♌13'15	6°13'15	evening rise	2750 May 11 03:59	0°♊22'30	
min. Earth dist.	2747 Nov 03 13:19	8°♌54'03	0.27369 AU	asc. node	2750 May 16 19:17	7°♊19'09	
morning rise	2747 Nov 07 23:47	6°♌16'28			2750 Jun 04 06:32	0°♑	
direct	2747 Nov 23 11:25	1°♌33'43			2750 Jun 28 20:27	0°♒	
asc. node	2747 Nov 29 23:55	2°♌23'06			2750 Jul 23 15:23	0°♎	
greatest brilliancy	2747 Dec 07 10:13	5°♌06'32	-4.6m		2750 Aug 17 17:38	0°♏	
	2748 Jan 08 07:21	0°♐		desc. node	2750 Sep 05 08:36	21°♏55'20	
morning max el	2748 Jan 13 04:32	4°♐53'02	46°56'55		2750 Sep 12 07:24	0°♌	
	2748 Feb 05 11:18	0°♑			2750 Oct 08 17:12	0°♐	
	2748 Mar 02 10:10	0°♒		evening max el	2750 Nov 05 21:18	29°♐51'48	46°56'17
desc. node	2748 Mar 20 13:38	21°♒34'34			2750 Nov 06 00:36	0°♑	
	2748 Mar 27 14:06	0°♈		greatest brilliancy	2750 Dec 14 12:41	29°♑53'12	-4.7m
	2748 Apr 21 10:09	0°♑			2750 Dec 14 19:17	0°♒	
	2748 May 16 02:59	0°♉		retrograde	2750 Dec 26 07:51	2°♒29'00	
	2748 Jun 09 18:20	0°♊		asc. node	2750 Dec 27 11:49	2°♒27'19	
	2748 Jul 04 08:08	0°♑			2751 Jan 06 07:37	30°♒3	
asc. node	2748 Jul 11 16:53	9°♑00'41		evening set	2751 Jan 09 23:49	28°♑10'50	
morning set	2748 Jul 15 07:33	13°♑26'09		inferior conj	2751 Jan 15 20:26	24°♑43'43	4°47'12
	2748 Jul 28 19:29	0°♒		minimum elong	2751 Jan 15 10:56	24°♑58'14	4°44'36
max. Earth dist.	2748 Aug 17 23:46	24°♒51'02	1.73214 AU	min. Earth dist.	2751 Jan 15 06:14	25°♑05'23	0.26568 AU
				morning rise	2751 Jan 20 22:24	21°♑43'19	
superior conj	2748 Aug 20 17:33	28°♒14'05	1°16'38	direct	2751 Feb 05 06:07	17°♑05'22	
minimum elong	2748 Aug 20 10:33	27°♒52'28	1°16'29	greatest brilliancy	2751 Feb 16 11:46	19°♑27'54	-4.7m
	2748 Aug 22 03:51	0°♎			2751 Mar 05 18:58	0°♒	
	2748 Sep 15 09:41	0°♏		morning max el	2751 Mar 27 10:14	19°♒28'08	46°39'19
evening rise	2748 Sep 26 03:50	13°♏20'20			2751 Apr 06 17:15	0°♈	
	2748 Oct 09 14:07	0°♌		desc. node	2751 Apr 18 01:31	12°♈10'29	
desc. node	2748 Oct 31 06:32	26°♌54'48			2751 May 04 01:33	0°♑	
	2748 Nov 02 18:14	0°♐			2751 May 30 02:28	0°♉	
	2748 Nov 26 22:45	0°♑			2751 Jun 24 13:29	0°♊	
	2748 Dec 21 04:46	0°♒			2751 Jul 19 15:54	0°♑	
	2749 Jan 14 15:12	0°♈		asc. node	2751 Aug 09 04:36	24°♑48'56	
	2749 Feb 08 12:29	0°♑			2751 Aug 13 10:52	0°♒	
asc. node	2749 Feb 21 09:25	15°♑07'29			2751 Sep 06 22:43	0°♎	
	2749 Mar 06 10:02	0°♉		morning set	2751 Sep 22 14:12	19°♎20'04	
evening max el	2749 Apr 01 02:16	27°♉19'42	46°11'39		2751 Oct 01 04:28	0°♏	
	2749 Apr 03 19:43	0°♊			2751 Oct 25 06:02	0°♌	
greatest brilliancy	2749 May 05 21:36	24°♊51'41	-4.5m	max. Earth dist.	2751 Oct 27 06:34	2°♌31'37	1.71867 AU

superior conj	2751 Oct 30 01:33	6°♌00'58	1°03'13	min. Earth dist.	2754 Mar 29 18:32	9°♍17'08	0.27906 AU
minimum elong	2751 Oct 30 11:42	6°♌32'41	1°02'52	morning rise	2754 Apr 02 18:00	6°♍49'07	
	2751 Nov 18 05:20	0°♌		direct	2754 Apr 20 00:52	1°♍04'51	
desc. node	2751 Nov 28 18:26	13°♌12'51		greatest brilliancy	2754 May 01 05:17	3°♍21'26	-4.5m
evening rise	2751 Dec 08 21:52	25°♌55'56		desc. node	2754 May 15 13:13	11°♍25'33	
	2751 Dec 12 03:42	0°♌			2754 Jun 06 12:13	0°♌	
	2752 Jan 05 02:01	0°♌		morning max el	2754 Jun 08 03:39	1°♌34'24	45°55'40
	2752 Jan 29 01:36	0°♌			2754 Jul 05 16:09	0°♌	
	2752 Feb 22 05:03	0°♍			2754 Aug 01 11:43	0°♌	
	2752 Mar 17 16:24	0°♌			2754 Aug 27 05:10	0°♌	
asc. node	2752 Mar 20 21:27	3°♌53'30		asc. node	2754 Sep 05 16:34	11°♌16'42	
	2752 Apr 11 17:26	0°♌			2754 Sep 21 05:28	0°♌	
	2752 May 07 18:06	0°♌			2754 Oct 15 17:24	0°♌	
	2752 Jun 04 19:56	0°♌			2754 Nov 08 21:05	0°♌	
evening max el	2752 Jun 10 18:03	5°♌49'02	45°26'51		2754 Dec 02 20:06	0°♌	
desc. node	2752 Jul 10 10:57	29°♌36'28		morning set	2754 Dec 03 08:05	0°♌37'37	
	2752 Jul 11 03:37	0°♌		desc. node	2754 Dec 26 06:07	29°♌26'04	
greatest brilliancy	2752 Jul 15 23:01	2°♌24'19	-4.5m		2754 Dec 26 16:54	0°♌	
retrograde	2752 Jul 29 07:57	5°♌31'22					
evening set	2752 Aug 15 06:47	0°♌06'53		superior conj	2755 Jan 13 09:52	22°♌17'01	0°-41'-48
	2752 Aug 15 11:29	30°♌		minimum elong	2755 Jan 12 23:49	21°♌45'25	0°41'23
inferior conj	2752 Aug 19 18:54	27°♌21'42	-7°-41'-58	max. Earth dist.	2755 Jan 14 00:19	23°♌02'29	1.71086 AU
minimum elong	2752 Aug 19 10:47	27°♌34'23	7°40'55		2755 Jan 19 13:03	0°♌	
min. Earth dist.	2752 Aug 19 21:32	27°♌17'35	0.28957 AU		2755 Feb 12 09:51	0°♌	
morning rise	2752 Aug 23 14:40	25°♌00'21		evening rise	2755 Feb 23 15:20	14°♌04'43	
direct	2752 Sep 10 09:57	19°♌05'01			2755 Mar 08 08:53	0°♍	
greatest brilliancy	2752 Sep 24 15:55	22°♌39'39	-4.5m		2755 Apr 01 12:08	0°♌	
	2752 Oct 06 17:48	0°♌		asc. node	2755 Apr 18 09:26	20°♌48'31	
morning max el	2752 Oct 30 03:30	20°♌30'41	46°20'17		2755 Apr 25 21:39	0°♌	
asc. node	2752 Oct 31 14:10	21°♌57'09			2755 May 20 15:35	0°♌	
	2752 Nov 08 09:58	0°♌			2755 Jun 14 21:16	0°♌	
	2752 Dec 05 09:07	0°♌			2755 Jul 10 21:40	0°♌	
	2752 Dec 30 16:20	0°♌			2755 Aug 07 10:33	0°♌	
	2753 Jan 24 07:03	0°♌		desc. node	2755 Aug 07 22:46	0°♌31'45	
	2753 Feb 17 14:43	0°♌		evening max el	2755 Aug 22 05:46	14°♌49'30	45°49'08
desc. node	2753 Feb 20 03:45	3°♌08'53			2755 Sep 08 10:17	0°♌	
	2753 Mar 13 19:47	0°♌		greatest brilliancy	2755 Sep 29 12:45	12°♌50'01	-4.5m
	2753 Apr 07 00:39	0°♍		retrograde	2755 Oct 10 06:01	14°♌54'55	
	2753 May 01 06:46	0°♌		evening set	2755 Oct 26 17:30	9°♌46'20	
morning set	2753 May 05 12:59	5°♌15'28		inferior conj	2755 Oct 31 03:45	7°♌07'58	-6°-30'-54
	2753 May 25 14:40	0°♌		minimum elong	2755 Oct 31 14:12	6°♌52'00	6°28'43
				min. Earth dist.	2755 Nov 01 03:06	6°♌32'16	0.27439 AU
superior conj	2753 Jun 11 23:19	21°♌21'40	0°-3'-10	morning rise	2755 Nov 05 10:16	3°♌59'29	
minimum elong	2753 Jun 12 00:00	21°♌23'45	0°03'09		2755 Nov 14 18:47	30°♌	
behind sun begin	2753 Jun 11 01:27	20°♌14'27		direct	2755 Nov 21 01:43	29°♌11'06	
behind sun end	2753 Jun 12 22:32	22°♌33'03			2755 Nov 27 13:03	0°♌	
max. Earth dist.	2753 Jun 12 21:34	22°♌30'05	1.73449 AU	asc. node	2755 Nov 29 01:57	0°♌25'05	
asc. node	2753 Jun 13 07:02	22°♌59'11		greatest brilliancy	2755 Dec 05 03:02	2°♌47'22	-4.6m
	2753 Jun 18 23:57	0°♌			2756 Jan 08 07:11	0°♌	
	2753 Jul 13 09:51	0°♌		morning max el	2756 Jan 10 19:34	2°♌32'19	46°56'37
evening rise	2753 Jul 18 07:43	6°♌02'01			2756 Feb 05 03:51	0°♌	
	2753 Aug 06 20:04	0°♌			2756 Mar 02 00:05	0°♌	
	2753 Aug 31 07:17	0°♌		desc. node	2756 Mar 19 15:46	21°♌02'15	
	2753 Sep 24 20:43	0°♌			2756 Mar 27 02:41	0°♌	
desc. node	2753 Oct 02 20:39	9°♌44'01			2756 Apr 20 21:56	0°♍	
	2753 Oct 19 13:42	0°♌			2756 May 15 14:14	0°♌	
	2753 Nov 13 12:07	0°♌			2756 Jun 09 05:14	0°♌	
	2753 Dec 08 21:09	0°♌			2756 Jul 03 18:49	0°♌	
	2754 Jan 04 08:41	0°♌		asc. node	2756 Jul 10 18:50	8°♌34'05	
evening max el	2754 Jan 17 06:55	13°♌39'54	47°11'22	morning set	2756 Jul 13 01:28	11°♌21'23	
asc. node	2754 Jan 23 23:36	20°♌19'50			2756 Jul 28 06:04	0°♌	
	2754 Feb 03 12:50	0°♍		max. Earth dist.	2756 Aug 15 21:13	22°♌56'29	1.73248 AU
greatest brilliancy	2754 Feb 23 19:49	13°♍55'27	-4.6m				
retrograde	2754 Mar 09 02:45	17°♍11'26		superior conj	2756 Aug 18 11:32	26°♌08'47	1°15'12
evening set	2754 Mar 26 23:47	11°♍01'06		minimum elong	2756 Aug 18 04:09	25°♌46'00	1°15'02
inferior conj	2754 Mar 30 03:08	9°♍03'36	8°29'00		2756 Aug 21 14:26	0°♌	
minimum elong	2754 Mar 30 08:47	8°♍54'41	8°28'31		2756 Sep 14 20:22	0°♌	

evening rise	2756 Sep 23 20:07	11°♄08'43		2759 May 03 16:38	0°♃	
	2756 Oct 09 00:58	0°♌		2759 May 29 15:35	0°♄	
desc. node	2756 Oct 30 08:32	26°♌26'41		2759 Jun 24 01:32	0°♈	
	2756 Nov 02 05:21	0°♊		2759 Jul 19 03:19	0°♉	
	2756 Nov 26 10:12	0°♈		asc. node	2759 Aug 08 06:45	24°♉21'47
	2756 Dec 20 16:40	0°♏			2759 Aug 12 21:55	0°♊
	2757 Jan 14 03:44	0°♎			2759 Sep 06 09:34	0°♋
	2757 Feb 08 02:05	0°♍		morning set	2759 Sep 20 06:44	17°♌09'07
asc. node	2757 Feb 20 11:35	14°♍31'49			2759 Sep 30 15:18	0°♌
	2757 Mar 06 01:55	0°♍		max. Earth dist.	2759 Oct 24 16:12	29°♌57'44 1.71918 AU
evening max el	2757 Mar 29 18:21	25°♍07'38 46°14'04			2759 Oct 24 16:55	0°♌
	2757 Apr 03 18:43	0°♈				
greatest brilliancy	2757 May 03 13:47	22°♈41'55 -4.5m		superior conj	2759 Oct 27 15:55	3°♌41'47 1°05'32
retrograde	2757 May 18 09:16	26°♈34'52		minimum elong	2759 Oct 28 01:53	4°♌12'54 1°05'13
evening set	2757 Jun 02 12:50	22°♈05'05			2759 Nov 17 16:21	0°♊
inferior conj	2757 Jun 08 18:34	18°♈19'41 0°46'41		desc. node	2759 Nov 27 20:22	12°♊44'18
minimum elong	2757 Jun 08 20:18	18°♈16'59 0°46'11		evening rise	2759 Dec 06 09:08	23°♊25'56
min. Earth dist.	2757 Jun 08 15:59	18°♈23'44 0.28761 AU			2759 Dec 11 14:51	0°♈
desc. node	2757 Jun 12 01:00	16°♈18'14			2760 Jan 04 13:17	0°♏
morning rise	2757 Jun 15 04:05	14°♈29'38			2760 Jan 28 13:03	0°♎
direct	2757 Jun 30 05:53	10°♈05'49			2760 Feb 21 16:46	0°♍
greatest brilliancy	2757 Jul 13 07:57	13°♈06'10 -4.5m			2760 Mar 17 04:37	0°♄
	2757 Aug 07 05:31	0°♉		asc. node	2760 Mar 19 23:31	3°♄22'35
morning max el	2757 Aug 18 00:35	9°♉49'22 45°44'55			2760 Apr 11 06:35	0°♈
	2757 Sep 06 21:32	0°♊			2760 May 07 09:12	0°♉
asc. node	2757 Oct 03 04:29	29°♊14'06			2760 Jun 04 16:24	0°♊
	2757 Oct 03 20:25	0°♋		evening max el	2760 Jun 08 09:05	3°♊36'18 45°27'25
	2757 Oct 29 07:03	0°♌		desc. node	2760 Jul 09 13:02	28°♊14'20
	2757 Nov 22 22:17	0°♌			2760 Jul 13 01:42	0°♋
	2757 Dec 17 03:10	0°♊		greatest brilliancy	2760 Jul 13 13:08	0°♋12'50 -4.5m
desc. node	2758 Jan 10 03:06	0°♈		retrograde	2760 Jul 26 23:15	3°♋22'02
	2758 Jan 22 17:54	15°♈48'52			2760 Aug 09 04:09	30°♋♌
	2758 Feb 03 01:16	0°♏		evening set	2760 Aug 12 19:40	28°♌01'57
morning set	2758 Feb 18 04:53	19°♏00'08		inferior conj	2760 Aug 17 11:05	25°♌11'59 -7°-32'-29
	2758 Feb 26 23:28	0°♎		minimum elong	2760 Aug 17 02:33	25°♌25'21 7°31'18
	2758 Mar 22 23:06	0°♍		min. Earth dist.	2760 Aug 17 13:14	25°♌08'37 0.28976 AU
				morning rise	2760 Aug 21 09:15	22°♌46'51
superior conj	2758 Mar 30 17:04	9°♍39'55 -1°-22'-44		direct	2760 Sep 08 01:52	16°♌55'01
minimum elong	2758 Mar 30 23:11	9°♍58'58 1°22'40		greatest brilliancy	2760 Sep 22 07:22	20°♌28'05 -4.5m
max. Earth dist.	2758 Apr 03 15:58	14°♍35'30 1.72134 AU			2760 Oct 07 08:14	0°♋
	2758 Apr 16 01:27	0°♄		morning max el	2760 Oct 27 17:28	18°♋11'57 46°18'35
evening rise	2758 May 08 19:33	28°♄09'26		asc. node	2760 Oct 30 16:10	21°♋08'55
	2758 May 10 07:25	0°♈			2760 Nov 08 04:47	0°♌
asc. node	2758 May 15 21:15	6°♈52'09			2760 Dec 05 00:00	0°♌
	2758 Jun 03 17:22	0°♉			2760 Dec 30 05:39	0°♊
	2758 Jun 28 07:34	0°♊			2761 Jan 23 19:32	0°♈
	2758 Jul 23 02:59	0°♋			2761 Feb 17 02:39	0°♏
	2758 Aug 17 06:03	0°♌		desc. node	2761 Feb 19 05:55	2°♏38'46
desc. node	2758 Sep 04 10:42	21°♌22'25			2761 Mar 13 07:19	0°♎
	2758 Sep 11 21:16	0°♌			2761 Apr 06 11:54	0°♍
	2758 Oct 08 09:51	0°♊			2761 Apr 30 17:49	0°♄
evening max el	2758 Nov 03 11:56	27°♊30'55 46°54'19		morning set	2761 May 03 04:36	3°♄01'33
	2758 Nov 06 00:34	0°♈			2761 May 25 01:34	0°♈
greatest brilliancy	2758 Dec 12 02:41	27°♈25'58 -4.7m				
retrograde	2758 Dec 23 20:24	29°♈59'27		superior conj	2761 Jun 09 16:39	19°♈14'06 0°-6'-24
asc. node	2758 Dec 26 13:47	29°♈50'19		minimum elong	2761 Jun 09 18:01	19°♈18'18 0°06'22
evening set	2759 Jan 07 10:00	25°♈45'06		behind sun begin	2761 Jun 08 20:48	18°♈13'01
inferior conj	2759 Jan 13 08:38	22°♈15'03 4°26'12		behind sun end	2761 Jun 10 15:15	20°♈23'35
minimum elong	2759 Jan 12 23:37	22°♈28'51 4°23'38		max. Earth dist.	2761 Jun 10 16:32	20°♈27'31 1.73424 AU
min. Earth dist.	2759 Jan 12 19:26	22°♈35'14 0.26541 AU		asc. node	2761 Jun 12 09:03	22°♈32'04
morning rise	2759 Jan 18 13:35	19°♈10'27			2761 Jun 18 10:47	0°♉
direct	2759 Feb 02 18:40	14°♈37'13			2761 Jul 12 20:41	0°♊
greatest brilliancy	2759 Feb 14 00:54	17°♈00'19 -4.7m		evening rise	2761 Jul 16 02:34	3°♊59'07
	2759 Mar 06 09:11	0°♏			2761 Aug 06 07:03	0°♋
morning max el	2759 Mar 24 23:06	17°♏03'13 46°40'41			2761 Aug 30 18:34	0°♌
	2759 Apr 06 12:46	0°♎			2761 Sep 24 08:29	0°♌
desc. node	2759 Apr 17 03:32	11°♎28'40		desc. node	2761 Oct 01 22:41	9°♌13'54

	2761 Oct 19 02:11	0°☿			2764 Mar 26 15:41	0°✠		
	2761 Nov 13 01:38	0°☾			2764 Apr 20 10:09	0°☿		
	2761 Dec 08 12:25	0°≈			2764 May 15 01:54	0°♄		
	2762 Jan 04 03:46	0°✠			2764 Jun 08 16:30	0°♂		
evening max el	2762 Jan 14 20:15	11°✠14'11	47°12'20		2764 Jul 03 05:50	0°☾		
asc. node	2762 Jan 23 01:47	19°✠23'01		asc. node	2764 Jul 09 20:57	8°☾06'58		
	2762 Feb 03 23:08	0°☿		morning set	2764 Jul 10 19:21	9°☾15'33		
greatest brilliancy	2762 Feb 21 11:57	11°☿35'47	-4.6m		2764 Jul 27 16:58	0°♂		
retrograde	2762 Mar 06 17:12	14°☿50'48		max. Earth dist.	2764 Aug 13 18:29	21°♂00'27	1.73278 AU	
evening set	2762 Mar 24 16:09	8°☿37'58						
inferior conj	2762 Mar 27 17:38	6°☿43'34	8°35'14	superior conj	2764 Aug 16 05:40	24°♂02'57	1°13'41	
minimum elong	2762 Mar 27 22:33	6°☿35'51	8°34'53	minimum elong	2764 Aug 15 21:57	23°♂39'08	1°13'29	
min. Earth dist.	2762 Mar 27 08:37	6°☿57'45	0.27863 AU		2764 Aug 21 01:20	0°♊		
morning rise	2762 Mar 31 05:07	4°☿34'17			2764 Sep 14 07:22	0°♊		
	2762 Apr 09 18:08	30°♊		evening rise	2764 Sep 21 12:46	8°♊57'18		
direct	2762 Apr 17 14:13	28°✠45'19			2764 Oct 08 12:08	0°♊		
	2762 Apr 25 18:14	0°☿		desc. node	2764 Oct 29 10:31	25°♊57'35		
greatest brilliancy	2762 Apr 28 19:02	1°☿02'12	-4.6m		2764 Nov 01 16:45	0°☿		
desc. node	2762 May 14 15:12	10°☿11'39			2764 Nov 25 21:56	0°☾		
morning max el	2762 Jun 05 18:01	29°☿17'40	45°56'58		2764 Dec 20 04:51	0°≈		
	2762 Jun 06 11:33	0°♄			2765 Jan 13 16:36	0°✠		
	2762 Jul 05 08:18	0°♂			2765 Feb 07 16:08	0°☿		
	2762 Aug 01 01:18	0°☾		asc. node	2765 Feb 19 13:33	13°☿54'10		
	2762 Aug 26 17:29	0°♂			2765 Mar 05 18:32	0°♄		
asc. node	2762 Sep 04 18:37	10°♂46'47		evening max el	2765 Mar 27 10:48	22°♄54'53	46°16'19	
	2762 Sep 20 17:07	0°♊			2765 Apr 03 19:26	0°♂		
	2762 Oct 15 04:43	0°♊		greatest brilliancy	2765 May 01 07:23	20°♂32'10	-4.5m	
	2762 Nov 08 08:17	0°♊		retrograde	2765 May 16 02:01	24°♂23'36		
morning set	2762 Nov 30 20:31	28°♊10'58		evening set	2765 May 31 06:17	19°♂52'30		
	2762 Dec 02 07:16	0°☿		inferior conj	2765 Jun 06 10:42	16°♂08'33	1°06'48	
desc. node	2762 Dec 25 08:11	28°☿57'26		minimum elong	2765 Jun 06 13:09	16°♂04'42	1°06'05	
	2762 Dec 26 04:05	0°☾		min. Earth dist.	2765 Jun 06 08:00	16°♂12'47	0.28737 AU	
				desc. node	2765 Jun 11 03:04	13°♂16'41		
superior conj	2763 Jan 10 19:41	19°☾41'39	0°-38'-14	morning rise	2765 Jun 12 20:27	12°♂18'17		
minimum elong	2763 Jan 10 10:18	19°☾12'08	0°37'49	direct	2765 Jun 27 22:16	7°♂55'16		
max. Earth dist.	2763 Jan 11 05:55	20°☾13'50	1.71090 AU	greatest brilliancy	2765 Jul 10 21:26	10°♂53'06	-4.5m	
	2763 Jan 19 00:16	0°≈			2765 Aug 07 09:08	0°☾		
	2763 Feb 11 21:06	0°✠		morning max el	2765 Aug 15 16:34	7°☾39'17	45°44'23	
evening rise	2763 Feb 21 01:43	11°✠31'41			2765 Sep 06 14:30	0°♂		
	2763 Mar 07 20:10	0°☿		asc. node	2765 Oct 02 06:25	28°♂39'18		
	2763 Mar 31 23:30	0°♄			2765 Oct 03 10:22	0°♊		
asc. node	2763 Apr 17 11:24	20°♄19'18			2765 Oct 28 19:40	0°♊		
	2763 Apr 25 09:13	0°♂			2765 Nov 22 10:15	0°♊		
	2763 May 20 03:37	0°☾			2765 Dec 16 14:45	0°☿		
	2763 Jun 14 10:11	0°♂			2766 Jan 09 14:29	0°☾		
	2763 Jul 10 12:22	0°♊		desc. node	2766 Jan 21 20:05	15°☾20'16		
desc. node	2763 Aug 07 00:55	29°♊48'12			2766 Feb 02 12:30	0°≈		
	2763 Aug 07 05:29	0°♊		morning set	2766 Feb 15 15:19	16°≈27'23		
evening max el	2763 Aug 19 20:13	12°♊33'28	45°47'28		2766 Feb 26 10:36	0°✠		
	2763 Sep 08 23:49	0°♊			2766 Mar 22 10:09	0°☿		
greatest brilliancy	2763 Sep 26 23:37	10°♊27'49	-4.5m					
retrograde	2763 Oct 07 19:51	12°♊35'00		superior conj	2766 Mar 28 05:56	7°☿16'00	-1°-23'-44	
evening set	2763 Oct 24 10:11	7°♊21'17		minimum elong	2766 Mar 28 11:15	7°☿32'34	1°23'41	
inferior conj	2763 Oct 28 17:30	4°♊46'57	-6°-45'-17	max. Earth dist.	2766 Apr 01 07:39	12°☿20'29	1.72083 AU	
minimum elong	2763 Oct 29 03:50	4°♊31'08	6°43'15		2766 Apr 15 12:27	0°♄		
min. Earth dist.	2763 Oct 29 16:39	4°♊11'33	0.27510 AU	evening rise	2766 May 06 10:41	25°♄54'02		
morning rise	2763 Nov 02 20:57	1°♊42'57			2766 May 09 18:26	0°♂		
	2763 Nov 06 03:10	30°♊		asc. node	2766 May 14 23:16	6°♂24'27		
direct	2763 Nov 18 16:44	26°♊49'07			2766 Jun 03 04:30	0°☾		
asc. node	2763 Nov 28 03:54	28°♊31'36			2766 Jun 27 18:56	0°♂		
	2763 Dec 01 19:49	0°♊			2766 Jul 22 14:49	0°♊		
greatest brilliancy	2763 Dec 02 19:05	0°♊27'18	-4.6m		2766 Aug 16 18:44	0°♊		
	2764 Jan 08 06:16	0°☿		desc. node	2766 Sep 03 12:41	20°♊48'28		
morning max el	2764 Jan 08 10:59	0°☿11'59	46°55'57		2766 Sep 11 11:27	0°♊		
	2764 Feb 04 20:28	0°☾			2766 Oct 08 03:00	0°☿		
	2764 Mar 01 14:19	0°≈		evening max el	2766 Nov 01 01:47	25°☿07'44	46°52'15	
desc. node	2764 Mar 18 17:43	20°≈28'08			2766 Nov 06 01:53	0°☾		

greatest brilliancy	2766 Dec 09 17:38	24°☾59'45	-4.7m	superior conj	2769 Jun 07 09:59	17°♊07'00	0°-9'-39
retrograde	2766 Dec 21 08:30	27°☾30'05		minimum elong	2769 Jun 07 12:03	17°♊13'21	0°09'34
asc. node	2766 Dec 25 15:56	27°☾07'18		behind sun begin	2769 Jun 06 17:28	16°♊16'10	
evening set	2767 Jan 04 20:34	23°☾19'11		behind sun end	2769 Jun 08 06:38	18°♊10'30	
inferior conj	2767 Jan 10 21:01	19°☾46'45	4°04'42	max. Earth dist.	2769 Jun 08 11:43	18°♊26'06	1.73401 AU
minimum elong	2767 Jan 10 12:32	19°☾59'44	4°02'13	asc. node	2769 Jun 11 11:11	22°♊05'52	
min. Earth dist.	2767 Jan 10 09:12	20°☾04'50	0.26516 AU		2769 Jun 17 21:27	0°☾	
morning rise	2767 Jan 16 04:46	16°☾38'00			2769 Jul 12 07:24	0°♊	
direct	2767 Jan 31 06:51	12°☾09'17		evening rise	2769 Jul 13 21:24	1°♊56'40	
greatest brilliancy	2767 Feb 11 15:02	14°☾33'56	-4.7m		2769 Aug 05 17:56	0°♊	
	2767 Mar 06 19:45	0°≈			2769 Aug 30 05:46	0°♊	
morning max el	2767 Mar 22 11:00	14°≈35'41	46°42'01		2769 Sep 23 20:10	0°♊	
	2767 Apr 06 07:44	0°♋		desc. node	2769 Oct 01 00:38	8°♊43'53	
desc. node	2767 Apr 16 05:33	10°♋47'16			2769 Oct 18 14:32	0°♋	
	2767 May 03 07:34	0°♌			2769 Nov 12 15:02	0°☾	
	2767 May 29 04:43	0°♌			2769 Dec 08 03:38	0°≈	
	2767 Jun 23 13:39	0°♌			2770 Jan 03 23:05	0°♋	
	2767 Jul 18 14:50	0°☾		evening max el	2770 Jan 12 10:02	8°♋50'24	47°13'15
asc. node	2767 Aug 07 08:47	23°☾53'57		asc. node	2770 Jan 22 03:47	18°♋25'17	
	2767 Aug 12 09:03	0°♊			2770 Feb 04 12:31	0°♌	
	2767 Sep 05 20:30	0°♊		greatest brilliancy	2770 Feb 19 03:13	9°♌15'35	-4.6m
morning set	2767 Sep 17 23:17	14°♊58'03		retrograde	2770 Mar 04 08:05	12°♌30'44	
	2767 Sep 30 02:09	0°♊		evening set	2770 Mar 22 08:09	6°♌15'35	
max. Earth dist.	2767 Oct 22 04:47	27°♊33'07	1.71970 AU	inferior conj	2770 Mar 25 08:03	4°♌23'52	8°40'37
	2767 Oct 24 03:49	0°♊		minimum elong	2770 Mar 25 12:13	4°♌17'21	8°40'21
				min. Earth dist.	2770 Mar 24 22:17	4°♌39'11	0.27820 AU
superior conj	2767 Oct 25 06:32	1°♊23'25	1°07'44	morning rise	2770 Mar 28 16:26	2°♌19'34	
minimum elong	2767 Oct 25 16:16	1°♊53'50	1°07'27		2770 Apr 01 19:46	30°♌♋	
	2767 Nov 17 03:22	0°♋		direct	2770 Apr 15 03:48	26°♋26'10	
desc. node	2767 Nov 26 22:28	12°♋16'15		greatest brilliancy	2770 Apr 26 08:24	28°♋43'12	-4.6m
evening rise	2767 Dec 03 20:46	20°♋57'12			2770 Apr 29 08:00	0°♌	
	2767 Dec 11 02:00	0°☾		desc. node	2770 May 13 17:15	9°♌00'46	
	2768 Jan 04 00:34	0°≈		morning max el	2770 Jun 03 09:09	27°♌03'34	45°58'20
	2768 Jan 28 00:29	0°♋			2770 Jun 06 09:34	0°♌	
	2768 Feb 21 04:29	0°♌			2770 Jul 04 23:52	0°♌	
	2768 Mar 16 16:49	0°♌			2770 Jul 31 14:27	0°☾	
asc. node	2768 Mar 19 01:29	2°♌51'27			2770 Aug 26 05:29	0°♊	
	2768 Apr 10 19:44	0°♌		asc. node	2770 Sep 03 20:33	10°♊17'22	
	2768 May 07 00:27	0°☾			2770 Sep 20 04:32	0°♊	
	2768 Jun 04 13:37	0°♊			2770 Oct 14 15:50	0°♊	
evening max el	2768 Jun 05 23:35	1°♊22'13	45°27'56		2770 Nov 07 19:16	0°♊	
desc. node	2768 Jul 08 15:09	26°♊49'16		morning set	2770 Nov 28 09:01	25°♊45'23	
greatest brilliancy	2768 Jul 11 02:25	28°♊00'03	-4.5m		2770 Dec 01 18:10	0°♋	
	2768 Jul 16 12:08	0°♊		desc. node	2770 Dec 24 10:17	28°♋29'49	
retrograde	2768 Jul 24 14:53	1°♊12'36			2770 Dec 25 14:58	0°☾	
	2768 Aug 01 11:13	30°♊♊					
evening set	2768 Aug 10 08:29	25°♊56'37		superior conj	2771 Jan 08 05:28	17°☾07'04	0°-34'-35
inferior conj	2768 Aug 15 03:13	23°♊02'04	-7°-22'-21	minimum elong	2771 Jan 07 20:49	16°☾39'51	0°34'12
minimum elong	2768 Aug 14 18:18	23°♊16'00	7°21'01	max. Earth dist.	2771 Jan 08 14:35	17°☾35'45	1.71092 AU
min. Earth dist.	2768 Aug 15 04:55	22°♊59'25	0.28994 AU		2771 Jan 18 11:10	0°≈	
morning rise	2768 Aug 19 03:56	20°♊33'12			2771 Feb 11 08:02	0°♋	
direct	2768 Sep 05 17:36	14°♊44'46		evening rise	2771 Feb 18 12:08	8°♋59'43	
greatest brilliancy	2768 Sep 19 23:56	18°♊18'02	-4.5m		2771 Mar 07 07:10	0°♌	
	2768 Oct 07 18:56	0°♊			2771 Mar 31 10:36	0°♌	
morning max el	2768 Oct 25 07:54	15°♊54'43	46°17'03	asc. node	2771 Apr 16 13:27	19°♌51'14	
asc. node	2768 Oct 29 18:15	20°♊21'50			2771 Apr 24 20:31	0°♌	
	2768 Nov 07 23:02	0°♊			2771 May 19 15:22	0°☾	
	2768 Dec 04 14:36	0°♊			2771 Jun 13 22:51	0°♊	
	2768 Dec 29 18:44	0°♋			2771 Jul 10 02:54	0°♊	
	2769 Jan 23 07:48	0°☾		desc. node	2771 Aug 06 02:50	29°♊04'23	
	2769 Feb 16 14:25	0°≈			2771 Aug 07 00:37	0°♊	
desc. node	2769 Feb 18 07:50	2°≈08'21		evening max el	2771 Aug 17 11:00	10°♊19'13	45°45'38
	2769 Mar 12 18:42	0°♋			2771 Sep 09 17:33	0°♊	
	2769 Apr 05 22:59	0°♌		greatest brilliancy	2771 Sep 24 10:57	8°♊06'48	-4.5m
	2769 Apr 30 04:41	0°♌		retrograde	2771 Oct 05 09:23	10°♊15'15	
morning set	2769 Apr 30 20:14	0°♌48'01		evening set	2771 Oct 22 02:46	4°♊56'45	
	2769 May 24 12:18	0°♌		inferior conj	2771 Oct 26 07:05	2°♊26'19	-6°-59'-6

minimum elong	2771 Oct 26 17:14	2°ℳ10'45	6°57'12		2774 Apr 14 23:10	0°♄	
min. Earth dist.	2771 Oct 27 05:55	1°ℳ51'21	0.27580 AU	evening rise	2774 May 04 01:31	23°♄38'33	
	2771 Oct 30 08:09	30°♄			2774 May 09 05:11	0°♄	
morning rise	2771 Oct 31 07:16	29°♄26'49		asc. node	2774 May 14 01:24	5°♄57'55	
direct	2771 Nov 16 07:42	24°♄27'39			2774 Jun 02 15:23	0°♄	
asc. node	2771 Nov 27 06:03	26°♄42'48			2774 Jun 27 06:05	0°♄	
greatest brilliancy	2771 Nov 30 10:06	28°♄06'17	-4.6m		2774 Jul 22 02:27	0°♄	
	2771 Dec 03 23:59	0°♄			2774 Aug 16 07:13	0°♄	
morning max el	2772 Jan 06 01:51	27°♄51'01	46°55'19	desc. node	2774 Sep 02 14:45	20°♄15'25	
	2772 Jan 08 04:11	0°♄			2774 Sep 11 01:28	0°♄	
	2772 Feb 04 12:29	0°♄			2774 Oct 07 20:09	0°♄	
	2772 Mar 01 04:04	0°♄		evening max el	2774 Oct 29 14:28	22°♄42'38	46°50'03
desc. node	2772 Mar 17 19:46	19°♄55'36			2774 Nov 06 04:12	0°♄	
	2772 Mar 26 04:14	0°♄		greatest brilliancy	2774 Dec 07 08:23	22°♄33'48	-4.7m
	2772 Apr 19 21:57	0°♄		retrograde	2774 Dec 18 20:07	25°♄01'12	
	2772 May 14 13:11	0°♄		asc. node	2774 Dec 24 17:55	24°♄18'27	
	2772 Jun 08 03:25	0°♄		evening set	2775 Jan 02 07:12	20°♄53'00	
	2772 Jul 02 16:30	0°♄		inferior conj	2775 Jan 08 09:17	17°♄18'44	3°42'26
morning set	2772 Jul 08 13:24	7°♄11'18		minimum elong	2775 Jan 08 01:25	17°♄30'47	3°40'06
asc. node	2772 Jul 08 22:58	7°♄40'36		min. Earth dist.	2775 Jan 07 23:07	17°♄34'17	0.26500 AU
	2772 Jul 27 03:31	0°♄		morning rise	2775 Jan 13 19:46	14°♄06'03	
max. Earth dist.	2772 Aug 11 15:01	19°♄03'17	1.73305 AU	direct	2775 Jan 28 18:36	9°♄41'12	
				greatest brilliancy	2775 Feb 09 06:13	12°♄08'50	-4.7m
superior conj	2772 Aug 13 23:59	21°♄58'53	1°12'03		2775 Mar 07 03:27	0°♄	
minimum elong	2772 Aug 13 15:58	21°♄34'10	1°11'50	morning max el	2775 Mar 19 22:51	12°♄07'58	46°43'26
	2772 Aug 20 11:54	0°♄			2775 Apr 06 02:07	0°♄	
	2772 Sep 13 18:01	0°♄		desc. node	2775 Apr 15 07:41	10°♄06'57	
evening rise	2772 Sep 19 05:36	6°♄47'30			2775 May 02 22:11	0°♄	
	2772 Oct 07 23:00	0°♄			2775 May 28 17:34	0°♄	
desc. node	2772 Oct 28 12:40	25°♄29'48			2775 Jun 23 01:31	0°♄	
	2772 Nov 01 03:54	0°♄			2775 Jul 18 02:07	0°♄	
	2772 Nov 25 09:27	0°♄		asc. node	2775 Aug 06 10:43	23°♄26'27	
	2772 Dec 19 16:51	0°♄			2775 Aug 11 19:59	0°♄	
	2773 Jan 13 05:16	0°♄			2775 Sep 05 07:15	0°♄	
	2773 Feb 07 05:59	0°♄		morning set	2775 Sep 15 16:03	12°♄48'12	
asc. node	2773 Feb 18 15:32	13°♄17'12			2775 Sep 29 12:50	0°♄	
	2773 Mar 05 11:04	0°♄		max. Earth dist.	2775 Oct 19 19:55	25°♄17'04	1.72018 AU
evening max el	2773 Mar 25 02:39	20°♄41'30	46°18'35				
	2773 Apr 03 21:00	0°♄		superior conj	2775 Oct 22 21:31	29°♄06'50	1°09'48
greatest brilliancy	2773 Apr 29 01:45	18°♄24'20	-4.5m	minimum elong	2775 Oct 23 06:58	29°♄36'21	1°09'31
retrograde	2773 May 13 18:19	22°♄13'11			2775 Oct 23 14:32	0°♄	
evening set	2773 May 28 23:54	17°♄40'40			2775 Nov 16 14:12	0°♄	
inferior conj	2773 Jun 04 02:49	13°♄58'22	1°26'59	desc. node	2775 Nov 26 00:33	11°♄48'47	
minimum elong	2773 Jun 04 06:00	13°♄53'23	1°26'02	evening rise	2775 Dec 01 08:50	18°♄30'31	
min. Earth dist.	2773 Jun 04 00:15	14°♄02'25	0.28712 AU		2775 Dec 10 12:58	0°♄	
desc. node	2773 Jun 10 05:14	10°♄17'57			2776 Jan 03 11:42	0°♄	
morning rise	2773 Jun 10 12:34	10°♄07'53			2776 Jan 27 11:49	0°♄	
direct	2773 Jun 25 14:26	5°♄45'39			2776 Feb 20 16:08	0°♄	
greatest brilliancy	2773 Jul 08 10:46	8°♄40'34	-4.5m		2776 Mar 16 05:00	0°♄	
	2773 Aug 07 10:48	0°♄		asc. node	2776 Mar 18 03:35	2°♄20'47	
morning max el	2773 Aug 13 07:45	5°♄28'14	45°43'59		2776 Apr 10 08:56	0°♄	
	2773 Sep 06 06:46	0°♄			2776 May 06 15:52	0°♄	
asc. node	2773 Oct 01 08:32	28°♄06'21		evening max el	2776 Jun 03 14:19	29°♄09'02	45°28'43
	2773 Oct 02 23:49	0°♄			2776 Jun 04 11:33	0°♄	
	2773 Oct 28 07:54	0°♄		desc. node	2776 Jul 07 17:05	25°♄21'26	
	2773 Nov 21 21:53	0°♄		greatest brilliancy	2776 Jul 08 14:50	25°♄46'33	-4.5m
	2773 Dec 16 02:05	0°♄		retrograde	2776 Jul 22 07:02	29°♄03'33	
	2774 Jan 09 01:39	0°♄		evening set	2776 Aug 07 21:20	23°♄51'24	
desc. node	2774 Jan 20 22:03	14°♄51'40		inferior conj	2776 Aug 12 19:19	20°♄52'20	-7°-11'-31
	2774 Feb 01 23:32	0°♄		minimum elong	2776 Aug 12 10:06	21°♄06'43	7°10'03
morning set	2774 Feb 13 01:13	13°♄53'36		min. Earth dist.	2776 Aug 12 20:20	20°♄50'46	0.29011 AU
	2774 Feb 25 21:30	0°♄		morning rise	2776 Aug 16 22:41	18°♄19'42	
	2774 Mar 21 20:56	0°♄		direct	2776 Sep 03 09:32	12°♄34'38	
				greatest brilliancy	2776 Sep 17 17:03	16°♄09'03	-4.5m
superior conj	2774 Mar 25 18:25	4°♄51'39	-1°-24'-35		2776 Oct 08 02:41	0°♄	
minimum elong	2774 Mar 25 22:52	5°♄05'31	1°24'33	morning max el	2776 Oct 22 23:22	13°♄40'28	46°15'40
max. Earth dist.	2774 Mar 29 22:50	10°♄04'42	1.72025 AU	asc. node	2776 Oct 28 20:18	19°♄35'38	

	2776 Nov 07 16:47	0°♊			2779 Apr 24 07:59	0°♊	
	2776 Dec 04 04:56	0°♋			2779 May 19 03:20	0°♌	
	2776 Dec 29 07:38	0°♍			2779 Jun 13 11:48	0°♎	
	2777 Jan 22 19:55	0°♎			2779 Jul 09 17:51	0°♏	
	2777 Feb 16 02:03	0°♏		desc. node	2779 Aug 05 04:56	28°♏19'46	
desc. node	2777 Feb 17 09:54	1°♏38'44			2779 Aug 06 20:34	0°♐	
	2777 Mar 12 06:01	0°♑		evening max el	2779 Aug 15 01:54	8°♐04'42	45°43'53
	2777 Apr 05 10:04	0°♒			2779 Sep 10 17:48	0°♑	
morning set	2777 Apr 28 11:28	28°♒33'04		greatest brilliancy	2779 Sep 21 23:29	5°♑47'03	-4.5m
	2777 Apr 29 15:35	0°♓		retrograde	2779 Oct 02 22:38	7°♑55'38	
	2777 May 23 23:03	0°♊		evening set	2779 Oct 19 19:34	2°♑32'37	
				inferior conj	2779 Oct 23 20:56	0°♑06'00	-7°-11'-58
superior conj	2777 Jun 05 02:57	14°♊58'39	0°-12'-55	minimum elong	2779 Oct 24 06:50	29°♑50'47	7°10'13
minimum elong	2777 Jun 05 05:43	15°♊07'08	0°12'47		2779 Oct 24 00:50	30°♑♊	
behind sun begin	2777 Jun 04 15:51	14°♊24'27		min. Earth dist.	2779 Oct 24 19:35	29°♑31'14	0.27649 AU
behind sun end	2777 Jun 05 19:35	15°♊49'48		morning rise	2779 Oct 28 17:43	27°♑10'56	
max. Earth dist.	2777 Jun 06 07:10	16°♊25'27	1.73376 AU	direct	2779 Nov 13 22:40	22°♑06'31	
asc. node	2777 Jun 10 13:10	21°♊39'04		asc. node	2779 Nov 26 08:03	24°♑57'45	
	2777 Jun 17 08:08	0°♌		greatest brilliancy	2779 Nov 28 00:46	25°♑44'35	-4.6m
evening rise	2777 Jul 11 16:04	29°♌53'41			2779 Dec 05 10:28	0°♍	
	2777 Jul 11 18:07	0°♍		morning max el	2780 Jan 03 16:04	25°♍27'43	46°54'35
	2777 Aug 05 04:51	0°♎			2780 Jan 08 01:32	0°♍	
	2777 Aug 29 17:01	0°♏			2780 Feb 04 04:30	0°♎	
	2777 Sep 23 07:55	0°♐			2780 Feb 29 17:55	0°♏	
desc. node	2777 Sep 30 02:48	8°♐14'15		desc. node	2780 Mar 16 21:54	19°♏22'49	
	2777 Oct 18 02:59	0°♑			2780 Mar 25 16:55	0°♑	
	2777 Nov 12 04:33	0°♒			2780 Apr 19 09:54	0°♒	
	2777 Dec 07 19:03	0°♓			2780 May 14 00:38	0°♓	
	2778 Jan 03 18:54	0°♊			2780 Jun 07 14:31	0°♊	
evening max el	2778 Jan 10 00:47	6°♊29'22	47°14'09		2780 Jul 02 03:25	0°♌	
asc. node	2778 Jan 21 05:45	17°♊26'27		morning set	2780 Jul 06 07:34	5°♌06'37	
	2778 Feb 05 06:17	0°♒		asc. node	2780 Jul 08 00:59	7°♌13'26	
greatest brilliancy	2778 Feb 16 18:07	6°♒55'13	-4.7m		2780 Jul 26 14:21	0°♍	
retrograde	2778 Mar 01 23:30	10°♒10'49		max. Earth dist.	2780 Aug 09 09:48	16°♍59'57	1.73333 AU
evening set	2778 Mar 19 23:51	3°♒53'51					
inferior conj	2778 Mar 22 22:32	2°♒04'10	8°45'00	superior conj	2780 Aug 11 18:21	19°♍54'14	1°10'20
minimum elong	2778 Mar 23 01:55	1°♒58'53	8°44'51	minimum elong	2780 Aug 11 10:06	19°♍28'46	1°10'06
min. Earth dist.	2778 Mar 22 11:39	2°♒21'13	0.27778 AU		2780 Aug 19 22:44	0°♎	
morning rise	2778 Mar 26 04:08	0°♒04'21			2780 Sep 13 04:57	0°♏	
	2778 Mar 26 07:02	30°♒♑		evening rise	2780 Sep 16 22:27	4°♏37'03	
direct	2778 Apr 12 18:01	24°♒07'08			2780 Oct 07 10:08	0°♐	
greatest brilliancy	2778 Apr 23 21:05	26°♒23'22	-4.6m	desc. node	2780 Oct 27 14:40	25°♐00'47	
	2778 May 01 07:39	0°♒			2780 Oct 31 15:20	0°♑	
desc. node	2778 May 12 19:22	7°♒51'51			2780 Nov 24 21:17	0°♒	
morning max el	2778 Jun 01 00:50	24°♒50'29	45°59'33		2780 Dec 19 05:11	0°♓	
	2778 Jun 06 06:55	0°♓			2781 Jan 12 18:19	0°♊	
	2778 Jul 04 15:20	0°♊			2781 Feb 06 20:18	0°♒	
	2778 Jul 31 03:39	0°♌		asc. node	2781 Feb 17 17:42	12°♒39'33	
	2778 Aug 25 17:34	0°♍			2781 Mar 05 04:14	0°♓	
asc. node	2778 Sep 02 22:42	9°♍48'21		evening max el	2781 Mar 22 17:44	18°♓25'19	46°20'56
	2778 Sep 19 16:01	0°♎			2781 Apr 04 00:21	0°♊	
	2778 Oct 14 03:03	0°♏		greatest brilliancy	2781 Apr 26 20:07	16°♊15'57	-4.5m
	2778 Nov 07 06:21	0°♐		retrograde	2781 May 11 10:25	20°♊02'38	
morning set	2778 Nov 25 21:46	23°♐20'14		evening set	2781 May 26 17:47	15°♊28'25	
	2778 Dec 01 05:13	0°♑		inferior conj	2781 Jun 01 19:09	11°♊48'08	1°46'47
desc. node	2778 Dec 23 12:15	28°♑01'18		minimum elong	2781 Jun 01 23:01	11°♊42'02	1°45'39
	2778 Dec 25 02:00	0°♒		min. Earth dist.	2781 Jun 01 16:57	11°♊51'35	0.28687 AU
				morning rise	2781 Jun 08 04:41	7°♊57'32	
superior conj	2779 Jan 05 15:32	14°♒32'57	0°-30'-52	desc. node	2781 Jun 09 07:07	7°♊22'24	
minimum elong	2779 Jan 05 07:42	14°♒08'17	0°30'31	direct	2781 Jun 23 06:19	3°♊35'53	
max. Earth dist.	2779 Jan 05 23:12	14°♒57'06	1.71090 AU	greatest brilliancy	2781 Jul 06 00:43	6°♊28'20	-4.5m
	2779 Jan 17 22:12	0°♓			2781 Aug 07 11:28	0°♌	
	2779 Feb 10 19:05	0°♊		morning max el	2781 Aug 10 22:32	3°♌15'21	45°43'34
evening rise	2779 Feb 15 22:51	6°♊28'14			2781 Sep 05 23:05	0°♍	
	2779 Mar 06 18:15	0°♒		asc. node	2781 Sep 30 10:36	27°♍32'25	
	2779 Mar 30 21:47	0°♓			2781 Oct 02 13:29	0°♎	
asc. node	2779 Apr 15 15:34	19°♓22'54			2781 Oct 27 20:24	0°♏	

	2781 Nov 21 09:47	0°♌		desc. node	2784 Jul 06 19:11	23°♌50'28	
	2781 Dec 15 13:41	0°♏		retrograde	2784 Jul 19 23:43	26°♌54'16	
	2782 Jan 08 13:05	0°♐		evening set	2784 Aug 05 10:24	21°♌45'59	
desc. node	2782 Jan 20 00:04	14°♐22'24		inferior conj	2784 Aug 10 11:32	18°♌42'26	-7°00'-8
	2782 Feb 01 10:51	0°♑		minimum elong	2784 Aug 10 02:04	18°♌57'12	6°58'33
morning set	2782 Feb 10 10:58	11°♑18'15		min. Earth dist.	2784 Aug 10 11:33	18°♌42'26	0.29022 AU
	2782 Feb 25 08:43	0°♒		morning rise	2784 Aug 14 17:36	16°♌06'03	
	2782 Mar 21 08:03	0°♓		direct	2784 Sep 01 01:58	10°♌24'36	
				greatest brilliancy	2784 Sep 15 09:22	13°♌59'08	-4.5m
superior conj	2782 Mar 23 06:53	2°♓26'09	-1°-25'-16		2784 Oct 08 08:18	0°♐	
minimum elong	2782 Mar 23 10:26	2°♓37'15	1°25'16	morning max el	2784 Oct 20 15:39	11°♐28'05	46°14'04
max. Earth dist.	2782 Mar 27 11:10	7°♓38'56	1.71966 AU	asc. node	2784 Oct 27 22:19	18°♐49'36	
	2782 Apr 14 10:13	0°♑			2784 Nov 07 10:20	0°♑	
evening rise	2782 May 01 16:20	21°♑21'59			2784 Dec 03 19:21	0°♌	
	2782 May 08 16:14	0°♒			2784 Dec 28 20:43	0°♏	
asc. node	2782 May 13 03:23	5°♒30'00			2785 Jan 22 08:16	0°♐	
	2782 Jun 02 02:32	0°♓			2785 Feb 15 13:55	0°♑	
	2782 Jun 26 17:30	0°♌		desc. node	2785 Feb 16 12:05	1°♑08'46	
	2782 Jul 21 14:23	0°♐			2785 Mar 11 17:32	0°♒	
	2782 Aug 15 20:04	0°♑			2785 Apr 04 21:20	0°♓	
desc. node	2782 Sep 01 16:50	19°♑41'16		morning set	2785 Apr 26 02:28	26°♓16'44	
	2782 Sep 10 16:00	0°♌			2785 Apr 29 02:40	0°♑	
	2782 Oct 07 14:06	0°♏			2785 May 23 10:01	0°♒	
evening max el	2782 Oct 27 02:43	20°♏15'41	46°47'56				
	2782 Nov 06 08:35	0°♐		superior conj	2785 Jun 02 19:48	12°♒49'09	0°-16'-9
greatest brilliancy	2782 Dec 04 22:40	20°♐06'24	-4.7m	minimum elong	2785 Jun 02 23:15	12°♒59'46	0°16'01
retrograde	2782 Dec 16 08:04	22°♐31'49		max. Earth dist.	2785 Jun 04 03:36	14°♒27'03	1.73350 AU
asc. node	2782 Dec 23 19:54	21°♐22'59		asc. node	2785 Jun 09 15:12	21°♒11'50	
evening set	2782 Dec 30 18:06	18°♐25'30			2785 Jun 16 19:01	0°♓	
inferior conj	2783 Jan 05 21:35	14°♐49'56	3°19'47	evening rise	2785 Jul 09 10:46	27°♓50'14	
minimum elong	2783 Jan 05 14:23	15°♐00'56	3°17'35		2785 Jul 11 05:03	0°♌	
min. Earth dist.	2783 Jan 05 13:02	15°♐02'59	0.26489 AU		2785 Aug 04 15:56	0°♐	
morning rise	2783 Jan 11 10:43	11°♐33'42			2785 Aug 29 04:24	0°♑	
direct	2783 Jan 26 06:17	7°♐12'06			2785 Sep 22 19:47	0°♌	
greatest brilliancy	2783 Feb 06 21:47	9°♐43'25	-4.7m	desc. node	2785 Sep 29 04:48	7°♌43'50	
	2783 Mar 07 09:16	0°♑			2785 Oct 17 15:36	0°♏	
morning max el	2783 Mar 17 11:37	9°♑41'32	46°44'45		2785 Nov 11 18:20	0°♐	
	2783 Apr 05 20:23	0°♒			2785 Dec 07 10:55	0°♑	
desc. node	2783 Apr 14 09:41	9°♒25'48			2786 Jan 03 15:43	0°♒	
	2783 May 02 12:57	0°♓		evening max el	2786 Jan 07 16:18	4°♒09'17	47°14'49
	2783 May 28 06:39	0°♑		asc. node	2786 Jan 20 07:56	16°♒25'45	
	2783 Jun 22 13:39	0°♒			2786 Feb 06 07:11	0°♓	
	2783 Jul 17 13:38	0°♓		greatest brilliancy	2786 Feb 14 09:32	4°♓34'03	-4.7m
asc. node	2783 Aug 05 12:55	22°♓59'01		retrograde	2786 Feb 27 14:43	7°♓48'49	
	2783 Aug 11 07:09	0°♌		evening set	2786 Mar 17 14:53	1°♓30'57	
	2783 Sep 04 18:14	0°♐		min. Earth dist.	2786 Mar 20 00:30	0°♓01'40	0.27732 AU
morning set	2783 Sep 13 09:00	10°♐38'14			2786 Mar 20 01:34	30°♒♏	
	2783 Sep 28 23:47	0°♑		inferior conj	2786 Mar 20 12:41	29°♒42'38	8°48'34
max. Earth dist.	2783 Oct 17 12:08	23°♑03'28	1.72071 AU	minimum elong	2786 Mar 20 15:13	29°♒38'40	8°48'29
				morning rise	2786 Mar 23 15:45	27°♒46'49	
superior conj	2783 Oct 20 12:33	26°♑49'27	1°11'44	direct	2786 Apr 10 08:11	21°♒46'35	
minimum elong	2783 Oct 20 21:38	27°♑17'50	1°11'29	greatest brilliancy	2786 Apr 21 08:23	24°♒00'41	-4.6m
	2783 Oct 23 01:35	0°♌			2786 May 02 16:15	0°♓	
	2783 Nov 16 01:21	0°♏		desc. node	2786 May 11 21:21	6°♓43'47	
desc. node	2783 Nov 25 02:31	11°♏19'51		morning max el	2786 May 29 16:02	22°♓35'33	46°00'46
evening rise	2783 Nov 28 20:48	16°♏02'30			2786 Jun 06 03:42	0°♑	
	2783 Dec 10 00:15	0°♐			2786 Jul 04 06:42	0°♒	
	2784 Jan 02 23:08	0°♑			2786 Jul 30 16:51	0°♓	
	2784 Jan 26 23:28	0°♒			2786 Aug 25 05:40	0°♌	
	2784 Feb 20 04:07	0°♓		asc. node	2786 Sep 02 00:44	9°♌18'50	
	2784 Mar 15 17:34	0°♑			2786 Sep 19 03:31	0°♐	
asc. node	2784 Mar 17 05:37	1°♑48'53			2786 Oct 13 14:14	0°♑	
	2784 Apr 09 22:34	0°♒			2786 Nov 06 17:24	0°♌	
	2784 May 06 07:51	0°♓		morning set	2786 Nov 23 10:51	20°♌56'14	
evening max el	2784 Jun 01 06:05	26°♓57'37	45°29'41		2786 Nov 30 16:14	0°♏	
	2784 Jun 04 10:43	0°♌		desc. node	2786 Dec 22 14:21	27°♏33'11	
greatest brilliancy	2784 Jul 06 03:30	23°♌33'00	-4.5m		2786 Dec 24 13:02	0°♐	

superior conj	2787 Jan 03 01:37	11°☾58'52	0°-27'-6	desc. node	2789 Jun 08 09:14	4°♊29'04	
minimum elong	2787 Jan 02 18:40	11°☾37'00	0°26'47	direct	2789 Jun 20 21:28	1°♊25'30	
max. Earth dist.	2787 Jan 03 06:18	12°☾13'36	1.71096 AU	greatest brilliancy	2789 Jul 03 15:27	4°♊16'55	-4.5m
	2787 Jan 17 09:17	0°≈			2789 Aug 07 10:49	0°☿	
	2787 Feb 10 06:12	0°✕		morning max el	2789 Aug 08 13:11	1°☿02'33	45°43'18
evening rise	2787 Feb 13 09:05	3°✕54'55			2789 Sep 05 14:53	0°♊	
	2787 Mar 06 05:25	0°♊		asc. node	2789 Sep 29 12:33	26°♊59'07	
	2787 Mar 30 09:04	0°♋			2789 Oct 02 02:48	0°♋	
asc. node	2787 Apr 14 17:30	18°♋53'49			2789 Oct 27 08:35	0°♌	
	2787 Apr 23 19:30	0°♌			2789 Nov 20 21:23	0°♌	
	2787 May 18 15:23	0°☿			2789 Dec 15 00:58	0°♍	
	2787 Jun 13 00:53	0°♊			2790 Jan 08 00:10	0°☾	
	2787 Jul 09 09:02	0°♋		desc. node	2790 Jan 19 02:13	13°☾54'38	
desc. node	2787 Aug 04 07:03	27°♋34'36			2790 Jan 31 21:47	0°≈	
	2787 Aug 06 17:09	0°♌		morning set	2790 Feb 07 21:03	8°≈45'04	
evening max el	2787 Aug 12 16:17	5°♌49'01	45°42'13		2790 Feb 24 19:31	0°✕	
	2787 Sep 12 03:25	0°♌					
greatest brilliancy	2787 Sep 19 12:50	3°♌28'46	-4.5m	superior conj	2790 Mar 20 19:29	0°♊02'11	-1°-25'-48
retrograde	2787 Sep 30 11:34	5°♌36'55		minimum elong	2790 Mar 20 22:06	0°♊10'24	1°25'48
evening set	2787 Oct 17 12:23	0°♌09'35			2790 Mar 20 18:46	0°♊	
	2787 Oct 17 18:57	30°♌♌		max. Earth dist.	2790 Mar 24 21:31	5°♊08'05	1.71914 AU
inferior conj	2787 Oct 21 10:56	27°♌46'47	-7°-23'-55		2790 Apr 13 20:56	0°♋	
minimum elong	2787 Oct 21 20:30	27°♌32'03	7°22'21	evening rise	2790 Apr 29 06:59	19°♋05'50	
min. Earth dist.	2787 Oct 22 09:38	27°♌11'51	0.27714 AU		2790 May 08 02:59	0°♌	
morning rise	2787 Oct 26 04:14	24°♌56'13		asc. node	2790 May 12 05:25	5°♌03'10	
direct	2787 Nov 11 13:10	19°♌46'28			2790 Jun 01 13:25	0°☿	
asc. node	2787 Nov 25 10:03	23°♌17'24			2790 Jun 26 04:40	0°♊	
greatest brilliancy	2787 Nov 25 15:34	23°♌24'01	-4.6m		2790 Jul 21 02:05	0°♋	
	2787 Dec 06 10:37	0°♌			2790 Aug 15 08:44	0°♌	
morning max el	2788 Jan 01 05:25	23°♌02'55	46°53'46	desc. node	2790 Aug 31 18:49	19°♌07'31	
	2788 Jan 07 21:55	0°♍			2790 Sep 10 06:24	0°♌	
	2788 Feb 03 20:04	0°☾			2790 Oct 07 08:09	0°♍	
	2788 Feb 29 07:32	0°≈		evening max el	2790 Oct 24 15:22	17°♍50'51	46°45'51
desc. node	2788 Mar 15 23:50	18°≈49'55			2790 Nov 06 14:31	0°☾	
	2788 Mar 25 05:27	0°✕		greatest brilliancy	2790 Dec 02 12:08	17°☾39'02	-4.7m
	2788 Apr 18 21:45	0°♊		retrograde	2790 Dec 13 20:26	20°☾03'31	
	2788 May 13 11:59	0°♋		asc. node	2790 Dec 22 22:05	18°☾22'39	
	2788 Jun 07 01:32	0°♌		evening set	2790 Dec 28 05:10	15°☾58'32	
	2788 Jul 01 14:12	0°☿		inferior conj	2791 Jan 03 09:48	12°☾22'02	2°56'41
morning set	2788 Jul 04 01:19	3°☿01'01		minimum elong	2791 Jan 03 03:20	12°☾31'54	2°54'40
asc. node	2788 Jul 07 03:06	6°☿47'01		min. Earth dist.	2791 Jan 03 02:42	12°☾32'51	0.26478 AU
	2788 Jul 26 01:02	0°♊		morning rise	2791 Jan 09 01:28	9°☾02'42	
max. Earth dist.	2788 Aug 07 04:02	14°♊55'25	1.73361 AU	direct	2791 Jan 23 18:18	4°☾43'54	
				greatest brilliancy	2791 Feb 04 12:54	7°☾18'45	-4.7m
superior conj	2788 Aug 09 12:31	17°♊49'26	1°08'30		2791 Mar 07 12:36	0°≈	
minimum elong	2788 Aug 09 04:04	17°♊23'21	1°08'16	morning max el	2791 Mar 15 01:20	7°≈18'55	46°46'11
	2788 Aug 19 09:26	0°♋			2791 Apr 05 13:41	0°✕	
	2788 Sep 12 15:45	0°♌		desc. node	2791 Apr 13 11:43	8°✕46'41	
evening rise	2788 Sep 14 15:21	2°♌27'16			2791 May 02 03:02	0°♊	
	2788 Oct 06 21:07	0°♌			2791 May 27 19:13	0°♋	
desc. node	2788 Oct 26 16:39	24°♌32'12			2791 Jun 22 01:21	0°♌	
	2788 Oct 31 02:34	0°♍			2791 Jul 17 00:48	0°☿	
	2788 Nov 24 08:53	0°☾		asc. node	2791 Aug 04 14:55	22°☿32'01	
	2788 Dec 18 17:15	0°≈			2791 Aug 10 17:58	0°♊	
	2789 Jan 12 07:07	0°✕			2791 Sep 04 04:53	0°♋	
	2789 Feb 06 10:28	0°♊		morning set	2791 Sep 11 01:48	8°♋28'53	
asc. node	2789 Feb 16 19:41	12°♊01'48			2791 Sep 28 10:24	0°♌	
	2789 Mar 04 21:32	0°♋		max. Earth dist.	2791 Oct 15 04:30	20°♌51'33	1.72120 AU
evening max el	2789 Mar 20 07:57	16°♋07'14	46°23'07				
	2789 Apr 04 05:23	0°♌		superior conj	2791 Oct 18 03:29	24°♌32'56	1°13'33
greatest brilliancy	2789 Apr 24 13:28	14°♌05'56	-4.5m	minimum elong	2791 Oct 18 12:09	25°♌00'00	1°13'20
retrograde	2789 May 09 02:12	17°♌51'42			2791 Oct 22 12:16	0°♌	
evening set	2789 May 24 11:31	13°♌15'19			2791 Nov 15 12:10	0°♍	
inferior conj	2789 May 30 11:14	9°♌37'28	2°06'37	desc. node	2791 Nov 24 04:37	10°♍52'26	
minimum elong	2789 May 30 15:47	9°♌30'19	2°05'18	evening rise	2791 Nov 26 08:46	13°♍35'39	
min. Earth dist.	2789 May 30 09:39	9°♌39'58	0.28665 AU		2791 Dec 09 11:13	0°☾	
morning rise	2789 Jun 05 20:24	5°♌47'05			2792 Jan 02 10:15	0°≈	

	2792 Jan 26 10:47	0° H			2794 Aug 24 17:25	0° Ω		
	2792 Feb 19 15:44	0° Υ		asc. node	2794 Sep 01 02:41	8° Ω 50'02		
	2792 Mar 15 05:42	0° B			2794 Sep 18 14:46	0° M		
asc. node	2792 Mar 16 07:37	1° B 18'11			2794 Oct 13 01:15	0° Ω		
	2792 Apr 09 11:47	0° Π		greatest brilliancy	2794 Oct 31 16:13	23° Ω 07'57	-3.9m	
	2792 May 05 23:32	0° E			2794 Nov 06 04:19	0° M		
evening max el	2792 May 29 22:41	24° E 49'35	45°30'31	morning set	2794 Nov 20 23:52	18° M 32'30		
	2792 Jun 04 10:21	0° Ω			2794 Nov 30 03:06	0° A		
greatest brilliancy	2792 Jul 03 16:59	21° Ω 21'39	-4.5m	desc. node	2794 Dec 21 16:26	27° A 05'32		
desc. node	2792 Jul 05 21:17	22° Ω 17'28			2794 Dec 23 23:55	0° E		
retrograde	2792 Jul 17 16:19	24° Ω 45'51						
evening set	2792 Aug 02 23:35	19° Ω 41'36		superior conj	2794 Dec 31 11:40	9° E 25'15	0°-23'-16	
inferior conj	2792 Aug 08 03:44	16° Ω 33'29	-6°-48'-10	minimum elong	2794 Dec 31 05:39	9° E 06'18	0°23'00	
minimum elong	2792 Aug 07 18:05	16° Ω 48'33	6°46'27	max. Earth dist.	2794 Dec 31 10:50	9° E 22'38	1.71102 AU	
min. Earth dist.	2792 Aug 08 02:42	16° Ω 35'06	0.29033 AU		2795 Jan 16 20:13	0° \approx		
morning rise	2792 Aug 12 12:30	13° Ω 53'13			2795 Feb 09 17:11	0° H		
direct	2792 Aug 29 18:50	8° Ω 15'39		evening rise	2795 Feb 10 19:13	1° H 21'40		
greatest brilliancy	2792 Sep 13 00:43	11° Ω 48'58	-4.5m		2795 Mar 05 16:27	0° Υ		
	2792 Oct 08 11:39	0° M			2795 Mar 29 20:13	0° B		
morning max el	2792 Oct 18 07:53	9° M 16'44	46°12'26	asc. node	2795 Apr 13 19:36	18° B 25'35		
asc. node	2792 Oct 27 00:24	18° M 05'18			2795 Apr 23 06:55	0° Π		
	2792 Nov 07 03:11	0° Ω			2795 May 18 03:19	0° E		
	2792 Dec 03 09:18	0° M			2795 Jun 12 13:50	0° Ω		
	2792 Dec 28 09:22	0° A			2795 Jul 09 00:10	0° M		
	2793 Jan 21 20:13	0° E		desc. node	2795 Aug 03 08:59	26° M 49'02		
	2793 Feb 15 01:24	0° \approx			2795 Aug 06 14:10	0° Ω		
desc. node	2793 Feb 15 13:57	0° \approx 38'56		evening max el	2795 Aug 10 05:49	3° Ω 32'03	45°40'30	
	2793 Mar 11 04:42	0° H			2795 Sep 14 05:19	0° M		
	2793 Apr 04 08:14	0° Υ		greatest brilliancy	2795 Sep 17 01:58	1° M 10'56	-4.5m	
morning set	2793 Apr 23 17:44	24° Υ 02'20		retrograde	2795 Sep 28 00:25	3° M 19'10		
	2793 Apr 28 13:21	0° B			2795 Oct 11 02:50	30° R Ω		
	2793 May 22 20:32	0° Π		evening set	2795 Oct 15 05:10	27° Ω 47'18		
superior conj	2793 May 31 12:51	10° Π 41'34	0°-19'-22	inferior conj	2795 Oct 19 01:06	25° Ω 28'18	-7°-34'-59	
minimum elong	2793 May 31 16:59	10° Π 54'16	0°19'12	minimum elong	2795 Oct 19 10:14	25° Ω 14'12	7°33'35	
max. Earth dist.	2793 Jun 02 02:18	12° Π 36'50	1.73322 AU	min. Earth dist.	2795 Oct 20 00:03	24° Ω 52'55	0.27786 AU	
asc. node	2793 Jun 08 17:20	20° Π 46'09		morning rise	2795 Oct 23 14:53	22° Ω 42'24		
	2793 Jun 16 05:30	0° E		direct	2795 Nov 09 03:29	17° Ω 26'45		
evening rise	2793 Jul 07 05:39	25° E 48'29		greatest brilliancy	2795 Nov 23 07:41	21° Ω 05'22	-4.6m	
	2793 Jul 10 15:36	0° Ω		asc. node	2795 Nov 24 12:11	21° Ω 40'58		
	2793 Aug 04 02:42	0° M		morning max el	2795 Dec 07 04:26	0° M		
	2793 Aug 28 15:32	0° Ω			2795 Dec 29 18:45	20° M 37'53	46°52'58	
	2793 Sep 22 07:26	0° M			2796 Jan 07 17:45	0° A		
desc. node	2793 Sep 28 06:47	7° M 14'01			2796 Feb 03 11:29	0° E		
	2793 Oct 17 04:02	0° A		desc. node	2796 Feb 28 21:03	0° \approx		
	2793 Nov 11 07:58	0° E			2796 Mar 15 01:55	18° \approx 17'34		
	2793 Dec 07 02:45	0° \approx			2796 Mar 24 17:56	0° H		
	2794 Jan 03 12:57	0° H			2796 Apr 18 09:33	0° Υ		
evening max el	2794 Jan 05 07:49	1° H 49'52	47°15'17		2796 May 12 23:18	0° B		
asc. node	2794 Jan 19 09:54	15° H 23'52			2796 Jun 06 12:31	0° Π		
	2794 Feb 07 17:45	0° Υ		morning set	2796 Jul 01 00:58	0° E		
greatest brilliancy	2794 Feb 12 01:57	2° Υ 14'40	-4.7m	asc. node	2796 Jul 01 19:20	0° E 56'13		
retrograde	2794 Feb 25 05:36	5° Υ 27'03			2796 Jul 06 05:06	6° E 20'17		
	2794 Mar 13 19:47	30° R H		max. Earth dist.	2796 Jul 25 11:42	0° Ω		
evening set	2794 Mar 15 05:32	29° H 09'10			2796 Aug 04 23:42	12° Ω 55'26	1.73386 AU	
min. Earth dist.	2794 Mar 17 13:35	27° H 42'12	0.27680 AU	superior conj	2796 Aug 07 07:06	15° Ω 46'03	1°06'37	
inferior conj	2794 Mar 18 02:45	27° H 21'35	8°51'23	minimum elong	2796 Aug 06 22:28	15° Ω 19'27	1°06'20	
minimum elong	2794 Mar 18 04:26	27° H 18'58	8°51'20		2796 Aug 18 20:05	0° M		
morning rise	2794 Mar 21 03:34	25° H 29'09		evening rise	2796 Sep 12 08:48	0° Ω 19'23		
direct	2794 Apr 07 22:13	19° H 26'41			2796 Sep 12 02:32	0° Ω		
greatest brilliancy	2794 Apr 18 19:24	21° H 38'11	-4.6m		2796 Oct 06 08:07	0° M		
	2794 May 03 15:14	0° Υ		desc. node	2796 Oct 25 18:48	24° M 03'56		
desc. node	2794 May 10 23:25	5° Υ 38'33			2796 Oct 30 13:56	0° A		
morning max el	2794 May 27 06:30	20° Υ 19'41	46°02'10		2796 Nov 23 20:39	0° E		
	2794 Jun 05 23:26	0° B			2796 Dec 18 05:34	0° \approx		
	2794 Jul 03 21:28	0° Π			2797 Jan 11 20:13	0° H		
	2794 Jul 30 05:36	0° E			2797 Feb 06 01:00	0° Υ		

asc. node	2797 Feb 15 21:40	11° Υ 23'12			2799 Sep 03 15:51	0° η	
	2797 Mar 04 15:26	0° \mathcal{B}		morning set	2799 Sep 08 18:53	6° η 19'35	
evening max el	2797 Mar 17 21:52	13° \mathcal{B} 47'50	46°25'30		2799 Sep 27 21:20	0° \mathcal{L}	
	2797 Apr 04 12:51	0° Π		max. Earth dist.	2799 Oct 12 19:42	18° \mathcal{L} 35'07	1.72164 AU
greatest brilliancy	2797 Apr 22 05:50	11° Π 54'09	-4.6m				
retrograde	2797 May 06 18:16	15° Π 40'29		superior conj	2799 Oct 15 19:00	22° \mathcal{L} 17'26	1°15'13
evening set	2797 May 22 05:22	11° Π 01'23		minimum elong	2799 Oct 16 03:13	22° \mathcal{L} 43'04	1°15'02
inferior conj	2797 May 28 03:20	7° Π 26'20	2°26'24		2799 Oct 21 23:15	0° \mathcal{M}	
minimum elong	2797 May 28 08:33	7° Π 18'08	2°24'54		2799 Nov 14 23:15	0° \mathcal{A}	
min. Earth dist.	2797 May 28 02:17	7° Π 28'00	0.28641 AU	desc. node	2799 Nov 23 06:40	10° \mathcal{A} 24'02	
morning rise	2797 Jun 03 11:59	3° Π 36'35		evening rise	2799 Nov 23 21:20	11° \mathcal{A} 09'55	
desc. node	2797 Jun 07 11:20	1° Π 39'10			2799 Dec 08 22:26	0° \mathcal{C}	
	2797 Jun 12 07:51	30° \mathcal{R}			2800 Jan 01 21:40	0° \approx	
direct	2797 Jun 18 12:28	29° \mathcal{B} 14'28			2800 Jan 25 22:28	0° \mathcal{H}	
	2797 Jun 24 22:17	0° Π			2800 Feb 19 03:47	0° Υ	
greatest brilliancy	2797 Jul 01 06:52	2° Π 05'56	-4.5m		2800 Mar 14 18:22	0° \mathcal{B}	
morning max el	2797 Aug 06 04:49	28° Π 51'51	45°43'18	asc. node	2800 Mar 15 09:41	0° \mathcal{B} 46'08	
	2797 Aug 07 09:18	0° \mathcal{C}			2800 Apr 09 01:39	0° Π	
	2797 Sep 05 06:30	0° \mathcal{Q}			2800 May 05 16:07	0° \mathcal{C}	
asc. node	2797 Sep 28 14:41	26° \mathcal{Q} 26'21		evening max el	2800 May 27 15:28	22° \mathcal{C} 40'18	45°31'31
	2797 Oct 01 16:03	0° η			2800 Jun 04 11:55	0° \mathcal{Q}	
	2797 Oct 26 20:46	0° \mathcal{L}		greatest brilliancy	2800 Jul 01 07:44	19° \mathcal{Q} 10'19	-4.5m
	2797 Nov 20 09:05	0° \mathcal{M}		desc. node	2800 Jul 04 23:12	20° \mathcal{Q} 39'30	
	2797 Dec 14 12:25	0° \mathcal{A}		retrograde	2800 Jul 15 08:33	22° \mathcal{Q} 35'45	
	2798 Jan 07 11:30	0° \mathcal{C}		evening set	2800 Jul 31 12:51	17° \mathcal{Q} 35'42	
desc. node	2798 Jan 18 04:10	13° \mathcal{C} 25'24		inferior conj	2800 Aug 05 19:53	14° \mathcal{Q} 23'06	-6°-35'-41
	2798 Jan 31 09:01	0° \approx		minimum elong	2800 Aug 05 10:06	14° \mathcal{Q} 38'22	6°33'51
morning set	2798 Feb 05 06:39	6° \approx 09'19		min. Earth dist.	2800 Aug 05 17:58	14° \mathcal{Q} 26'05	0.29037 AU
	2798 Feb 24 06:39	0° \mathcal{H}		morning rise	2800 Aug 10 07:20	11° \mathcal{Q} 38'47	
				direct	2800 Aug 27 11:40	6° \mathcal{Q} 05'26	
superior conj	2798 Mar 18 07:27	27° \mathcal{H} 35'11	-1°-26'-10	greatest brilliancy	2800 Sep 10 14:55	9° \mathcal{Q} 36'00	-4.5m
minimum elong	2798 Mar 18 09:05	27° \mathcal{H} 40'17	1°26'10		2800 Oct 08 13:58	0° η	
	2798 Mar 20 05:49	0° Υ		morning max el	2800 Oct 15 23:28	7° η 02'44	46°10'55
max. Earth dist.	2798 Mar 22 05:18	2° Υ 28'14	1.71859 AU	asc. node	2800 Oct 26 02:27	17° η 20'31	
	2798 Apr 13 07:56	0° \mathcal{B}			2800 Nov 06 20:05	0° \mathcal{L}	
evening rise	2798 Apr 26 21:13	16° \mathcal{B} 47'26			2800 Dec 02 23:25	0° \mathcal{M}	
	2798 May 07 14:01	0° Π			2800 Dec 27 22:14	0° \mathcal{A}	
asc. node	2798 May 11 07:32	4° Π 35'39			2801 Jan 21 08:24	0° \mathcal{C}	
	2798 Jun 01 00:35	0° \mathcal{C}		desc. node	2801 Feb 14 16:03	0° \approx 08'57	
	2798 Jun 25 16:07	0° \mathcal{Q}			2801 Feb 14 13:10	0° \approx	
	2798 Jul 20 14:05	0° η			2801 Mar 10 16:11	0° \mathcal{H}	
	2798 Aug 14 21:42	0° \mathcal{L}			2801 Apr 03 19:32	0° Υ	
desc. node	2798 Aug 30 20:52	18° \mathcal{L} 33'11		morning set	2801 Apr 21 08:28	21° Υ 44'53	
	2798 Sep 09 21:10	0° \mathcal{M}			2801 Apr 28 00:29	0° \mathcal{B}	
	2798 Oct 07 02:49	0° \mathcal{A}			2801 May 22 07:33	0° Π	
evening max el	2798 Oct 22 04:57	15° \mathcal{A} 28'13	46°43'42				
	2798 Nov 06 22:58	0° \mathcal{C}		superior conj	2801 May 29 05:18	8° Π 30'33	0°-22'-37
greatest brilliancy	2798 Nov 30 00:24	15° \mathcal{C} 10'01	-4.6m	minimum elong	2801 May 29 10:05	8° Π 45'17	0°22'24
retrograde	2798 Dec 11 09:04	17° \mathcal{C} 34'35		max. Earth dist.	2801 May 31 00:00	10° Π 42'01	1.73290 AU
asc. node	2798 Dec 22 00:01	15° \mathcal{C} 16'34		asc. node	2801 Jun 07 19:16	20° Π 18'22	
evening set	2798 Dec 25 16:32	13° \mathcal{C} 30'32			2801 Jun 15 16:27	0° \mathcal{C}	
inferior conj	2798 Dec 31 22:00	9° \mathcal{C} 53'10	2°33'06	evening rise	2801 Jul 04 23:57	23° \mathcal{C} 43'33	
minimum elong	2798 Dec 31 16:18	10° \mathcal{C} 01'49	2°31'19		2801 Jul 10 02:37	0° \mathcal{Q}	
min. Earth dist.	2798 Dec 31 16:02	10° \mathcal{C} 02'14	0.26479 AU		2801 Aug 03 13:55	0° η	
morning rise	2799 Jan 06 16:05	6° \mathcal{C} 31'00			2801 Aug 28 03:06	0° \mathcal{L}	
direct	2799 Jan 21 07:05	2° \mathcal{C} 14'46			2801 Sep 21 19:32	0° \mathcal{M}	
greatest brilliancy	2799 Feb 02 03:33	4° \mathcal{C} 52'21	-4.7m	desc. node	2801 Sep 27 08:55	6° \mathcal{M} 43'24	
	2799 Mar 07 15:00	0° \approx			2801 Oct 16 16:54	0° \mathcal{A}	
morning max el	2799 Mar 12 15:50	4° \approx 56'45	46°47'21		2801 Nov 10 22:05	0° \mathcal{C}	
	2799 Apr 05 07:10	0° \mathcal{H}			2801 Dec 06 19:09	0° \approx	
desc. node	2799 Apr 12 13:50	8° \mathcal{H} 06'43		evening max el	2802 Jan 02 22:46	29° \approx 28'20	47°15'43
	2799 May 01 17:30	0° Υ			2802 Jan 03 11:12	0° \mathcal{H}	
	2799 May 27 08:09	0° \mathcal{B}		asc. node	2802 Jan 18 11:53	14° \mathcal{H} 20'05	
	2799 Jun 21 13:23	0° Π			2802 Feb 09 22:52	0° Υ	
	2799 Jul 16 12:17	0° \mathcal{C}		greatest brilliancy	2802 Feb 09 18:48	29° \mathcal{H} 55'23	-4.7m
asc. node	2799 Aug 03 16:51	22° \mathcal{C} 03'50		retrograde	2802 Feb 22 20:03	3° Υ 04'51	
	2799 Aug 10 05:07	0° \mathcal{Q}			2802 Mar 07 02:13	30° \mathcal{R}	

evening set	2802 Mar 12 19:51	26° H 47'53		superior conj	2804 Aug 05 01:25	13° Q 41'20	1°04'36
min. Earth dist.	2802 Mar 15 03:09	25° H 21'59	0.27632 AU	minimum elong	2804 Aug 04 16:40	13° Q 14'22	1°04'19
inferior conj	2802 Mar 15 17:00	25° H 00'17	8°53'10		2804 Aug 18 06:55	0° M	
minimum elong	2802 Mar 15 17:49	24° H 59'01	8°53'09	evening rise	2804 Sep 10 02:02	28° M 10'24	
morning rise	2802 Mar 18 16:00	23° H 10'27			2804 Sep 11 13:28	0° Q	
direct	2802 Apr 05 12:03	17° H 06'26			2804 Oct 05 19:17	0° M	
greatest brilliancy	2802 Apr 16 07:33	19° H 16'06	-4.6m	desc. node	2804 Oct 24 20:47	23° M 34'48	
	2802 May 04 08:37	0° Y			2804 Oct 30 01:24	0° X	
desc. node	2802 May 10 01:31	4° Y 34'17			2804 Nov 23 08:32	0° Z	
morning max el	2802 May 24 20:11	18° Y 00'36	46°03'21		2804 Dec 17 17:59	0° \approx	
	2802 Jun 05 19:02	0° B			2805 Jan 11 09:26	0° H	
	2802 Jul 03 12:31	0° II			2805 Feb 05 15:43	0° Y	
	2802 Jul 29 18:43	0° Q		asc. node	2805 Feb 14 23:50	10° Y 44'45	
	2802 Aug 24 05:32	0° Q			2805 Mar 04 09:43	0° B	
asc. node	2802 Aug 31 04:50	8° Q 20'44		evening max el	2805 Mar 15 12:24	11° B 30'05	46°28'03
	2802 Sep 18 02:21	0° M			2805 Apr 04 22:55	0° II	
	2802 Oct 12 12:33	0° Q		greatest brilliancy	2805 Apr 19 21:33	9° II 41'54	-4.6m
greatest brilliancy	2802 Nov 04 23:50	29° Q 11'07	-3.9m	retrograde	2805 May 04 10:50	13° II 29'48	
	2802 Nov 05 15:30	0° M		evening set	2805 May 19 23:25	8° II 47'39	
morning set	2802 Nov 18 12:57	16° M 08'07		inferior conj	2805 May 25 19:30	5° II 15'33	2°45'51
	2802 Nov 29 14:15	0° X		minimum elong	2805 May 26 01:21	5° II 06'22	2°44'11
desc. node	2802 Dec 20 18:23	26° X 36'33		min. Earth dist.	2805 May 25 18:37	5° II 16'56	0.28620 AU
	2802 Dec 23 11:05	0° Z		morning rise	2805 Jun 01 03:31	1° II 26'53	
					2805 Jun 03 23:32	30° R B	
superior conj	2802 Dec 28 22:02	6° Z 51'49	0°-19'-25	desc. node	2805 Jun 06 13:14	28° B 54'19	
minimum elong	2802 Dec 28 16:58	6° Z 35'52	0°19'11	direct	2805 Jun 16 03:56	27° B 03'47	
max. Earth dist.	2802 Dec 28 13:19	6° Z 24'22	1.71108 AU	greatest brilliancy	2805 Jun 28 22:18	29° B 55'25	-4.5m
	2803 Jan 16 07:23	0° \approx			2805 Jun 29 02:37	0° II	
evening rise	2803 Feb 08 05:39	28° \approx 48'45		morning max el	2805 Aug 03 21:16	26° II 43'17	45°43'05
	2803 Feb 09 04:21	0° H			2805 Aug 07 06:52	0° Q	
	2803 Mar 05 03:40	0° Y			2805 Sep 04 21:54	0° Q	
	2803 Mar 29 07:34	0° B		asc. node	2805 Sep 27 16:42	25° Q 53'18	
asc. node	2803 Apr 12 21:40	17° B 56'37			2805 Oct 01 05:16	0° M	
	2803 Apr 22 18:34	0° II			2805 Oct 26 08:58	0° Q	
	2803 May 17 15:34	0° Q			2805 Nov 19 20:46	0° M	
	2803 Jun 12 03:13	0° Q			2805 Dec 13 23:50	0° X	
	2803 Jul 08 15:55	0° M			2806 Jan 06 22:45	0° Z	
desc. node	2803 Aug 02 11:06	26° M 02'09		desc. node	2806 Jan 17 06:13	12° Z 56'45	
	2803 Aug 06 12:28	0° Q			2806 Jan 30 20:09	0° \approx	
evening max el	2803 Aug 07 18:49	1° Q 12'48	45°38'59	morning set	2806 Feb 02 16:13	3° \approx 33'45	
greatest brilliancy	2803 Sep 14 14:12	28° Q 51'15	-4.5m		2806 Feb 23 17:40	0° H	
	2803 Sep 18 03:39	0° M					
retrograde	2803 Sep 25 13:29	1° M 00'50		superior conj	2806 Mar 15 19:20	25° H 08'04	-1°-26'-22
	2803 Oct 02 17:52	30° R Q		minimum elong	2806 Mar 15 19:57	25° H 10'01	1°26'23
evening set	2803 Oct 12 21:47	25° Q 24'13		max. Earth dist.	2806 Mar 19 14:05	29° H 51'38	1.71807 AU
inferior conj	2803 Oct 16 15:12	23° Q 09'04	-7°-45'-15		2806 Mar 19 16:46	0° Y	
minimum elong	2803 Oct 16 23:53	22° Q 55'40	7°44'01		2806 Apr 12 18:50	0° B	
min. Earth dist.	2803 Oct 17 14:20	22° Q 33'25	0.27857 AU	evening rise	2806 Apr 24 11:29	14° B 29'34	
morning rise	2803 Oct 21 01:32	20° Q 28'04			2806 May 07 00:55	0° II	
direct	2803 Nov 06 17:45	15° Q 06'12		asc. node	2806 May 10 09:29	4° II 08'07	
greatest brilliancy	2803 Nov 21 00:39	18° Q 47'23	-4.6m		2806 May 31 11:35	0° Q	
asc. node	2803 Nov 23 14:10	20° Q 07'07			2806 Jun 25 03:26	0° Q	
	2803 Dec 07 18:03	0° M			2806 Jul 20 01:59	0° M	
morning max el	2803 Dec 27 08:34	18° M 13'36	46°52'12		2806 Aug 14 10:40	0° Q	
	2804 Jan 07 13:13	0° X		desc. node	2806 Aug 29 22:58	17° Q 59'01	
	2804 Feb 03 02:50	0° Z			2806 Sep 09 12:05	0° M	
	2804 Feb 28 10:35	0° \approx			2806 Oct 06 22:00	0° X	
desc. node	2804 Mar 14 04:01	17° \approx 45'08		evening max el	2806 Oct 19 19:19	13° X 07'42	46°41'29
	2804 Mar 24 06:25	0° H			2806 Nov 07 10:23	0° Z	
	2804 Apr 17 21:21	0° Y		greatest brilliancy	2806 Nov 27 12:51	12° Z 41'23	-4.6m
	2804 May 12 10:39	0° B		retrograde	2806 Dec 08 21:48	15° Z 05'30	
	2804 Jun 05 23:34	0° II		asc. node	2806 Dec 21 02:02	12° Z 05'29	
morning set	2804 Jun 29 13:12	28° II 50'36		evening set	2806 Dec 23 04:06	11° Z 02'31	
	2804 Jun 30 11:51	0° Q		inferior conj	2806 Dec 29 10:05	7° Z 24'22	2°09'09
asc. node	2804 Jul 05 07:06	5° Q 53'08		minimum elong	2806 Dec 29 05:13	7° Z 31'45	2°07'37
	2804 Jul 24 22:31	0° Q		min. Earth dist.	2806 Dec 29 05:10	7° Z 31'49	0.26476 AU
max. Earth dist.	2804 Aug 02 19:54	10° Q 56'33	1.73415 AU	morning rise	2807 Jan 04 06:23	3° Z 59'32	

	2807 Jan 15 11:36	30°R♂			2809 Aug 03 00:45	0°♏	
direct	2807 Jan 18 20:03	29°♂46'03			2809 Aug 27 14:16	0°♎	
	2807 Jan 22 05:41	0°♂			2809 Sep 21 07:14	0°♍	
greatest brilliancy	2807 Jan 30 17:13	2°♂25'06	-4.7m	desc. node	2809 Sep 26 10:56	6°♍13'42	
	2807 Mar 07 15:47	0°≈			2809 Oct 16 05:27	0°♂	
morning max el	2807 Mar 10 05:57	2°≈34'15	46°48'26		2809 Nov 10 11:59	0°♂	
	2807 Apr 05 00:03	0°♂			2809 Dec 06 11:35	0°≈	
desc. node	2807 Apr 11 15:51	7°♂27'38		evening max el	2809 Dec 31 12:42	27°≈04'34	47°15'52
	2807 May 01 07:32	0°♀			2810 Jan 03 10:13	0°♂	
	2807 May 26 20:45	0°♂		asc. node	2810 Jan 17 14:03	13°♂15'23	
	2807 Jun 21 01:07	0°♂		greatest brilliancy	2810 Feb 07 11:48	27°♂36'00	-4.7m
	2807 Jul 15 23:27	0°♂			2810 Feb 14 10:00	0°♀	
asc. node	2807 Aug 02 19:03	21°♂37'17		retrograde	2810 Feb 20 09:53	0°♀42'21	
	2807 Aug 09 15:57	0°♂			2810 Feb 26 06:03	30°R♂	
	2807 Sep 03 02:33	0°♏		evening set	2810 Mar 10 09:25	24°♂27'08	
morning set	2807 Sep 06 12:09	4°♏11'40		min. Earth dist.	2810 Mar 12 16:48	23°♂01'09	0.27581 AU
	2807 Sep 27 08:03	0°♎		inferior conj	2810 Mar 13 07:01	22°♂38'52	8°53'58
max. Earth dist.	2807 Oct 10 08:56	16°♎13'20	1.72216 AU	minimum elong	2810 Mar 13 06:56	22°♂39'00	8°53'59
				morning rise	2810 Mar 16 04:38	20°♂51'01	
superior conj	2807 Oct 13 10:35	20°♎02'49	1°16'46	direct	2810 Apr 03 01:06	14°♂45'54	
minimum elong	2807 Oct 13 18:16	20°♎26'46	1°16'36	greatest brilliancy	2810 Apr 13 20:30	16°♂55'02	-4.6m
	2807 Oct 21 10:03	0°♍			2810 May 04 21:19	0°♀	
	2807 Nov 14 10:11	0°♂		desc. node	2810 May 09 03:30	3°♀32'06	
evening rise	2807 Nov 21 09:37	8°♂43'46		morning max el	2810 May 22 09:13	15°♀40'36	46°04'47
desc. node	2807 Nov 22 08:40	9°♂55'53			2810 Jun 05 13:41	0°♂	
	2807 Dec 08 09:30	0°♂			2810 Jul 03 02:57	0°♂	
	2808 Jan 01 08:54	0°≈			2810 Jul 29 07:20	0°♂	
	2808 Jan 25 09:56	0°♂			2810 Aug 23 17:13	0°♂	
	2808 Feb 18 15:36	0°♀		asc. node	2810 Aug 30 06:50	7°♂52'15	
asc. node	2808 Mar 14 11:44	0°♂14'49			2810 Sep 17 13:31	0°♏	
	2808 Mar 14 06:49	0°♂			2810 Oct 11 23:27	0°♎	
	2808 Apr 08 15:19	0°♂			2810 Nov 05 02:16	0°♍	
	2808 May 05 08:36	0°♂		greatest brilliancy	2810 Nov 08 23:50	4°♍52'22	-3.9m
evening max el	2808 May 25 07:57	20°♂31'21	45°32'33	morning set	2810 Nov 16 02:35	13°♍46'41	
	2808 Jun 04 14:22	0°♂			2810 Nov 29 01:01	0°♂	
greatest brilliancy	2808 Jun 28 23:35	17°♂01'48	-4.5m	desc. node	2810 Dec 19 20:31	26°♂09'17	
desc. node	2808 Jul 04 01:21	18°♂59'57			2810 Dec 22 21:54	0°♂	
retrograde	2808 Jul 13 00:38	20°♂27'32		max. Earth dist.	2810 Dec 25 17:46	3°♂33'27	1.71127 AU
evening set	2808 Jul 29 02:29	15°♂31'39					
inferior conj	2808 Aug 03 12:16	12°♂14'46	-6°-22'-37	superior conj	2810 Dec 26 08:34	4°♂19'58	0°-15'-32
minimum elong	2808 Aug 03 02:26	12°♂30'10	6°20'43	minimum elong	2810 Dec 26 04:29	4°♂07'08	0°15'22
min. Earth dist.	2808 Aug 03 09:47	12°♂18'40	0.29039 AU	behind sun begin	2810 Dec 25 19:30	3°♂38'52	
morning rise	2808 Aug 08 02:22	9°♂26'19		behind sun end	2810 Dec 26 13:28	4°♂35'24	
direct	2808 Aug 25 04:22	3°♂57'21			2811 Jan 15 18:16	0°≈	
greatest brilliancy	2808 Sep 08 04:49	7°♂24'22	-4.5m	evening rise	2811 Feb 05 15:51	26°≈15'52	
	2808 Oct 08 14:23	0°♏			2811 Feb 08 15:17	0°♂	
morning max el	2808 Oct 13 14:08	4°♏47'50	46°09'15		2811 Mar 04 14:40	0°♀	
asc. node	2808 Oct 25 04:27	16°♏37'25			2811 Mar 28 18:41	0°♂	
	2808 Nov 06 12:18	0°♎		asc. node	2811 Apr 11 23:38	17°♂28'02	
	2808 Dec 02 13:07	0°♍			2811 Apr 22 06:00	0°♂	
	2808 Dec 27 10:48	0°♂			2811 May 17 03:35	0°♂	
	2809 Jan 20 20:20	0°♂			2811 Jun 11 16:23	0°♂	
desc. node	2809 Feb 13 18:13	29°♂39'53			2811 Jul 08 07:33	0°♏	
	2809 Feb 14 00:41	0°≈		desc. node	2811 Aug 01 13:12	25°♏15'39	
	2809 Mar 10 03:24	0°♂		evening max el	2811 Aug 05 08:18	28°♏56'05	45°37'39
	2809 Apr 03 06:30	0°♀			2811 Aug 06 11:11	0°♎	
morning set	2809 Apr 18 23:05	19°♀28'00		greatest brilliancy	2811 Sep 12 01:40	26°♎32'37	-4.5m
	2809 Apr 27 11:15	0°♂		retrograde	2811 Sep 23 03:25	28°♎44'46	
	2809 May 21 18:11	0°♂		evening set	2811 Oct 10 14:31	23°♎03'26	
				inferior conj	2811 Oct 14 05:34	20°♎51'52	-7°-54'-32
superior conj	2809 May 26 21:51	6°♂21'00	0°-25'-49	minimum elong	2811 Oct 14 13:45	20°♎39'16	7°53'29
minimum elong	2809 May 27 03:17	6°♂37'43	0°25'35	min. Earth dist.	2811 Oct 15 04:28	20°♎16'38	0.27926 AU
max. Earth dist.	2809 May 28 21:05	8°♂46'27	1.73254 AU	morning rise	2811 Oct 18 12:33	18°♎15'54	
asc. node	2809 Jun 06 21:21	19°♂52'06		direct	2811 Nov 04 08:35	12°♎47'49	
	2809 Jun 15 03:03	0°♂		greatest brilliancy	2811 Nov 18 17:58	16°♎31'57	-4.6m
evening rise	2809 Jul 02 18:29	21°♂40'24		asc. node	2811 Nov 22 16:11	18°♎38'21	
	2809 Jul 09 13:17	0°♂			2811 Dec 08 03:29	0°♍	

morning max el	2811 Dec 24 23:23	15° \mathbb{M} 53'27	46°51'22		2814 Jul 19 13:55	0° \mathbb{M}	
	2812 Jan 07 07:41	0° \mathbb{X}			2814 Aug 13 23:41	0° \mathbb{L}	
	2812 Feb 02 17:37	0° \mathbb{Z}		desc. node	2814 Aug 29 00:57	17° \mathbb{L} 24'29	
	2812 Feb 27 23:44	0° \approx			2814 Sep 09 03:08	0° \mathbb{M}	
desc. node	2812 Mar 13 05:58	17° \approx 13'06			2814 Oct 06 17:39	0° \mathbb{X}	
	2812 Mar 23 18:39	0° \mathbb{H}		evening max el	2814 Oct 17 09:56	10° \mathbb{X} 48'09	46°39'12
	2812 Apr 17 08:57	0° \mathbb{Y}			2814 Nov 08 01:26	0° \mathbb{Z}	
	2812 May 11 21:49	0° \mathbb{B}		greatest brilliancy	2814 Nov 25 02:13	10° \mathbb{Z} 14'27	-4.6m
	2812 Jun 05 10:26	0° \mathbb{I}		retrograde	2814 Dec 06 10:21	12° \mathbb{Z} 36'53	
morning set	2812 Jun 27 06:57	26° \mathbb{I} 45'15		asc. node	2814 Dec 20 04:13	8° \mathbb{Z} 50'31	
	2812 Jun 29 22:30	0° \mathbb{S}		evening set	2814 Dec 20 16:07	8° \mathbb{Z} 34'56	
asc. node	2812 Jul 04 09:15	5° \mathbb{S} 27'10		inferior conj	2814 Dec 26 22:18	4° \mathbb{Z} 56'11	1°45'03
	2812 Jul 24 09:04	0° \mathbb{Q}		minimum elong	2814 Dec 26 18:19	5° \mathbb{Z} 02'15	1°43'46
max. Earth dist.	2812 Jul 31 18:03	9° \mathbb{Q} 04'29	1.73439 AU	min. Earth dist.	2814 Dec 26 18:38	5° \mathbb{Z} 01'47	0.26475 AU
				morning rise	2815 Jan 01 20:35	1° \mathbb{Z} 28'42	
superior conj	2812 Aug 02 19:44	11° \mathbb{Q} 37'26	1°02'30		2815 Jan 04 20:11	30° \mathbb{R} \mathbb{X}	
minimum elong	2812 Aug 02 10:54	11° \mathbb{Q} 10'16	1°02'13	direct	2815 Jan 16 09:02	27° \mathbb{X} 18'00	
	2812 Aug 17 17:30	0° \mathbb{M}			2815 Jan 28 08:45	0° \mathbb{Z}	
evening rise	2812 Sep 07 19:35	26° \mathbb{M} 03'13		greatest brilliancy	2815 Jan 28 06:51	29° \mathbb{X} 57'59	-4.7m
	2812 Sep 11 00:11	0° \mathbb{L}			2815 Mar 07 15:20	0° \approx	
	2812 Oct 05 06:13	0° \mathbb{M}		morning max el	2815 Mar 07 19:11	0° \approx 09'39	46°49'31
desc. node	2812 Oct 23 22:48	23° \mathbb{M} 06'28			2815 Apr 04 16:31	0° \mathbb{H}	
	2812 Oct 29 12:39	0° \mathbb{X}		desc. node	2815 Apr 10 17:53	6° \mathbb{H} 49'13	
	2812 Nov 22 20:10	0° \mathbb{Z}			2815 Apr 30 21:23	0° \mathbb{Y}	
	2812 Dec 17 06:08	0° \approx			2815 May 26 09:16	0° \mathbb{B}	
	2813 Jan 10 22:26	0° \mathbb{H}			2815 Jun 20 12:52	0° \mathbb{I}	
	2813 Feb 05 06:21	0° \mathbb{Y}			2815 Jul 15 10:42	0° \mathbb{S}	
asc. node	2813 Feb 14 01:48	10° \mathbb{Y} 06'06		asc. node	2815 Aug 01 21:02	21° \mathbb{S} 09'44	
	2813 Mar 04 04:19	0° \mathbb{B}			2815 Aug 09 02:55	0° \mathbb{Q}	
evening max el	2813 Mar 13 03:48	9° \mathbb{B} 14'49	46°30'19		2815 Sep 02 13:22	0° \mathbb{M}	
	2813 Apr 05 12:29	0° \mathbb{I}		morning set	2815 Sep 04 05:17	2° \mathbb{M} 03'08	
greatest brilliancy	2813 Apr 17 13:39	7° \mathbb{I} 29'58	-4.6m		2815 Sep 26 18:50	0° \mathbb{L}	
retrograde	2813 May 02 03:34	11° \mathbb{I} 18'30		max. Earth dist.	2815 Oct 07 21:53	13° \mathbb{L} 50'35	1.72265 AU
evening set	2813 May 17 17:26	6° \mathbb{I} 33'17					
inferior conj	2813 May 23 11:27	3° \mathbb{I} 04'07	3°05'12	superior conj	2815 Oct 11 02:15	17° \mathbb{L} 48'23	1°18'10
minimum elong	2813 May 23 17:54	2° \mathbb{I} 53'59	3°03'23	minimum elong	2815 Oct 11 09:22	18° \mathbb{L} 10'33	1°18'02
min. Earth dist.	2813 May 23 10:28	3° \mathbb{I} 05'39	0.28598 AU		2815 Oct 20 20:55	0° \mathbb{M}	
	2813 May 28 12:06	30° \mathbb{R} \mathbb{B}			2815 Nov 13 21:10	0° \mathbb{X}	
morning rise	2813 May 29 18:40	29° \mathbb{B} 16'57		evening rise	2815 Nov 18 22:02	6° \mathbb{X} 17'55	
desc. node	2813 Jun 05 15:23	26° \mathbb{B} 13'06		desc. node	2815 Nov 21 10:46	9° \mathbb{X} 27'51	
direct	2813 Jun 13 19:47	24° \mathbb{B} 52'39			2815 Dec 07 20:41	0° \mathbb{Z}	
greatest brilliancy	2813 Jun 26 13:01	27° \mathbb{B} 43'54	-4.5m		2815 Dec 31 20:17	0° \approx	
	2813 Jul 01 06:03	0° \mathbb{I}			2816 Jan 24 21:33	0° \mathbb{H}	
morning max el	2813 Aug 01 13:56	24° \mathbb{I} 35'34	45°43'00		2816 Feb 18 03:35	0° \mathbb{Y}	
	2813 Aug 07 03:33	0° \mathbb{S}		asc. node	2816 Mar 13 13:44	29° \mathbb{Y} 42'57	
	2813 Sep 04 12:55	0° \mathbb{Q}			2816 Mar 13 19:24	0° \mathbb{B}	
asc. node	2813 Sep 26 18:42	25° \mathbb{Q} 20'50			2816 Apr 08 05:11	0° \mathbb{I}	
	2813 Sep 30 18:13	0° \mathbb{M}			2816 May 05 01:33	0° \mathbb{S}	
	2813 Oct 25 20:57	0° \mathbb{L}		evening max el	2816 May 22 23:26	18° \mathbb{S} 19'25	45°33'29
	2813 Nov 19 08:16	0° \mathbb{M}			2816 Jun 04 18:44	0° \mathbb{Q}	
	2813 Dec 13 11:05	0° \mathbb{X}		greatest brilliancy	2816 Jun 26 15:07	14° \mathbb{Q} 52'00	-4.5m
	2814 Jan 06 09:50	0° \mathbb{Z}		desc. node	2816 Jul 03 03:24	17° \mathbb{Q} 15'51	
desc. node	2814 Jan 16 08:22	12° \mathbb{Z} 28'52		retrograde	2816 Jul 10 16:17	18° \mathbb{Q} 18'29	
	2814 Jan 30 07:06	0° \approx		evening set	2816 Jul 26 16:07	13° \mathbb{Q} 26'27	
morning set	2814 Jan 31 02:17	1° \approx 00'16		inferior conj	2816 Aug 01 04:36	10° \mathbb{Q} 05'38	-6°-9'-1
	2814 Feb 23 04:31	0° \mathbb{H}		minimum elong	2816 Jul 31 18:44	10° \mathbb{Q} 21'06	6°07'02
				min. Earth dist.	2816 Aug 01 01:55	10° \mathbb{Q} 09'51	0.29041 AU
superior conj	2814 Mar 13 07:22	22° \mathbb{H} 41'46	-1°-26'-23	morning rise	2816 Aug 05 21:19	7° \mathbb{Q} 13'02	
minimum elong	2814 Mar 13 06:59	22° \mathbb{H} 40'34	1°26'25	direct	2816 Aug 22 20:31	1° \mathbb{Q} 48'15	
max. Earth dist.	2814 Mar 17 02:06	27° \mathbb{H} 25'27	1.71761 AU	greatest brilliancy	2816 Sep 05 19:35	5° \mathbb{Q} 12'53	-4.5m
	2814 Mar 19 03:34	0° \mathbb{Y}			2816 Oct 08 14:01	0° \mathbb{M}	
	2814 Apr 12 05:38	0° \mathbb{B}		morning max el	2816 Oct 11 04:04	2° \mathbb{M} 30'23	46°07'46
evening rise	2814 Apr 22 01:44	12° \mathbb{B} 11'43		asc. node	2816 Oct 24 06:33	15° \mathbb{M} 54'25	
	2814 May 06 11:47	0° \mathbb{I}			2816 Nov 06 04:28	0° \mathbb{L}	
asc. node	2814 May 09 11:34	3° \mathbb{I} 41'01			2816 Dec 02 02:54	0° \mathbb{M}	
	2814 May 30 22:36	0° \mathbb{S}			2816 Dec 26 23:28	0° \mathbb{X}	
	2814 Jun 24 14:45	0° \mathbb{Q}			2817 Jan 20 08:23	0° \mathbb{Z}	

desc. node	2817 Feb 12 20:05	29°☾09'23		evening max el	2819 Aug 02 22:24	26°☾40'01	45°36'21
	2817 Feb 13 12:22	0°☾			2819 Aug 06 11:23	0°☾	
	2817 Mar 09 14:48	0°☾		greatest brilliancy	2819 Sep 09 12:15	24°☾12'03	-4.5m
	2817 Apr 02 17:40	0°☾		retrograde	2819 Sep 20 17:45	26°☾27'24	
morning set	2817 Apr 16 13:40	17°☾10'18		evening set	2819 Oct 08 07:01	20°☾41'36	
	2817 Apr 26 22:13	0°☾		inferior conj	2819 Oct 11 19:50	18°☾33'14	-8°-3'00
	2817 May 21 05:01	0°☾		minimum elong	2819 Oct 12 03:27	18°☾21'31	8°02'07
				min. Earth dist.	2819 Oct 12 18:04	17°☾59'03	0.27997 AU
superior conj	2817 May 24 14:32	4°☾11'09	0°-28'-58	morning rise	2819 Oct 15 23:32	16°☾02'14	
minimum elong	2817 May 24 20:34	4°☾29'46	0°28'43	direct	2819 Nov 01 23:50	10°☾28'07	
max. Earth dist.	2817 May 26 17:10	6°☾47'09	1.73216 AU	greatest brilliancy	2819 Nov 16 10:46	14°☾14'32	-4.6m
asc. node	2817 Jun 05 23:28	19°☾25'18		asc. node	2819 Nov 21 18:20	17°☾11'20	
	2817 Jun 14 13:52	0°☾			2819 Dec 08 11:00	0°☾	
evening rise	2817 Jun 30 13:03	19°☾36'40		morning max el	2819 Dec 22 14:56	13°☾33'45	46°50'25
	2817 Jul 09 00:12	0°☾			2820 Jan 07 02:15	0°☾	
	2817 Aug 02 11:54	0°☾			2820 Feb 02 08:41	0°☾	
	2817 Aug 27 01:47	0°☾			2820 Feb 27 13:11	0°☾	
	2817 Sep 20 19:19	0°☾		desc. node	2820 Mar 12 08:04	16°☾40'29	
desc. node	2817 Sep 25 12:54	5°☾42'44			2820 Mar 23 07:09	0°☾	
	2817 Oct 15 18:23	0°☾			2820 Apr 16 20:51	0°☾	
	2817 Nov 10 02:20	0°☾			2820 May 11 09:18	0°☾	
	2817 Dec 06 04:37	0°☾			2820 Jun 04 21:38	0°☾	
evening max el	2817 Dec 29 01:37	24°☾37'21	47°16'02	morning set	2820 Jun 25 00:46	24°☾38'59	
	2818 Jan 03 10:37	0°☾			2820 Jun 29 09:31	0°☾	
asc. node	2818 Jan 16 16:01	12°☾07'40		asc. node	2820 Jul 03 11:13	4°☾59'34	
greatest brilliancy	2818 Feb 05 04:02	25°☾14'27	-4.7m		2820 Jul 23 19:58	0°☾	
retrograde	2818 Feb 17 23:36	28°☾18'48		max. Earth dist.	2820 Jul 29 16:53	7°☾13'29	1.73457 AU
evening set	2818 Mar 07 22:22	22°☾05'45					
inferior conj	2818 Mar 10 20:58	20°☾16'10	8°53'51	superior conj	2820 Jul 31 14:08	9°☾32'45	1°00'20
minimum elong	2818 Mar 10 19:57	20°☾17'45	8°53'51	minimum elong	2820 Jul 31 05:17	9°☾05'31	1°00'01
min. Earth dist.	2818 Mar 10 06:26	20°☾38'55	0.27532 AU		2820 Aug 17 04:24	0°☾	
morning rise	2818 Mar 13 17:41	18°☾29'43		evening rise	2820 Sep 05 13:17	23°☾55'33	
direct	2818 Mar 31 13:52	12°☾23'48			2820 Sep 10 11:12	0°☾	
greatest brilliancy	2818 Apr 11 10:16	14°☾33'35	-4.6m		2820 Oct 04 17:30	0°☾	
	2818 May 05 07:13	0°☾		desc. node	2820 Oct 23 00:57	22°☾37'30	
desc. node	2818 May 08 05:36	2°☾30'39			2820 Oct 29 00:17	0°☾	
morning max el	2818 May 19 22:35	13°☾20'15	46°06'23		2820 Nov 22 08:14	0°☾	
	2818 Jun 05 08:13	0°☾			2820 Dec 16 18:47	0°☾	
	2818 Jul 02 17:33	0°☾			2821 Jan 10 11:59	0°☾	
	2818 Jul 28 20:11	0°☾			2821 Feb 04 21:37	0°☾	
	2818 Aug 23 05:11	0°☾		asc. node	2821 Feb 13 03:49	9°☾26'00	
asc. node	2818 Aug 29 08:50	7°☾22'44			2821 Mar 03 23:53	0°☾	
	2818 Sep 17 01:01	0°☾		evening max el	2821 Mar 10 19:38	6°☾59'24	46°32'45
	2818 Oct 11 10:43	0°☾			2821 Apr 06 07:25	0°☾	
	2818 Nov 04 13:26	0°☾		greatest brilliancy	2821 Apr 15 06:41	5°☾18'06	-4.6m
greatest brilliancy	2818 Nov 13 06:41	10°☾54'16	-3.9m	retrograde	2821 Apr 29 20:18	9°☾05'43	
morning set	2818 Nov 13 16:04	11°☾23'39		evening set	2821 May 15 11:31	4°☾17'34	
	2818 Nov 28 12:10	0°☾		inferior conj	2821 May 21 03:17	0°☾51'16	3°24'25
desc. node	2818 Dec 18 22:35	25°☾40'35		minimum elong	2821 May 21 10:18	0°☾40'16	3°22'28
	2818 Dec 22 09:04	0°☾		min. Earth dist.	2821 May 21 01:57	0°☾53'21	0.28573 AU
max. Earth dist.	2818 Dec 23 01:04	0°☾50'17	1.71143 AU		2821 May 22 12:02	30°☾	
				morning rise	2821 May 27 09:30	27°☾05'47	
superior conj	2818 Dec 23 18:53	1°☾46'19	0°-11'-37	desc. node	2821 Jun 04 17:28	23°☾35'17	
minimum elong	2818 Dec 23 15:49	1°☾36'41	0°11'29	direct	2821 Jun 11 11:47	22°☾40'21	
behind sun begin	2818 Dec 22 20:58	0°☾37'24		greatest brilliancy	2821 Jun 24 02:37	25°☾29'50	-4.5m
behind sun end	2818 Dec 24 10:40	2°☾35'59			2821 Jul 02 16:33	0°☾	
	2819 Jan 15 05:29	0°☾		morning max el	2821 Jul 30 06:25	22°☾26'25	45°42'58
evening rise	2819 Feb 03 02:00	23°☾41'49			2821 Aug 06 23:56	0°☾	
	2819 Feb 08 02:33	0°☾			2821 Sep 04 04:02	0°☾	
	2819 Mar 04 02:00	0°☾		asc. node	2821 Sep 25 20:49	24°☾48'07	
	2819 Mar 28 06:12	0°☾			2821 Sep 30 07:19	0°☾	
asc. node	2819 Apr 11 01:44	16°☾58'45			2821 Oct 25 09:08	0°☾	
	2819 Apr 21 17:50	0°☾			2821 Nov 18 20:00	0°☾	
	2819 May 16 16:02	0°☾			2821 Dec 12 22:36	0°☾	
	2819 Jun 11 06:01	0°☾			2822 Jan 05 21:12	0°☾	
	2819 Jul 07 23:48	0°☾		desc. node	2822 Jan 15 10:18	11°☾59'19	
desc. node	2819 Jul 31 15:08	24°☾27'01		morning set	2822 Jan 28 11:54	28°☾24'19	

	2822 Jan 29 18:22	0°♊		inferior conj	2824 Jul 29 20:59	7°♌56'44	-5°-54'-59
	2822 Feb 22 15:43	0°♋		minimum elong	2824 Jul 29 11:09	8°♌12'09	5°52'54
				min. Earth dist.	2824 Jul 29 18:12	8°♌01'06	0.29042 AU
superior conj	2822 Mar 10 18:45	20°♋12'24	-1°-26'-16	morning rise	2824 Aug 03 16:19	5°♌00'09	
minimum elong	2822 Mar 10 17:19	20°♋07'55	1°26'16		2824 Aug 16 07:22	30°♌00'	
max. Earth dist.	2822 Mar 14 14:45	25°♋00'10	1.71710 AU	direct	2824 Aug 20 12:21	29°♌39'14	
	2822 Mar 18 14:41	0°♌			2824 Aug 24 19:24	0°♌	
evening rise	2822 Apr 11 16:43	0°♍		greatest brilliancy	2824 Sep 03 11:27	3°♌03'01	-4.5m
	2822 Apr 19 15:24	9°♍51'15			2824 Oct 08 12:35	0°♍	
	2822 May 05 22:53	0°♎		morning max el	2824 Oct 08 18:25	0°♍14'15	46°06'22
asc. node	2822 May 08 13:40	3°♎13'16		asc. node	2824 Oct 23 08:36	15°♍12'03	
	2822 May 30 09:51	0°♏			2824 Nov 05 20:18	0°♏	
	2822 Jun 24 02:21	0°♐			2824 Dec 01 16:26	0°♐	
	2822 Jul 19 02:09	0°♑			2824 Dec 26 11:56	0°♑	
	2822 Aug 13 13:02	0°♒			2825 Jan 19 20:15	0°♒	
desc. node	2822 Aug 28 03:01	16°♒49'25		desc. node	2825 Feb 11 22:13	28°♒40'13	
	2822 Sep 08 18:35	0°♓			2825 Feb 12 23:51	0°♓	
	2822 Oct 06 14:02	0°♑			2825 Mar 09 02:01	0°♑	
evening max el	2822 Oct 14 23:52	8°♑26'42	46°36'50		2825 Apr 02 04:41	0°♒	
	2822 Nov 08 21:41	0°♒		morning set	2825 Apr 14 03:56	14°♒51'51	
greatest brilliancy	2822 Nov 22 16:13	7°♒48'02	-4.6m		2825 Apr 26 09:04	0°♓	
retrograde	2822 Dec 03 22:17	10°♒07'53			2825 May 20 15:45	0°♎	
evening set	2822 Dec 18 04:21	6°♒06'41					
asc. node	2822 Dec 19 06:08	5°♒31'42		superior conj	2825 May 22 06:53	2°♎00'35	0°-32'-7
inferior conj	2822 Dec 24 10:31	2°♒27'46	1°20'47	minimum elong	2825 May 22 13:31	2°♎21'01	0°31'49
minimum elong	2822 Dec 24 07:26	2°♒32'28	1°19'47	max. Earth dist.	2825 May 24 10:44	4°♎40'20	1.73178 AU
min. Earth dist.	2822 Dec 24 08:23	2°♒31'02	0.26481 AU	asc. node	2825 Jun 05 01:25	18°♎58'21	
	2822 Dec 28 13:32	30°♒00'			2825 Jun 14 00:34	0°♏	
morning rise	2822 Dec 30 10:33	28°♒57'37		evening rise	2825 Jun 28 07:18	17°♏32'28	
direct	2823 Jan 13 21:34	24°♒49'30			2825 Jul 08 10:58	0°♐	
greatest brilliancy	2823 Jan 25 21:06	27°♒30'53	-4.7m		2825 Aug 01 22:53	0°♑	
	2823 Jan 30 21:36	0°♒			2825 Aug 26 13:08	0°♒	
morning max el	2823 Mar 05 07:34	27°♒41'55	46°50'27		2825 Sep 20 07:15	0°♓	
	2823 Mar 07 14:12	0°♓		desc. node	2825 Sep 24 15:03	5°♓12'46	
	2823 Apr 04 08:59	0°♑			2825 Oct 15 07:14	0°♑	
desc. node	2823 Apr 09 19:59	6°♑10'31			2825 Nov 09 16:39	0°♒	
	2823 Apr 30 11:21	0°♒			2825 Dec 05 21:44	0°♓	
	2823 May 25 21:55	0°♓		evening max el	2825 Dec 26 14:51	22°♓11'55	47°16'15
	2823 Jun 20 00:41	0°♎			2826 Jan 03 11:51	0°♑	
	2823 Jul 14 22:01	0°♏		asc. node	2826 Jan 15 18:02	10°♑59'17	
asc. node	2823 Jul 31 23:01	20°♏41'58		greatest brilliancy	2826 Feb 02 19:15	22°♑52'42	-4.7m
	2823 Aug 08 13:56	0°♐		retrograde	2826 Feb 15 13:48	25°♑56'37	
morning set	2823 Sep 01 22:27	29°♐54'25		evening set	2826 Mar 05 10:55	19°♑46'05	
	2823 Sep 02 00:15	0°♑		inferior conj	2826 Mar 08 10:57	17°♑54'36	8°52'47
	2823 Sep 26 05:42	0°♒		minimum elong	2826 Mar 08 09:03	17°♑57'34	8°52'43
max. Earth dist.	2823 Oct 05 11:17	11°♒29'03	1.72315 AU	min. Earth dist.	2826 Mar 07 19:52	18°♑18'10	0.27485 AU
				morning rise	2826 Mar 11 07:19	16°♑08'54	
superior conj	2823 Oct 08 18:14	15°♒34'48	1°19'27	direct	2826 Mar 29 02:53	10°♑02'47	
minimum elong	2823 Oct 09 00:46	15°♒55'09	1°19'20	greatest brilliancy	2826 Apr 08 23:58	12°♑13'21	-4.6m
	2823 Oct 20 07:50	0°♓			2826 May 05 13:58	0°♒	
	2823 Nov 13 08:12	0°♑		desc. node	2826 May 07 07:40	1°♒31'40	
evening rise	2823 Nov 16 10:53	3°♑53'27		morning max el	2826 May 17 12:52	11°♒02'58	46°07'52
desc. node	2823 Nov 20 12:49	8°♑59'38			2826 Jun 05 01:59	0°♓	
	2823 Dec 07 07:51	0°♒			2826 Jul 02 07:43	0°♎	
	2823 Dec 31 07:39	0°♓			2826 Jul 28 08:43	0°♏	
	2824 Jan 24 09:12	0°♑			2826 Aug 22 16:50	0°♐	
	2824 Feb 17 15:38	0°♒		asc. node	2826 Aug 28 10:59	6°♐54'40	
asc. node	2824 Mar 12 15:50	29°♒11'04			2826 Sep 16 12:11	0°♑	
	2824 Mar 13 08:08	0°♓			2826 Oct 10 21:38	0°♒	
	2824 Apr 07 19:17	0°♎			2826 Nov 04 00:16	0°♓	
	2824 May 04 18:56	0°♏		morning set	2826 Nov 11 05:44	9°♓02'15	
evening max el	2824 May 20 14:11	16°♏05'29	45°34'42		2826 Nov 27 23:00	0°♑	
	2824 Jun 05 01:13	0°♐		desc. node	2826 Dec 18 00:32	25°♑12'32	
greatest brilliancy	2824 Jun 24 05:48	12°♐41'08	-4.5m	max. Earth dist.	2826 Dec 20 10:33	28°♑14'55	1.71161 AU
desc. node	2824 Jul 02 05:19	15°♐27'55					
retrograde	2824 Jul 08 08:05	16°♐09'47		superior conj	2826 Dec 21 05:22	29°♑14'08	0°-7'-41
evening set	2824 Jul 24 05:53	11°♐21'05		minimum elong	2826 Dec 21 03:20	29°♑07'45	0°07'36

behind sun begin	2826 Dec 20 03:57	27° ♄ 54'11		direct	2829 Jun 09 03:50	20° ♄ 29'57	
behind sun end	2826 Dec 22 02:44	0° ♄ 21'20		greatest brilliancy	2829 Jun 21 15:20	23° ♄ 16'21	-4.5m
	2826 Dec 21 19:57	0° ♄			2829 Jul 03 16:11	0° ♄	
	2827 Jan 14 16:23	0° \approx		morning max el	2829 Jul 27 22:11	20° ♄ 17'03	45°42'51
evening rise	2827 Jan 31 12:24	21° \approx 09'35			2829 Aug 06 19:06	0° ♄	
	2827 Feb 07 13:28	0° ♄			2829 Sep 03 18:29	0° ♄	
	2827 Mar 03 12:58	0° ♄		asc. node	2829 Sep 24 22:50	24° ♄ 16'24	
	2827 Mar 27 17:19	0° ♄			2829 Sep 29 19:57	0° ♄	
asc. node	2827 Apr 10 03:48	16° ♄ 30'36			2829 Oct 24 20:55	0° ♄	
	2827 Apr 21 05:17	0° ♄			2829 Nov 18 07:22	0° ♄	
	2827 May 16 04:07	0° ♄			2829 Dec 12 09:43	0° ♄	
	2827 Jun 10 19:22	0° ♄			2830 Jan 05 08:11	0° ♄	
	2827 Jul 07 15:56	0° ♄		desc. node	2830 Jan 14 12:23	11° ♄ 31'26	
desc. node	2827 Jul 30 17:15	23° ♄ 39'04		morning set	2830 Jan 25 21:32	25° ♄ 49'34	
evening max el	2827 Jul 31 13:37	24° ♄ 27'49	45°35'09		2830 Jan 29 05:16	0° \approx	
	2827 Aug 06 12:19	0° ♄			2830 Feb 22 02:33	0° ♄	
greatest brilliancy	2827 Sep 06 23:16	21° ♄ 53'34	-4.5m				
retrograde	2827 Sep 18 08:14	24° ♄ 11'35		superior conj	2830 Mar 08 06:06	17° ♄ 43'52	-1°-25'-57
evening set	2827 Oct 05 23:30	18° ♄ 21'55		minimum elong	2830 Mar 08 03:37	17° ♄ 36'05	1°25'57
inferior conj	2827 Oct 09 10:16	16° ♄ 16'22	-8°-10'-39	max. Earth dist.	2830 Mar 12 02:47	22° ♄ 33'53	1.71660 AU
minimum elong	2827 Oct 09 17:16	16° ♄ 05'35	8°09'55		2830 Mar 18 01:29	0° ♄	
min. Earth dist.	2827 Oct 10 07:32	15° ♄ 43'37	0.28065 AU		2830 Apr 11 03:29	0° ♄	
morning rise	2827 Oct 13 10:45	13° ♄ 50'04		evening rise	2830 Apr 17 04:57	7° ♄ 31'11	
direct	2827 Oct 30 15:32	8° ♄ 10'26			2830 May 05 09:39	0° ♄	
greatest brilliancy	2827 Nov 14 02:28	11° ♄ 57'22	-4.6m	asc. node	2830 May 07 15:37	2° ♄ 46'05	
asc. node	2827 Nov 20 20:18	15° ♄ 48'22			2830 May 29 20:45	0° ♄	
	2827 Dec 08 15:45	0° ♄			2830 Jun 23 13:36	0° ♄	
morning max el	2827 Dec 20 06:33	11° ♄ 15'44	46°49'16		2830 Jul 18 14:02	0° ♄	
	2828 Jan 06 19:55	0° ♄			2830 Aug 13 02:06	0° ♄	
	2828 Feb 01 23:09	0° ♄		desc. node	2830 Aug 27 05:06	16° ♄ 15'10	
	2828 Feb 27 02:08	0° \approx			2830 Sep 08 09:56	0° ♄	
desc. node	2828 Mar 11 10:08	16° \approx 09'08			2830 Oct 06 10:49	0° ♄	
	2828 Mar 22 19:11	0° ♄		evening max el	2830 Oct 12 12:57	6° ♄ 03'59	46°34'21
	2828 Apr 16 08:17	0° ♄			2830 Nov 10 00:48	0° ♄	
	2828 May 10 20:19	0° ♄		greatest brilliancy	2830 Nov 20 06:56	5° ♄ 23'06	-4.6m
	2828 Jun 04 08:21	0° ♄		retrograde	2830 Dec 01 09:49	7° ♄ 39'48	
morning set	2828 Jun 22 18:44	22° ♄ 34'36		evening set	2830 Dec 15 16:47	3° ♄ 38'47	
	2828 Jun 28 20:04	0° ♄		asc. node	2830 Dec 18 08:11	2° ♄ 10'23	
asc. node	2828 Jul 02 13:15	4° ♄ 33'27		inferior conj	2830 Dec 21 22:47	0° ♄ 00'16	0°56'17
	2828 Jul 23 06:27	0° ♄		minimum elong	2830 Dec 21 20:37	0° ♄ 03'34	0°55'35
max. Earth dist.	2828 Jul 27 15:10	5° ♄ 22'03	1.73477 AU		2830 Dec 21 22:58	30° ♄	
				min. Earth dist.	2830 Dec 21 22:33	0° ♄ 00'38	0.26490 AU
superior conj	2828 Jul 29 08:32	7° ♄ 29'21	0°58'05	morning rise	2830 Dec 28 00:20	26° ♄ 27'41	
minimum elong	2828 Jul 28 23:43	7° ♄ 02'12	0°57'45	direct	2831 Jan 11 09:36	22° ♄ 21'37	
	2828 Aug 16 14:54	0° ♄		greatest brilliancy	2831 Jan 23 12:12	25° ♄ 05'35	-4.7m
evening rise	2828 Sep 03 06:58	21° ♄ 49'02			2831 Feb 01 11:49	0° ♄	
	2828 Sep 09 21:52	0° ♄		morning max el	2831 Mar 02 19:30	25° ♄ 13'41	46°51'24
	2828 Oct 04 04:24	0° ♄			2831 Mar 07 11:53	0° \approx	
desc. node	2828 Oct 22 02:55	22° ♄ 09'10			2831 Apr 04 00:54	0° ♄	
	2828 Oct 28 11:31	0° ♄		desc. node	2831 Apr 08 21:59	5° ♄ 32'39	
	2828 Nov 21 19:56	0° ♄			2831 Apr 30 00:57	0° ♄	
	2828 Dec 16 07:05	0° \approx			2831 May 25 10:15	0° ♄	
	2829 Jan 10 01:15	0° ♄			2831 Jun 19 12:14	0° ♄	
	2829 Feb 04 12:42	0° ♄			2831 Jul 14 09:03	0° ♄	
asc. node	2829 Feb 12 05:58	8° ♄ 47'01		asc. node	2831 Jul 31 01:11	20° ♄ 15'33	
	2829 Mar 03 19:35	0° ♄			2831 Aug 08 00:41	0° ♄	
evening max el	2829 Mar 08 11:44	4° ♄ 45'41	46°35'07	morning set	2831 Aug 30 15:51	27° ♄ 47'19	
	2829 Apr 07 08:21	0° ♄			2831 Sep 01 10:53	0° ♄	
greatest brilliancy	2829 Apr 13 00:53	3° ♄ 09'08	-4.6m		2831 Sep 25 16:20	0° ♄	
retrograde	2829 Apr 27 12:54	6° ♄ 54'21		max. Earth dist.	2831 Oct 03 03:10	9° ♄ 15'56	1.72370 AU
evening set	2829 May 13 05:51	2° ♄ 03'27					
	2829 May 16 16:15	30° ♄		superior conj	2831 Oct 06 10:26	13° ♄ 22'38	1°20'35
inferior conj	2829 May 18 19:14	28° ♄ 40'09	3°43'18	minimum elong	2831 Oct 06 16:21	13° ♄ 41'02	1°20'30
minimum elong	2829 May 19 02:47	28° ♄ 28'18	3°41'14		2831 Oct 19 18:34	0° ♄	
min. Earth dist.	2829 May 18 17:41	28° ♄ 42'36	0.28544 AU		2831 Nov 12 19:04	0° ♄	
morning rise	2829 May 25 00:13	24° ♄ 56'22		evening rise	2831 Nov 13 23:50	1° ♄ 29'53	
desc. node	2829 Jun 03 19:21	21° ♄ 04'13		desc. node	2831 Nov 19 14:48	8° ♄ 31'37	

	2831 Dec 06 18:55	0°☾			2834 Jul 01 21:56	0°♊		
	2831 Dec 30 18:56	0°♊			2834 Jul 27 21:22	0°☾		
	2832 Jan 23 20:45	0°♋			2834 Aug 22 04:39	0°♎		
	2832 Feb 17 03:34	0°♌		asc. node	2834 Aug 27 12:56	6°♎25'23		
asc. node	2832 Mar 11 17:50	28°♌39'12			2834 Sep 15 23:31	0°♍		
	2832 Mar 12 20:48	0°♋			2834 Oct 10 08:43	0°♎		
	2832 Apr 07 09:25	0°♊			2834 Nov 03 11:15	0°♍		
	2832 May 04 12:37	0°☾		morning set	2834 Nov 08 19:57	6°♍42'14		
evening max el	2832 May 18 04:54	13°☾51'44	45°36'01		2834 Nov 27 09:59	0°♌		
	2832 Jun 05 10:04	0°♎		desc. node	2834 Dec 17 02:40	24°♌44'34		
greatest brilliancy	2832 Jun 21 19:40	10°♎29'31	-4.5m	max. Earth dist.	2834 Dec 17 21:32	25°♌43'50	1.71181 AU	
desc. node	2832 Jul 01 07:30	13°♎36'32						
retrograde	2832 Jul 06 00:22	14°♎01'40		superior conj	2834 Dec 18 16:13	26°♌42'38	0°-3'-46	
evening set	2832 Jul 21 19:47	9°♎15'51		minimum elong	2834 Dec 18 15:13	26°♌39'27	0°03'45	
inferior conj	2832 Jul 27 13:23	5°♎48'18	-5°-40'-19	behind sun begin	2834 Dec 17 13:42	25°♌19'13		
minimum elong	2832 Jul 27 03:39	6°♎03'32	5°38'11	behind sun end	2834 Dec 19 16:44	27°♌59'42		
min. Earth dist.	2832 Jul 27 10:26	5°♎52'55	0.29040 AU		2834 Dec 21 07:00	0°☾		
morning rise	2832 Aug 01 11:22	2°♎47'57			2835 Jan 14 03:29	0°♊		
	2832 Aug 06 21:57	30°♋☾		evening rise	2835 Jan 28 22:44	18°♊36'21		
direct	2832 Aug 18 04:06	27°☾30'40			2835 Feb 07 00:38	0°♋		
	2832 Aug 30 00:50	0°♎			2835 Mar 03 00:15	0°♌		
greatest brilliancy	2832 Sep 01 03:49	0°♎54'32	-4.5m		2835 Mar 27 04:47	0°♋		
morning max el	2832 Oct 06 09:35	28°♎00'51	46°05'01	asc. node	2835 Apr 09 05:44	16°♋01'00		
	2832 Oct 08 10:02	0°♍			2835 Apr 20 17:06	0°♊		
asc. node	2832 Oct 22 10:35	14°♍30'32			2835 May 15 16:37	0°☾		
	2832 Nov 05 11:44	0°♎			2835 Jun 10 09:12	0°♎		
	2832 Dec 01 05:48	0°♌			2835 Jul 07 08:47	0°♍		
	2832 Dec 26 00:20	0°♌		evening max el	2835 Jul 29 05:12	22°♍15'25	45°33'58	
	2833 Jan 19 08:07	0°☾		desc. node	2835 Jul 29 19:20	22°♍49'03		
desc. node	2833 Feb 11 00:20	28°☾10'53			2835 Aug 06 15:07	0°♎		
	2833 Feb 12 11:23	0°♊		greatest brilliancy	2835 Sep 04 11:20	19°♎35'25	-4.5m	
	2833 Mar 08 13:17	0°♋		retrograde	2835 Sep 15 22:23	21°♎54'51		
	2833 Apr 01 15:43	0°♌		evening set	2835 Oct 03 15:53	16°♎01'56		
morning set	2833 Apr 11 17:43	12°♌31'41		inferior conj	2835 Oct 07 00:44	13°♎58'53	-8°-17'-31	
	2833 Apr 25 19:56	0°♋		minimum elong	2835 Oct 07 07:05	13°♎49'05	8°16'55	
				min. Earth dist.	2835 Oct 07 21:08	13°♎27'26	0.28126 AU	
superior conj	2833 May 19 22:56	29°♋48'54	0°-35'-14	morning rise	2835 Oct 10 22:03	11°♎37'00		
minimum elong	2833 May 20 06:07	0°♊11'05	0°34'55	direct	2835 Oct 28 07:10	5°♎52'21		
	2833 May 20 02:32	0°♊		greatest brilliancy	2835 Nov 11 16:51	9°♎37'52	-4.6m	
max. Earth dist.	2833 May 22 03:41	2°♊31'31	1.73141 AU	asc. node	2835 Nov 19 22:20	14°♎27'28		
asc. node	2833 Jun 04 03:28	18°♊31'30			2835 Dec 08 19:01	0°♍		
	2833 Jun 13 11:20	0°☾		morning max el	2835 Dec 17 21:29	8°♍55'30	46°48'11	
evening rise	2833 Jun 26 01:28	15°☾27'47			2836 Jan 06 13:25	0°♌		
	2833 Jul 07 21:50	0°♎			2836 Feb 01 13:41	0°☾		
	2833 Aug 01 09:56	0°♍			2836 Feb 26 15:16	0°♊		
	2833 Aug 26 00:32	0°♎		desc. node	2836 Mar 10 12:06	15°♊36'36		
	2833 Sep 19 19:15	0°♍			2836 Mar 22 07:30	0°♋		
desc. node	2833 Sep 23 17:03	4°♍42'18			2836 Apr 15 20:04	0°♌		
	2833 Oct 14 20:11	0°♌			2836 May 10 07:43	0°♋		
	2833 Nov 09 07:10	0°☾			2836 Jun 03 19:29	0°♊		
	2833 Dec 05 15:21	0°♊		morning set	2836 Jun 20 12:20	20°♊27'51		
evening max el	2833 Dec 24 04:53	19°♊48'00	47°16'12		2836 Jun 28 07:01	0°☾		
	2834 Jan 03 14:48	0°♋		asc. node	2836 Jul 01 15:22	4°☾06'26		
asc. node	2834 Jan 14 20:11	9°♋48'10			2836 Jul 22 17:19	0°♎		
greatest brilliancy	2834 Jan 31 09:36	20°♋28'25	-4.7m	max. Earth dist.	2836 Jul 25 12:21	3°♎26'08	1.73492 AU	
retrograde	2834 Feb 13 04:14	23°♋32'31						
evening set	2834 Mar 02 22:36	17°♋25'09		superior conj	2836 Jul 27 02:40	5°♎24'01	0°55'43	
min. Earth dist.	2834 Mar 05 08:40	15°♋55'45	0.27437 AU	minimum elong	2836 Jul 26 17:56	4°♎57'08	0°55'24	
inferior conj	2834 Mar 06 00:35	15°♋30'59	8°50'34		2836 Aug 16 01:49	0°♍		
minimum elong	2834 Mar 05 21:47	15°♋35'20	8°50'28	evening rise	2836 Sep 01 00:34	19°♍41'08		
morning rise	2834 Mar 08 21:09	13°♋45'17			2836 Sep 09 08:56	0°♎		
direct	2834 Mar 26 15:57	7°♋39'50			2836 Oct 03 15:44	0°♍		
greatest brilliancy	2834 Apr 06 12:34	9°♋50'27	-4.6m	desc. node	2836 Oct 21 04:56	21°♍39'48		
	2834 May 05 19:03	0°♌			2836 Oct 27 23:10	0°♌		
desc. node	2834 May 06 09:39	0°♌32'53			2836 Nov 21 07:59	0°☾		
morning max el	2834 May 15 03:41	8°♌46'09	46°09'24		2836 Dec 15 19:44	0°♊		
	2834 Jun 04 19:36	0°♋			2837 Jan 09 14:52	0°♋		

	2837 Feb 04 04:16	0°♄			2839 Jul 13 20:23	0°♄		
asc. node	2837 Feb 11 07:55	8°♄06'18		asc. node	2839 Jul 30 03:09	19°♄47'32		
	2837 Mar 03 16:17	0°♄			2839 Aug 07 11:45	0°♄		
evening max el	2837 Mar 06 03:13	2°♄29'11	46°37'12	morning set	2839 Aug 28 09:06	25°♄38'42		
	2837 Apr 08 20:57	0°♄			2839 Aug 31 21:50	0°♄		
greatest brilliancy	2837 Apr 10 19:19	0°♄58'50	-4.6m		2839 Sep 25 03:18	0°♄		
retrograde	2837 Apr 25 04:47	4°♄41'05		max. Earth dist.	2839 Sep 30 20:35	7°♄06'43	1.72422 AU	
	2837 May 10 15:18	30°♄						
evening set	2837 May 11 00:10	29°♄47'22		superior conj	2839 Oct 04 02:30	11°♄09'04	1°21'36	
inferior conj	2837 May 16 11:06	26°♄27'17	4°01'54	minimum elong	2839 Oct 04 07:45	11°♄25'24	1°21'32	
minimum elong	2837 May 16 19:08	26°♄14'38	3°59'45		2839 Oct 19 05:35	0°♄		
min. Earth dist.	2837 May 16 09:39	26°♄29'35	0.28518 AU	evening rise	2839 Nov 11 12:48	29°♄05'33		
morning rise	2837 May 22 14:35	22°♄45'15			2839 Nov 12 06:15	0°♄		
desc. node	2837 Jun 02 21:31	18°♄35'52		desc. node	2839 Nov 18 16:56	8°♄03'11		
direct	2837 Jun 06 19:29	18°♄17'42			2839 Dec 06 06:16	0°♄		
greatest brilliancy	2837 Jun 19 04:22	21°♄01'16	-4.5m		2839 Dec 30 06:31	0°♄		
	2837 Jul 04 10:26	0°♄			2840 Jan 23 08:36	0°♄		
morning max el	2837 Jul 25 13:05	18°♄03'56	45°42'49		2840 Feb 16 15:48	0°♄		
	2837 Aug 06 14:18	0°♄		asc. node	2840 Mar 10 19:51	28°♄06'40		
	2837 Sep 03 09:14	0°♄			2840 Mar 12 09:43	0°♄		
asc. node	2837 Sep 24 00:49	23°♄43'27			2840 Apr 06 23:49	0°♄		
	2837 Sep 29 08:57	0°♄			2840 May 04 06:50	0°♄		
	2837 Oct 24 09:04	0°♄		evening max el	2840 May 15 20:18	11°♄39'29	45°37'24	
	2837 Nov 17 19:05	0°♄			2840 Jun 05 22:14	0°♄		
	2837 Dec 11 21:12	0°♄		greatest brilliancy	2840 Jun 19 08:51	8°♄16'53	-4.5m	
	2838 Jan 04 19:31	0°♄		desc. node	2840 Jun 30 09:31	11°♄40'42		
desc. node	2838 Jan 13 14:30	11°♄02'37		retrograde	2840 Jul 03 17:08	11°♄53'22		
morning set	2838 Jan 23 07:33	23°♄14'58		evening set	2840 Jul 19 09:56	7°♄10'07		
	2838 Jan 28 16:28	0°♄		inferior conj	2840 Jul 25 05:52	3°♄39'29	-5°-25'-10	
	2838 Feb 21 13:40	0°♄		minimum elong	2840 Jul 24 20:16	3°♄54'29	5°23'00	
				min. Earth dist.	2840 Jul 25 02:30	3°♄44'45	0.29043 AU	
superior conj	2838 Mar 05 17:48	15°♄15'36	-1°-25'-28	morning rise	2840 Jul 30 06:31	0°♄35'32		
minimum elong	2838 Mar 05 14:18	15°♄04'38	1°25'28		2840 Jul 31 07:33	30°♄		
max. Earth dist.	2838 Mar 09 13:50	20°♄03'38	1.71610 AU	direct	2840 Aug 15 20:22	25°♄21'39		
	2838 Mar 17 12:32	0°♄		greatest brilliancy	2840 Aug 29 20:37	28°♄46'09	-4.5m	
	2838 Apr 10 14:31	0°♄			2840 Sep 01 09:09	0°♄		
evening rise	2838 Apr 14 18:34	5°♄10'22		morning max el	2840 Oct 04 01:48	25°♄49'28	46°03'37	
	2838 May 04 20:46	0°♄			2840 Oct 08 07:03	0°♄		
asc. node	2838 May 06 17:42	2°♄18'17		asc. node	2840 Oct 21 12:41	13°♄48'59		
	2838 May 29 08:03	0°♄			2840 Nov 05 03:12	0°♄		
	2838 Jun 23 01:17	0°♄			2840 Nov 30 19:17	0°♄		
	2838 Jul 18 02:26	0°♄			2840 Dec 25 12:52	0°♄		
	2838 Aug 12 15:44	0°♄		desc. node	2841 Jan 18 20:07	0°♄		
desc. node	2838 Aug 26 07:05	15°♄39'06			2841 Feb 10 02:14	27°♄40'25		
	2838 Sep 08 01:59	0°♄			2841 Feb 11 23:03	0°♄		
	2838 Oct 06 08:52	0°♄			2841 Mar 08 00:41	0°♄		
evening max el	2838 Oct 10 01:14	3°♄38'12	46°31'55		2841 Apr 01 02:52	0°♄		
	2838 Nov 11 16:12	0°♄		morning set	2841 Apr 09 07:38	10°♄11'26		
greatest brilliancy	2838 Nov 17 21:13	2°♄56'27	-4.6m		2841 Apr 25 06:53	0°♄		
retrograde	2838 Nov 28 21:18	5°♄10'46						
evening set	2838 Dec 13 05:20	1°♄09'10		superior conj	2841 May 17 15:15	27°♄37'45	0°-38'-16	
	2838 Dec 15 07:33	30°♄		minimum elong	2841 May 17 22:59	28°♄01'37	0°37'57	
asc. node	2838 Dec 17 10:20	28°♄45'23			2841 May 19 13:22	0°♄		
inferior conj	2838 Dec 19 10:59	27°♄31'37	0°31'40	max. Earth dist.	2841 May 19 22:26	0°♄27'57	1.73100 AU	
minimum elong	2838 Dec 19 09:46	27°♄33'29	0°31'17	asc. node	2841 Jun 03 05:37	18°♄04'51		
min. Earth dist.	2838 Dec 19 12:48	27°♄28'51	0.26502 AU		2841 Jun 12 22:09	0°♄		
morning rise	2838 Dec 25 13:52	23°♄57'01		evening rise	2841 Jun 23 20:00	13°♄24'10		
direct	2839 Jan 08 21:25	19°♄52'16			2841 Jul 07 08:44	0°♄		
greatest brilliancy	2839 Jan 21 04:07	22°♄40'10	-4.7m		2841 Jul 31 21:04	0°♄		
	2839 Feb 02 15:14	0°♄			2841 Aug 25 12:05	0°♄		
morning max el	2839 Feb 28 08:00	22°♄45'53	46°52'36		2841 Sep 19 07:27	0°♄		
	2839 Mar 07 09:05	0°♄		desc. node	2841 Sep 22 19:03	4°♄11'19		
	2839 Apr 03 16:48	0°♄			2841 Oct 14 09:22	0°♄		
desc. node	2839 Apr 08 00:02	4°♄54'36			2841 Nov 08 22:00	0°♄		
	2839 Apr 29 14:37	0°♄			2841 Dec 05 09:29	0°♄		
	2839 May 24 22:44	0°♄		evening max el	2841 Dec 21 19:51	17°♄26'16	47°16'08	
	2839 Jun 19 00:00	0°♄			2842 Jan 03 19:33	0°♄		

asc. node	2842 Jan 13 22:08	8° K 34'19			2844 Jul 22 03:55	0° Ω	
greatest brilliancy	2842 Jan 28 23:57	18° K 04'00	-4.7m	max. Earth dist.	2844 Jul 23 08:16	1° Ω 27'11	1.73502 AU
retrograde	2842 Feb 10 18:56	21° K 07'59					
evening set	2842 Feb 28 09:53	15° K 04'33		superior conj	2844 Jul 24 21:13	3° Ω 20'48	0°53'19
min. Earth dist.	2842 Mar 02 21:18	13° K 33'17	0.27386 AU	minimum elong	2844 Jul 24 12:37	2° Ω 54'19	0°52'59
inferior conj	2842 Mar 03 14:11	13° K 07'01	8°47'31		2844 Aug 15 12:26	0° M	
minimum elong	2842 Mar 03 10:31	13° K 12'43	8°47'19	evening rise	2844 Aug 29 18:42	17° M 35'50	
morning rise	2842 Mar 06 11:20	11° K 20'41			2844 Sep 08 19:42	0° Ω	
direct	2842 Mar 24 05:27	5° K 16'44			2844 Oct 03 02:46	0° M	
greatest brilliancy	2842 Apr 04 00:26	7° K 26'25	-4.6m	desc. node	2844 Oct 20 07:06	21° M 11'44	
desc. node	2842 May 05 11:46	29° K 35'41			2844 Oct 27 10:34	0° K	
	2842 May 05 22:20	0° Y			2844 Nov 20 19:52	0° Z	
morning max el	2842 May 12 18:52	6° Y 30'12	46°11'02		2844 Dec 15 08:17	0° \approx	
	2842 Jun 04 12:48	0° X			2845 Jan 09 04:29	0° K	
	2842 Jul 01 11:55	0° II			2845 Feb 03 19:57	0° Y	
	2842 Jul 27 09:51	0° Z		asc. node	2845 Feb 10 09:57	7° Y 25'42	
	2842 Aug 21 16:19	0° Ω		evening max el	2845 Mar 03 17:38	0° X 10'16	46°39'25
asc. node	2842 Aug 26 14:59	5° Ω 56'44			2845 Mar 03 13:33	0° X	
	2842 Sep 15 10:46	0° M		greatest brilliancy	2845 Apr 08 13:27	28° X 48'26	-4.6m
	2842 Oct 09 19:46	0° Ω			2845 Apr 11 05:55	0° II	
	2842 Nov 02 22:14	0° M		retrograde	2845 Apr 22 20:19	2° II 28'20	
morning set	2842 Nov 06 10:08	4° M 22'09			2845 May 03 22:18	30° R X	
	2842 Nov 26 21:00	0° K		evening set	2845 May 08 18:30	27° X 31'29	
max. Earth dist.	2842 Dec 15 05:35	23° X 03'38	1.71200 AU	inferior conj	2845 May 14 02:55	24° X 14'57	4°20'11
				minimum elong	2845 May 14 11:23	24° X 01'37	4°17'58
superior conj	2842 Dec 16 02:59	24° X 10'52	0°00'11	min. Earth dist.	2845 May 14 01:49	24° X 16'42	0.28490 AU
minimum elong	2842 Dec 16 03:00	24° X 10'55	0°00'10	morning rise	2845 May 20 04:41	20° X 34'54	
behind sun begin	2842 Dec 15 01:12	22° X 49'49		desc. node	2845 Jun 01 23:35	16° X 12'56	
behind sun end	2842 Dec 17 04:48	25° X 32'02		direct	2845 Jun 04 10:30	16° X 05'50	
desc. node	2842 Dec 16 04:47	24° X 16'33		greatest brilliancy	2845 Jun 16 18:06	18° X 47'33	-4.5m
	2842 Dec 20 18:02	0° Z			2845 Jul 04 23:41	0° II	
	2843 Jan 13 14:34	0° \approx		morning max el	2845 Jul 23 03:45	15° II 51'04	45°43'04
evening rise	2843 Jan 26 08:52	16° \approx 02'31			2845 Aug 06 08:37	0° Z	
	2843 Feb 06 11:45	0° K			2845 Sep 02 23:26	0° Ω	
	2843 Mar 02 11:29	0° Y		asc. node	2845 Sep 23 02:56	23° Ω 12'11	
	2843 Mar 26 16:13	0° X			2845 Sep 28 21:28	0° M	
asc. node	2843 Apr 08 07:52	15° X 32'09			2845 Oct 23 20:47	0° Ω	
	2843 Apr 20 04:52	0° II			2845 Nov 17 06:25	0° M	
	2843 May 15 05:02	0° Z			2845 Dec 11 08:20	0° K	
	2843 Jun 09 22:58	0° Ω			2846 Jan 04 06:32	0° Z	
	2843 Jul 07 01:42	0° M		desc. node	2846 Jan 12 16:26	10° Z 34'07	
evening max el	2843 Jul 26 20:28	20° M 03'07	45°32'49	morning set	2846 Jan 20 17:12	20° Z 39'54	
desc. node	2843 Jul 28 21:17	21° M 58'43			2846 Jan 28 03:25	0° \approx	
	2843 Aug 06 19:09	0° Ω			2846 Feb 21 00:34	0° K	
greatest brilliancy	2843 Sep 02 00:11	17° Ω 19'30	-4.5m				
retrograde	2843 Sep 13 12:14	19° Ω 39'43		superior conj	2846 Mar 03 04:52	12° K 45'55	-1°-24'-49
evening set	2843 Oct 01 08:14	13° Ω 44'05		minimum elong	2846 Mar 03 00:22	12° K 31'46	1°24'47
inferior conj	2843 Oct 04 15:31	11° Ω 43'03	-8°-23'-21	max. Earth dist.	2846 Mar 06 20:31	17° K 20'20	1.71561 AU
minimum elong	2843 Oct 04 21:09	11° Ω 34'19	8°22'54		2846 Mar 16 23:24	0° Y	
min. Earth dist.	2843 Oct 05 11:13	11° Ω 12'34	0.28190 AU		2846 Apr 10 01:20	0° X	
morning rise	2843 Oct 08 09:51	9° Ω 25'12		evening rise	2846 Apr 12 07:33	2° X 48'12	
direct	2843 Oct 25 22:47	3° Ω 35'48			2846 May 04 07:37	0° II	
greatest brilliancy	2843 Nov 09 07:33	7° Ω 19'39	-4.6m	asc. node	2846 May 05 19:47	1° II 51'16	
asc. node	2843 Nov 19 00:28	13° Ω 09'54			2846 May 28 19:05	0° Z	
	2843 Dec 08 20:40	0° M			2846 Jun 22 12:42	0° Ω	
morning max el	2843 Dec 15 11:43	6° M 33'45	46°46'52		2846 Jul 17 14:32	0° M	
	2844 Jan 06 06:31	0° K			2846 Aug 12 05:05	0° Ω	
	2844 Feb 01 04:00	0° Z		desc. node	2846 Aug 25 09:10	15° Ω 04'18	
	2844 Feb 26 04:12	0° \approx			2846 Sep 07 17:48	0° M	
desc. node	2844 Mar 09 14:13	15° \approx 05'04			2846 Oct 06 07:07	0° K	
	2844 Mar 21 19:36	0° K		evening max el	2846 Oct 07 13:42	1° K 14'50	46°29'41
	2844 Apr 15 07:38	0° Y			2846 Nov 14 03:55	0° Z	
	2844 May 09 18:54	0° X		greatest brilliancy	2846 Nov 15 10:25	0° Z 30'55	-4.6m
	2844 Jun 03 06:24	0° II		retrograde	2846 Nov 26 09:21	2° Z 44'29	
morning set	2844 Jun 18 06:07	18° II 22'19			2846 Dec 08 02:33	30° R K	
	2844 Jun 27 17:43	0° Z		evening set	2846 Dec 10 18:23	28° K 41'33	
asc. node	2844 Jun 30 17:20	3° Z 39'40		inferior conj	2846 Dec 16 23:28	25° K 05'16	0°07'18

minimum elong	2846 Dec 16 23:11	25°♂05'41	0°07'12	superior conj	2849 May 15 07:04	25°♂25'36	0°-41'-18
transit middle	2846 Dec 16 23:11	25°♂05'41	0°07'12	minimum elong	2849 May 15 15:18	25°♂51'01	0°40'58
transit begin	2846 Dec 16 19:30	25°♂11'17		max. Earth dist.	2849 May 17 17:36	28°♂26'11	1.73063 AU
transit end	2846 Dec 17 02:52	25°♂00'05			2849 May 19 00:01	0°♂	
asc. node	2846 Dec 16 12:15	25°♂22'19		asc. node	2849 Jun 02 07:33	17°♂38'07	
min. Earth dist.	2846 Dec 17 03:00	24°♂59'53	0.26525 AU		2849 Jun 12 08:48	0°♂	
morning rise	2846 Dec 23 03:33	21°♂29'10		evening rise	2849 Jun 21 13:59	11°♂19'21	
direct	2847 Jan 06 09:53	17°♂25'01			2849 Jul 06 19:28	0°♂	
greatest brilliancy	2847 Jan 18 20:30	20°♂17'14	-4.7m		2849 Jul 31 08:01	0°♂	
	2847 Feb 03 10:38	0°♂			2849 Aug 24 23:27	0°♂	
morning max el	2847 Feb 25 21:43	20°♂22'07	46°53'24		2849 Sep 18 19:28	0°♂	
	2847 Mar 07 05:16	0°♂		desc. node	2849 Sep 21 21:11	3°♂41'19	
	2847 Apr 03 08:13	0°♂			2849 Oct 13 22:25	0°♂	
desc. node	2847 Apr 07 02:08	4°♂17'37			2849 Nov 08 12:45	0°♂	
	2847 Apr 29 03:58	0°♂			2849 Dec 05 03:43	0°♂	
	2847 May 24 10:55	0°♂		evening max el	2849 Dec 19 11:31	15°♂07'15	47°16'02
	2847 Jun 18 11:28	0°♂			2850 Jan 04 01:50	0°♂	
	2847 Jul 13 07:23	0°♂		asc. node	2850 Jan 13 00:12	7°♂19'36	
asc. node	2847 Jul 29 05:09	19°♂20'38		greatest brilliancy	2850 Jan 26 14:54	15°♂41'33	-4.7m
	2847 Aug 06 22:30	0°♂		retrograde	2850 Feb 08 09:31	18°♂44'28	
morning set	2847 Aug 26 02:26	23°♂31'28		evening set	2850 Feb 25 20:56	12°♂45'46	
	2847 Aug 31 08:28	0°♂		min. Earth dist.	2850 Feb 28 10:01	11°♂11'58	0.27333 AU
	2847 Sep 24 13:55	0°♂		inferior conj	2850 Mar 01 03:51	10°♂44'14	8°43'33
max. Earth dist.	2847 Sep 28 14:41	5°♂00'43	1.72468 AU	minimum elong	2850 Feb 28 23:21	10°♂51'14	8°43'14
				morning rise	2850 Mar 04 02:00	8°♂56'30	
superior conj	2847 Oct 01 18:53	8°♂57'38	1°22'28	direct	2850 Mar 21 19:19	2°♂55'02	
minimum elong	2847 Oct 01 23:28	9°♂11'53	1°22'26	greatest brilliancy	2850 Apr 01 11:53	5°♂02'56	-4.6m
	2847 Oct 18 16:16	0°♂		desc. node	2850 May 04 13:49	28°♂40'24	
evening rise	2847 Nov 09 02:18	26°♂44'09			2850 May 05 23:46	0°♂	
	2847 Nov 11 17:02	0°♂		morning max el	2850 May 10 09:23	4°♂13'18	46°12'22
desc. node	2847 Nov 17 18:57	7°♂35'39			2850 Jun 04 05:27	0°♂	
	2847 Dec 05 17:14	0°♂			2850 Jul 01 01:40	0°♂	
	2847 Dec 29 17:43	0°♂			2850 Jul 26 22:12	0°♂	
	2848 Jan 22 20:05	0°♂			2850 Aug 21 03:53	0°♂	
	2848 Feb 16 03:44	0°♂		asc. node	2850 Aug 25 17:07	5°♂28'38	
asc. node	2848 Mar 09 21:57	27°♂35'01			2850 Sep 14 21:53	0°♂	
	2848 Mar 11 22:29	0°♂			2850 Oct 09 06:40	0°♂	
	2848 Apr 06 14:13	0°♂			2850 Nov 02 09:05	0°♂	
	2848 May 04 01:23	0°♂		morning set	2850 Nov 04 00:13	2°♂02'16	
evening max el	2848 May 13 12:26	9°♂29'17	45°38'53		2850 Nov 26 07:52	0°♂	
	2848 Jun 06 14:27	0°♂		max. Earth dist.	2850 Dec 12 10:44	20°♂14'47	1.71220 AU
greatest brilliancy	2848 Jun 16 22:51	6°♂05'31	-4.5m				
desc. node	2848 Jun 29 11:28	9°♂40'36		superior conj	2850 Dec 13 13:50	21°♂39'57	0°04'07
retrograde	2848 Jul 01 09:57	9°♂44'57		minimum elong	2850 Dec 13 14:54	21°♂43'17	0°04'05
evening set	2848 Jul 17 00:04	5°♂04'19		behind sun begin	2850 Dec 12 13:40	20°♂23'58	
inferior conj	2848 Jul 22 22:07	1°♂30'39	-5°-9'-35	behind sun end	2850 Dec 14 16:08	23°♂02'35	
minimum elong	2848 Jul 22 12:43	1°♂45'20	5°07'23	desc. node	2850 Dec 15 06:40	23°♂48'16	
min. Earth dist.	2848 Jul 22 18:06	1°♂36'57	0.29039 AU		2850 Dec 20 04:57	0°♂	
	2848 Jul 25 08:30	30°♂			2851 Jan 13 01:30	0°♂	
morning rise	2848 Jul 28 01:22	28°♂23'14		evening rise	2851 Jan 23 19:04	13°♂29'19	
direct	2848 Aug 13 12:56	23°♂12'53			2851 Feb 05 22:44	0°♂	
greatest brilliancy	2848 Aug 27 12:21	26°♂37'02	-4.5m		2851 Mar 01 22:33	0°♂	
	2848 Sep 02 20:58	0°♂			2851 Mar 26 03:28	0°♂	
morning max el	2848 Oct 01 18:18	23°♂39'48	46°02'17	asc. node	2851 Apr 07 09:55	15°♂03'36	
	2848 Oct 08 03:03	0°♂			2851 Apr 19 16:30	0°♂	
asc. node	2848 Oct 20 14:45	13°♂08'40			2851 May 14 17:24	0°♂	
	2848 Nov 04 18:07	0°♂			2851 Jun 09 12:49	0°♂	
	2848 Nov 30 08:18	0°♂			2851 Jul 06 19:00	0°♂	
	2848 Dec 25 00:58	0°♂		evening max el	2851 Jul 24 10:52	17°♂48'32	45°31'38
	2849 Jan 18 07:43	0°♂		desc. node	2851 Jul 27 23:26	21°♂07'35	
desc. node	2849 Feb 09 04:22	27°♂11'52			2851 Aug 07 01:19	0°♂	
	2849 Feb 11 10:18	0°♂		greatest brilliancy	2851 Aug 30 13:23	15°♂03'35	-4.5m
	2849 Mar 07 11:42	0°♂		retrograde	2851 Sep 11 01:44	17°♂24'24	
	2849 Mar 31 13:42	0°♂		evening set	2851 Sep 29 00:11	11°♂26'24	
morning set	2849 Apr 06 21:20	7°♂51'18		inferior conj	2851 Oct 02 06:13	9°♂27'06	-8°-28'-26
	2849 Apr 24 17:36	0°♂		minimum elong	2851 Oct 02 11:06	9°♂19'33	8°28'06
				min. Earth dist.	2851 Oct 03 01:30	8°♂57'13	0.28251 AU




























































































































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direct	2851 Oct 23 13:47	1°♌19'02			2854 May 03 18:42	0°♐	
greatest brilliancy	2851 Nov 06 22:52	5°♌02'15	-4.6m	asc. node	2854 May 04 21:45	1°♐23'13	
asc. node	2851 Nov 18 02:26	11°♌54'12			2854 May 28 06:21	0°♑	
	2851 Dec 08 21:02	0°♍			2854 Jun 22 00:21	0°♒	
morning max el	2851 Dec 13 01:01	4°♍09'41	46°45'37		2854 Jul 17 02:55	0°♓	
	2852 Jan 05 23:14	0°♎			2854 Aug 11 18:49	0°♈	
	2852 Jan 31 18:07	0°♏		desc. node	2854 Aug 24 11:14	14°♈28'16	
	2852 Feb 25 17:01	0°♐			2854 Sep 07 10:16	0°♉	
desc. node	2852 Mar 08 16:15	14°♐33'28		evening max el	2854 Oct 05 02:40	28°♉51'38	46°27'18
	2852 Mar 21 07:38	0°♑			2854 Oct 06 06:53	0°♊	
	2852 Apr 14 19:08	0°♒		greatest brilliancy	2854 Nov 12 22:43	28°♊02'45	-4.6m
	2852 May 09 06:02	0°♓			2854 Nov 20 04:29	0°♋	
	2852 Jun 02 17:15	0°♈		retrograde	2854 Nov 23 21:40	0°♋16'16	
morning set	2852 Jun 15 23:55	16°♈16'48			2854 Nov 27 13:25	30°♋♎	
	2852 Jun 27 04:26	0°♉		evening set	2854 Dec 08 07:26	26°♊11'43	
asc. node	2852 Jun 29 19:23	3°♉13'08		inferior conj	2854 Dec 14 11:39	22°♊36'50	0°-17'-19
max. Earth dist.	2852 Jul 21 03:10	29°♉24'54	1.73518 AU	minimum elong	2854 Dec 14 12:19	22°♊35'49	0°17'07
	2852 Jul 21 14:35	0°♒		min. Earth dist.	2854 Dec 14 16:38	22°♊29'17	0.26549 AU
				asc. node	2854 Dec 15 14:20	21°♊56'23	
superior conj	2852 Jul 22 15:41	1°♒17'08	0°50'51	morning rise	2854 Dec 20 16:47	18°♊59'44	
minimum elong	2852 Jul 22 07:14	0°♒51'10	0°50'30	direct	2855 Jan 03 22:42	14°♊55'52	
	2852 Aug 14 23:11	0°♓		greatest brilliancy	2855 Jan 16 12:04	17°♊51'49	-4.7m
evening rise	2852 Aug 27 12:39	15°♓29'42			2855 Feb 04 01:43	0°♋	
	2852 Sep 08 06:37	0°♈		morning max el	2855 Feb 23 11:54	17°♋58'29	46°54'14
	2852 Oct 02 13:56	0°♉			2855 Mar 07 01:13	0°♌	
desc. node	2852 Oct 19 09:03	20°♉42'37			2855 Apr 02 23:42	0°♍	
	2852 Oct 26 22:06	0°♊		desc. node	2855 Apr 06 04:09	3°♍39'49	
	2852 Nov 20 07:53	0°♋			2855 Apr 28 17:29	0°♎	
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	2853 Jan 08 18:20	0°♍			2855 Jun 17 23:10	0°♐	
	2853 Feb 03 11:59	0°♎			2855 Jul 12 18:39	0°♑	
asc. node	2853 Feb 09 12:06	6°♎44'36		asc. node	2855 Jul 28 07:20	18°♑53'28	
evening max el	2853 Mar 01 07:27	27°♎49'22	46°41'41		2855 Aug 06 09:31	0°♒	
	2853 Mar 03 11:46	0°♓		morning set	2855 Aug 23 20:05	21°♒24'26	
greatest brilliancy	2853 Apr 06 06:47	26°♓36'35	-4.6m		2855 Aug 30 19:22	0°♓	
	2853 Apr 16 20:39	0°♈			2855 Sep 24 00:49	0°♈	
retrograde	2853 Apr 20 11:59	0°♈15'32		max. Earth dist.	2855 Sep 26 09:02	2°♈54'34	1.72519 AU
	2853 Apr 24 01:55	30°♈♎					
evening set	2853 May 06 12:55	25°♈15'07		superior conj	2855 Sep 29 11:25	6°♈45'47	1°23'14
inferior conj	2853 May 11 18:48	22°♈02'29	4°38'05	minimum elong	2855 Sep 29 15:19	6°♈57'52	1°23'11
minimum elong	2853 May 12 03:38	21°♈48'33	4°35'49		2855 Oct 18 03:17	0°♉	
min. Earth dist.	2853 May 11 18:04	22°♈03'38	0.28462 AU	evening rise	2855 Nov 06 15:43	24°♉21'16	
morning rise	2853 May 17 18:41	18°♈24'49			2855 Nov 11 04:14	0°♊	
desc. node	2853 Jun 01 01:29	13°♈54'49		desc. node	2855 Nov 16 20:57	7°♊06'48	
direct	2853 Jun 02 01:15	13°♈53'40			2855 Dec 05 04:39	0°♋	
greatest brilliancy	2853 Jun 14 08:40	16°♈34'43	-4.5m		2855 Dec 29 05:22	0°♌	
	2853 Jul 05 09:34	0°♉			2856 Jan 22 08:01	0°♍	
morning max el	2853 Jul 20 18:39	13°♉38'27	45°43'17		2856 Feb 15 16:07	0°♎	
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asc. node	2853 Sep 22 04:57	22°♋40'02			2856 Apr 06 05:10	0°♐	
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	2853 Nov 16 17:59	0°♎			2856 Jun 07 12:56	0°♒	
	2853 Dec 10 19:40	0°♏		greatest brilliancy	2856 Jun 14 14:22	3°♒55'26	-4.5m
	2854 Jan 03 17:45	0°♐		desc. node	2856 Jun 28 13:38	7°♒35'35	
desc. node	2854 Jan 11 18:33	10°♐05'34		retrograde	2856 Jun 29 02:53	7°♒35'56	
morning set	2854 Jan 18 02:46	18°♐03'57		evening set	2856 Jul 14 14:35	2°♒58'03	
	2854 Jan 27 14:34	0°♑			2856 Jul 19 13:48	30°♒♎	
	2854 Feb 20 11:40	0°♒		inferior conj	2856 Jul 20 14:32	29°♑21'24	-4°-53'-34
				minimum elong	2856 Jul 20 05:24	29°♑35'39	4°51'22
superior conj	2854 Feb 28 15:50	10°♒15'12	-1°-23'-59	min. Earth dist.	2856 Jul 20 09:49	29°♑28'46	0.29030 AU
minimum elong	2854 Feb 28 10:19	9°♒57'54	1°23'56	morning rise	2856 Jul 25 20:18	26°♑10'29	
max. Earth dist.	2854 Mar 04 01:38	14°♒31'26	1.71517 AU	direct	2856 Aug 11 05:54	21°♑03'58	
	2854 Mar 16 10:27	0°♓		greatest brilliancy	2856 Aug 25 02:57	24°♑26'03	-4.5m
evening rise	2854 Apr 09 20:31	0°♓25'17			2856 Sep 03 22:28	0°♒	

morning max el	2856 Sep 29 10:24	21°Ω28'37	46°00'51	asc. node	2859 Apr 06 11:52	14°♄33'36	
	2856 Oct 07 22:41	0°♍			2859 Apr 19 04:30	0°♈	
asc. node	2856 Oct 19 16:44	12°♍27'49			2859 May 14 06:08	0°♄	
	2856 Nov 04 09:09	0°♊			2859 Jun 09 03:05	0°♈	
	2856 Nov 29 21:36	0°♋			2859 Jul 06 12:57	0°♍	
	2856 Dec 24 13:27	0°♌		evening max el	2859 Jul 22 00:31	15°♍31'43	45°30'41
	2857 Jan 17 19:45	0°♍		desc. node	2859 Jul 27 01:28	20°♍14'42	
desc. node	2857 Feb 08 06:28	26°♄41'53			2859 Aug 07 10:06	0°♊	
	2857 Feb 10 22:01	0°♎		greatest brilliancy	2859 Aug 28 02:20	12°♊47'20	-4.5m
	2857 Mar 06 23:08	0°♋		retrograde	2859 Sep 08 15:38	15°♊09'40	
	2857 Mar 31 00:55	0°♌		evening set	2859 Sep 26 16:06	9°♊09'26	
morning set	2857 Apr 04 10:40	5°♌28'49		inferior conj	2859 Sep 29 21:11	7°♊11'35	-8°-32'-40
	2857 Apr 24 04:40	0°♌		minimum elong	2859 Sep 30 01:17	7°♊05'13	8°32'26
				min. Earth dist.	2859 Sep 30 16:07	6°♊42'14	0.28309 AU
superior conj	2857 May 12 22:43	23°♌11'46	0°-44'-17	morning rise	2859 Oct 03 10:13	5°♊01'10	
minimum elong	2857 May 13 07:24	23°♌38'34	0°43'56		2859 Oct 14 07:07	30°♋♍	
max. Earth dist.	2857 May 15 14:33	26°♌28'50	1.73021 AU	direct	2859 Oct 21 04:40	29°♍02'34	
	2857 May 18 11:00	0°♈			2859 Oct 28 07:13	0°♊	
asc. node	2857 Jun 01 09:38	17°♈10'49		greatest brilliancy	2859 Nov 04 15:20	2°♊46'37	-4.6m
	2857 Jun 11 19:46	0°♄		asc. node	2859 Nov 17 04:29	10°♊40'51	
evening rise	2857 Jun 19 07:59	9°♄13'33			2859 Dec 08 20:20	0°♋	
	2857 Jul 06 06:32	0°♈		morning max el	2859 Dec 10 14:41	1°♋46'35	46°44'30
	2857 Jul 30 19:18	0°♍			2860 Jan 05 15:41	0°♌	
	2857 Aug 24 11:08	0°♊			2860 Jan 31 08:09	0°♄	
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desc. node	2857 Sep 20 23:10	3°♋09'56		desc. node	2860 Mar 07 18:13	14°♎01'21	
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evening max el	2857 Dec 17 02:32	12°♎45'09	47°15'27		2860 Jun 02 04:18	0°♈	
	2858 Jan 04 11:22	0°♋		morning set	2860 Jun 13 17:20	14°♈09'29	
asc. node	2858 Jan 12 02:19	6°♋00'43			2860 Jun 26 15:17	0°♄	
greatest brilliancy	2858 Jan 24 06:38	13°♋17'49	-4.7m	asc. node	2860 Jun 28 21:30	2°♄46'22	
retrograde	2858 Feb 05 23:21	16°♋18'06		max. Earth dist.	2860 Jul 18 22:52	27°♄24'48	1.73530 AU
evening set	2858 Feb 23 07:18	10°♋25'03					
min. Earth dist.	2858 Feb 25 22:51	8°♋47'28	0.27280 AU	superior conj	2860 Jul 20 09:54	29°♄12'29	0°48'16
inferior conj	2858 Feb 26 17:12	8°♋18'54	8°38'28	minimum elong	2860 Jul 20 01:40	28°♄47'09	0°47'57
minimum elong	2858 Feb 26 11:54	8°♋27'09	8°38'03		2860 Jul 21 01:21	0°♈	
morning rise	2858 Mar 01 16:45	6°♋29'00			2860 Aug 14 10:00	0°♍	
direct	2858 Mar 19 08:34	0°♋30'51		evening rise	2860 Aug 25 06:42	13°♍23'46	
greatest brilliancy	2858 Mar 29 23:40	2°♋37'24	-4.6m		2860 Sep 07 17:37	0°♊	
desc. node	2858 May 03 15:49	27°♋44'34			2860 Oct 02 01:12	0°♋	
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morning max el	2858 May 07 22:39	1°♌51'41	46°13'54		2860 Oct 26 09:42	0°♌	
	2858 Jun 03 22:12	0°♌			2860 Nov 19 19:57	0°♄	
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asc. node	2858 Aug 24 19:04	4°♈59'17		asc. node	2861 Feb 08 14:03	6°♌02'36	
	2858 Sep 14 09:13	0°♍		evening max el	2861 Feb 26 21:12	25°♌28'19	46°43'47
	2858 Oct 08 17:47	0°♊			2861 Mar 03 10:53	0°♌	
morning set	2858 Nov 01 14:52	29°♊43'32		greatest brilliancy	2861 Apr 03 22:59	24°♊22'48	-4.6m
	2858 Nov 01 20:08	0°♋		retrograde	2861 Apr 18 03:46	28°♊02'08	
	2858 Nov 25 18:56	0°♌		evening set	2861 May 04 07:15	22°♊57'40	
max. Earth dist.	2858 Dec 09 15:53	17°♌25'22	1.71249 AU	inferior conj	2861 May 09 10:30	19°♊49'10	4°55'40
				minimum elong	2861 May 09 19:41	19°♊34'42	4°53'22
superior conj	2858 Dec 11 01:17	19°♌10'16	0°07'58	min. Earth dist.	2861 May 09 09:58	19°♊50'01	0.28439 AU
minimum elong	2858 Dec 11 03:20	19°♌16'42	0°07'52	morning rise	2861 May 15 08:23	16°♊14'23	
behind sun begin	2858 Dec 10 04:28	18°♌04'53		direct	2861 May 30 16:01	11°♊40'31	
behind sun end	2858 Dec 12 02:12	20°♌28'31		desc. node	2861 May 31 03:40	11°♊40'48	
desc. node	2858 Dec 14 08:50	23°♌20'11		greatest brilliancy	2861 Jun 11 23:54	14°♊22'02	-4.5m
	2858 Dec 19 16:04	0°♄			2861 Jul 05 16:57	0°♈	
	2859 Jan 12 12:42	0°♎		morning max el	2861 Jul 18 10:18	11°♈27'17	45°43'39
evening rise	2859 Jan 21 05:23	10°♎55'38			2861 Aug 05 20:13	0°♄	
	2859 Feb 05 10:02	0°♋			2861 Sep 02 03:43	0°♈	
	2859 Mar 01 09:58	0°♌		asc. node	2861 Sep 21 06:57	22°♈08'12	
	2859 Mar 25 15:06	0°♌			2861 Sep 27 22:42	0°♍	

	2861 Oct 22 20:33	0°♄		greatest brilliancy	2864 Jun 12 06:39	1°♌47'17	-4.5m
	2861 Nov 16 05:24	0°♍		retrograde	2864 Jun 26 19:24	5°♌27'43	
	2861 Dec 10 06:53	0°♎		desc. node	2864 Jun 27 15:37	5°♌26'53	
	2862 Jan 03 04:50	0°♏		evening set	2864 Jul 12 05:16	0°♌52'37	
desc. node	2862 Jan 10 20:37	9°♏37'19			2864 Jul 13 18:03	30°♌	
morning set	2862 Jan 15 12:48	15°♏29'54		inferior conj	2864 Jul 18 06:55	27°♏13'06	-4°-37'-4
	2862 Jan 27 01:34	0°♐		minimum elong	2864 Jul 17 22:07	27°♏26'53	4°34'54
	2862 Feb 19 22:36	0°♑		min. Earth dist.	2864 Jul 18 01:47	27°♏21'09	0.29023 AU
				morning rise	2864 Jul 23 15:07	23°♏58'36	
superior conj	2862 Feb 26 03:02	7°♑45'40	-1°-22'-58	direct	2864 Aug 08 22:46	18°♏56'02	
minimum elong	2862 Feb 25 20:33	7°♑25'20	1°22'55	greatest brilliancy	2864 Aug 22 17:04	22°♏15'12	-4.5m
max. Earth dist.	2862 Mar 01 08:29	11°♑48'26	1.71476 AU		2864 Sep 04 16:47	0°♐	
	2862 Mar 15 21:20	0°♑		morning max el	2864 Sep 27 01:41	19°♐16'18	45°59'27
evening rise	2862 Apr 07 09:38	28°♑03'17			2864 Oct 07 17:29	0°♑	
	2862 Apr 08 23:15	0°♒		asc. node	2864 Oct 18 18:50	11°♑48'27	
	2862 May 03 05:39	0°♓			2864 Nov 03 23:40	0°♒	
asc. node	2862 May 03 23:50	0°♓55'58			2864 Nov 29 10:28	0°♍	
	2862 May 27 17:31	0°♑			2864 Dec 24 01:30	0°♎	
	2862 Jun 21 11:56	0°♐			2865 Jan 17 07:21	0°♏	
	2862 Jul 16 15:15	0°♑		desc. node	2865 Feb 07 08:21	26°♏12'27	
	2862 Aug 11 08:33	0°♒			2865 Feb 10 09:19	0°♐	
desc. node	2862 Aug 23 13:12	13°♒52'08			2865 Mar 06 10:12	0°♑	
	2862 Sep 07 02:50	0°♍			2865 Mar 30 11:47	0°♑	
evening max el	2862 Oct 02 16:29	26°♍31'26	46°25'01	morning set	2865 Apr 01 23:55	3°♑07'05	
	2862 Oct 06 07:29	0°♎			2865 Apr 23 15:22	0°♒	
greatest brilliancy	2862 Nov 10 10:37	25°♎35'22	-4.6m				
retrograde	2862 Nov 21 10:20	27°♎49'03		superior conj	2865 May 10 14:23	20°♒59'05	0°-47'-12
evening set	2862 Dec 05 20:49	23°♎42'50		minimum elong	2865 May 10 23:28	21°♒27'07	0°46'50
inferior conj	2862 Dec 11 23:53	20°♎09'18	0°-41'-52	max. Earth dist.	2865 May 13 11:45	24°♒33'19	1.72974 AU
minimum elong	2862 Dec 12 01:30	20°♎06'51	0°41'21		2865 May 17 21:36	0°♓	
min. Earth dist.	2862 Dec 12 05:59	20°♎00'02	0.26577 AU	asc. node	2865 May 31 11:44	16°♓44'46	
asc. node	2862 Dec 14 16:27	18°♎32'07			2865 Jun 11 06:22	0°♑	
morning rise	2862 Dec 18 05:49	16°♎31'29		evening rise	2865 Jun 17 01:58	7°♑08'48	
direct	2863 Jan 01 12:00	12°♎27'51			2865 Jul 05 17:13	0°♐	
greatest brilliancy	2863 Jan 14 02:50	15°♎26'15	-4.7m		2865 Jul 30 06:15	0°♑	
	2863 Feb 04 12:41	0°♏			2865 Aug 23 22:32	0°♒	
morning max el	2863 Feb 21 02:24	15°♏36'25	46°55'03		2865 Sep 17 19:57	0°♍	
	2863 Mar 06 20:17	0°♐		desc. node	2865 Sep 20 01:11	2°♍39'25	
	2863 Apr 02 14:40	0°♑			2865 Oct 13 01:05	0°♎	
desc. node	2863 Apr 05 06:10	3°♑03'14			2865 Nov 07 19:09	0°♏	
	2863 Apr 28 06:35	0°♑			2865 Dec 04 18:08	0°♐	
	2863 May 23 11:22	0°♒		evening max el	2865 Dec 14 16:25	10°♐21'16	47°14'55
	2863 Jun 17 10:35	0°♓			2866 Jan 04 23:29	0°♑	
	2863 Jul 12 05:40	0°♑		asc. node	2866 Jan 11 04:14	4°♑40'08	
asc. node	2863 Jul 27 09:15	18°♑26'12		greatest brilliancy	2866 Jan 21 22:54	10°♑55'49	-4.7m
	2863 Aug 05 20:18	0°♐		retrograde	2866 Feb 03 12:41	13°♑52'51	
morning set	2863 Aug 21 13:36	19°♐17'45		evening set	2866 Feb 20 17:21	8°♑05'57	
	2863 Aug 30 06:03	0°♑		min. Earth dist.	2866 Feb 23 12:03	6°♑23'39	0.27227 AU
	2863 Sep 23 11:29	0°♒		inferior conj	2866 Feb 24 06:34	5°♑54'47	8°32'25
max. Earth dist.	2863 Sep 24 01:43	0°♒44'11	1.72565 AU	minimum elong	2866 Feb 24 00:28	6°♑04'17	8°31'52
				morning rise	2866 Feb 27 07:50	4°♑02'11	
superior conj	2863 Sep 27 03:56	4°♒34'44	1°23'51		2866 Mar 07 06:40	30°♒	
minimum elong	2863 Sep 27 07:05	4°♒44'33	1°23'49	direct	2866 Mar 16 21:17	28°♒07'40	
	2863 Oct 17 14:01	0°♍			2866 Mar 26 21:22	0°♑	
evening rise	2863 Nov 04 05:11	21°♍59'32		greatest brilliancy	2866 Mar 27 12:32	0°♑13'57	-4.6m
	2863 Nov 10 15:08	0°♎		desc. node	2866 May 02 17:56	26°♑51'16	
desc. node	2863 Nov 15 23:04	6°♎39'15		morning max el	2866 May 05 11:08	29°♑29'03	46°15'30
	2863 Dec 04 15:46	0°♏			2866 May 05 23:47	0°♑	
	2863 Dec 28 16:44	0°♐			2866 Jun 03 14:14	0°♒	
	2864 Jan 21 19:40	0°♑			2866 Jun 30 05:00	0°♓	
	2864 Feb 15 04:13	0°♑			2866 Jul 25 22:49	0°♑	
asc. node	2864 Mar 08 01:58	26°♑29'29			2866 Aug 20 03:00	0°♐	
	2864 Mar 11 00:37	0°♒		asc. node	2866 Aug 23 21:06	4°♐31'22	
	2864 Apr 05 19:53	0°♓			2866 Sep 13 20:12	0°♑	
	2864 May 03 16:23	0°♑			2866 Oct 08 04:36	0°♒	
evening max el	2864 May 08 21:47	5°♑10'46	45°41'56	morning set	2866 Oct 30 05:19	27°♒25'02	
	2864 Jun 08 19:28	0°♐			2866 Nov 01 06:56	0°♍	

	2866 Nov 25 05:45	0°♊		evening set	2869 May 02 01:37	20°♌40'07	
max. Earth dist.	2866 Dec 06 21:50	14°♊39'19	1.71277 AU	inferior conj	2869 May 07 02:07	17°♌35'46	5°12'47
				minimum elong	2869 May 07 11:36	17°♌20'52	5°10'29
superior conj	2866 Dec 08 12:31	16°♊40'48	0°11'50	min. Earth dist.	2869 May 07 01:20	17°♌37'00	0.28413 AU
minimum elong	2866 Dec 08 15:32	16°♊50'16	0°11'40	morning rise	2869 May 12 21:53	14°♌04'21	
behind sun begin	2866 Dec 07 21:21	15°♊53'09		direct	2869 May 28 07:07	9°♌27'23	
behind sun end	2866 Dec 09 09:43	17°♊47'23		desc. node	2869 May 30 05:42	9°♌31'46	
desc. node	2866 Dec 13 10:52	22°♊52'33		greatest brilliancy	2869 Jun 09 14:26	12°♌08'51	-4.5m
	2866 Dec 19 02:55	0°♋			2869 Jul 05 21:59	0°♌	
	2867 Jan 11 23:35	0°♋		morning max el	2869 Jul 16 02:41	9°♌18'17	45°44'01
evening rise	2867 Jan 18 15:30	8°♋22'20			2869 Aug 05 13:20	0°♍	
	2867 Feb 04 21:00	0°♋			2869 Sep 01 17:32	0°♍	
	2867 Feb 28 21:03	0°♋		asc. node	2869 Sep 20 09:04	21°♍37'06	
	2867 Mar 25 02:24	0°♋			2869 Sep 27 11:05	0°♎	
asc. node	2867 Apr 05 13:59	14°♋05'04			2869 Oct 22 08:13	0°♎	
	2867 Apr 18 16:13	0°♌			2869 Nov 15 16:42	0°♎	
	2867 May 13 18:38	0°♌			2869 Dec 09 18:01	0°♏	
	2867 Jun 08 17:10	0°♌			2870 Jan 02 15:53	0°♏	
	2867 Jul 06 06:58	0°♎		desc. node	2870 Jan 09 22:34	9°♏08'47	
evening max el	2867 Jul 19 13:59	13°♎15'31	45°29'53	morning set	2870 Jan 12 22:45	12°♏55'38	
desc. node	2867 Jul 26 03:26	19°♎21'38			2870 Jan 26 12:35	0°♏	
	2867 Aug 07 21:27	0°♏			2870 Feb 19 09:35	0°♏	
greatest brilliancy	2867 Aug 25 13:57	10°♏30'44	-4.5m				
retrograde	2867 Sep 06 05:55	12°♏56'06		superior conj	2870 Feb 23 13:40	5°♏14'04	-1°-21'-47
evening set	2867 Sep 24 07:34	6°♏53'52		minimum elong	2870 Feb 23 06:17	4°♏50'54	1°21'41
inferior conj	2867 Sep 27 12:06	4°♏56'58	-8°-35'-54	max. Earth dist.	2870 Feb 26 16:15	9°♏08'00	1.71437 AU
minimum elong	2867 Sep 27 15:25	4°♏51'49	8°35'46		2870 Mar 15 08:15	0°♏	
min. Earth dist.	2867 Sep 28 06:28	4°♏28'30	0.28372 AU	evening rise	2870 Apr 04 22:12	25°♏39'24	
morning rise	2867 Sep 30 23:01	2°♏49'47			2870 Apr 08 10:09	0°♏	
	2867 Oct 06 02:22	30°♏			2870 May 02 16:37	0°♏	
direct	2867 Oct 18 19:42	26°♏46'51		asc. node	2870 May 03 01:54	0°♏28'31	
	2867 Nov 01 04:32	0°♏			2870 May 27 04:43	0°♏	
greatest brilliancy	2867 Nov 02 08:35	0°♏32'59	-4.6m		2870 Jun 20 23:35	0°♏	
asc. node	2867 Nov 16 06:35	9°♏30'16			2870 Jul 16 03:42	0°♏	
morning max el	2867 Dec 08 05:10	29°♏26'12	46°43'15		2870 Aug 10 22:26	0°♏	
	2867 Dec 08 18:30	0°♏		desc. node	2870 Aug 22 15:19	13°♏15'58	
	2868 Jan 05 07:43	0°♏			2870 Sep 06 19:45	0°♏	
	2868 Jan 30 21:55	0°♏		evening max el	2870 Sep 30 06:59	24°♏13'07	46°22'44
	2868 Feb 24 18:27	0°♏			2870 Oct 06 09:19	0°♏	
desc. node	2868 Mar 06 20:21	13°♏30'30		greatest brilliancy	2870 Nov 07 23:07	23°♏09'20	-4.6m
	2868 Mar 20 07:40	0°♏		retrograde	2870 Nov 18 23:02	25°♏22'17	
	2868 Apr 13 18:12	0°♏		evening set	2870 Dec 03 10:35	21°♏14'30	
	2868 May 08 04:24	0°♏		inferior conj	2870 Dec 09 12:16	17°♏42'23	-1°-6'-4
	2868 Jun 01 15:05	0°♏		minimum elong	2870 Dec 09 14:48	17°♏38'32	1°05'15
morning set	2868 Jun 11 10:41	12°♏02'37		min. Earth dist.	2870 Dec 09 19:27	17°♏31'30	0.26606 AU
	2868 Jun 26 01:54	0°♏		asc. node	2870 Dec 13 18:21	15°♏10'33	
asc. node	2868 Jun 27 23:27	2°♏19'45		morning rise	2870 Dec 15 18:44	14°♏03'55	
max. Earth dist.	2868 Jul 16 19:42	25°♏28'46	1.73540 AU	direct	2870 Dec 30 01:27	10°♏00'35	
				greatest brilliancy	2871 Jan 11 16:49	12°♏59'55	-4.7m
superior conj	2868 Jul 18 04:12	27°♏08'40	0°45'38		2871 Feb 04 20:46	0°♏	
minimum elong	2868 Jul 17 20:12	26°♏44'06	0°45'19	morning max el	2871 Feb 18 16:26	13°♏12'53	46°55'33
	2868 Jul 20 11:55	0°♏			2871 Mar 06 14:58	0°♏	
	2868 Aug 13 20:37	0°♏			2871 Apr 02 05:37	0°♏	
evening rise	2868 Aug 23 01:00	11°♏19'20		desc. node	2871 Apr 04 08:17	2°♏26'40	
	2868 Sep 07 04:24	0°♏			2871 Apr 27 19:46	0°♏	
	2868 Oct 01 12:15	0°♏			2871 May 22 23:32	0°♏	
desc. node	2868 Oct 17 13:14	19°♏45'23			2871 Jun 16 22:06	0°♏	
	2868 Oct 25 21:09	0°♏			2871 Jul 11 16:48	0°♏	
	2868 Nov 19 07:57	0°♏		asc. node	2871 Jul 26 11:18	17°♏59'02	
	2868 Dec 13 22:31	0°♏			2871 Aug 05 07:11	0°♏	
	2869 Jan 07 22:13	0°♏		morning set	2871 Aug 19 07:07	17°♏10'47	
	2869 Feb 02 20:44	0°♏			2871 Aug 29 16:51	0°♏	
asc. node	2869 Feb 07 16:05	5°♏20'31		max. Earth dist.	2871 Sep 21 16:27	28°♏27'24	1.72610 AU
evening max el	2869 Feb 24 11:37	23°♏09'05	46°46'07		2871 Sep 22 22:17	0°♏	
	2869 Mar 03 10:59	0°♏					
greatest brilliancy	2869 Apr 01 14:52	22°♏08'47	-4.6m	superior conj	2871 Sep 24 20:42	2°♏24'04	1°24'19
retrograde	2869 Apr 15 20:02	25°♏48'52		minimum elong	2871 Sep 24 23:08	2°♏31'38	1°24'19

	2871 Oct 17 00:55	0°♌		greatest brilliancy	2874 Mar 25 02:11	27°≈51'04	-4.6m
evening rise	2871 Nov 01 18:58	19°♌38'24			2874 Mar 29 21:38	0°♋	
	2871 Nov 10 02:11	0°♊		desc. node	2874 May 01 19:59	25°♋58'21	
desc. node	2871 Nov 15 01:04	6°♊10'55		morning max el	2874 May 02 23:47	27°♋06'04	46°17'06
	2871 Dec 04 03:01	0°♊			2874 May 05 22:16	0°♑	
	2871 Dec 28 04:12	0°≈			2874 Jun 03 06:17	0°♎	
	2872 Jan 21 07:28	0°♋			2874 Jun 29 18:36	0°♌	
	2872 Feb 14 16:31	0°♑			2874 Jul 25 11:12	0°♍	
asc. node	2872 Mar 07 04:04	25°♑56'38			2874 Aug 19 14:40	0°♎	
	2872 Mar 10 13:52	0°♎		asc. node	2874 Aug 22 23:15	4°♎02'50	
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	2872 May 03 12:56	0°♍			2874 Oct 07 15:43	0°♎	
evening max el	2872 May 06 13:53	2°♍59'38	45°43'29	morning set	2874 Oct 27 19:55	25°♎06'11	
greatest brilliancy	2872 Jun 09 23:28	29°♍38'56	-4.5m		2874 Oct 31 18:00	0°♌	
	2872 Jun 10 17:38	0°♎			2874 Nov 24 16:52	0°♊	
retrograde	2872 Jun 24 11:34	3°♎18'51		max. Earth dist.	2874 Dec 04 06:53	12°♊02'00	1.71311 AU
desc. node	2872 Jun 26 17:35	3°♎12'54					
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evening set	2872 Jul 09 20:09	28°♍46'18		minimum elong	2874 Dec 06 03:52	14°♊23'15	0°15'27
inferior conj	2872 Jul 15 23:24	25°♍04'20	-4°-20'-18	behind sun begin	2874 Dec 05 19:41	13°♊57'33	
minimum elong	2872 Jul 15 14:57	25°♍17'35	4°18'10	behind sun end	2874 Dec 06 12:03	14°♊48'57	
min. Earth dist.	2872 Jul 15 18:11	25°♍12'31	0.29012 AU	desc. node	2874 Dec 12 12:50	22°♊23'40	
morning rise	2872 Jul 21 09:53	21°♍46'14			2874 Dec 18 14:05	0°♊	
direct	2872 Aug 06 15:11	16°♍47'36			2875 Jan 11 10:49	0°≈	
greatest brilliancy	2872 Aug 20 07:08	20°♍03'39	-4.5m	evening rise	2875 Jan 16 01:49	5°≈48'40	
	2872 Sep 05 06:42	0°♎			2875 Feb 04 08:18	0°♋	
morning max el	2872 Sep 24 16:16	17°♎01'38	45°58'05		2875 Feb 28 08:28	0°♑	
	2872 Oct 07 12:02	0°♍			2875 Mar 24 14:00	0°♎	
asc. node	2872 Oct 17 20:53	11°♍08'45		asc. node	2875 Apr 04 16:01	13°♎35'24	
	2872 Nov 03 14:16	0°♎			2875 Apr 18 04:13	0°♌	
	2872 Nov 28 23:29	0°♌			2875 May 13 07:27	0°♍	
	2872 Dec 23 13:45	0°♊			2875 Jun 08 07:44	0°♎	
	2873 Jan 16 19:08	0°♊			2875 Jul 06 01:50	0°♍	
desc. node	2873 Feb 06 10:31	25°♊43'21		evening max el	2875 Jul 17 04:29	11°♍01'00	45°29'07
	2873 Feb 09 20:47	0°≈		desc. node	2875 Jul 25 05:35	18°♍26'52	
	2873 Mar 05 21:25	0°♋			2875 Aug 08 13:15	0°♎	
	2873 Mar 29 22:50	0°♑		greatest brilliancy	2875 Aug 23 00:53	8°♎12'44	-4.5m
morning set	2873 Mar 30 13:09	0°♑44'33		retrograde	2875 Sep 03 20:55	10°♎42'05	
	2873 Apr 23 02:19	0°♎		evening set	2875 Sep 21 22:49	4°♎38'23	
				inferior conj	2875 Sep 25 03:11	2°♎41'50	-8°-38'-18
superior conj	2873 May 08 05:57	18°♎45'12	0°-50'-2	minimum elong	2875 Sep 25 05:41	2°♎37'57	8°38'15
minimum elong	2873 May 08 15:22	19°♎14'19	0°49'41	min. Earth dist.	2875 Sep 25 20:37	2°♎14'51	0.28432 AU
max. Earth dist.	2873 May 11 07:00	22°♎30'54	1.72928 AU	morning rise	2875 Sep 28 12:18	0°♎37'30	
	2873 May 17 08:30	0°♌			2875 Sep 29 13:37	30°♎♍	
asc. node	2873 May 30 13:40	16°♌17'16		direct	2875 Oct 16 11:18	24°♍30'50	
	2873 Jun 10 17:16	0°♍		greatest brilliancy	2875 Oct 31 01:46	28°♍18'56	-4.6m
evening rise	2873 Jun 14 19:39	5°♍02'13			2875 Nov 03 06:25	0°♎	
	2873 Jul 05 04:13	0°♎		asc. node	2875 Nov 15 08:33	8°♎20'38	
	2873 Jul 29 17:30	0°♍		morning max el	2875 Dec 05 20:42	27°♎07'51	46°41'54
	2873 Aug 23 10:16	0°♎			2875 Dec 08 16:09	0°♌	
	2873 Sep 17 08:26	0°♌			2876 Jan 04 23:46	0°♊	
desc. node	2873 Sep 19 03:18	2°♌08'13			2876 Jan 30 11:51	0°♊	
	2873 Oct 12 14:45	0°♊			2876 Feb 24 07:17	0°≈	
	2873 Nov 07 10:50	0°♊		desc. node	2876 Mar 05 22:23	12°≈58'29	
	2873 Dec 04 14:20	0°≈			2876 Mar 19 19:48	0°♋	
evening max el	2873 Dec 12 05:44	7°≈55'00	47°14'22		2876 Apr 13 05:51	0°♑	
	2874 Jan 05 16:05	0°♋			2876 May 07 15:40	0°♎	
asc. node	2874 Jan 10 06:20	3°♋16'31			2876 Jun 01 02:06	0°♌	
greatest brilliancy	2874 Jan 19 15:11	8°♋33'04	-4.7m	morning set	2876 Jun 09 04:21	9°♌55'57	
retrograde	2874 Feb 01 01:58	11°♋27'21			2876 Jun 25 12:46	0°♍	
evening set	2874 Feb 18 03:20	5°♋46'43		asc. node	2876 Jun 27 01:32	1°♍52'49	
min. Earth dist.	2874 Feb 21 01:35	3°♋59'15	0.27173 AU	max. Earth dist.	2876 Jul 14 18:30	23°♍37'59	1.73551 AU
inferior conj	2874 Feb 21 20:05	3°♋30'26	8°25'30				
minimum elong	2874 Feb 21 13:14	3°♋41'07	8°24'46	superior conj	2876 Jul 15 22:41	25°♍04'37	0°42'58
morning rise	2874 Feb 24 23:21	1°♋34'49		minimum elong	2876 Jul 15 14:59	24°♍40'57	0°42'38
	2874 Feb 27 17:21	30°♎≈			2876 Jul 19 22:45	0°♎	
direct	2874 Mar 14 09:43	25°≈44'03			2876 Aug 13 07:32	0°♍	




































































































































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	2876 Sep 06 15:29	0°  ♁			2879 Apr 27 08:56	0°  Υ	
	2876 Sep 30 23:37	0°  ♁			2879 May 22 11:44	0°  Ϸ	
desc. node	2876 Oct 16 15:10	19°  ♁15'38			2879 Jun 16 09:41	0°  Π	
	2876 Oct 25 08:54	0°  ♁			2879 Jul 11 03:58	0°  ☿	
	2876 Nov 18 20:15	0°  ☿		asc. node	2879 Jul 25 13:27	17°  ☿32'05	
	2876 Dec 13 11:37	0°  ≈			2879 Aug 04 18:06	0°  ♁	
	2877 Jan 07 12:39	0°  ⋈		morning set	2879 Aug 17 00:56	15°  ♁04'43	
	2877 Feb 02 13:51	0°  Υ			2879 Aug 29 03:38	0°  ♁	
asc. node	2877 Feb 06 18:13	4°  Υ37'14		max. Earth dist.	2879 Sep 19 07:50	26°  ♁12'43	1.72659 AU
evening max el	2877 Feb 22 03:09	20°  Υ51'38	46°48'19		2879 Sep 22 09:05	0°  ♁	
	2877 Mar 03 12:43	0°  Ϸ					
greatest brilliancy	2877 Mar 30 07:21	19°  Ϸ54'39	-4.6m	superior conj	2879 Sep 22 13:49	0°  ♁14'42	1°24'41
retrograde	2877 Apr 13 12:40	23°  Ϸ34'30		minimum elong	2879 Sep 22 15:32	0°  ♁20'02	1°24'41
evening set	2877 Apr 29 20:04	18°  Ϸ21'41			2879 Oct 16 11:50	0°  ♁	
inferior conj	2877 May 04 17:42	15°  Ϸ21'27	5°29'31	evening rise	2879 Oct 30 08:59	17°  ♁18'03	
minimum elong	2877 May 05 03:25	15°  Ϸ06'11	5°27'15		2879 Nov 09 13:17	0°  ♁	
min. Earth dist.	2877 May 04 16:25	15°  Ϸ23'28	0.28383 AU	desc. node	2879 Nov 14 03:05	5°  ♁42'30	
morning rise	2877 May 10 11:08	11°  Ϸ53'41			2879 Dec 03 14:21	0°  ☿	
direct	2877 May 25 22:35	7°  Ϸ13'37			2879 Dec 27 15:46	0°  ≈	
desc. node	2877 May 29 07:38	7°  Ϸ26'49			2880 Jan 20 19:21	0°  ⋈	
greatest brilliancy	2877 Jun 07 03:45	9°  Ϸ53'40	-4.5m		2880 Feb 14 04:56	0°  Υ	
	2877 Jul 06 01:24	0°  Π		asc. node	2880 Mar 06 06:04	25°  Υ23'11	
morning max el	2877 Jul 13 19:13	7°  Π09'13	45°44'26		2880 Mar 10 03:16	0°  Ϸ	
	2877 Aug 05 06:15	0°  ☿			2880 Apr 05 02:35	0°  Π	
	2877 Sep 01 07:24	0°  ♁			2880 May 03 10:17	0°  ☿	
asc. node	2877 Sep 19 11:04	21°  ♁05'15		evening max el	2880 May 04 05:03	0°  ☿45'53	45°45'04
	2877 Sep 26 23:37	0°  ♁		greatest brilliancy	2880 Jun 07 15:40	27°  ☿29'27	-4.5m
	2877 Oct 21 20:06	0°  ♁			2880 Jun 14 04:45	0°  ♁	
	2877 Nov 15 04:14	0°  ♁		retrograde	2880 Jun 22 03:28	1°  ♁09'53	
	2877 Dec 09 05:21	0°  ♁		desc. node	2880 Jun 25 19:46	0°  ♁53'55	
	2878 Jan 02 03:08	0°  ☿			2880 Jun 29 19:39	30°  ☿☿	
desc. node	2878 Jan 09 00:42	8°  ☿40'14		evening set	2880 Jul 07 11:06	26°  ☿39'27	
morning set	2878 Jan 10 08:45	10°  ☿20'56		inferior conj	2880 Jul 13 15:48	22°  ☿55'31	-4°-3'-5
	2878 Jan 25 23:47	0°  ≈		minimum elong	2880 Jul 13 07:46	23°  ☿08'09	4°01'00
	2878 Feb 18 20:44	0°  ⋈		min. Earth dist.	2880 Jul 13 10:53	23°  ☿03'14	0.28997 AU
				morning rise	2880 Jul 19 04:30	19°  ☿33'56	
superior conj	2878 Feb 21 00:07	2°  ⋈41'16	-1°-20'-26	direct	2880 Aug 04 07:00	14°  ☿38'58	
minimum elong	2878 Feb 20 15:52	2°  ⋈15'25	1°20'17	greatest brilliancy	2880 Aug 17 21:48	17°  ☿52'54	-4.5m
max. Earth dist.	2878 Feb 24 02:00	6°  ⋈33'07	1.71401 AU		2880 Sep 05 16:55	0°  ♁	
	2878 Mar 14 19:22	0°  Υ		morning max el	2880 Sep 22 06:32	14°  ♁46'39	45°56'58
evening rise	2878 Apr 02 10:38	23°  Υ14'18			2880 Oct 07 05:57	0°  ♁	
	2878 Apr 07 21:16	0°  Ϸ		asc. node	2880 Oct 16 22:52	10°  ♁29'43	
asc. node	2878 May 02 03:52	0°  Π00'10			2880 Nov 03 04:32	0°  ♁	
	2878 May 02 03:49	0°  Π			2880 Nov 28 12:18	0°  ♁	
	2878 May 26 16:06	0°  ☿			2880 Dec 23 01:52	0°  ♁	
	2878 Jun 20 11:23	0°  ♁			2881 Jan 16 06:51	0°  ☿	
	2878 Jul 15 16:17	0°  ♁		desc. node	2881 Feb 05 12:35	25°  ☿14'05	
	2878 Aug 10 12:32	0°  ♁			2881 Feb 09 08:12	0°  ≈	
desc. node	2878 Aug 21 17:22	12°  ♁39'07			2881 Mar 05 08:36	0°  ⋈	
	2878 Sep 06 13:08	0°  ♁		morning set	2881 Mar 28 01:48	28°  ⋈20'12	
evening max el	2878 Sep 27 21:20	21°  ♁54'09	46°20'14		2881 Mar 29 09:51	0°  Υ	
	2878 Oct 06 12:53	0°  ♁			2881 Apr 22 13:11	0°  Ϸ	
greatest brilliancy	2878 Nov 05 12:38	20°  ♁44'00	-4.6m				
retrograde	2878 Nov 16 11:12	22°  ♁54'56		superior conj	2881 May 05 21:11	16°  Ϸ30'33	0°-52'-50
evening set	2878 Dec 01 00:34	18°  ♁45'34		minimum elong	2881 May 06 06:54	17°  Ϸ00'35	0°52'28
inferior conj	2878 Dec 07 00:42	15°  ♁15'13	-1°-30'-5	max. Earth dist.	2881 May 09 00:29	20°  Ϸ23'15	1.72880 AU
minimum elong	2878 Dec 07 04:08	15°  ♁09'59	1°29'01		2881 May 16 19:18	0°  Π	
min. Earth dist.	2878 Dec 07 09:16	15°  ♁02'10	0.26638 AU	asc. node	2881 May 29 15:46	15°  Π50'35	
asc. node	2878 Dec 12 20:27	11°  ♁50'39			2881 Jun 10 04:03	0°  ☿	
morning rise	2878 Dec 13 07:22	11°  ♁36'05		evening rise	2881 Jun 12 13:10	2°  ☿55'23	
direct	2878 Dec 27 14:37	7°  ♁33'00			2881 Jul 04 15:07	0°  ♁	
greatest brilliancy	2879 Jan 09 07:02	10°  ♁33'16	-4.7m		2881 Jul 29 04:40	0°  ♁	
	2879 Feb 05 02:44	0° ☿			2881 Aug 22 21:53	0° ♁	
morning max el	2879 Feb 16 05:28	10° ☿46'20	46°56'01		2881 Sep 16 20:46	0° ♁	
	2879 Mar 06 09:18	0° ≈		desc. node	2881 Sep 18 05:17	1° ♁37'08	
	2879 Apr 01 20:28	0° ⋈			2881 Oct 12 04:14	0° ♁	

	2881 Nov 07 02:27	0°☾			2884 Apr 12 17:09	0°☿		
	2881 Dec 04 10:54	0°♊			2884 May 07 02:39	0°♋		
evening max el	2881 Dec 09 18:30	5°♊28'08	47°13'35		2884 May 31 12:50	0°♌		
	2882 Jan 06 14:16	0°♋		morning set	2884 Jun 06 21:34	7°♌48'41		
asc. node	2882 Jan 09 08:26	1°♋50'10			2884 Jun 24 23:21	0°♍		
greatest brilliancy	2882 Jan 17 06:18	6°♋08'38	-4.7m	asc. node	2884 Jun 26 03:38	1°♍26'49		
retrograde	2882 Jan 29 15:09	9°♋01'26		max. Earth dist.	2884 Jul 12 17:52	21°♍49'52	1.73557 AU	
evening set	2882 Feb 15 12:44	3°♋26'57						
min. Earth dist.	2882 Feb 18 14:52	1°♋34'02	0.27126 AU	superior conj	2884 Jul 13 16:40	22°♍59'55	0°40'11	
inferior conj	2882 Feb 19 09:19	1°♋05'23	8°17'23	minimum elong	2884 Jul 13 09:18	22°♍37'17	0°39'52	
minimum elong	2882 Feb 19 01:46	1°♋17'07	8°16'28		2884 Jul 19 09:18	0°♎		
	2882 Feb 21 03:35	30°♌♊			2884 Aug 12 18:09	0°♏		
morning rise	2882 Feb 22 14:59	29°♌06'19		evening rise	2884 Aug 18 13:41	7°♏09'57		
direct	2882 Mar 11 21:50	23°♌19'27			2884 Sep 06 02:17	0°♐		
greatest brilliancy	2882 Mar 22 16:12	25°♌28'06	-4.6m		2884 Sep 30 10:42	0°♑		
	2882 Mar 31 17:01	0°♋		desc. node	2884 Oct 15 17:13	18°♑47'04		
morning max el	2882 Apr 30 13:06	24°♋44'40	46°18'47		2884 Oct 24 20:23	0°♒		
desc. node	2882 Apr 30 21:58	25°♋06'23			2884 Nov 18 08:15	0°♓		
	2882 May 05 19:50	0°☿			2884 Dec 13 00:24	0°♊		
	2882 Jun 02 21:56	0°♋			2885 Jan 07 02:44	0°♌		
	2882 Jun 29 07:55	0°♌			2885 Feb 02 06:46	0°☿		
	2882 Jul 24 23:18	0°♍		asc. node	2885 Feb 05 20:10	3°☿54'25		
	2882 Aug 19 02:06	0°♎		evening max el	2885 Feb 19 19:11	18°☿36'48	46°50'21	
asc. node	2882 Aug 22 01:10	3°♎34'22			2885 Mar 03 15:17	0°♋		
	2882 Sep 12 18:31	0°♏		greatest brilliancy	2885 Mar 28 00:24	17°♋42'19	-4.6m	
	2882 Oct 07 02:35	0°♐		retrograde	2885 Apr 11 05:00	21°♋20'43		
morning set	2882 Oct 25 10:57	22°♐49'36		evening set	2885 Apr 27 14:31	16°♋03'57		
	2882 Oct 31 04:48	0°♑		inferior conj	2885 May 02 09:12	13°♋07'46	5°45'52	
	2882 Nov 24 03:39	0°♒		minimum elong	2885 May 02 19:06	12°♋52'13	5°43'36	
max. Earth dist.	2882 Dec 01 19:08	9°♒35'48	1.71342 AU	min. Earth dist.	2885 May 02 07:20	13°♋10'42	0.28356 AU	
				morning rise	2885 May 08 00:06	9°♋43'43		
superior conj	2882 Dec 03 11:45	11°♒43'19	0°19'22	direct	2885 May 23 14:12	5°♋00'36		
minimum elong	2882 Dec 03 16:34	11°♒58'29	0°19'08	desc. node	2885 May 28 09:49	5°♋27'13		
desc. node	2882 Dec 11 15:00	21°♒56'30		greatest brilliancy	2885 Jun 04 16:15	7°♋38'02	-4.5m	
	2882 Dec 18 00:55	0°♓			2885 Jul 06 03:01	0°♌		
	2883 Jan 10 21:44	0°♊		morning max el	2885 Jul 11 11:20	4°♌59'47	45°44'45	
evening rise	2883 Jan 13 12:25	3°♊16'53			2885 Aug 04 22:36	0°♍		
	2883 Feb 03 19:19	0°♋			2885 Aug 31 20:52	0°♎		
	2883 Feb 27 19:38	0°☿		asc. node	2885 Sep 18 13:06	20°♎34'29		
	2883 Mar 24 01:25	0°♋			2885 Sep 26 11:47	0°♏		
asc. node	2883 Apr 03 17:59	13°♋06'02			2885 Oct 21 07:37	0°♐		
	2883 Apr 17 16:03	0°♌			2885 Nov 14 15:25	0°♑		
	2883 May 12 20:10	0°♍			2885 Dec 08 16:23	0°♒		
	2883 Jun 07 22:16	0°♎			2886 Jan 01 14:04	0°♓		
	2883 Jul 05 20:59	0°♏		morning set	2886 Jan 07 18:58	7°♓47'58		
evening max el	2883 Jul 14 19:41	8°♏48'55	45°28'30	desc. node	2886 Jan 08 02:45	8°♓12'25		
desc. node	2883 Jul 24 07:36	17°♏31'19			2886 Jan 25 10:38	0°♊		
	2883 Aug 09 10:08	0°♐						
greatest brilliancy	2883 Aug 20 11:39	5°♐55'21	-4.5m	superior conj	2886 Feb 18 10:51	0°♋10'31	-1°-18'-54	
retrograde	2883 Sep 01 12:02	8°♐28'33		minimum elong	2886 Feb 18 01:49	29°♊42'12	1°18'44	
evening set	2883 Sep 19 13:42	2°♐23'59			2886 Feb 18 07:30	0°♋		
inferior conj	2883 Sep 22 18:08	0°♐27'16	-8°-40'-4	max. Earth dist.	2886 Feb 21 12:42	4°♋02'18	1.71360 AU	
minimum elong	2883 Sep 22 19:49	0°♐24'39	8°40'02		2886 Mar 14 06:05	0°☿		
	2883 Sep 23 11:45	30°♑♏		evening rise	2886 Mar 30 23:15	20°☿50'56		
min. Earth dist.	2883 Sep 23 10:21	0°♐02'10	0.28486 AU		2886 Apr 07 07:59	0°♋		
morning rise	2883 Sep 26 01:44	28°♑25'18		asc. node	2886 May 01 05:59	29°♋33'24		
direct	2883 Oct 14 03:11	22°♑15'35			2886 May 01 14:38	0°♌		
greatest brilliancy	2883 Oct 28 17:48	26°♑04'21	-4.6m		2886 May 26 03:11	0°♍		
	2883 Nov 04 15:02	0°♐			2886 Jun 19 22:56	0°♎		
asc. node	2883 Nov 14 10:38	7°♐14'00			2886 Jul 15 04:41	0°♏		
morning max el	2883 Dec 03 12:42	24°♐52'03	46°40'41		2886 Aug 10 02:33	0°♐		
	2883 Dec 08 12:37	0°♑		desc. node	2886 Aug 20 19:21	12°♐02'27		
	2884 Jan 04 15:08	0°♒			2886 Sep 06 06:39	0°♑		
	2884 Jan 30 01:13	0°♓		evening max el	2886 Sep 25 10:50	19°♑33'50	46°17'45	
	2884 Feb 23 19:37	0°♊			2886 Oct 06 17:56	0°♒		
desc. node	2884 Mar 05 00:21	12°♊27'40		greatest brilliancy	2886 Nov 03 02:39	18°♒20'04	-4.6m	
	2884 Mar 19 07:32	0°♋		retrograde	2886 Nov 13 22:42	20°♒28'30		

evening set	2886 Nov 28 14:42	16°♊17'07			2889 May 16 06:01	0°♈	
inferior conj	2886 Dec 04 13:08	12°♊48'57	-1°-53'-58	asc. node	2889 May 28 17:51	15°♈24'06	
minimum elong	2886 Dec 04 17:26	12°♊42'23	1°52'37		2889 Jun 09 14:46	0°♉	
min. Earth dist.	2886 Dec 04 23:25	12°♊33'16	0.26673 AU	evening rise	2889 Jun 10 06:52	0°♉49'28	
morning rise	2886 Dec 10 19:43	9°♊09'22			2889 Jul 04 01:56	0°♊	
asc. node	2886 Dec 11 22:35	8°♊34'42			2889 Jul 28 15:47	0°♋	
direct	2886 Dec 25 03:18	5°♊06'01			2889 Aug 22 09:30	0°♌	
greatest brilliancy	2887 Jan 06 22:07	8°♊08'19	-4.7m		2889 Sep 16 09:12	0°♍	
	2887 Feb 05 06:29	0°♋		desc. node	2889 Sep 17 07:18	1°♍05'56	
morning max el	2887 Feb 13 17:55	8°♋18'54	46°56'39		2889 Oct 11 17:57	0°♎	
	2887 Mar 06 02:54	0°♌			2889 Nov 06 18:27	0°♏	
	2887 Apr 01 10:47	0°♍			2889 Dec 04 08:19	0°♐	
desc. node	2887 Apr 02 12:19	1°♍14'24		evening max el	2889 Dec 07 07:50	3°♐02'28	47°12'52
	2887 Apr 26 21:39	0°♎			2890 Jan 07 21:09	0°♑	
	2887 May 21 23:32	0°♏		asc. node	2890 Jan 08 10:22	0°♑20'09	
	2887 Jun 15 20:55	0°♈		greatest brilliancy	2890 Jan 14 20:19	3°♑42'21	-4.7m
	2887 Jul 10 14:51	0°♉		retrograde	2890 Jan 27 04:43	6°♑34'58	
asc. node	2887 Jul 24 15:23	17°♉05'12		evening set	2890 Feb 12 21:52	1°♑06'30	
	2887 Aug 04 04:48	0°♊			2890 Feb 14 18:13	30°♒	
morning set	2887 Aug 14 18:36	12°♊58'47		min. Earth dist.	2890 Feb 16 03:46	29°♒08'23	0.27079 AU
	2887 Aug 28 14:14	0°♋		inferior conj	2890 Feb 16 22:24	28°♒39'33	8°08'13
max. Earth dist.	2887 Sep 16 23:41	24°♋00'07	1.72709 AU	minimum elong	2890 Feb 16 14:12	28°♒52'15	8°07'08
				morning rise	2890 Feb 20 06:45	26°♒36'49	
superior conj	2887 Sep 20 06:49	28°♋05'33	1°24'55	direct	2890 Mar 09 10:14	20°♒54'03	
minimum elong	2887 Sep 20 07:48	28°♋08'35	1°24'54	greatest brilliancy	2890 Mar 20 05:46	23°♒04'09	-4.6m
	2887 Sep 21 19:42	0°♌			2890 Apr 01 23:03	0°♓	
	2887 Oct 15 22:34	0°♍		morning max el	2890 Apr 28 03:22	22°♓25'12	46°20'32
evening rise	2887 Oct 27 22:57	14°♍58'13		desc. node	2890 Apr 30 00:06	24°♓15'28	
	2887 Nov 09 00:14	0°♎			2890 May 05 16:46	0°♔	
desc. node	2887 Nov 13 05:12	5°♎14'53			2890 Jun 02 13:26	0°♕	
	2887 Dec 03 01:31	0°♏			2890 Jun 28 21:11	0°♖	
	2887 Dec 27 03:12	0°♐			2890 Jul 24 11:23	0°♗	
	2888 Jan 20 07:08	0°♑			2890 Aug 18 13:31	0°♘	
	2888 Feb 13 17:16	0°♒		asc. node	2890 Aug 21 03:15	3°♘06'15	
asc. node	2888 Mar 05 08:06	24°♒50'16			2890 Sep 12 05:37	0°♙	
	2888 Mar 09 16:34	0°♓			2890 Oct 06 13:33	0°♚	
	2888 Apr 04 18:00	0°♈		morning set	2890 Oct 23 02:02	20°♚32'47	
evening max el	2888 May 01 19:46	28°♈31'58	45°46'50		2890 Oct 30 15:46	0°♛	
	2888 May 03 08:02	0°♉			2890 Nov 23 14:40	0°♜	
greatest brilliancy	2888 Jun 05 06:42	25°♉19'36	-4.5m	max. Earth dist.	2890 Nov 29 06:24	7°♜05'51	1.71375 AU
retrograde	2888 Jun 19 19:39	29°♉02'23					
desc. node	2888 Jun 24 21:44	28°♉31'40		superior conj	2890 Nov 30 23:26	9°♜14'37	0°23'06
evening set	2888 Jul 05 02:21	24°♉33'23		minimum elong	2890 Dec 01 05:05	9°♜32'23	0°22'49
inferior conj	2888 Jul 11 08:24	20°♉47'53	-3°-45'-31	desc. node	2890 Dec 10 17:00	21°♜28'03	
minimum elong	2888 Jul 11 00:49	20°♉59'48	3°43'32		2890 Dec 17 12:00	0°♞	
min. Earth dist.	2888 Jul 11 03:47	20°♉55'09	0.28988 AU		2891 Jan 10 08:53	0°♟	
morning rise	2888 Jul 16 23:16	17°♉23'06		evening rise	2891 Jan 10 22:42	0°♠43'24	
direct	2888 Aug 01 22:52	12°♉31'17			2891 Feb 03 06:35	0°♑	
greatest brilliancy	2888 Aug 15 13:52	15°♉44'43	-4.5m		2891 Feb 27 07:03	0°♒	
	2888 Sep 06 00:08	0°♊			2891 Mar 23 13:04	0°♓	
morning max el	2888 Sep 19 21:32	12°♊33'51	45°55'47	asc. node	2891 Apr 02 20:07	12°♓36'26	
	2888 Oct 06 23:23	0°♋			2891 Apr 17 04:10	0°♔	
asc. node	2888 Oct 16 00:59	9°♋51'36			2891 May 12 09:10	0°♕	
	2888 Nov 02 18:37	0°♌			2891 Jun 07 13:10	0°♖	
	2888 Nov 28 01:00	0°♍			2891 Jul 05 16:52	0°♗	
	2888 Dec 22 13:53	0°♎		evening max el	2891 Jul 12 11:44	6°♗38'38	45°28'02
	2889 Jan 15 18:27	0°♏		desc. node	2891 Jul 23 09:35	16°♗34'24	
desc. node	2889 Feb 04 14:30	24°♏44'34			2891 Aug 10 14:51	0°♘	
	2889 Feb 08 19:31	0°♐		greatest brilliancy	2891 Aug 17 23:21	3°♘39'24	-4.5m
	2889 Mar 04 19:44	0°♑		retrograde	2891 Aug 30 03:13	6°♘15'33	
morning set	2889 Mar 25 14:18	25°♑55'25		evening set	2891 Sep 17 04:34	0°♘10'57	
	2889 Mar 28 20:48	0°♒			2891 Sep 17 11:52	30°♙	
	2889 Apr 22 00:01	0°♓		inferior conj	2891 Sep 20 09:24	28°♙13'22	-8°-40'-54
				minimum elong	2891 Sep 20 10:18	28°♙11'59	8°40'54
superior conj	2889 May 03 12:31	14°♓16'21	0°-55'-32	min. Earth dist.	2891 Sep 21 00:15	27°♙50'22	0.28539 AU
minimum elong	2889 May 03 22:28	14°♓47'07	0°55'10	morning rise	2891 Sep 23 15:52	26°♙13'01	
max. Earth dist.	2889 May 06 16:12	18°♓10'19	1.72826 AU	direct	2891 Oct 11 19:40	20°♙01'12	

greatest brilliancy	2891 Oct 26 08:59	23° \mathbb{M} 48'48	-4.6m		2894 May 25 14:43	0° \mathfrak{S}	
	2891 Nov 05 14:25	0° \mathfrak{L}			2894 Jun 19 10:57	0° \mathcal{O}	
asc. node	2891 Nov 13 12:43	6° \mathfrak{L} 08'47			2894 Jul 14 17:34	0° \mathbb{M}	
morning max el	2891 Dec 01 04:24	22° \mathfrak{L} 34'56	46°39'04		2894 Aug 09 17:07	0° \mathfrak{L}	
	2891 Dec 08 08:44	0° \mathbb{M}		desc. node	2894 Aug 19 21:26	11° \mathfrak{L} 24'42	
	2892 Jan 04 06:39	0° \mathfrak{A}			2894 Sep 06 00:57	0° \mathbb{M}	
	2892 Jan 29 14:54	0° \mathfrak{Z}		evening max el	2894 Sep 22 23:36	17° \mathbb{M} 11'10	46°15'28
	2892 Feb 23 08:19	0° \approx			2894 Oct 07 01:26	0° \mathfrak{A}	
desc. node	2892 Mar 04 02:29	11° \approx 56'16		greatest brilliancy	2894 Oct 31 16:42	15° \mathfrak{A} 56'10	-4.6m
	2892 Mar 18 19:35	0° \mathfrak{H}		retrograde	2894 Nov 11 10:23	18° \mathfrak{A} 02'41	
	2892 Apr 12 04:46	0° \mathbb{Y}		evening set	2894 Nov 26 05:14	13° \mathfrak{A} 48'37	
	2892 May 06 13:55	0° \mathfrak{B}		inferior conj	2894 Dec 02 01:52	10° \mathfrak{A} 23'05	-2°-17'-13
	2892 May 30 23:52	0° \mathbb{I}		minimum elong	2894 Dec 02 07:00	10° \mathfrak{A} 15'16	2°15'38
morning set	2892 Jun 04 14:48	5° \mathbb{I} 40'28		min. Earth dist.	2894 Dec 02 13:55	10° \mathfrak{A} 04'43	0.26714 AU
	2892 Jun 24 10:15	0° \mathfrak{S}		morning rise	2894 Dec 08 08:10	6° \mathfrak{A} 43'28	
asc. node	2892 Jun 25 05:34	0° \mathfrak{S} 59'18		asc. node	2894 Dec 11 00:27	5° \mathfrak{A} 23'46	
max. Earth dist.	2892 Jul 10 16:32	19° \mathfrak{S} 58'34	1.73556 AU	direct	2894 Dec 22 15:58	2° \mathfrak{A} 39'11	
				greatest brilliancy	2895 Jan 04 14:16	5° \mathfrak{A} 44'42	-4.7m
superior conj	2892 Jul 11 10:50	20° \mathfrak{S} 54'49	0°37'22		2895 Feb 05 08:55	0° \mathfrak{Z}	
minimum elong	2892 Jul 11 03:51	20° \mathfrak{S} 33'21	0°37'04	morning max el	2895 Feb 11 06:29	5° \mathfrak{Z} 50'52	46°56'59
	2892 Jul 18 20:09	0° \mathcal{O}			2895 Mar 05 20:29	0° \approx	
	2892 Aug 12 05:03	0° \mathbb{M}			2895 Apr 01 01:23	0° \mathfrak{H}	
evening rise	2892 Aug 16 08:13	5° \mathbb{M} 05'28		desc. node	2895 Apr 01 14:24	0° \mathfrak{H} 37'59	
	2892 Sep 05 13:21	0° \mathfrak{L}			2895 Apr 26 10:47	0° \mathbb{Y}	
	2892 Sep 29 22:02	0° \mathbb{M}			2895 May 21 11:46	0° \mathfrak{B}	
desc. node	2892 Oct 14 19:22	18° \mathbb{M} 17'59			2895 Jun 15 08:35	0° \mathbb{I}	
	2892 Oct 24 08:10	0° \mathfrak{A}			2895 Jul 10 02:07	0° \mathfrak{S}	
	2892 Nov 17 20:39	0° \mathfrak{Z}		asc. node	2895 Jul 23 17:26	16° \mathfrak{S} 37'34	
	2892 Dec 12 13:41	0° \approx			2895 Aug 03 15:49	0° \mathcal{O}	
	2893 Jan 06 17:29	0° \mathfrak{H}		morning set	2895 Aug 12 12:02	10° \mathcal{O} 51'07	
	2893 Feb 02 00:39	0° \mathbb{Y}			2895 Aug 28 01:10	0° \mathbb{M}	
asc. node	2893 Feb 04 22:14	3° \mathbb{Y} 09'41		max. Earth dist.	2895 Sep 14 17:09	21° \mathbb{M} 51'30	1.72756 AU
evening max el	2893 Feb 17 10:53	16° \mathbb{Y} 19'12	46°52'19				
	2893 Mar 03 20:20	0° \mathfrak{B}		superior conj	2895 Sep 17 23:52	25° \mathbb{M} 55'34	1°25'00
greatest brilliancy	2893 Mar 25 18:25	15° \mathfrak{B} 29'17	-4.6m	minimum elong	2895 Sep 18 00:07	25° \mathbb{M} 56'19	1°25'01
retrograde	2893 Apr 08 20:45	19° \mathfrak{B} 04'44			2895 Sep 21 06:39	0° \mathfrak{L}	
evening set	2893 Apr 25 08:55	13° \mathfrak{B} 44'14			2895 Oct 15 09:38	0° \mathbb{M}	
inferior conj	2893 Apr 30 00:33	10° \mathfrak{B} 52'13	6°01'43	evening rise	2895 Oct 25 13:18	12° \mathbb{M} 38'47	
minimum elong	2893 Apr 30 10:34	10° \mathfrak{B} 36'28	5°59'31		2895 Nov 08 11:27	0° \mathfrak{A}	
min. Earth dist.	2893 Apr 29 22:19	10° \mathfrak{B} 55'43	0.28323 AU	desc. node	2895 Nov 12 07:10	4° \mathfrak{A} 45'59	
morning rise	2893 May 05 12:39	7° \mathfrak{B} 31'55			2895 Dec 02 12:55	0° \mathfrak{Z}	
direct	2893 May 21 05:29	2° \mathfrak{B} 45'50			2895 Dec 26 14:51	0° \approx	
desc. node	2893 May 27 11:49	3° \mathfrak{B} 30'19			2896 Jan 19 19:08	0° \mathfrak{H}	
greatest brilliancy	2893 Jun 02 04:15	5° \mathfrak{B} 20'05	-4.5m		2896 Feb 13 05:52	0° \mathbb{Y}	
	2893 Jul 06 03:53	0° \mathbb{I}		asc. node	2896 Mar 04 10:10	24° \mathbb{Y} 16'28	
morning max el	2893 Jul 09 02:33	2° \mathbb{I} 46'52	45°45'12		2896 Mar 09 06:17	0° \mathfrak{B}	
	2893 Aug 04 15:04	0° \mathfrak{S}			2896 Apr 04 10:05	0° \mathbb{I}	
	2893 Aug 31 10:34	0° \mathcal{O}		evening max el	2896 Apr 29 10:30	26° \mathbb{I} 16'43	45°48'36
asc. node	2893 Sep 17 15:11	20° \mathcal{O} 03'05			2896 May 03 07:18	0° \mathfrak{S}	
	2893 Sep 26 00:13	0° \mathbb{M}		greatest brilliancy	2896 Jun 02 21:09	23° \mathfrak{S} 07'11	-4.5m
	2893 Oct 20 19:23	0° \mathfrak{L}		retrograde	2896 Jun 17 12:05	26° \mathfrak{S} 52'56	
	2893 Nov 14 02:52	0° \mathbb{M}		desc. node	2896 Jun 23 23:42	26° \mathfrak{S} 02'41	
	2893 Dec 08 03:40	0° \mathfrak{A}		evening set	2896 Jul 02 17:29	22° \mathfrak{S} 25'01	
	2894 Jan 01 01:19	0° \mathfrak{Z}		inferior conj	2896 Jul 09 00:43	18° \mathfrak{S} 38'13	-3°-27'-30
morning set	2894 Jan 05 05:17	5° \mathfrak{Z} 14'11		minimum elong	2896 Jul 08 17:36	18° \mathfrak{S} 49'22	3°25'36
desc. node	2894 Jan 07 04:42	7° \mathfrak{Z} 43'14		min. Earth dist.	2896 Jul 08 20:11	18° \mathfrak{S} 45'19	0.28977 AU
	2894 Jan 24 21:52	0° \approx		morning rise	2896 Jul 14 17:43	15° \mathfrak{S} 10'35	
				direct	2896 Jul 30 14:32	10° \mathfrak{S} 21'33	
superior conj	2894 Feb 15 21:12	27° \approx 37'08	-1°-17'-12	greatest brilliancy	2896 Aug 13 06:13	13° \mathfrak{S} 35'30	-4.5m
minimum elong	2894 Feb 15 11:29	27° \approx 06'39	1°17'00		2896 Sep 06 05:40	0° \mathcal{O}	
	2894 Feb 17 18:43	0° \mathfrak{H}		morning max el	2896 Sep 17 13:10	10° \mathcal{O} 21'45	45°54'43
max. Earth dist.	2894 Feb 18 20:16	1° \mathfrak{H} 20'13	1.71325 AU		2896 Oct 06 16:45	0° \mathbb{M}	
	2894 Mar 13 17:16	0° \mathbb{Y}		asc. node	2896 Oct 15 03:00	9° \mathbb{M} 12'52	
evening rise	2894 Mar 28 11:07	18° \mathbb{Y} 23'37			2896 Nov 02 08:48	0° \mathfrak{L}	
	2894 Apr 06 19:10	0° \mathfrak{B}			2896 Nov 27 13:50	0° \mathbb{M}	
asc. node	2894 Apr 30 08:00	29° \mathfrak{B} 04'51			2896 Dec 22 02:01	0° \mathfrak{A}	
	2894 May 01 01:56	0° \mathbb{I}			2897 Jan 15 06:09	0° \mathfrak{Z}	

desc. node	2897 Feb 03 16:39	24°☾15'34			2899 Aug 12 08:44	0°♊	
	2897 Feb 08 06:56	0°♊		greatest brilliancy	2899 Aug 15 12:14	1°♊24'34	-4.5m
	2897 Mar 04 06:56	0°♋		retrograde	2899 Aug 27 17:53	4°♊02'08	
morning set	2897 Mar 23 02:49	23°♋30'15			2899 Sep 11 05:14	30°♋	
	2897 Mar 28 07:52	0°♌		evening set	2899 Sep 14 18:55	27°♋58'25	
	2897 Apr 21 10:59	0°♍		inferior conj	2899 Sep 18 00:33	25°♋59'20	-8°-40'-53
				minimum elong	2899 Sep 18 00:37	25°♋59'14	8°40'55
superior conj	2897 May 01 03:36	12°♌00'44	0°-58'-9	min. Earth dist.	2899 Sep 18 14:14	25°♋38'07	0.28587 AU
minimum elong	2897 May 01 13:45	12°♌32'07	0°57'48	morning rise	2899 Sep 21 06:12	24°♋00'00	
max. Earth dist.	2897 May 04 07:15	15°♌54'44	1.72783 AU	direct	2899 Oct 09 11:49	17°♋46'50	
	2897 May 15 16:55	0°♎		greatest brilliancy	2899 Oct 23 23:23	21°♋32'13	-4.6m
asc. node	2897 May 27 19:47	14°♎56'26			2899 Nov 06 07:39	0°♏	
evening rise	2897 Jun 08 00:09	28°♎41'36		asc. node	2899 Nov 12 14:40	5°♏05'04	
	2897 Jun 09 01:41	0°♐		morning max el	2899 Nov 28 18:57	20°♏15'18	46°37'32
	2897 Jul 03 12:59	0°♑			2899 Dec 08 04:06	0°♐	
	2897 Jul 28 03:08	0°♒			2900 Jan 03 21:46	0°♑	
	2897 Aug 21 21:22	0°♓			2900 Jan 29 04:15	0°♒	
	2897 Sep 15 21:52	0°♑			2900 Feb 22 20:43	0°♓	
desc. node	2897 Sep 16 09:25	0°♑34'23		desc. node	2900 Mar 04 04:30	11°♓25'17	
	2897 Oct 11 07:56	0°♒			2900 Mar 19 07:23	0°♋	
	2897 Nov 06 10:50	0°♓			2900 Apr 12 16:06	0°♌	
	2897 Dec 04 06:39	0°♓			2900 May 07 00:54	0°♍	
evening max el	2897 Dec 04 22:18	0°♓39'36	47°12'10		2900 May 31 10:36	0°♎	
asc. node	2898 Jan 07 12:28	28°♓47'19		morning set	2900 Jun 03 08:13	3°♎33'45	
	2898 Jan 09 18:18	0°♋			2900 Jun 24 20:51	0°♐	
greatest brilliancy	2898 Jan 12 09:50	1°♋15'39	-4.7m	asc. node	2900 Jun 25 07:40	0°♐33'11	
retrograde	2898 Jan 24 18:46	4°♋08'38		max. Earth dist.	2900 Jul 09 14:22	18°♐05'38	1.73559 AU
	2898 Feb 08 02:39	30°♋					
evening set	2898 Feb 10 07:01	28°♋46'19		superior conj	2900 Jul 10 05:05	18°♐50'52	0°34'31
min. Earth dist.	2898 Feb 13 16:24	26°♋43'24	0.27028 AU	minimum elong	2900 Jul 09 22:31	18°♐30'43	0°34'13
inferior conj	2898 Feb 14 11:31	26°♋13'53	7°58'11		2900 Jul 19 06:45	0°♑	
minimum elong	2898 Feb 14 02:44	26°♋27'26	7°56'55		2900 Aug 12 15:45	0°♒	
morning rise	2898 Feb 17 22:42	24°♋07'19		evening rise	2900 Aug 15 02:41	3°♒01'30	
direct	2898 Mar 06 23:15	18°♋29'07			2900 Sep 06 00:14	0°♓	
greatest brilliancy	2898 Mar 17 18:21	20°♋39'30	-4.6m		2900 Sep 30 09:14	0°♑	
	2898 Apr 02 20:37	0°♋		desc. node	2900 Oct 14 21:17	17°♑48'42	
morning max el	2898 Apr 25 18:04	20°♋07'10	46°22'05		2900 Oct 24 19:48	0°♒	
desc. node	2898 Apr 29 02:06	23°♋25'31			2900 Nov 18 08:53	0°♓	
	2898 May 05 12:53	0°♌			2900 Dec 13 02:48	0°♓	
	2898 Jun 02 04:39	0°♍			2901 Jan 07 08:05	0°♋	
	2898 Jun 28 10:21	0°♎			2901 Feb 02 18:35	0°♌	
	2898 Jul 23 23:29	0°♐		asc. node	2901 Feb 05 00:19	2°♌25'26	
	2898 Aug 18 01:00	0°♑		evening max el	2901 Feb 16 01:44	14°♌00'14	46°54'14
asc. node	2898 Aug 20 05:22	2°♑38'06			2901 Mar 05 03:02	0°♍	
	2898 Sep 11 16:45	0°♒		greatest brilliancy	2901 Mar 24 12:53	13°♍17'42	-4.6m
	2898 Oct 06 00:32	0°♓		retrograde	2901 Apr 07 12:07	16°♍49'53	
morning set	2898 Oct 20 17:01	18°♓15'53		evening set	2901 Apr 24 03:24	11°♍25'40	
	2898 Oct 30 02:42	0°♑		inferior conj	2901 Apr 28 16:00	8°♍37'57	6°17'00
	2898 Nov 23 01:38	0°♒		minimum elong	2901 Apr 29 02:03	8°♍22'08	6°14'53
max. Earth dist.	2898 Nov 26 16:22	4°♒32'03	1.71408 AU	min. Earth dist.	2901 Apr 28 13:39	8°♍41'40	0.28288 AU
				morning rise	2901 May 04 01:06	5°♍21'36	
superior conj	2898 Nov 28 11:12	6°♒46'27	0°26'45	direct	2901 May 19 20:24	0°♍32'20	
minimum elong	2898 Nov 28 17:38	7°♒06'37	0°26'26	desc. node	2901 May 27 13:46	1°♍39'02	
desc. node	2898 Dec 09 18:58	20°♒59'40		greatest brilliancy	2901 May 31 17:02	3°♍04'12	-4.5m
	2898 Dec 16 23:01	0°♓			2901 Jul 07 03:03	0°♎	
evening rise	2899 Jan 08 09:06	28°♓10'23		morning max el	2901 Jul 07 16:55	0°♎33'03	45°45'44
	2899 Jan 09 20:00	0°♓			2901 Aug 05 06:47	0°♐	
	2899 Feb 02 17:46	0°♋			2901 Aug 31 23:46	0°♑	
	2899 Feb 26 18:20	0°♌		asc. node	2901 Sep 17 17:11	19°♑32'32	
	2899 Mar 23 00:34	0°♍			2901 Sep 26 12:16	0°♒	
asc. node	2899 Apr 01 22:07	12°♍06'57			2901 Oct 21 06:53	0°♓	
	2899 Apr 16 16:08	0°♎			2901 Nov 14 14:03	0°♑	
	2899 May 11 22:06	0°♐			2901 Dec 08 14:43	0°♒	
	2899 Jun 07 04:09	0°♑			2902 Jan 01 12:17	0°♓	
	2899 Jul 05 13:21	0°♒		morning set	2902 Jan 03 15:27	2°♓40'50	
evening max el	2899 Jul 10 03:38	4°♒28'02	45°27'21	desc. node	2902 Jan 07 06:51	7°♓15'37	
desc. node	2899 Jul 22 11:43	15°♒36'29			2902 Jan 25 08:46	0°♓	

superior conj	2902 Feb 14 07:27	25°  04'35	-1°-15'-20	greatest brilliancy	2904 Aug 11 22:23	11°  27'45	-4.5m
minimum elong	2902 Feb 13 21:08	24°  32'10	1°15'06		2904 Sep 07 08:42	0° 	
max. Earth dist.	2902 Feb 17 01:36	28°  32'16	1.71290 AU	morning max el	2904 Sep 16 05:38	8°  13'16	45°53'43
	2902 Feb 18 05:33	0° 			2904 Oct 07 09:17	0° 	
	2902 Mar 14 04:05	0° 		asc. node	2904 Oct 15 05:00	8°  13'44	
evening rise	2902 Mar 26 22:57	15°  57'16			2904 Nov 02 22:26	0° 	
	2902 Apr 07 06:01	0° 			2904 Nov 28 02:16	0° 	
asc. node	2902 Apr 30 09:58	28°  37'16			2904 Dec 22 13:50	0° 	
	2902 May 01 12:53	0° 			2905 Jan 15 17:37	0° 	
	2902 May 26 01:53	0° 		desc. node	2905 Feb 03 18:43	23°  46'46	
	2902 Jun 19 22:34	0° 			2905 Feb 08 18:09	0° 	
	2902 Jul 15 06:05	0° 			2905 Mar 04 17:58	0° 	
	2902 Aug 10 07:25	0° 		morning set	2905 Mar 21 14:48	21°  03'56	
desc. node	2902 Aug 19 23:30	10°  47'46			2905 Mar 28 18:44	0° 	
	2902 Sep 06 19:19	0° 			2905 Apr 21 21:42	0° 	
evening max el	2902 Sep 21 11:40	14°  47'50	46°12'57				
	2902 Oct 08 11:18	0° 		superior conj	2905 Apr 29 18:20	9°  44'39	-1°00'-43
greatest brilliancy	2902 Oct 30 05:50	13°  31'37	-4.6m	minimum elong	2905 Apr 30 04:36	10°  16'27	1°00'22
retrograde	2902 Nov 09 22:05	15°  37'11		max. Earth dist.	2905 May 03 00:04	13°  45'17	1.72733 AU
evening set	2902 Nov 24 19:40	11°  19'47			2905 May 16 03:34	0° 	
inferior conj	2902 Nov 30 14:21	7°  57'15	-2°-40'-17	asc. node	2905 May 27 21:54	14°  13'07	
minimum elong	2902 Nov 30 20:17	7°  48'14	2°38'29	evening rise	2905 Jun 06 17:26	26°  13'42	
min. Earth dist.	2902 Dec 01 04:07	7°  36'17	0.26762 AU		2905 Jun 09 12:21	0° 	
morning rise	2902 Dec 06 20:11	4°  18'08			2905 Jul 03 23:48	0° 	
asc. node	2902 Dec 11 02:35	2°  16'52			2905 Jul 28 14:14	0° 	
direct	2902 Dec 21 04:31	0° 			2905 Aug 22 08:58	0° 	
greatest brilliancy	2903 Jan 03 07:03	3°  22'13	-4.7m	desc. node	2905 Sep 16 11:24	0°  10'32'20	
	2903 Feb 06 09:45	0° 			2905 Sep 16 10:16	0° 	
morning max el	2903 Feb 09 19:35	3°  24'45	46°57'31		2905 Oct 11 21:41	0° 	
	2903 Mar 06 13:23	0° 			2905 Nov 07 03:10	0° 	
desc. node	2903 Apr 01 16:24	0°  02'49		evening max el	2905 Dec 03 13:13	28°  18'44	47°11'03
	2903 Apr 01 15:27	0° 			2905 Dec 05 05:36	0° 	
	2903 Apr 26 23:24	0° 		asc. node	2906 Jan 07 14:32	27°  11'11	
	2903 May 21 23:33	0° 		greatest brilliancy	2906 Jan 10 23:31	28°  49'13	-4.7m
	2903 Jun 15 19:48	0° 			2906 Jan 13 23:34	0° 	
	2903 Jul 10 12:58	0° 		retrograde	2906 Jan 23 08:35	1°  41'41	
asc. node	2903 Jul 23 19:34	16°  11'27			2906 Feb 01 08:48	30° 	
	2903 Aug 04 02:26	0° 		evening set	2906 Feb 08 15:56	26°  25'47	
morning set	2903 Aug 11 05:56	8°  46'08		min. Earth dist.	2906 Feb 12 04:50	24°  17'46	0.26982 AU
	2903 Aug 28 11:41	0° 		inferior conj	2906 Feb 13 00:23	23°  47'36	7°47'06
max. Earth dist.	2903 Sep 13 13:29	19°  53'05	1.72805 AU	minimum elong	2906 Feb 12 15:07	24°  01'55	7°45'38
				morning rise	2906 Feb 16 14:36	21°  36'50	
superior conj	2903 Sep 16 17:18	23°  48'05	1°24'58	direct	2906 Mar 05 12:29	16°  03'43	
minimum elong	2903 Sep 16 16:50	23°  46'38	1°24'59	greatest brilliancy	2906 Mar 16 06:25	18°  13'40	-4.6m
	2903 Sep 21 17:13	0° 			2906 Apr 04 12:44	0° 	
	2903 Oct 15 20:20	0° 		morning max el	2906 Apr 24 08:18	17°  47'49	46°23'41
evening rise	2903 Oct 24 03:59	10°  12'29		desc. node	2906 Apr 29 04:07	22°  13'62'28	
	2903 Nov 08 22:22	0° 			2906 May 06 08:23	0° 	
desc. node	2903 Nov 12 09:14	4°  18'13			2906 Jun 02 19:35	0° 	
	2903 Dec 03 00:05	0° 			2906 Jun 28 23:17	0° 	
	2903 Dec 27 02:17	0° 			2906 Jul 24 11:21	0° 	
	2904 Jan 20 06:57	0° 			2906 Aug 18 12:17	0° 	
	2904 Feb 13 18:16	0° 		asc. node	2906 Aug 20 07:16	2°  09'55	
asc. node	2904 Mar 04 12:09	23°  43'10			2906 Sep 12 03:43	0° 	
	2904 Mar 09 19:47	0° 			2906 Oct 06 11:20	0° 	
	2904 Apr 05 02:02	0° 		morning set	2906 Oct 19 08:36	16°  01'21	
evening max el	2904 Apr 28 01:58	24°  11'04'26	45°50'35		2906 Oct 30 13:28	0° 	
	2904 May 04 07:06	0° 			2906 Nov 23 12:25	0° 	
greatest brilliancy	2904 Jun 01 11:55	20°  56'43	-4.5m	max. Earth dist.	2906 Nov 25 01:17	1°  55'35	1.71441 AU
retrograde	2904 Jun 16 05:08	24°  45'11					
desc. node	2904 Jun 24 01:54	23°  30'51		superior conj	2906 Nov 26 23:43	4°  21'15	0°30'17
evening set	2904 Jul 01 09:01	20°  18'08		minimum elong	2906 Nov 27 06:51	4°  43'36	0°29'57
inferior conj	2904 Jul 07 17:11	16°  30'09	-3°-9'-17	desc. node	2906 Dec 09 21:08	20°  32'24	
minimum elong	2904 Jul 07 10:36	16°  40'27	3°07'29		2906 Dec 17 09:53	0° 	
min. Earth dist.	2904 Jul 07 12:27	16°  37'33	0.28963 AU	evening rise	2907 Jan 06 19:50	25°  38'54	
morning rise	2904 Jul 13 12:15	12°  59'57			2907 Jan 10 06:58	0° 	
direct	2904 Jul 29 06:52	8° 			2907 Feb 03 04:53	0° 	

	2907 Feb 27 05:36	0°♄			2909 Aug 04 22:34	0°♄	
	2907 Mar 23 12:07	0°♄			2909 Aug 31 13:07	0°♄	
asc. node	2907 Apr 02 00:06	11°♄37'13		asc. node	2909 Sep 16 19:12	19°♄01'32	
	2907 Apr 17 04:11	0°♄			2909 Sep 26 00:29	0°♄	
	2907 May 12 11:09	0°♄			2909 Oct 20 18:30	0°♄	
	2907 Jun 07 19:21	0°♄			2909 Nov 14 01:23	0°♄	
	2907 Jul 06 10:31	0°♄			2909 Dec 08 01:56	0°♄	
evening max el	2907 Jul 08 18:49	2°♄15'48	45°26'53		2909 Dec 31 23:27	0°♄	
desc. node	2907 Jul 22 13:43	14°♄37'17		morning set	2910 Jan 01 01:54	0°♄07'44	
greatest brilliancy	2907 Aug 14 02:03	29°♄11'21	-4.5m	desc. node	2910 Jan 06 08:52	6°♄46'54	
	2907 Aug 16 05:35	0°♄			2910 Jan 24 19:52	0°♄	
retrograde	2907 Aug 26 08:24	1°♄49'41					
	2907 Sep 05 00:21	30°♄		superior conj	2910 Feb 11 17:56	22°♄32'04	-1°-13'-19
evening set	2907 Sep 13 09:09	25°♄47'24		minimum elong	2910 Feb 11 07:04	21°♄57'55	1°13'02
inferior conj	2907 Sep 16 15:57	23°♄46'20	-8°-40'-14	max. Earth dist.	2910 Feb 14 04:55	25°♄37'19	1.71256 AU
minimum elong	2907 Sep 16 15:11	23°♄47'32	8°40'15		2910 Feb 17 16:35	0°♄	
min. Earth dist.	2907 Sep 17 04:45	23°♄26'24	0.28632 AU		2910 Mar 13 15:05	0°♄	
morning rise	2907 Sep 19 21:04	21°♄47'30		evening rise	2910 Mar 24 10:59	13°♄30'56	
direct	2907 Oct 08 03:36	15°♄33'23			2910 Apr 06 17:04	0°♄	
greatest brilliancy	2907 Oct 22 14:05	19°♄16'37	-4.6m	asc. node	2910 Apr 29 12:07	28°♄09'31	
	2907 Nov 07 20:17	0°♄			2910 May 01 00:03	0°♄	
asc. node	2907 Nov 12 16:46	4°♄03'39			2910 May 25 13:20	0°♄	
morning max el	2907 Nov 27 08:50	17°♄54'22	46°36'08		2910 Jun 19 10:32	0°♄	
	2907 Dec 08 22:51	0°♄			2910 Jul 14 19:02	0°♄	
	2908 Jan 04 12:35	0°♄			2910 Aug 09 22:15	0°♄	
	2908 Jan 29 17:26	0°♄		desc. node	2910 Aug 19 01:28	10°♄09'22	
	2908 Feb 23 09:02	0°♄			2910 Sep 06 14:31	0°♄	
desc. node	2908 Mar 03 06:28	10°♄54'21		evening max el	2910 Sep 19 00:16	12°♄25'22	46°10'45
	2908 Mar 18 19:08	0°♄			2910 Oct 09 00:51	0°♄	
	2908 Apr 12 03:28	0°♄		greatest brilliancy	2910 Oct 27 18:05	11°♄06'06	-4.6m
	2908 May 06 11:59	0°♄		retrograde	2910 Nov 07 10:31	13°♄11'58	
	2908 May 30 21:28	0°♄		evening set	2910 Nov 22 10:29	8°♄50'48	
morning set	2908 Jun 01 01:17	1°♄25'26		inferior conj	2910 Nov 28 03:03	5°♄31'21	-3°-2'-52
asc. node	2908 Jun 24 09:45	0°♄06'35		minimum elong	2910 Nov 28 09:43	5°♄21'12	3°00'52
	2908 Jun 24 07:36	0°♄		min. Earth dist.	2910 Nov 28 18:04	5°♄08'30	0.26812 AU
				morning rise	2910 Dec 04 08:14	1°♄53'19	
superior conj	2908 Jul 07 23:06	16°♄45'56	0°31'35		2910 Dec 08 06:26	30°♄	
minimum elong	2908 Jul 07 17:00	16°♄27'11	0°31'18	asc. node	2910 Dec 10 04:41	29°♄15'28	
max. Earth dist.	2908 Jul 07 10:19	16°♄06'39	1.73556 AU	direct	2910 Dec 18 17:45	27°♄45'03	
	2908 Jul 18 17:28	0°♄			2910 Dec 29 16:00	0°♄	
	2908 Aug 12 02:32	0°♄		greatest brilliancy	2910 Dec 31 23:40	0°♄59'21	-4.7m
evening rise	2908 Aug 12 21:08	0°♄57'17			2911 Feb 06 09:41	0°♄	
	2908 Sep 05 11:12	0°♄		morning max el	2911 Feb 07 09:57	1°♄01'15	46°57'56
	2908 Sep 29 20:32	0°♄			2911 Mar 06 06:12	0°♄	
desc. node	2908 Oct 13 23:21	17°♄19'36		desc. node	2911 Mar 31 18:27	29°♄27'10	
	2908 Oct 24 07:33	0°♄			2911 Apr 01 05:38	0°♄	
	2908 Nov 17 21:16	0°♄			2911 Apr 26 12:13	0°♄	
	2908 Dec 12 16:03	0°♄			2911 May 21 11:33	0°♄	
	2909 Jan 06 22:54	0°♄			2911 Jun 15 07:17	0°♄	
	2909 Feb 02 12:59	0°♄			2911 Jul 10 00:07	0°♄	
asc. node	2909 Feb 04 02:18	1°♄40'13		asc. node	2911 Jul 22 21:29	15°♄43'37	
evening max el	2909 Feb 13 15:33	11°♄38'23	46°56'01		2911 Aug 03 13:23	0°♄	
	2909 Mar 05 12:22	0°♄		morning set	2911 Aug 08 23:43	6°♄39'46	
greatest brilliancy	2909 Mar 22 06:40	11°♄04'43	-4.6m		2911 Aug 27 22:34	0°♄	
retrograde	2909 Apr 05 03:16	14°♄34'39		max. Earth dist.	2911 Sep 11 09:35	17°♄52'48	1.72848 AU
evening set	2909 Apr 21 21:53	9°♄06'23					
inferior conj	2909 Apr 26 07:28	6°♄23'09	6°31'44	superior conj	2911 Sep 14 10:35	21°♄39'01	1°24'49
minimum elong	2909 Apr 26 17:29	6°♄07'22	6°29'42	minimum elong	2911 Sep 14 09:25	21°♄35'22	1°24'49
min. Earth dist.	2909 Apr 26 05:10	6°♄26'48	0.28259 AU		2911 Sep 21 04:08	0°♄	
morning rise	2909 May 01 13:26	3°♄11'00			2911 Oct 15 07:23	0°♄	
	2909 May 08 05:24	30°♄		evening rise	2911 Oct 21 18:35	8°♄03'00	
direct	2909 May 17 10:56	28°♄17'59			2911 Nov 08 09:36	0°♄	
desc. node	2909 May 26 15:58	29°♄51'21		desc. node	2911 Nov 11 11:20	3°♄49'40	
	2909 May 27 02:23	0°♄			2911 Dec 02 11:33	0°♄	
greatest brilliancy	2909 May 29 07:03	0°♄48'52	-4.5m		2911 Dec 26 14:03	0°♄	
morning max el	2909 Jul 05 07:17	28°♄18'12	45°46'21		2912 Jan 19 19:08	0°♄	
	2909 Jul 07 01:37	0°♄			2912 Feb 13 07:06	0°♄	

asc. node	2912 Mar 03 14:12	23° Υ 08'47		morning set	2914 Oct 17 00:02	13° Ω 45'30	
	2912 Mar 09 09:47	0° \mathcal{B}			2914 Oct 30 00:32	0° \mathcal{M}	
	2912 Apr 04 18:39	0° Π		max. Earth dist.	2914 Nov 22 08:01	29° \mathcal{M} 11'21	1.71479 AU
evening max el	2912 Apr 25 18:10	21° Π 52'58	45°52'37		2914 Nov 22 23:32	0° \mathcal{A}	
	2912 May 04 08:31	0° \mathcal{E}					
greatest brilliancy	2912 May 30 03:21	18° \mathcal{E} 46'08	-4.5m	superior conj	2914 Nov 24 12:05	1° \mathcal{A} 54'34	0°33'47
retrograde	2912 Jun 13 22:13	22° \mathcal{E} 36'07		minimum elong	2914 Nov 24 19:50	2° \mathcal{A} 18'55	0°33'25
desc. node	2912 Jun 23 03:49	20° \mathcal{E} 53'33		desc. node	2914 Dec 08 23:08	20° \mathcal{A} 03'33	
evening set	2912 Jun 29 00:42	18° \mathcal{E} 09'59			2914 Dec 16 21:05	0° \mathcal{C}	
inferior conj	2912 Jul 05 09:34	14° \mathcal{E} 20'46	-2°-50'-43	evening rise	2915 Jan 04 06:10	23° \mathcal{C} 05'11	
minimum elong	2912 Jul 05 03:34	14° \mathcal{E} 30'10	2°49'03		2915 Jan 09 18:15	0° \approx	
min. Earth dist.	2912 Jul 05 04:26	14° \mathcal{E} 28'49	0.28950 AU		2915 Feb 02 16:15	0° \mathcal{H}	
morning rise	2912 Jul 11 06:37	10° \mathcal{E} 48'08			2915 Feb 26 17:08	0° Υ	
direct	2912 Jul 26 23:36	6° \mathcal{E} 04'25			2915 Mar 22 23:55	0° \mathcal{B}	
greatest brilliancy	2912 Aug 09 13:42	9° \mathcal{E} 17'47	-4.5m	asc. node	2915 Apr 01 02:14	11° \mathcal{B} 07'12	
	2912 Sep 07 10:47	0° \mathcal{Q}			2915 Apr 16 16:33	0° Π	
morning max el	2912 Sep 13 22:12	6° \mathcal{Q} 03'52	45°52'35		2915 May 12 00:35	0° \mathcal{E}	
	2912 Oct 07 01:59	0° \mathcal{M}			2915 Jun 07 11:03	0° \mathcal{Q}	
asc. node	2912 Oct 14 07:07	7° \mathcal{M} 57'58			2915 Jul 06 08:45	0° \mathcal{M}	
	2912 Nov 02 12:23	0° \mathcal{A}		evening max el	2915 Jul 06 09:17	0° \mathcal{M} 01'16	45°26'32
	2912 Nov 27 15:01	0° \mathcal{M}		desc. node	2915 Jul 21 15:44	13° \mathcal{M} 36'11	
	2912 Dec 22 01:57	0° \mathcal{A}		greatest brilliancy	2915 Aug 11 15:29	26° \mathcal{M} 57'17	-4.5m
	2913 Jan 15 05:21	0° \mathcal{C}		retrograde	2915 Aug 23 22:52	29° \mathcal{M} 37'15	
desc. node	2913 Feb 02 20:38	23° \mathcal{C} 16'42		evening set	2915 Sep 10 23:07	23° \mathcal{M} 36'45	
	2913 Feb 08 05:39	0° \approx		inferior conj	2915 Sep 14 07:27	21° \mathcal{M} 33'20	-8°-38'-43
	2913 Mar 04 05:17	0° \mathcal{H}		minimum elong	2915 Sep 14 05:52	21° \mathcal{M} 35'48	8°38'42
morning set	2913 Mar 19 02:39	18° \mathcal{H} 36'03		min. Earth dist.	2915 Sep 14 19:37	21° \mathcal{M} 14'21	0.28676 AU
	2913 Mar 28 05:55	0° Υ		morning rise	2915 Sep 17 12:26	19° \mathcal{M} 34'28	
	2913 Apr 21 08:46	0° \mathcal{B}		direct	2915 Oct 05 19:00	13° \mathcal{M} 19'45	
				greatest brilliancy	2915 Oct 20 05:39	17° \mathcal{M} 01'59	-4.6m
superior conj	2913 Apr 27 08:58	7° \mathcal{B} 27'05	-1°-3'-11		2915 Nov 08 05:51	0° \mathcal{A}	
minimum elong	2913 Apr 27 19:17	7° \mathcal{B} 59'03	1°02'51	asc. node	2915 Nov 11 18:51	3° \mathcal{A} 03'13	
max. Earth dist.	2913 Apr 30 18:02	11° \mathcal{B} 38'12	1.72682 AU	morning max el	2915 Nov 24 22:24	15° \mathcal{A} 32'05	46°34'34
	2913 May 15 14:33	0° Π			2915 Dec 08 17:21	0° \mathcal{M}	
asc. node	2913 May 26 23:58	14° Π 02'41			2916 Jan 04 03:30	0° \mathcal{A}	
evening rise	2913 Jun 04 10:39	24° Π 26'10			2916 Jan 29 06:48	0° \mathcal{C}	
	2913 Jun 08 23:20	0° \mathcal{E}			2916 Feb 22 21:32	0° \approx	
	2913 Jul 03 10:56	0° \mathcal{Q}		desc. node	2916 Mar 02 08:38	10° \approx 23'22	
	2913 Jul 28 01:41	0° \mathcal{M}			2916 Mar 18 07:03	0° \mathcal{H}	
	2913 Aug 21 20:58	0° \mathcal{A}			2916 Apr 11 14:57	0° Υ	
desc. node	2913 Sep 15 13:26	29° \mathcal{A} 31'09			2916 May 05 23:09	0° \mathcal{B}	
	2913 Sep 15 23:09	0° \mathcal{M}		morning set	2916 May 29 18:10	29° \mathcal{B} 16'08	
	2913 Oct 11 12:01	0° \mathcal{A}			2916 May 30 08:27	0° Π	
	2913 Nov 06 20:16	0° \mathcal{C}		asc. node	2916 Jun 23 11:41	29° Π 39'12	
evening max el	2913 Dec 01 04:11	25° \mathcal{C} 56'49	47°09'59		2916 Jun 23 18:28	0° \mathcal{E}	
	2913 Dec 05 06:04	0° \approx		max. Earth dist.	2916 Jul 05 05:00	14° \mathcal{E} 03'21	1.73552 AU
asc. node	2914 Jan 06 16:28	25° \approx 30'13					
greatest brilliancy	2914 Jan 08 14:08	26° \approx 22'59	-4.7m	superior conj	2916 Jul 05 17:09	14° \mathcal{E} 40'40	0°28'36
retrograde	2914 Jan 20 22:08	29° \approx 13'29		minimum elong	2916 Jul 05 11:32	14° \mathcal{E} 23'25	0°28'21
evening set	2914 Feb 06 00:54	24° \approx 04'19			2916 Jul 18 04:17	0° \mathcal{Q}	
min. Earth dist.	2914 Feb 09 17:31	21° \approx 50'48	0.26933 AU	evening rise	2916 Aug 10 15:44	28° \mathcal{Q} 53'17	
inferior conj	2914 Feb 10 13:14	21° \approx 20'21	7°35'06		2916 Aug 11 13:25	0° \mathcal{M}	
minimum elong	2914 Feb 10 03:33	21° \approx 35'17	7°33'27		2916 Sep 04 22:16	0° \mathcal{A}	
morning rise	2914 Feb 14 06:35	19° \approx 05'03			2916 Sep 29 07:54	0° \mathcal{M}	
direct	2914 Mar 03 01:33	13° \approx 37'30		desc. node	2916 Oct 13 01:29	16° \mathcal{M} 50'32	
greatest brilliancy	2914 Mar 13 18:28	15° \approx 46'41	-4.6m		2916 Oct 23 19:23	0° \mathcal{A}	
	2914 Apr 05 01:11	0° \mathcal{H}			2916 Nov 17 09:46	0° \mathcal{C}	
morning max el	2914 Apr 21 21:36	15° \mathcal{H} 25'06	46°25'10		2916 Dec 12 05:31	0° \approx	
desc. node	2914 Apr 28 06:16	21° \mathcal{H} 47'43			2917 Jan 06 14:03	0° \mathcal{H}	
	2914 May 06 03:40	0° Υ			2917 Feb 02 08:05	0° Υ	
	2914 Jun 02 10:38	0° \mathcal{B}		asc. node	2917 Feb 03 04:22	0° Υ 54'01	
	2914 Jun 28 12:26	0° Π		evening max el	2917 Feb 11 04:48	9° Υ 14'22	46°57'52
	2914 Jul 23 23:27	0° \mathcal{E}			2917 Mar 06 01:23	0° \mathcal{B}	
	2914 Aug 17 23:48	0° \mathcal{Q}		greatest brilliancy	2917 Mar 19 23:33	8° \mathcal{B} 49'36	-4.6m
asc. node	2914 Aug 19 09:23	1° \mathcal{Q} 41'33		retrograde	2917 Apr 02 18:29	12° \mathcal{B} 18'30	
	2914 Sep 11 14:56	0° \mathcal{M}		evening set	2917 Apr 19 16:10	6° \mathcal{B} 45'50	
	2914 Oct 05 22:25	0° \mathcal{A}		inferior conj	2917 Apr 23 22:44	4° \mathcal{B} 07'21	6°45'54

minimum elong	2917 Apr 24 08:40	3°♄51'41	6°43'58	minimum elong	2919 Sep 12 02:01	19°♎25'06	1°24'32
min. Earth dist.	2917 Apr 23 20:23	4°♄11'03	0.28228 AU		2919 Sep 20 14:49	0°♎	
morning rise	2917 Apr 29 01:27	0°♄59'50			2919 Oct 14 18:12	0°♎	
	2917 Apr 30 20:39	30°♋♂		evening rise	2919 Oct 19 09:23	5°♎45'56	
direct	2917 May 15 01:00	26°♂02'33			2919 Nov 07 20:34	0°♌	
desc. node	2917 May 25 17:56	28°♂06'54		desc. node	2919 Nov 10 13:17	3°♌21'30	
greatest brilliancy	2917 May 26 21:20	28°♂33'20	-4.5m		2919 Dec 01 22:44	0°♌	
	2917 May 30 03:02	0°♄			2919 Dec 26 01:31	0°♌	
morning max el	2917 Jul 02 22:04	26°♄04'15	45°47'05		2920 Jan 19 07:00	0°♋	
	2917 Jul 06 23:19	0°♄			2920 Feb 12 19:37	0°♂	
	2917 Aug 04 14:04	0°♄		asc. node	2920 Mar 02 16:17	22°♂35'26	
	2917 Aug 31 02:20	0°♄			2920 Mar 08 23:32	0°♄	
asc. node	2917 Sep 15 21:18	18°♄30'58			2920 Apr 04 11:15	0°♄	
	2917 Sep 25 12:35	0°♎		evening max el	2920 Apr 23 10:53	19°♄43'24	45°54'32
	2917 Oct 20 06:01	0°♎			2920 May 04 11:04	0°♄	
	2917 Nov 13 12:38	0°♎		greatest brilliancy	2920 May 27 20:08	16°♄37'52	-4.5m
	2917 Dec 07 13:03	0°♌		retrograde	2920 Jun 11 15:11	20°♄27'26	
morning set	2917 Dec 29 12:32	27°♌35'29		desc. node	2920 Jun 22 05:50	18°♄12'25	
	2917 Dec 31 10:31	0°♌		evening set	2920 Jun 26 16:34	16°♄02'23	
desc. node	2918 Jan 05 10:51	6°♌18'24		inferior conj	2920 Jul 03 01:56	12°♄12'04	-2°-31'-48
	2918 Jan 24 06:54	0°♌		minimum elong	2920 Jul 02 20:32	12°♄20'31	2°30'18
				min. Earth dist.	2920 Jul 02 20:29	12°♄20'35	0.28932 AU
superior conj	2918 Feb 09 04:04	19°♌58'28	-1°-11'-6	morning rise	2920 Jul 09 00:47	8°♄37'00	
minimum elong	2918 Feb 08 16:44	19°♌22'52	1°10'48	direct	2920 Jul 24 16:19	3°♄56'13	
max. Earth dist.	2918 Feb 11 08:03	22°♌41'50	1.71231 AU	greatest brilliancy	2920 Aug 07 03:44	7°♄07'07	-4.5m
	2918 Feb 17 03:36	0°♋			2920 Sep 07 11:07	0°♄	
	2918 Mar 13 02:05	0°♂		morning max el	2920 Sep 11 14:11	3°♄54'13	45°51'27
evening rise	2918 Mar 21 22:30	11°♂02'59			2920 Oct 06 18:00	0°♎	
	2918 Apr 06 04:05	0°♄		asc. node	2920 Oct 13 09:08	7°♎21'25	
asc. node	2918 Apr 28 14:07	27°♄41'32			2920 Nov 02 01:50	0°♎	
	2918 Apr 30 11:11	0°♄			2920 Nov 27 03:20	0°♎	
	2918 May 25 00:43	0°♄			2920 Dec 21 13:40	0°♌	
	2918 Jun 18 22:26	0°♄			2921 Jan 14 16:42	0°♌	
	2918 Jul 14 07:56	0°♎		desc. node	2921 Feb 01 22:48	22°♌48'35	
	2918 Aug 09 13:08	0°♎			2921 Feb 07 16:44	0°♌	
desc. node	2918 Aug 18 03:35	9°♎31'23			2921 Mar 03 16:11	0°♋	
	2918 Sep 06 10:07	0°♎		morning set	2921 Mar 16 14:45	16°♋10'21	
evening max el	2918 Sep 16 13:54	10°♎06'08	46°08'37		2921 Mar 27 16:40	0°♂	
	2918 Oct 09 18:32	0°♌			2921 Apr 20 19:25	0°♄	
greatest brilliancy	2918 Oct 25 05:50	8°♌41'12	-4.6m				
retrograde	2918 Nov 04 23:33	10°♌47'48		superior conj	2921 Apr 24 23:40	5°♄10'53	-1°-5'-32
evening set	2918 Nov 20 01:33	6°♌22'53		minimum elong	2921 Apr 25 09:57	5°♄42'48	1°05'14
inferior conj	2918 Nov 25 15:48	3°♌06'30	-3°-24'-59	max. Earth dist.	2921 Apr 28 13:08	9°♄35'45	1.72633 AU
minimum elong	2918 Nov 25 23:09	2°♌55'19	3°22'48		2921 May 15 01:09	0°♄	
min. Earth dist.	2918 Nov 26 07:43	2°♌42'19	0.26863 AU	asc. node	2921 May 26 01:55	13°♄35'59	
	2918 Nov 30 22:05	30°♋♂		evening rise	2921 Jun 02 03:41	22°♄18'20	
morning rise	2918 Dec 01 20:07	29°♎29'56			2921 Jun 08 09:58	0°♄	
asc. node	2918 Dec 09 06:34	26°♎20'57			2921 Jul 02 21:43	0°♄	
direct	2918 Dec 16 07:32	25°♎19'19			2921 Jul 27 12:48	0°♎	
greatest brilliancy	2918 Dec 29 15:10	28°♎36'19	-4.7m		2921 Aug 21 08:37	0°♎	
	2919 Jan 01 10:04	0°♌		desc. node	2921 Sep 14 15:32	29°♎00'16	
morning max el	2919 Feb 05 00:54	28°♌40'08	46°58'07		2921 Sep 15 11:42	0°♎	
	2919 Feb 06 08:16	0°♌			2921 Oct 11 02:06	0°♌	
	2919 Mar 05 22:29	0°♌			2921 Nov 06 13:18	0°♌	
desc. node	2919 Mar 30 20:32	28°♌52'27		evening max el	2921 Nov 28 18:35	23°♌34'35	47°08'42
	2919 Mar 31 19:29	0°♋			2921 Dec 05 07:19	0°♌	
	2919 Apr 26 00:48	0°♂		asc. node	2922 Jan 05 18:37	23°♌46'46	
	2919 May 20 23:21	0°♄		greatest brilliancy	2922 Jan 06 05:48	23°♌59'02	-4.7m
	2919 Jun 14 18:33	0°♄		retrograde	2922 Jan 18 11:14	26°♌46'21	
	2919 Jul 09 11:01	0°♄		evening set	2922 Feb 03 09:55	21°♌44'05	
asc. node	2919 Jul 21 23:35	15°♄17'05		min. Earth dist.	2922 Feb 07 06:40	19°♌24'30	0.26881 AU
	2919 Aug 03 00:05	0°♄		inferior conj	2922 Feb 08 02:06	18°♌54'28	7°22'09
morning set	2919 Aug 06 17:26	4°♄34'03		minimum elong	2922 Feb 07 16:04	19°♌09'58	7°20'19
	2919 Aug 27 09:11	0°♎		morning rise	2922 Feb 11 22:35	16°♌34'28	
max. Earth dist.	2919 Sep 09 04:49	15°♎50'48	1.72891 AU	direct	2922 Feb 28 14:01	11°♌12'36	
				greatest brilliancy	2922 Mar 11 07:09	13°♌21'36	-4.6m
superior conj	2919 Sep 12 03:54	19°♎30'56	1°24'33		2922 Apr 05 09:47	0°♋	

morning max el	2922 Apr 19 10:01	13° 11 01'29	46°26'47		2924 Dec 11 18:52	0° 11	
desc. node	2922 Apr 27 08:14	21° 11 00'51			2925 Jan 06 05:12	0° 11	
	2922 May 05 21:52	0° 11		asc. node	2925 Feb 02 06:27	0° 11 07'41	
	2922 Jun 02 00:58	0° 11			2925 Feb 02 03:32	0° 11	
	2922 Jun 28 01:02	0° 11		evening max el	2925 Feb 08 18:39	6° 11 52'19	46°59'39
	2922 Jul 23 11:07	0° 11			2925 Mar 06 18:38	0° 11	
	2922 Aug 17 10:56	0° 11		greatest brilliancy	2925 Mar 17 15:30	6° 11 33'24	-4.6m
asc. node	2922 Aug 18 11:28	1° 11 01'45		retrograde	2925 Mar 31 10:02	10° 11 02'28	
	2922 Sep 11 01:46	0° 11		evening set	2925 Apr 17 10:18	4° 11 25'12	
	2922 Oct 05 09:07	0° 11		inferior conj	2925 Apr 21 13:51	1° 11 51'29	6°59'26
morning set	2922 Oct 14 15:28	11° 11 30'55		minimum elong	2925 Apr 21 23:39	1° 11 36'05	6°57'38
	2922 Oct 29 11:12	0° 11		min. Earth dist.	2925 Apr 21 11:13	1° 11 55'38	0.28195 AU
max. Earth dist.	2922 Nov 19 16:21	26° 11 33'26	1.71522 AU		2925 Apr 24 13:30	30° 11 00'	
				morning rise	2925 Apr 26 13:14	28° 11 49'03	
superior conj	2922 Nov 22 00:35	29° 11 29'41	0°37'11	direct	2925 May 12 15:13	23° 11 47'02	
minimum elong	2922 Nov 22 08:55	29° 11 55'48	0°36'48	greatest brilliancy	2925 May 24 11:22	26° 11 17'53	-4.5m
	2922 Nov 22 10:15	0° 11		desc. node	2925 May 24 19:54	26° 11 26'33	
desc. node	2922 Dec 08 01:07	19° 11 35'50			2925 May 31 21:56	0° 11	
	2922 Dec 16 07:55	0° 11		morning max el	2925 Jun 30 13:41	23° 11 52'49	45°48'00
evening rise	2923 Jan 01 16:40	20° 11 33'09			2925 Jul 06 20:01	0° 11	
	2923 Jan 09 05:12	0° 11			2925 Aug 04 05:07	0° 11	
	2923 Feb 02 03:18	0° 11			2925 Aug 30 15:15	0° 11	
	2923 Feb 26 04:19	0° 11		asc. node	2925 Sep 14 23:17	18° 11 00'40	
	2923 Mar 22 11:21	0° 11			2925 Sep 25 00:29	0° 11	
asc. node	2923 Mar 31 04:14	10° 11 37'57			2925 Oct 19 17:25	0° 11	
	2923 Apr 16 04:31	0° 11			2925 Nov 12 23:47	0° 11	
	2923 May 11 13:38	0° 11			2925 Dec 07 00:07	0° 11	
	2923 Jun 07 02:31	0° 11		morning set	2925 Dec 26 23:16	25° 11 30'48	
evening max el	2923 Jul 03 23:30	27° 11 04'719	45°26'11		2925 Dec 30 21:30	0° 11	
	2923 Jul 06 07:25	0° 11		desc. node	2926 Jan 04 13:00	5° 11 50'36	
desc. node	2923 Jul 20 17:51	12° 11 34'56			2926 Jan 23 17:51	0° 11	
greatest brilliancy	2923 Aug 09 04:01	24° 11 43'20	-4.5m				
retrograde	2923 Aug 21 13:39	27° 11 26'19		superior conj	2926 Feb 06 14:01	17° 11 24'28	-1°-8'-45
evening set	2923 Sep 08 12:46	21° 11 27'51		minimum elong	2926 Feb 06 02:20	16° 11 47'48	1°08'25
inferior conj	2923 Sep 11 23:03	19° 11 21'39	-8°-36'-17	max. Earth dist.	2926 Feb 08 14:25	19° 11 56'38	1.71210 AU
minimum elong	2923 Sep 11 20:40	19° 11 25'22	8°36'14		2926 Feb 16 14:31	0° 11	
min. Earth dist.	2923 Sep 12 10:37	19° 11 03'39	0.28720 AU		2926 Mar 12 13:02	0° 11	
morning rise	2923 Sep 15 04:22	17° 11 22'17		evening rise	2926 Mar 19 09:58	8° 11 34'56	
direct	2923 Oct 03 10:23	11° 11 07'20			2926 Apr 05 15:05	0° 11	
greatest brilliancy	2923 Oct 17 22:18	14° 11 50'08	-4.6m	asc. node	2926 Apr 27 16:06	27° 11 13'28	
	2923 Nov 08 12:19	0° 11			2926 Apr 29 22:19	0° 11	
asc. node	2923 Nov 10 20:47	2° 11 04'55			2926 May 24 12:06	0° 11	
morning max el	2923 Nov 22 12:40	13° 11 12'51	46°33'04		2926 Jun 18 10:21	0° 11	
	2923 Dec 08 11:01	0° 11			2926 Jul 13 20:53	0° 11	
	2924 Jan 03 17:53	0° 11			2926 Aug 09 04:10	0° 11	
	2924 Jan 28 19:45	0° 11		desc. node	2926 Aug 17 05:37	8° 11 53'01	
	2924 Feb 22 09:40	0° 11			2926 Sep 06 06:17	0° 11	
desc. node	2924 Mar 01 10:36	9° 11 52'46		evening max el	2926 Sep 14 04:21	7° 11 49'08	46°06'21
	2924 Mar 17 18:39	0° 11			2926 Oct 10 18:28	0° 11	
	2924 Apr 11 02:08	0° 11		greatest brilliancy	2926 Oct 22 17:33	6° 11 16'21	-4.6m
	2924 May 05 10:01	0° 11		retrograde	2926 Nov 02 12:26	8° 11 23'15	
morning set	2924 May 27 11:12	27° 11 08'08		evening set	2926 Nov 17 16:47	3° 11 54'41	
	2924 May 29 19:06	0° 11		inferior conj	2926 Nov 23 04:31	0° 11 41'20	-3°-46'-35
asc. node	2924 Jun 22 13:48	29° 11 13'18		minimum elong	2926 Nov 23 12:31	0° 11 29'11	3°44'17
	2924 Jun 23 05:00	0° 11		min. Earth dist.	2926 Nov 23 21:11	0° 11 16'00	0.26918 AU
					2926 Nov 24 07:43	30° 11 00'	
superior conj	2924 Jul 03 11:21	12° 11 36'52	0°25'37	morning rise	2926 Nov 29 07:41	27° 11 06'21	
minimum elong	2924 Jul 03 06:15	12° 11 21'12	0°25'22	asc. node	2926 Dec 08 08:43	23° 11 31'26	
max. Earth dist.	2924 Jul 03 01:09	12° 11 05'31	1.73550 AU	direct	2926 Dec 13 21:34	22° 11 53'22	
	2924 Jul 17 14:49	0° 11		greatest brilliancy	2926 Dec 27 05:56	26° 11 11'47	-4.7m
evening rise	2924 Aug 08 10:32	26° 11 50'50			2927 Jan 03 03:03	0° 11	
	2924 Aug 11 00:02	0° 11		morning max el	2927 Feb 02 15:34	26° 11 17'48	46°58'11
	2924 Sep 04 09:06	0° 11			2927 Feb 06 06:11	0° 11	
	2924 Sep 28 19:05	0° 11			2927 Mar 05 14:37	0° 11	
desc. node	2924 Oct 12 03:23	16° 11 21'24		desc. node	2927 Mar 29 22:31	28° 11 17'16	
	2924 Oct 23 07:03	0° 11			2927 Mar 31 09:20	0° 11	
	2924 Nov 16 22:06	0° 11			2927 Apr 25 13:26	0° 11	

	2927 May 20 11:14	0°♄		asc. node	2930 Jan 04 20:38	21°♊57'44	
	2927 Jun 14 05:55	0°♅		retrograde	2930 Jan 15 23:42	24°♊17'45	
	2927 Jul 08 22:03	0°♆		evening set	2930 Jan 31 18:50	19°♊22'00	
asc. node	2927 Jul 21 01:41	14°♆50'06		min. Earth dist.	2930 Feb 04 20:08	16°♊56'00	0.26838 AU
	2927 Aug 02 10:54	0°♄		inferior conj	2930 Feb 05 14:52	16°♊27'03	7°08'15
morning set	2927 Aug 04 11:22	2°♄28'38		minimum elong	2930 Feb 05 04:32	16°♊43'00	7°06'15
	2927 Aug 26 19:56	0°♅		morning rise	2930 Feb 09 14:34	14°♊02'11	
max. Earth dist.	2927 Sep 06 23:14	13°♅45'56	1.72930 AU	direct	2930 Feb 26 01:58	8°♊45'42	
				greatest brilliancy	2930 Mar 08 21:05	10°♊56'05	-4.6m
superior conj	2927 Sep 09 21:33	17°♅23'34	1°24'08		2930 Apr 05 16:39	0°♋	
minimum elong	2927 Sep 09 18:59	17°♅15'40	1°24'08	morning max el	2930 Apr 16 22:07	10°♋35'14	46°28'23
	2927 Sep 20 01:36	0°♄		desc. node	2930 Apr 26 10:16	20°♋13'14	
	2927 Oct 14 05:08	0°♅			2930 May 05 16:12	0°♌	
evening rise	2927 Oct 17 00:28	3°♅29'25			2930 Jun 01 15:40	0°♍	
	2927 Nov 07 07:43	0°♎			2930 Jun 27 14:02	0°♅	
desc. node	2927 Nov 09 15:21	2°♎53'08			2930 Jul 22 23:10	0°♆	
	2927 Dec 01 10:08	0°♏			2930 Aug 16 22:27	0°♄	
	2927 Dec 25 13:15	0°♐		asc. node	2930 Aug 17 13:23	0°♄45'13	
	2928 Jan 18 19:11	0°♑			2930 Sep 10 12:59	0°♅	
	2928 Feb 12 08:30	0°♒			2930 Oct 04 20:12	0°♄	
asc. node	2928 Mar 01 18:15	22°♒00'41		morning set	2930 Oct 12 07:04	9°♄15'39	
	2928 Mar 08 13:43	0°♍			2930 Oct 28 22:14	0°♌	
	2928 Apr 04 04:29	0°♅		max. Earth dist.	2930 Nov 17 03:16	24°♌02'33	1.71561 AU
evening max el	2928 Apr 21 03:09	17°♅31'43	45°56'28				
	2928 May 04 15:43	0°♆		superior conj	2930 Nov 19 13:31	27°♌05'04	0°40'29
greatest brilliancy	2928 May 25 13:28	14°♆29'14	-4.5m	minimum elong	2930 Nov 19 22:21	27°♌32'46	0°40'06
retrograde	2928 Jun 09 07:35	18°♆17'29			2930 Nov 21 21:20	0°♎	
desc. node	2928 Jun 21 08:00	15°♆25'40		desc. node	2930 Dec 07 03:16	19°♎07'39	
evening set	2928 Jun 24 08:31	13°♆53'28			2930 Dec 15 19:04	0°♏	
inferior conj	2928 Jun 30 18:12	10°♆02'19	-2°-12'-41	evening rise	2930 Dec 30 03:38	18°♏01'41	
minimum elong	2928 Jun 30 13:26	10°♆09'47	2°11'20		2931 Jan 08 16:27	0°♐	
min. Earth dist.	2928 Jun 30 12:51	10°♆10'43	0.28911 AU		2931 Feb 01 14:41	0°♑	
morning rise	2928 Jul 06 18:41	6°♆24'42			2931 Feb 25 15:53	0°♒	
direct	2928 Jul 22 08:41	1°♆46'56			2931 Mar 21 23:15	0°♍	
greatest brilliancy	2928 Aug 04 17:09	4°♆54'32	-4.5m	asc. node	2931 Mar 30 06:12	10°♍07'14	
	2928 Sep 07 10:41	0°♄			2931 Apr 15 17:01	0°♅	
morning max el	2928 Sep 09 05:20	1°♄41'45	45°50'31		2931 May 11 03:19	0°♆	
	2928 Oct 06 10:00	0°♅			2931 Jun 06 18:48	0°♄	
asc. node	2928 Oct 12 11:07	6°♅44'20		evening max el	2931 Jul 01 13:45	25°♄32'05	45°26'05
	2928 Nov 01 15:24	0°♄			2931 Jul 06 07:48	0°♅	
	2928 Nov 26 15:49	0°♌		desc. node	2931 Jul 19 19:50	11°♅30'17	
	2928 Dec 21 01:36	0°♎		greatest brilliancy	2931 Aug 06 15:18	22°♅26'30	-4.5m
	2929 Jan 14 04:20	0°♏		retrograde	2931 Aug 19 04:51	25°♅13'53	
desc. node	2929 Feb 01 00:49	22°♏18'58		evening set	2931 Sep 06 02:00	19°♅17'36	
	2929 Feb 07 04:10	0°♐		inferior conj	2931 Sep 09 14:30	17°♅08'15	-8°-33'-9
	2929 Mar 03 03:28	0°♑		minimum elong	2931 Sep 09 11:20	17°♅13'11	8°33'02
morning set	2929 Mar 14 02:13	13°♑41'20		min. Earth dist.	2931 Sep 10 01:12	16°♅51'36	0.28762 AU
	2929 Mar 27 03:48	0°♒		morning rise	2931 Sep 12 20:28	15°♅08'03	
	2929 Apr 20 06:26	0°♍		direct	2931 Oct 01 01:54	8°♅53'09	
				greatest brilliancy	2931 Oct 15 15:17	12°♅37'24	-4.6m
superior conj	2929 Apr 22 13:49	2°♍51'48	-1°-7'-49		2931 Nov 08 17:20	0°♄	
minimum elong	2929 Apr 23 00:01	3°♍23'26	1°07'32	asc. node	2931 Nov 09 22:55	1°♄07'01	
max. Earth dist.	2929 Apr 26 07:37	7°♍30'13	1.72579 AU	morning max el	2931 Nov 20 03:55	10°♄54'58	46°31'45
	2929 May 14 12:07	0°♅			2931 Dec 08 04:43	0°♌	
asc. node	2929 May 25 04:01	13°♅08'39			2932 Jan 03 08:27	0°♎	
evening rise	2929 May 30 20:16	20°♅07'53			2932 Jan 28 08:54	0°♏	
	2929 Jun 07 20:59	0°♆			2932 Feb 21 22:01	0°♐	
	2929 Jul 02 08:55	0°♄		desc. node	2932 Feb 29 12:36	9°♐21'32	
	2929 Jul 27 00:19	0°♅			2932 Mar 17 06:28	0°♑	
	2929 Aug 20 20:42	0°♄			2932 Apr 10 13:36	0°♒	
desc. node	2929 Sep 13 17:29	28°♄27'47			2932 May 04 21:15	0°♍	
	2929 Sep 15 00:40	0°♌		morning set	2932 May 25 03:52	24°♍57'44	
	2929 Oct 10 16:38	0°♎			2932 May 29 06:08	0°♅	
	2929 Nov 06 06:59	0°♏		asc. node	2932 Jun 21 15:51	28°♅46'02	
evening max el	2929 Nov 26 07:50	21°♏08'38	47°07'17		2932 Jun 22 15:56	0°♆	
	2929 Dec 05 10:20	0°♐					
greatest brilliancy	2930 Jan 03 21:21	21°♐33'36	-4.7m	superior conj	2932 Jul 01 05:07	10°♆30'29	0°22'33

minimum elong	2932 Jul 01 00:34	10°♄16'30	0°22'19	asc. node	2934 Dec 07 10:46	20°♌47'25	
max. Earth dist.	2932 Jun 30 22:09	10°♄09'04	1.73546 AU	direct	2934 Dec 11 11:29	20°♌27'22	
	2932 Jul 17 01:43	0°♌		greatest brilliancy	2934 Dec 24 20:17	23°♌46'21	-4.7m
evening rise	2932 Aug 06 05:05	24°♌46'30			2935 Jan 04 07:42	0°♌	
	2932 Aug 10 11:01	0°♌		morning max el	2935 Jan 31 05:31	23°♌53'19	46°58'15
	2932 Sep 03 20:18	0°♌			2935 Feb 06 03:25	0°♌	
	2932 Sep 28 06:40	0°♌			2935 Mar 05 06:34	0°♌	
desc. node	2932 Oct 11 05:28	15°♌51'34		desc. node	2935 Mar 29 00:34	27°♌42'25	
	2932 Oct 22 19:09	0°♌			2935 Mar 30 23:04	0°♌	
	2932 Nov 16 10:51	0°♌			2935 Apr 25 01:58	0°♌	
	2932 Dec 11 08:37	0°♌			2935 May 19 23:00	0°♌	
	2933 Jan 05 20:48	0°♌			2935 Jun 13 17:11	0°♌	
asc. node	2933 Feb 01 08:24	29°♌19'54			2935 Jul 08 08:59	0°♌	
	2933 Feb 01 23:44	0°♌		asc. node	2935 Jul 20 03:35	14°♌22'43	
evening max el	2933 Feb 06 09:34	4°♌32'37	47°01'30		2935 Aug 01 21:41	0°♌	
	2933 Mar 07 18:09	0°♌		morning set	2935 Aug 02 05:22	0°♌23'34	
greatest brilliancy	2933 Mar 15 06:55	4°♌16'24	-4.6m		2935 Aug 26 06:41	0°♌	
retrograde	2933 Mar 29 02:07	7°♌46'13		max. Earth dist.	2935 Sep 04 15:31	11°♌34'37	1.72973 AU
evening set	2933 Apr 15 04:34	2°♌04'18					
	2933 Apr 18 13:19	30°♌		superior conj	2935 Sep 07 15:14	15°♌16'25	1°23'38
inferior conj	2933 Apr 19 05:06	29°♌35'14	7°12'20	minimum elong	2935 Sep 07 12:02	15°♌06'31	1°23'36
minimum elong	2933 Apr 19 14:41	29°♌20'11	7°10'40		2935 Sep 19 12:25	0°♌	
min. Earth dist.	2933 Apr 19 01:44	29°♌40'31	0.28166 AU		2935 Oct 13 16:04	0°♌	
morning rise	2933 Apr 24 01:04	26°♌38'06		evening rise	2935 Oct 14 15:31	1°♌12'52	
direct	2933 May 10 06:05	21°♌31'15			2935 Nov 06 18:51	0°♌	
greatest brilliancy	2933 May 22 00:47	24°♌01'15	-4.5m	desc. node	2935 Nov 08 17:27	2°♌24'55	
desc. node	2933 May 23 22:06	24°♌49'38			2935 Nov 30 21:32	0°♌	
	2933 Jun 02 03:38	0°♌			2935 Dec 25 01:00	0°♌	
morning max el	2933 Jun 28 06:10	21°♌42'39	45°48'42		2936 Jan 18 07:23	0°♌	
	2933 Jul 06 16:22	0°♌			2936 Feb 11 21:24	0°♌	
	2933 Aug 03 20:18	0°♌		asc. node	2936 Feb 29 20:18	21°♌26'13	
	2933 Aug 30 04:22	0°♌			2936 Mar 08 03:57	0°♌	
asc. node	2933 Sep 14 01:20	17°♌29'47			2936 Apr 03 21:54	0°♌	
	2933 Sep 24 12:36	0°♌		evening max el	2936 Apr 18 18:54	15°♌19'15	45°58'35
	2933 Oct 19 05:01	0°♌			2936 May 04 22:00	0°♌	
	2933 Nov 12 11:10	0°♌		greatest brilliancy	2936 May 23 06:54	12°♌21'44	-4.5m
	2933 Dec 06 11:23	0°♌		retrograde	2936 Jun 06 23:45	16°♌09'10	
morning set	2933 Dec 24 10:06	22°♌31'52		desc. node	2936 Jun 20 09:54	12°♌37'15	
	2933 Dec 30 08:42	0°♌		evening set	2936 Jun 22 00:54	11°♌45'47	
desc. node	2934 Jan 03 14:58	5°♌21'36		inferior conj	2936 Jun 28 10:48	7°♌54'15	-1°-53'-34
	2934 Jan 23 04:59	0°♌		minimum elong	2936 Jun 28 06:41	8°♌00'42	1°52'23
				min. Earth dist.	2936 Jun 28 05:46	8°♌02'09	0.28891 AU
superior conj	2934 Feb 04 00:04	14°♌50'12	-1°-6'-15	morning rise	2936 Jul 04 12:45	4°♌14'12	
minimum elong	2934 Feb 03 12:09	14°♌12'46	1°05'53		2936 Jul 15 19:59	30°♌	
max. Earth dist.	2934 Feb 05 23:11	17°♌18'22	1.71183 AU	direct	2936 Jul 20 00:57	29°♌39'14	
	2934 Feb 16 01:36	0°♌			2936 Jul 24 07:58	0°♌	
	2934 Mar 12 00:05	0°♌		greatest brilliancy	2936 Aug 02 07:20	2°♌44'04	-4.5m
evening rise	2934 Mar 16 21:39	6°♌07'13		morning max el	2936 Sep 06 20:06	29°♌29'02	45°49'28
	2934 Apr 05 02:10	0°♌			2936 Sep 07 08:59	0°♌	
asc. node	2934 Apr 26 18:14	26°♌45'40			2936 Oct 06 01:35	0°♌	
	2934 Apr 29 09:30	0°♌		asc. node	2936 Oct 11 13:14	6°♌08'19	
	2934 May 23 23:36	0°♌			2936 Nov 01 04:45	0°♌	
	2934 Jun 17 22:27	0°♌			2936 Nov 26 04:09	0°♌	
	2934 Jul 13 10:06	0°♌			2936 Dec 20 13:23	0°♌	
	2934 Aug 08 19:38	0°♌			2937 Jan 13 15:47	0°♌	
desc. node	2934 Aug 16 07:36	8°♌13'37		desc. node	2937 Jan 31 02:46	21°♌49'42	
	2934 Sep 06 03:22	0°♌			2937 Feb 06 15:25	0°♌	
evening max el	2934 Sep 11 18:59	5°♌32'12	46°04'05		2937 Mar 02 14:33	0°♌	
	2934 Oct 12 04:07	0°♌		morning set	2937 Mar 11 13:28	11°♌12'05	
greatest brilliancy	2934 Oct 20 05:57	3°♌52'08	-4.6m		2937 Mar 26 14:45	0°♌	
retrograde	2934 Oct 31 00:52	5°♌58'23			2937 Apr 19 17:15	0°♌	
evening set	2934 Nov 15 08:10	1°♌26'18					
	2934 Nov 17 20:26	30°♌		superior conj	2937 Apr 20 04:01	0°♌33'27	-1°-10'00
inferior conj	2934 Nov 20 17:16	28°♌16'05	-4°-7'-38	minimum elong	2937 Apr 20 14:03	1°♌04'33	1°09'42
minimum elong	2934 Nov 21 01:49	28°♌03'03	4°05'14	max. Earth dist.	2937 Apr 23 23:56	5°♌18'31	1.72519 AU
min. Earth dist.	2934 Nov 21 10:44	27°♌49'28	0.26974 AU		2937 May 13 22:51	0°♌	
morning rise	2934 Nov 26 18:58	24°♌42'44		asc. node	2937 May 24 06:04	12°♌41'56	

evening rise	2937 May 28 12:57	17° Π 58'32			2940 Jan 27 21:43	0° Ξ		
	2937 Jun 07 07:44	0° Ξ			2940 Feb 21 10:05	0° \approx		
	2937 Jul 01 19:49	0° Ω		desc. node	2940 Feb 28 14:45	8° \approx 51'28		
	2937 Jul 26 11:34	0° Π			2940 Mar 16 18:01	0° X		
	2937 Aug 20 08:31	0° $\underline{\Delta}$			2940 Apr 10 00:46	0° Υ		
desc. node	2937 Sep 12 19:33	27° $\underline{\Delta}$ 56'18			2940 May 04 08:08	0° X		
	2937 Sep 14 13:29	0° M		morning set	2940 May 22 20:22	22° X 47'52		
	2937 Oct 10 07:08	0° X			2940 May 28 16:50	0° Π		
	2937 Nov 06 00:55	0° Ξ		asc. node	2940 Jun 20 17:48	28° Π 19'28		
evening max el	2937 Nov 23 20:35	18° Ξ 42'00	47°05'50		2940 Jun 22 02:31	0° Ξ		
	2937 Dec 05 14:51	0° \approx						
greatest brilliancy	2938 Jan 01 12:19	19° \approx 07'48	-4.7m	superior conj	2940 Jun 28 22:54	8° Ξ 25'10	0°19'26	
asc. node	2938 Jan 03 22:35	20° \approx 04'40		minimum elong	2940 Jun 28 18:56	8° Ξ 12'58	0°19'14	
retrograde	2938 Jan 13 12:06	21° \approx 49'49		max. Earth dist.	2940 Jun 28 20:25	8° Ξ 17'32	1.73538 AU	
evening set	2938 Jan 29 03:46	16° \approx 59'59			2940 Jul 16 12:16	0° Ω		
min. Earth dist.	2938 Feb 02 09:40	14° \approx 27'49	0.26797 AU	evening rise	2940 Aug 03 23:55	22° Ω 44'12		
inferior conj	2938 Feb 03 03:35	14° \approx 00'10	6°53'27		2940 Aug 09 21:38	0° Π		
minimum elong	2938 Feb 02 17:04	14° \approx 16'24	6°51'16		2940 Sep 03 07:08	0° $\underline{\Delta}$		
morning rise	2938 Feb 07 06:37	11° \approx 30'33			2940 Sep 27 17:50	0° M		
direct	2938 Feb 23 13:45	6° \approx 19'07		desc. node	2940 Oct 10 07:36	15° M 23'18		
greatest brilliancy	2938 Mar 06 11:45	8° \approx 32'01	-4.6m		2940 Oct 22 06:49	0° X		
	2938 Apr 05 21:05	0° X			2940 Nov 15 23:14	0° Ξ		
morning max el	2938 Apr 14 10:44	8° X 10'55	46°30'04		2940 Dec 10 22:07	0° \approx		
desc. node	2938 Apr 25 12:25	19° X 27'27			2941 Jan 05 12:22	0° X		
	2938 May 05 09:47	0° Υ		asc. node	2941 Jan 31 10:29	28° X 32'02		
	2938 Jun 01 05:51	0° X			2941 Feb 01 20:27	0° Υ		
	2938 Jun 27 02:35	0° Π		evening max el	2941 Feb 04 01:16	2° Υ 15'08	47°03'05	
	2938 Jul 22 10:49	0° Ξ			2941 Mar 09 03:10	0° X		
	2938 Aug 16 09:34	0° Ω		greatest brilliancy	2941 Mar 12 23:02	2° X 00'03	-4.6m	
asc. node	2938 Aug 16 15:30	0° Ω 17'59		retrograde	2941 Mar 26 18:02	5° X 29'09		
	2938 Sep 09 23:49	0° Π			2941 Apr 12 11:03	30° R Υ		
	2938 Oct 04 06:55	0° $\underline{\Delta}$		evening set	2941 Apr 12 22:33	29° Υ 42'53		
morning set	2938 Oct 09 23:01	7° $\underline{\Delta}$ 02'41		inferior conj	2941 Apr 16 20:01	27° Υ 18'23	7°24'41	
	2938 Oct 28 08:58	0° M		minimum elong	2941 Apr 17 05:20	27° Υ 03'45	7°23'09	
max. Earth dist.	2938 Nov 14 16:08	21° M 38'36	1.71608 AU	min. Earth dist.	2941 Apr 16 15:47	27° Υ 25'02	0.28131 AU	
				morning rise	2941 Apr 21 12:25	24° Υ 26'40		
superior conj	2938 Nov 17 02:33	24° M 41'37	0°43'42	direct	2941 May 07 20:58	19° Υ 15'08		
minimum elong	2938 Nov 17 11:49	25° M 10'40	0°43'19	greatest brilliancy	2941 May 19 12:53	21° Υ 43'05	-4.5m	
	2938 Nov 21 08:09	0° X		desc. node	2941 May 23 00:02	23° Υ 15'51		
desc. node	2938 Dec 06 05:15	18° X 39'44			2941 Jun 03 01:01	0° X		
	2938 Dec 15 06:00	0° Ξ		morning max el	2941 Jun 25 22:12	19° X 32'06	45°49'30	
evening rise	2938 Dec 27 14:24	15° Ξ 30'23			2941 Jul 06 11:47	0° Π		
	2939 Jan 08 03:29	0° \approx			2941 Aug 03 10:56	0° Ξ		
	2939 Feb 01 01:50	0° X			2941 Aug 29 17:04	0° Ω		
	2939 Feb 25 03:12	0° Υ		asc. node	2941 Sep 13 03:23	17° Ω 00'01		
	2939 Mar 21 10:54	0° X			2941 Sep 24 00:19	0° Π		
asc. node	2939 Mar 29 08:21	9° X 37'55			2941 Oct 18 16:15	0° $\underline{\Delta}$		
	2939 Apr 15 05:17	0° Π			2941 Nov 11 22:09	0° M		
	2939 May 10 16:46	0° Ξ			2941 Dec 05 22:15	0° X		
	2939 Jun 06 10:56	0° Ω		morning set	2941 Dec 21 21:28	20° X 02'44		
evening max el	2939 Jun 29 05:09	23° Ω 21'02	45°26'12		2941 Dec 29 19:32	0° Ξ		
	2939 Jul 06 08:46	0° Π		desc. node	2942 Jan 02 16:59	4° Ξ 53'49		
desc. node	2939 Jul 18 21:52	10° Π 25'41			2942 Jan 22 15:49	0° \approx		
greatest brilliancy	2939 Aug 04 02:30	20° Π 11'40	-4.5m					
retrograde	2939 Aug 16 20:48	23° Π 03'51		superior conj	2942 Feb 01 10:02	12° \approx 16'30	-1°-3'-36	
evening set	2939 Sep 03 15:20	17° Π 10'10		minimum elong	2942 Jan 31 22:00	11° \approx 38'41	1°03'12	
inferior conj	2939 Sep 07 06:16	14° Π 57'17	-8°-29'-19	max. Earth dist.	2942 Feb 03 08:12	14° \approx 41'38	1.71167 AU	
minimum elong	2939 Sep 07 02:21	15° Π 03'22	8°29'07		2942 Feb 15 12:27	0° X		
min. Earth dist.	2939 Sep 07 15:42	14° Π 42'37	0.28801 AU		2942 Mar 11 10:58	0° Υ		
morning rise	2939 Sep 10 13:11	12° Π 55'48		evening rise	2942 Mar 14 08:46	3° Υ 38'05		
direct	2939 Sep 28 18:13	6° Π 41'41			2942 Apr 04 13:06	0° X		
greatest brilliancy	2939 Oct 13 07:58	10° Π 26'40	-4.6m	asc. node	2942 Apr 25 20:12	26° X 17'51		
	2939 Nov 08 19:51	0° $\underline{\Delta}$			2942 Apr 28 20:34	0° Π		
asc. node	2939 Nov 09 00:57	0° $\underline{\Delta}$ 11'46			2942 May 23 10:58	0° Ξ		
morning max el	2939 Nov 17 19:54	8° $\underline{\Delta}$ 40'45	46°30'06		2942 Jun 17 10:24	0° Ω		
	2939 Dec 07 21:36	0° M			2942 Jul 12 23:13	0° Π		
	2940 Jan 02 22:32	0° X			2942 Aug 08 11:05	0° $\underline{\Delta}$		

desc. node	2942 Aug 15 09:43	7°♄34'48		desc. node	2945 Jan 30 04:56	21°♄21'18	
	2942 Sep 06 00:53	0°♍			2945 Feb 06 02:35	0°♋	
evening max el	2942 Sep 09 09:11	3°♍15'06	46°01'55		2945 Mar 02 01:33	0°♋	
	2942 Oct 14 05:03	0°♊		morning set	2945 Mar 09 00:56	8°♋43'38	
greatest brilliancy	2942 Oct 17 19:34	1°♊30'59	-4.6m		2945 Mar 26 01:36	0°♎	
retrograde	2942 Oct 28 13:07	3°♊35'44					
	2942 Nov 11 02:44	30°♋		superior conj	2945 Apr 17 18:20	28°♎15'26	-1°-12'-1
evening set	2942 Nov 12 23:59	29°♋00'02		minimum elong	2945 Apr 18 04:06	28°♎45'46	1°11'47
inferior conj	2942 Nov 18 06:25	25°♋53'13	-4°-28'-1		2945 Apr 19 04:01	0°♏	
minimum elong	2942 Nov 18 15:27	25°♋39'25	4°25'32	max. Earth dist.	2945 Apr 21 14:44	3°♏02'10	1.72467 AU
min. Earth dist.	2942 Nov 19 00:52	25°♋25'02	0.27026 AU		2945 May 13 09:37	0°♐	
morning rise	2942 Nov 24 06:21	22°♋21'41		asc. node	2945 May 23 08:01	12°♐14'43	
asc. node	2942 Dec 06 12:40	18°♋11'33		evening rise	2945 May 26 05:28	15°♐48'24	
direct	2942 Dec 09 01:16	18°♋03'45			2945 Jun 06 18:35	0°♑	
greatest brilliancy	2942 Dec 22 11:07	21°♋23'24	-4.7m		2945 Jul 01 06:52	0°♑	
	2943 Jan 05 03:46	0°♊			2945 Jul 25 22:58	0°♑	
morning max el	2943 Jan 28 18:32	21°♊27'37	46°58'06		2945 Aug 19 20:32	0°♒	
	2943 Feb 05 23:28	0°♑		desc. node	2945 Sep 11 21:38	27°♒24'18	
	2943 Mar 04 21:57	0°♋			2945 Sep 14 02:30	0°♋	
desc. node	2943 Mar 28 02:39	27°♋08'27			2945 Oct 09 21:57	0°♊	
	2943 Mar 30 12:29	0°♋			2945 Nov 05 19:24	0°♑	
	2943 Apr 24 14:19	0°♎		evening max el	2945 Nov 21 09:25	16°♑15'30	47°04'27
	2943 May 19 10:40	0°♏			2945 Dec 05 21:30	0°♋	
	2943 Jun 13 04:22	0°♐		greatest brilliancy	2945 Dec 30 02:23	16°♋40'42	-4.7m
	2943 Jul 07 19:51	0°♑		asc. node	2946 Jan 03 00:44	18°♋06'57	
asc. node	2943 Jul 19 05:43	13°♑56'16		retrograde	2946 Jan 11 00:54	19°♋21'53	
morning set	2943 Jul 30 23:05	28°♑17'55		evening set	2946 Jan 26 12:49	14°♋37'22	
	2943 Aug 01 08:21	0°♑		min. Earth dist.	2946 Jan 30 22:55	11°♋59'40	0.26755 AU
	2943 Aug 25 17:19	0°♑		inferior conj	2946 Jan 31 16:16	11°♋32'59	6°37'39
max. Earth dist.	2943 Sep 02 07:48	9°♑23'40	1.73015 AU	minimum elong	2946 Jan 31 05:38	11°♋49'21	6°35'21
				morning rise	2946 Feb 04 22:41	8°♋58'50	
superior conj	2943 Sep 05 08:53	13°♑09'38	1°23'00	direct	2946 Feb 21 01:44	3°♋52'12	
minimum elong	2943 Sep 05 05:03	12°♑57'46	1°22'57	greatest brilliancy	2946 Mar 04 02:10	6°♋07'39	-4.6m
	2943 Sep 18 23:07	0°♒			2946 Apr 05 23:49	0°♋	
evening rise	2943 Oct 12 06:48	28°♒57'31		morning max el	2946 Apr 12 00:13	5°♋48'40	46°31'47
	2943 Oct 13 02:54	0°♋		desc. node	2946 Apr 24 14:23	18°♋41'53	
	2943 Nov 06 05:52	0°♊			2946 May 05 02:58	0°♎	
desc. node	2943 Nov 07 19:24	1°♊56'41			2946 May 31 19:57	0°♏	
	2943 Nov 30 08:47	0°♑			2946 Jun 26 15:12	0°♐	
	2943 Dec 24 12:34	0°♋			2946 Jul 21 22:38	0°♑	
	2944 Jan 17 19:24	0°♋		asc. node	2946 Aug 15 17:35	29°♑49'57	
	2944 Feb 11 10:10	0°♎			2946 Aug 15 20:54	0°♑	
asc. node	2944 Feb 28 22:23	20°♎52'09			2946 Sep 09 10:53	0°♑	
	2944 Mar 07 18:11	0°♏			2946 Oct 03 17:51	0°♒	
	2944 Apr 03 15:42	0°♐		morning set	2946 Oct 07 14:48	4°♒48'33	
evening max el	2944 Apr 16 09:36	13°♐03'52	46°00'27		2946 Oct 27 19:54	0°♋	
	2944 May 05 07:04	0°♑		max. Earth dist.	2946 Nov 12 06:01	19°♋17'21	1.71651 AU
greatest brilliancy	2944 May 20 23:34	10°♑12'19	-4.5m				
retrograde	2944 Jun 04 15:36	13°♑59'45		superior conj	2946 Nov 14 15:28	22°♋17'18	0°46'51
desc. node	2944 Jun 19 11:57	9°♑43'32		minimum elong	2946 Nov 15 01:06	22°♋47'27	0°46'26
evening set	2944 Jun 19 17:07	9°♑36'30			2946 Nov 20 19:09	0°♊	
inferior conj	2944 Jun 26 03:06	5°♑45'00	-1°-33'-56	desc. node	2946 Dec 05 07:15	18°♊11'19	
minimum elong	2944 Jun 25 23:41	5°♑50'23	1°32'58		2946 Dec 14 17:07	0°♑	
min. Earth dist.	2944 Jun 25 22:40	5°♑51'59	0.28873 AU	evening rise	2946 Dec 25 01:12	12°♑58'39	
morning rise	2944 Jul 02 06:26	2°♑02'45			2947 Jan 07 14:43	0°♋	
	2944 Jul 06 09:09	30°♒			2947 Jan 31 13:10	0°♋	
direct	2944 Jul 17 16:30	27°♒30'11			2947 Feb 24 14:43	0°♎	
	2944 Jul 29 14:01	0°♑			2947 Mar 20 22:44	0°♏	
greatest brilliancy	2944 Jul 30 22:24	0°♑33'46	-4.5m	asc. node	2947 Mar 28 10:19	9°♏07'31	
morning max el	2944 Sep 04 10:35	27°♑15'21	45°48'40		2947 Apr 14 17:44	0°♐	
	2944 Sep 07 06:33	0°♑			2947 May 10 06:29	0°♑	
	2944 Oct 05 16:58	0°♑			2947 Jun 06 03:36	0°♑	
asc. node	2944 Oct 10 15:16	5°♑32'17		evening max el	2947 Jun 26 21:08	21°♑10'38	45°26'09
	2944 Oct 31 18:00	0°♒			2947 Jul 06 11:34	0°♑	
	2944 Nov 25 16:24	0°♋		desc. node	2947 Jul 17 23:59	9°♑18'20	
	2944 Dec 20 01:05	0°♊		greatest brilliancy	2947 Aug 01 14:26	17°♑56'27	-4.5m
	2945 Jan 13 03:10	0°♑		retrograde	2947 Aug 14 12:35	20°♑52'08	




































































































































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inferior conj	2947 Sep 04 21:50	12°44'43	-8°-24'-38	max. Earth dist.	2950 Jan 31 14:59	11°56'50	1.71145 AU
minimum elong	2947 Sep 04 17:14	12°51'53	8°24'21		2950 Feb 14 23:39	0°	
min. Earth dist.	2947 Sep 05 05:50	12°32'18	0.28838 AU		2950 Mar 10 22:11	0°	
morning rise	2947 Sep 08 06:03	10°41'22		evening rise	2950 Mar 11 19:45	1°07'26	
direct	2947 Sep 26 10:45	4°28'49			2950 Apr 04 00:22	0°	
greatest brilliancy	2947 Oct 10 23:45	8°13'25	-4.6m	asc. node	2950 Apr 24 22:13	25°49'05	
asc. node	2947 Nov 08 02:55	29°16'13			2950 Apr 28 07:59	0°	
	2947 Nov 08 21:30	0°			2950 May 22 22:40	0°	
morning max el	2947 Nov 15 11:48	6°25'18	46°28'30		2950 Jun 16 22:44	0°	
	2947 Dec 07 14:33	0°			2950 Jul 12 12:43	0°	
	2948 Jan 02 12:48	0°			2950 Aug 08 03:04	0°	
	2948 Jan 27 10:43	0°		desc. node	2950 Aug 14 11:45	6°54'33	
	2948 Feb 20 22:22	0°			2950 Sep 05 23:38	0°	
desc. node	2948 Feb 27 16:44	8°20'14		evening max el	2950 Sep 06 22:14	0°54'25	45°59'36
	2948 Mar 16 05:48	0°		greatest brilliancy	2950 Oct 15 09:10	29°08'37	-4.6m
	2948 Apr 09 12:10	0°			2950 Oct 17 23:40	0°	
	2948 May 03 19:16	0°		retrograde	2950 Oct 26 00:56	1°11'53	
morning set	2948 May 20 13:06	20°37'50			2950 Nov 02 19:36	30°	
	2948 May 28 03:47	0°		evening set	2950 Nov 10 15:46	26°32'04	
asc. node	2948 Jun 19 19:56	27°52'45		inferior conj	2950 Nov 15 19:28	23°28'58	-4°-47'-47
	2948 Jun 21 13:20	0°		minimum elong	2950 Nov 16 04:55	23°14'30	4°45'15
				min. Earth dist.	2950 Nov 16 15:09	22°58'51	0.27089 AU
superior conj	2948 Jun 26 16:49	6°19'27	0°16'18	morning rise	2950 Nov 21 17:26	19°59'34	
minimum elong	2948 Jun 26 13:27	6°09'06	0°16'09	asc. node	2950 Dec 05 14:51	15°39'32	
max. Earth dist.	2948 Jun 26 20:09	6°29'40	1.73529 AU	direct	2950 Dec 06 14:34	15°38'21	
	2948 Jul 15 23:05	0°		greatest brilliancy	2950 Dec 20 03:09	19°00'21	-4.7m
evening rise	2948 Aug 01 18:49	20°41'09			2951 Jan 05 19:30	0°	
	2948 Aug 09 08:36	0°		morning max el	2951 Jan 26 07:03	18°58'56	46°58'03
	2948 Sep 02 18:20	0°			2951 Feb 05 19:30	0°	
	2948 Sep 27 05:26	0°			2951 Mar 04 13:35	0°	
desc. node	2948 Oct 09 09:30	14°52'59		desc. node	2951 Mar 27 04:39	26°33'19	
	2948 Oct 21 18:56	0°			2951 Mar 30 02:10	0°	
	2948 Nov 15 12:06	0°			2951 Apr 24 02:55	0°	
	2948 Dec 10 12:07	0°			2951 May 18 22:34	0°	
	2949 Jan 05 04:33	0°			2951 Jun 12 15:47	0°	
asc. node	2949 Jan 30 12:34	27°42'23			2951 Jul 07 06:57	0°	
evening max el	2949 Feb 01 17:02	29°56'46	47°04'35	asc. node	2951 Jul 18 07:47	13°28'55	
	2949 Feb 01 18:19	0°		morning set	2951 Jul 28 17:05	26°12'23	
greatest brilliancy	2949 Mar 10 16:06	29°43'55	-4.6m		2951 Jul 31 19:17	0°	
	2949 Mar 11 06:00	0°			2951 Aug 25 04:11	0°	
retrograde	2949 Mar 24 09:39	3°10'50		max. Earth dist.	2951 Aug 31 02:23	7°19'11	1.73055 AU
	2949 Apr 05 21:12	30°					
evening set	2949 Apr 10 16:32	27°20'36		superior conj	2951 Sep 03 02:55	11°03'26	1°22'14
inferior conj	2949 Apr 14 10:56	25°00'30	7°36'20	minimum elong	2951 Sep 02 22:28	10°49'41	1°22'11
minimum elong	2949 Apr 14 19:55	24°46'23	7°34'57		2951 Sep 18 10:01	0°	
min. Earth dist.	2949 Apr 14 05:51	25°08'28	0.28093 AU	evening rise	2951 Oct 09 22:32	26°42'59	
morning rise	2949 Apr 18 23:38	22°14'11			2951 Oct 12 13:57	0°	
direct	2949 May 05 11:59	16°58'09			2951 Nov 05 17:09	0°	
greatest brilliancy	2949 May 17 00:33	19°23'17	-4.5m	desc. node	2951 Nov 06 21:29	1°28'03	
desc. node	2949 May 22 02:04	21°44'27			2951 Nov 29 20:23	0°	
	2949 Jun 03 17:19	0°			2951 Dec 24 00:32	0°	
morning max el	2949 Jun 23 13:27	17°18'40	45°50'24		2952 Jan 17 07:52	0°	
	2949 Jul 06 06:57	0°			2952 Feb 10 23:24	0°	
	2949 Aug 03 01:40	0°		asc. node	2952 Feb 28 00:21	20°16'21	
	2949 Aug 29 05:59	0°			2952 Mar 07 08:57	0°	
asc. node	2949 Sep 12 05:24	16°29'14			2952 Apr 03 10:16	0°	
	2949 Sep 23 12:21	0°		evening max el	2952 Apr 13 23:44	10°46'19	46°02'38
	2949 Oct 18 03:51	0°			2952 May 05 19:41	0°	
	2949 Nov 11 09:34	0°		greatest brilliancy	2952 May 18 15:20	8°01'08	-4.5m
	2949 Dec 05 09:34	0°		retrograde	2952 Jun 02 07:53	11°50'07	
morning set	2949 Dec 19 08:34	17°31'26		evening set	2952 Jun 17 09:34	7°26'26	
	2949 Dec 29 06:47	0°		desc. node	2952 Jun 18 14:07	6°46'26	
desc. node	2950 Jan 01 19:09	4°25'14		inferior conj	2952 Jun 23 19:29	3°35'21	-1°-14'-15
	2950 Jan 22 03:02	0°		minimum elong	2952 Jun 23 16:46	3°39'38	1°13'29
				min. Earth dist.	2952 Jun 23 15:31	3°41'35	0.28854 AU
superior conj	2950 Jan 29 19:48	9°41'02	-1°00'-48		2952 Jun 29 17:51	30°	

morning rise	2952 Jun 30 00:06	29°II51'19			2955 Jan 31 00:24	0°K	
direct	2952 Jul 15 08:01	25°II20'36			2955 Feb 24 02:10	0°Y	
greatest brilliancy	2952 Jul 28 14:30	28°II24'25	-4.5m		2955 Mar 20 10:35	0°B	
	2952 Jul 31 22:34	0°S		asc. node	2955 Mar 27 12:19	8°B37'13	
morning max el	2952 Sep 02 01:53	25°S03'19	45°48'02		2955 Apr 14 06:15	0°II	
	2952 Sep 07 03:29	0°Q			2955 May 09 20:20	0°S	
	2952 Oct 05 08:14	0°M			2955 Jun 05 20:33	0°Q	
asc. node	2952 Oct 09 17:14	4°M56'02		evening max el	2955 Jun 24 13:26	19°Q01'13	45°26'19
	2952 Oct 31 07:13	0°A			2955 Jul 06 15:54	0°M	
	2952 Nov 25 04:41	0°L		desc. node	2955 Jul 17 01:56	8°M09'16	
	2952 Dec 19 12:54	0°J		greatest brilliancy	2955 Jul 30 03:45	15°M43'37	-4.5m
	2953 Jan 12 14:44	0°C		retrograde	2955 Aug 12 04:19	18°M41'16	
desc. node	2953 Jan 29 06:55	20°C51'42		evening set	2955 Aug 29 17:16	12°M54'38	
	2953 Feb 05 13:59	0°≈		inferior conj	2955 Sep 02 13:35	10°M33'15	-8°-19'-19
	2953 Mar 01 12:48	0°K		minimum elong	2955 Sep 02 08:18	10°M41'29	8°18'56
morning set	2953 Mar 06 11:43	6°K12'09		min. Earth dist.	2955 Sep 02 20:12	10°M22'58	0.28868 AU
	2953 Mar 25 12:43	0°Y		morning rise	2955 Sep 05 23:13	8°M27'38	
				direct	2955 Sep 24 03:27	2°M17'15	
superior conj	2953 Apr 15 08:05	25°Y54'58	-1°-13'-58	greatest brilliancy	2955 Oct 08 14:27	5°M59'44	-4.5m
minimum elong	2953 Apr 15 17:33	26°Y24'23	1°13'45	asc. node	2955 Nov 07 05:03	28°M22'53	
	2953 Apr 18 15:00	0°B			2955 Nov 08 21:36	0°A	
max. Earth dist.	2953 Apr 19 03:42	0°B39'26	1.72410 AU	morning max el	2955 Nov 13 03:14	4°A09'38	46°26'53
	2953 May 12 20:33	0°II			2955 Dec 07 06:54	0°L	
asc. node	2953 May 22 10:09	11°II47'37			2956 Jan 02 02:39	0°J	
evening rise	2953 May 23 21:40	13°II36'54			2956 Jan 26 23:22	0°C	
	2953 Jun 06 05:34	0°S			2956 Feb 20 10:18	0°≈	
	2953 Jun 30 18:02	0°Q		desc. node	2956 Feb 26 18:44	7°≈49'58	
	2953 Jul 25 10:29	0°M			2956 Mar 15 17:16	0°K	
	2953 Aug 19 08:39	0°A			2956 Apr 08 23:20	0°Y	
desc. node	2953 Sep 10 23:35	26°A51'42			2956 May 03 06:13	0°B	
	2953 Sep 13 15:38	0°L		morning set	2956 May 18 05:33	18°B27'24	
	2953 Oct 09 12:55	0°J			2956 May 27 14:33	0°II	
	2953 Nov 05 14:19	0°C		asc. node	2956 Jun 18 21:59	27°II26'19	
evening max el	2953 Nov 18 22:50	13°C50'54	47°02'56		2956 Jun 20 23:59	0°S	
	2953 Dec 06 06:35	0°≈					
greatest brilliancy	2953 Dec 27 15:22	14°≈12'17	-4.7m	superior conj	2956 Jun 24 10:22	4°S13'08	0°13'08
asc. node	2954 Jan 02 02:43	16°≈03'59		minimum elong	2956 Jun 24 07:38	4°S04'44	0°13'00
retrograde	2954 Jan 08 14:05	16°≈53'36		behind sun begin	2956 Jun 23 18:27	3°S24'15	
evening set	2954 Jan 23 21:54	12°≈14'00		behind sun end	2956 Jun 24 20:48	4°S45'14	
min. Earth dist.	2954 Jan 28 11:48	9°≈31'17	0.26722 AU	max. Earth dist.	2956 Jun 24 18:33	4°S38'19	1.73514 AU
inferior conj	2954 Jan 29 04:50	9°≈05'10	6°20'58		2956 Jul 15 09:42	0°Q	
minimum elong	2954 Jan 28 18:09	9°≈21'33	6°18'32	evening rise	2956 Jul 30 13:23	18°Q37'50	
morning rise	2954 Feb 02 14:41	6°≈26'32			2956 Aug 08 19:19	0°M	
direct	2954 Feb 18 14:17	1°≈24'37			2956 Sep 02 05:18	0°A	
greatest brilliancy	2954 Mar 01 16:04	3°≈42'03	-4.6m		2956 Sep 26 16:47	0°L	
	2954 Apr 06 01:22	0°K		desc. node	2956 Oct 08 11:36	14°L24'04	
morning max el	2954 Apr 09 14:26	3°K27'35	46°33'22		2956 Oct 21 06:49	0°J	
desc. node	2954 Apr 23 16:25	17°K56'31			2956 Nov 15 00:44	0°C	
	2954 May 04 20:01	0°Y			2956 Dec 10 01:56	0°≈	
	2954 May 31 10:02	0°B			2957 Jan 04 20:37	0°K	
	2954 Jun 26 03:49	0°II		asc. node	2957 Jan 29 14:32	26°K52'45	
	2954 Jul 21 10:24	0°S		evening max el	2957 Jan 30 08:08	27°K37'39	47°05'59
asc. node	2954 Aug 14 19:30	29°S21'35			2957 Feb 01 16:33	0°Y	
	2954 Aug 15 08:10	0°Q		greatest brilliancy	2957 Mar 08 09:55	27°Y29'50	-4.6m
	2954 Sep 08 21:52	0°M			2957 Mar 15 05:49	0°B	
	2954 Oct 03 04:43	0°A		retrograde	2957 Mar 22 00:50	0°B53'37	
morning set	2954 Oct 05 06:56	2°A35'51			2957 Mar 28 14:47	30°R'Y	
	2954 Oct 27 06:45	0°L		evening set	2957 Apr 08 10:27	24°Y59'43	
max. Earth dist.	2954 Nov 09 19:19	16°L54'42	1.71689 AU	inferior conj	2957 Apr 12 01:54	22°Y43'51	7°47'14
				minimum elong	2957 Apr 12 10:28	22°Y30'23	7°46'01
superior conj	2954 Nov 12 04:59	19°L55'12	0°49'51	min. Earth dist.	2957 Apr 11 20:09	22°Y52'53	0.28056 AU
minimum elong	2954 Nov 12 14:53	20°L26'11	0°49'27	morning rise	2957 Apr 16 10:48	20°Y02'54	
	2954 Nov 20 06:03	0°J		direct	2957 May 03 02:45	14°Y42'25	
desc. node	2954 Dec 04 09:24	17°J43'46		greatest brilliancy	2957 May 14 12:38	17°Y04'53	-4.5m
	2954 Dec 14 04:06	0°C		desc. node	2957 May 21 04:13	20°Y17'20	
evening rise	2954 Dec 22 12:30	10°C28'54			2957 Jun 04 05:00	0°B	
	2955 Jan 07 01:48	0°≈		morning max el	2957 Jun 21 03:50	15°B03'55	45°51'12

	2957 Jul 06 01:17	0°♈			2960 Mar 06 23:29	0°♈	
	2957 Aug 02 15:57	0°♉			2960 Apr 03 04:53	0°♈	
	2957 Aug 28 18:31	0°♊		evening max el	2960 Apr 11 14:26	8°♈31'14	46°04'56
asc. node	2957 Sep 11 07:27	15°♊59'33			2960 May 06 11:54	0°♉	
	2957 Sep 23 00:01	0°♊		greatest brilliancy	2960 May 16 06:32	5°♉50'25	-4.5m
	2957 Oct 17 15:04	0°♋		retrograde	2960 May 31 00:39	9°♉41'43	
	2957 Nov 10 20:33	0°♌		evening set	2960 Jun 15 02:10	5°♉17'14	
	2957 Dec 04 20:28	0°♍		desc. node	2960 Jun 17 16:00	3°♉48'28	
morning set	2957 Dec 16 19:50	15°♍01'55		inferior conj	2960 Jun 21 11:51	1°♉26'45	0°-54'-32
	2957 Dec 28 17:39	0°♎		minimum elong	2960 Jun 21 09:50	1°♉29'54	0°53'56
desc. node	2957 Dec 31 21:05	3°♎57'12		min. Earth dist.	2960 Jun 21 08:02	1°♉32'44	0.28836 AU
	2958 Jan 21 13:52	0°♏			2960 Jun 23 19:29	30°♊♈	
				morning rise	2960 Jun 27 17:39	27°♊41'19	
superior conj	2958 Jan 27 05:49	7°♏07'33	0°-57'-53	direct	2960 Jul 12 23:48	23°♊12'04	
minimum elong	2958 Jan 26 17:53	6°♏30'02	0°57'27	greatest brilliancy	2960 Jul 26 06:43	26°♊16'26	-4.5m
max. Earth dist.	2958 Jan 28 18:11	9°♏01'55	1.71125 AU		2960 Aug 02 10:08	0°♋	
	2958 Feb 14 10:29	0°♌		morning max el	2960 Aug 30 18:02	22°♋54'26	45°47'17
evening rise	2958 Mar 09 06:53	28°♌38'24			2960 Sep 06 23:22	0°♌	
	2958 Mar 10 08:59	0°♍			2960 Oct 04 23:01	0°♍	
	2958 Apr 03 11:13	0°♎		asc. node	2960 Oct 08 19:22	4°♍21'15	
asc. node	2958 Apr 24 00:21	25°♎21'59			2960 Oct 30 20:08	0°♏	
	2958 Apr 27 18:58	0°♐			2960 Nov 24 16:42	0°♏	
	2958 May 22 10:00	0°♑			2960 Dec 19 00:27	0°♐	
	2958 Jun 16 10:44	0°♒			2961 Jan 12 02:00	0°♑	
	2958 Jul 12 01:59	0°♓		desc. node	2961 Jan 28 08:54	20°♑23'05	
desc. node	2958 Aug 07 18:59	0°♈			2961 Feb 05 01:04	0°♒	
evening max el	2958 Aug 13 13:43	6°♈14'36			2961 Feb 28 23:44	0°♓	
	2958 Sep 04 10:38	28°♈33'21	45°57'30	morning set	2961 Mar 03 22:22	3°♓41'08	
	2958 Sep 05 22:58	0°♉			2961 Mar 24 23:31	0°♔	
greatest brilliancy	2958 Oct 12 22:25	26°♉47'20	-4.6m				
retrograde	2958 Oct 23 13:06	28°♉49'58		superior conj	2961 Apr 12 21:43	23°♔34'47	-1°-15'-47
evening set	2958 Nov 08 07:42	24°♉05'31		minimum elong	2961 Apr 13 06:49	24°♔03'04	1°15'35
inferior conj	2958 Nov 13 08:38	21°♉06'26	-5°-6'-44	max. Earth dist.	2961 Apr 16 16:22	28°♔16'27	1.72356 AU
minimum elong	2958 Nov 13 18:27	20°♉51'26	5°04'13		2961 Apr 18 01:43	0°♕	
min. Earth dist.	2958 Nov 14 05:29	20°♉34'33	0.27152 AU		2961 May 12 07:15	0°♖	
morning rise	2958 Nov 19 04:29	17°♉39'39		evening rise	2961 May 21 13:49	11°♖26'01	
direct	2958 Dec 04 03:44	13°♉14'29		asc. node	2961 May 21 12:10	11°♖20'56	
asc. node	2958 Dec 04 16:51	13°♉14'50			2961 Jun 05 16:19	0°♗	
greatest brilliancy	2958 Dec 17 19:53	16°♉39'54	-4.7m		2961 Jun 30 04:57	0°♘	
	2959 Jan 06 06:40	0°♙			2961 Jul 24 21:45	0°♙	
morning max el	2959 Jan 23 20:16	16°♙33'20	46°57'57		2961 Aug 18 20:35	0°♚	
	2959 Feb 05 14:29	0°♜		desc. node	2961 Sep 10 01:40	26°♚19'52	
	2959 Mar 04 04:33	0°♞			2961 Sep 13 04:42	0°♛	
desc. node	2959 Mar 26 06:41	25°♞59'45			2961 Oct 09 03:59	0°♙	
	2959 Mar 29 15:20	0°♟			2961 Nov 05 09:41	0°♜	
	2959 Apr 23 15:02	0°♔		evening max el	2961 Nov 16 13:12	11°♜29'02	47°01'23
	2959 May 18 10:00	0°♕			2961 Dec 06 18:43	0°♞	
	2959 Jun 12 02:46	0°♖		greatest brilliancy	2961 Dec 25 04:21	11°♞44'01	-4.7m
	2959 Jul 06 17:39	0°♗		asc. node	2962 Jan 01 04:41	13°♞55'50	
asc. node	2959 Jul 17 09:42	13°♗02'17		retrograde	2962 Jan 06 03:24	14°♞25'05	
morning set	2959 Jul 26 10:57	24°♗07'33		evening set	2962 Jan 21 07:04	9°♞50'23	
	2959 Jul 31 05:51	0°♘		min. Earth dist.	2962 Jan 26 00:22	7°♞03'00	0.26685 AU
	2959 Aug 24 14:44	0°♙		inferior conj	2962 Jan 26 17:12	6°♞37'13	6°03'30
max. Earth dist.	2959 Aug 28 22:00	5°♙18'55	1.73097 AU	minimum elong	2962 Jan 26 06:36	6°♞53'27	6°00'57
				morning rise	2962 Jan 31 06:28	3°♞54'09	
superior conj	2959 Aug 31 20:45	8°♙57'34	1°21'22		2962 Feb 09 00:29	30°♞♕	
minimum elong	2959 Aug 31 15:44	8°♙42'04	1°21'18	direct	2962 Feb 16 03:04	28°♞57'15	
	2959 Sep 17 20:38	0°♚			2962 Feb 23 11:17	0°♞	
evening rise	2959 Oct 07 14:08	24°♚29'09		greatest brilliancy	2962 Feb 27 04:44	1°♞15'17	-4.6m
	2959 Oct 12 00:42	0°♛			2962 Apr 06 01:27	0°♟	
	2959 Nov 05 04:06	0°♙		morning max el	2962 Apr 07 04:32	1°♟06'46	46°34'50
desc. node	2959 Nov 05 23:33	1°♙00'25		desc. node	2962 Apr 22 18:34	17°♟12'39	
	2959 Nov 29 07:37	0°♜			2962 May 04 12:31	0°♔	
	2959 Dec 23 12:09	0°♞			2962 May 30 23:48	0°♕	
	2960 Jan 16 20:00	0°♟			2962 Jun 25 16:12	0°♖	
	2960 Feb 10 12:21	0°♔			2962 Jul 20 21:58	0°♗	
asc. node	2960 Feb 27 02:24	19°♔41'41		asc. node	2962 Aug 13 21:38	28°♗54'22	

	2962 Aug 14 19:16	0°♌		greatest brilliancy	2965 Mar 06 03:58	25°♊14'21	-4.6m
	2962 Sep 08 08:42	0°♍		retrograde	2965 Mar 19 15:32	28°♊34'40	
morning set	2962 Oct 02 23:09	0°♎23'52		evening set	2965 Apr 06 04:08	22°♊37'14	
	2962 Oct 02 15:27	0°♏		inferior conj	2965 Apr 09 16:42	20°♊25'38	7°57'32
	2962 Oct 26 17:32	0°♐		minimum elong	2965 Apr 10 00:47	20°♊12'53	7°56'27
max. Earth dist.	2962 Nov 07 06:20	14°♐25'06	1.71735 AU	min. Earth dist.	2965 Apr 09 10:36	20°♊35'13	0.28015 AU
				morning rise	2965 Apr 13 21:44	17°♊50'08	
superior conj	2962 Nov 09 18:29	17°♐33'17	0°52'45	direct	2965 Apr 30 16:41	12°♊25'00	
minimum elong	2962 Nov 10 04:34	18°♐04'51	0°52'22	greatest brilliancy	2965 May 12 01:19	14°♊45'47	-4.5m
	2962 Nov 19 16:57	0°♑		desc. node	2965 May 20 06:09	18°♊51'38	
desc. node	2962 Dec 03 11:21	17°♑15'35			2965 Jun 04 14:03	0°♋	
	2962 Dec 13 15:06	0°♒		morning max el	2965 Jun 18 17:29	12°♋46'20	45°52'11
evening rise	2962 Dec 19 23:24	7°♒57'49			2965 Jul 05 19:26	0°♌	
	2963 Jan 06 12:55	0°♓			2965 Aug 02 06:17	0°♍	
	2963 Jan 30 11:39	0°♈			2965 Aug 28 07:12	0°♎	
	2963 Feb 23 13:37	0°♉		asc. node	2965 Sep 10 09:30	15°♎29'18	
asc. node	2963 Mar 19 22:24	0°♊			2965 Sep 22 11:52	0°♏	
	2963 Mar 26 14:26	8°♊07'19			2965 Oct 17 02:30	0°♐	
	2963 Apr 13 18:46	0°♋			2965 Nov 10 07:46	0°♑	
	2963 May 09 10:16	0°♌			2965 Dec 04 07:35	0°♒	
	2963 Jun 05 13:49	0°♍		morning set	2965 Dec 14 07:33	12°♒33'02	
evening max el	2963 Jun 22 05:33	16°♍51'21	45°26'29		2965 Dec 28 04:44	0°♓	
	2963 Jul 06 22:13	0°♎		desc. node	2965 Dec 30 23:07	3°♓28'43	
desc. node	2963 Jul 16 04:01	6°♎58'33			2966 Jan 21 00:58	0°♔	
greatest brilliancy	2963 Jul 27 17:58	13°♎31'59	-4.5m				
retrograde	2963 Aug 09 19:40	16°♎30'42		superior conj	2966 Jan 24 15:53	4°♔33'21	0°-54'-51
evening set	2963 Aug 27 06:11	10°♎48'21		minimum elong	2966 Jan 24 04:08	3°♔56'25	0°54'24
inferior conj	2963 Aug 31 05:26	8°♎22'18	-8°-13'-20	max. Earth dist.	2966 Jan 25 19:49	6°♔01'12	1.71115 AU
minimum elong	2963 Aug 30 23:29	8°♎31'34	8°12'49		2966 Feb 13 21:36	0°♕	
min. Earth dist.	2963 Aug 31 10:59	8°♎13'38	0.28894 AU	evening rise	2966 Mar 06 17:42	26°♕07'17	
morning rise	2963 Sep 03 16:41	6°♎13'58			2966 Mar 09 20:08	0°♖	
direct	2963 Sep 21 19:48	0°♎06'14			2966 Apr 02 22:25	0°♗	
greatest brilliancy	2963 Oct 06 04:29	3°♎45'32	-4.5m	asc. node	2966 Apr 23 02:18	24°♗53'12	
asc. node	2963 Nov 06 07:04	27°♎30'21			2966 Apr 27 06:19	0°♘	
	2963 Nov 08 20:36	0°♏			2966 May 21 21:42	0°♙	
morning max el	2963 Nov 10 17:38	1°♏51'29	46°25'09		2966 Jun 15 23:08	0°♑	
	2963 Dec 06 23:02	0°♐			2966 Jul 11 15:44	0°♒	
	2964 Jan 01 16:29	0°♑			2966 Aug 07 11:32	0°♓	
	2964 Jan 26 12:06	0°♒		desc. node	2966 Aug 12 15:51	5°♓33'37	
	2964 Feb 19 22:22	0°♓		evening max el	2966 Sep 01 23:18	26°♓12'11	45°55'30
desc. node	2964 Feb 25 20:52	7°♓19'41			2966 Sep 05 23:48	0°♔	
	2964 Mar 15 04:53	0°♈		greatest brilliancy	2966 Oct 10 10:55	24°♔24'44	-4.6m
	2964 Apr 08 10:36	0°♉		retrograde	2966 Oct 21 01:51	26°♔27'51	
	2964 May 02 17:14	0°♊		evening set	2966 Nov 05 23:48	21°♔38'26	
morning set	2964 May 15 21:45	16°♊15'57		inferior conj	2966 Nov 10 21:56	18°♔43'30	-5°-25'-3
	2964 May 27 01:23	0°♋		minimum elong	2966 Nov 11 08:01	18°♔28'05	5°22'34
asc. node	2964 Jun 17 23:54	26°♋59'11		min. Earth dist.	2966 Nov 11 19:41	18°♔10'16	0.27217 AU
	2964 Jun 20 10:44	0°♌		morning rise	2966 Nov 16 15:30	15°♔19'53	
				direct	2966 Dec 01 17:22	10°♔50'11	
superior conj	2964 Jun 22 03:52	2°♌06'26	0°09'56	asc. node	2966 Dec 03 18:46	10°♔55'16	
minimum elong	2964 Jun 22 01:48	2°♌00'02	0°09'50	greatest brilliancy	2966 Dec 15 12:47	14°♔19'22	-4.7m
behind sun begin	2964 Jun 21 07:43	1°♌04'27			2967 Jan 06 15:09	0°♕	
behind sun end	2964 Jun 22 19:52	2°♌55'36		morning max el	2967 Jan 21 10:30	14°♕09'45	46°57'49
max. Earth dist.	2964 Jun 22 15:35	2°♌42'26	1.73498 AU		2967 Feb 05 09:14	0°♖	
	2964 Jul 14 20:28	0°♍			2967 Mar 03 19:38	0°♗	
evening rise	2964 Jul 28 08:03	16°♍34'23		desc. node	2967 Mar 25 08:45	25°♗25'26	
	2964 Aug 08 06:11	0°♎			2967 Mar 29 04:45	0°♘	
	2964 Sep 01 16:25	0°♏			2967 Apr 23 03:28	0°♙	
	2964 Sep 26 04:16	0°♐			2967 May 17 21:48	0°♑	
desc. node	2964 Oct 07 13:42	13°♐54'47			2967 Jun 11 14:08	0°♒	
	2964 Oct 20 18:51	0°♑			2967 Jul 06 04:43	0°♓	
	2964 Nov 14 13:34	0°♒		asc. node	2967 Jul 16 11:50	12°♓35'12	
	2964 Dec 09 16:05	0°♓		morning set	2967 Jul 24 04:44	22°♓01'25	
	2965 Jan 04 13:16	0°♔			2967 Jul 30 16:45	0°♔	
evening max el	2965 Jan 27 22:12	25°♔14'44	47°07'12		2967 Aug 24 01:36	0°♕	
asc. node	2965 Jan 28 16:37	26°♔01'28		max. Earth dist.	2967 Aug 26 19:26	3°♕23'15	1.73136 AU
	2965 Feb 01 16:11	0°♖					

superior conj	2967 Aug 29 14:36	6° \mathbb{M} 50'45	1°20'23		2970 Jan 31 10:33	30° \mathbb{R} \mathcal{C}	
minimum elong	2967 Aug 29 09:02	6° \mathbb{M} 33'34	1°20'17	direct	2970 Feb 13 15:51	26° \mathcal{C} 29'13	
	2967 Sep 17 07:35	0° $\underline{\mathcal{A}}$		greatest brilliancy	2970 Feb 24 17:05	28° \mathcal{C} 47'09	-4.6m
evening rise	2967 Oct 05 06:01	22° $\underline{\mathcal{A}}$ 15'08			2970 Feb 27 11:59	0° \approx	
	2967 Oct 11 11:48	0° \mathbb{M}		morning max el	2970 Apr 04 18:07	28° \approx 43'54	46°36'24
	2967 Nov 04 15:26	0° \mathcal{A}			2970 Apr 06 00:42	0° \mathcal{H}	
desc. node	2967 Nov 05 01:30	0° \mathcal{A} 31'14		desc. node	2970 Apr 21 20:30	16° \mathcal{H} 28'15	
	2967 Nov 28 19:15	0° \mathcal{C}			2970 May 04 04:54	0° \mathcal{Y}	
	2967 Dec 23 00:07	0° \approx			2970 May 30 13:36	0° \mathcal{B}	
	2968 Jan 16 08:27	0° \mathcal{H}			2970 Jun 25 04:43	0° \mathbb{I}	
	2968 Feb 10 01:39	0° \mathcal{Y}			2970 Jul 20 09:44	0° \mathcal{C}	
asc. node	2968 Feb 26 04:30	19° \mathcal{Y} 06'00		asc. node	2970 Aug 12 23:41	28° \mathcal{C} 26'13	
	2968 Mar 06 14:31	0° \mathcal{B}			2970 Aug 14 06:35	0° \mathcal{Q}	
	2968 Apr 03 00:26	0° \mathbb{I}			2970 Sep 07 19:46	0° \mathbb{M}	
evening max el	2968 Apr 09 06:03	6° \mathbb{I} 17'21	46°07'07	morning set	2970 Sep 30 15:27	28° \mathbb{M} 11'33	
	2968 May 07 10:47	0° \mathcal{C}			2970 Oct 02 02:25	0° $\underline{\mathcal{A}}$	
greatest brilliancy	2968 May 13 22:10	3° \mathcal{C} 39'00	-4.5m		2970 Oct 26 04:30	0° \mathbb{M}	
retrograde	2968 May 28 17:45	7° \mathcal{C} 31'49		max. Earth dist.	2970 Nov 04 16:03	11° \mathbb{M} 51'00	1.71780 AU
evening set	2968 Jun 12 18:57	3° \mathcal{C} 06'30					
desc. node	2968 Jun 16 18:04	0° \mathcal{C} 47'04		superior conj	2970 Nov 07 08:15	15° \mathbb{M} 11'46	0°55'33
	2968 Jun 18 00:27	30° \mathbb{R} \mathbb{I}		minimum elong	2970 Nov 07 18:27	15° \mathbb{M} 43'40	0°55'10
inferior conj	2968 Jun 19 04:10	29° \mathbb{I} 16'39	0°-34'-31		2970 Nov 19 04:01	0° \mathcal{A}	
minimum elong	2968 Jun 19 02:53	29° \mathbb{I} 18'39	0°34'09	desc. node	2970 Dec 02 13:24	16° \mathcal{A} 47'08	
min. Earth dist.	2968 Jun 19 00:18	29° \mathbb{I} 22'42	0.28817 AU		2970 Dec 13 02:17	0° \mathcal{C}	
morning rise	2968 Jun 25 11:04	25° \mathbb{I} 30'07		evening rise	2970 Dec 17 10:28	5° \mathcal{C} 26'47	
direct	2968 Jul 10 15:59	21° \mathbb{I} 02'11			2971 Jan 06 00:13	0° \approx	
greatest brilliancy	2968 Jul 23 22:09	24° \mathbb{I} 06'20	-4.5m		2971 Jan 29 23:06	0° \mathcal{H}	
	2968 Aug 03 11:55	0° \mathcal{C}			2971 Feb 23 01:19	0° \mathcal{Y}	
morning max el	2968 Aug 28 10:47	20° \mathcal{C} 46'05	45°46'34		2971 Mar 19 10:27	0° \mathcal{B}	
	2968 Sep 06 19:03	0° \mathcal{Q}		asc. node	2971 Mar 25 16:24	7° \mathcal{B} 36'19	
	2968 Oct 04 13:57	0° \mathbb{M}			2971 Apr 13 07:30	0° \mathbb{I}	
asc. node	2968 Oct 07 21:22	3° \mathbb{M} 45'22			2971 May 09 00:26	0° \mathcal{C}	
	2968 Oct 30 09:15	0° $\underline{\mathcal{A}}$			2971 Jun 05 07:34	0° \mathcal{Q}	
	2968 Nov 24 04:58	0° \mathbb{M}		evening max el	2971 Jun 19 21:01	14° \mathcal{Q} 39'36	45°26'37
	2968 Dec 18 12:16	0° \mathcal{A}			2971 Jul 07 07:08	0° \mathbb{M}	
	2969 Jan 11 13:34	0° \mathcal{C}		desc. node	2971 Jul 15 06:06	5° \mathbb{M} 45'35	
desc. node	2969 Jan 27 11:03	19° \mathcal{C} 54'03		greatest brilliancy	2971 Jul 25 08:15	11° \mathbb{M} 20'11	-4.5m
	2969 Feb 04 12:26	0° \approx		retrograde	2971 Aug 07 10:48	14° \mathbb{M} 20'15	
	2969 Feb 28 10:56	0° \mathcal{H}		evening set	2971 Aug 24 19:08	8° \mathbb{M} 42'16	
morning set	2969 Mar 01 09:21	1° \mathcal{H} 10'11		inferior conj	2971 Aug 28 21:26	6° \mathbb{M} 11'32	-8°-6'-37
	2969 Mar 24 10:34	0° \mathcal{Y}		minimum elong	2971 Aug 28 14:54	6° \mathbb{M} 21'45	8°05'59
				min. Earth dist.	2971 Aug 29 02:22	6° \mathbb{M} 03'50	0.28921 AU
superior conj	2969 Apr 10 11:28	21° \mathcal{Y} 14'05	-1°-17'-28	morning rise	2971 Sep 01 10:32	4° \mathbb{M} 00'08	
minimum elong	2969 Apr 10 20:06	21° \mathcal{Y} 40'57	1°17'18		2971 Sep 09 05:21	30° \mathbb{R} \mathcal{Q}	
max. Earth dist.	2969 Apr 14 07:24	25° \mathcal{Y} 59'53	1.72305 AU	direct	2971 Sep 19 11:47	27° \mathcal{Q} 55'13	
	2969 Apr 17 12:42	0° \mathcal{B}			2971 Sep 30 04:30	0° \mathbb{M}	
	2969 May 11 18:13	0° \mathbb{I}		greatest brilliancy	2971 Oct 03 19:18	1° \mathbb{M} 32'07	-4.5m
evening rise	2969 May 19 06:01	9° \mathbb{I} 14'18		asc. node	2971 Nov 05 09:02	26° \mathbb{M} 38'17	
asc. node	2969 May 20 14:08	10° \mathbb{I} 53'13		morning max el	2971 Nov 08 07:37	29° \mathbb{M} 32'02	46°23'30
	2969 Jun 05 03:22	0° \mathcal{C}			2971 Nov 08 18:50	0° $\underline{\mathcal{A}}$	
	2969 Jun 29 16:11	0° \mathcal{Q}			2971 Dec 06 15:01	0° \mathbb{M}	
	2969 Jul 24 09:23	0° \mathbb{M}			2972 Jan 01 06:17	0° \mathcal{A}	
	2969 Aug 18 08:53	0° $\underline{\mathcal{A}}$			2972 Jan 26 00:49	0° \mathcal{C}	
desc. node	2969 Sep 09 03:44	25° $\underline{\mathcal{A}}$ 46'54			2972 Feb 19 10:27	0° \approx	
	2969 Sep 12 18:10	0° \mathbb{M}		desc. node	2972 Feb 24 22:51	6° \approx 48'47	
	2969 Oct 08 19:34	0° \mathcal{A}			2972 Mar 14 16:32	0° \mathcal{H}	
	2969 Nov 05 05:57	0° \mathcal{C}			2972 Apr 07 21:57	0° \mathcal{Y}	
evening max el	2969 Nov 14 04:04	9° \mathcal{C} 07'40	46°59'38		2972 May 02 04:19	0° \mathcal{B}	
	2969 Dec 07 11:22	0° \approx		morning set	2972 May 13 14:03	14° \mathcal{B} 04'31	
greatest brilliancy	2969 Dec 22 18:08	9° \approx 15'59	-4.7m		2972 May 26 12:16	0° \mathbb{I}	
asc. node	2969 Dec 31 06:51	11° \approx 41'33		asc. node	2972 Jun 17 02:04	26° \mathbb{I} 32'47	
retrograde	2970 Jan 03 16:36	11° \approx 55'30					
evening set	2970 Jan 18 16:31	7° \approx 25'51		superior conj	2972 Jun 19 21:39	0° \mathcal{C} 00'30	0°06'44
min. Earth dist.	2970 Jan 23 13:13	4° \approx 33'30	0.26648 AU	minimum elong	2972 Jun 19 20:13	29° \mathbb{I} 56'07	0°06'41
inferior conj	2970 Jan 24 05:35	4° \approx 08'25	5°45'11	behind sun begin	2972 Jun 18 23:20	28° \mathbb{I} 51'54	
minimum elong	2970 Jan 23 19:09	4° \approx 24'25	5°42'35	behind sun end	2972 Jun 20 17:07	1° \mathcal{C} 00'21	
morning rise	2970 Jan 28 22:11	1° \approx 20'48			2972 Jun 19 21:29	0° \mathcal{C}	

max. Earth dist.	2972 Jun 20 11:55	0°  44'22	1.73478 AU		2975 Feb 05 03:25	0° 	
	2972 Jul 14 07:13	0° 			2975 Mar 03 10:23	0° 	
evening rise	2972 Jul 26 03:01	14°  31'57		desc. node	2975 Mar 24 10:46	24°  51'42	
	2972 Aug 07 17:04	0° 			2975 Mar 28 17:52	0° 	
	2972 Sep 01 03:34	0° 			2975 Apr 22 15:38	0° 	
	2972 Sep 25 15:49	0° 			2975 May 17 09:20	0° 	
desc. node	2972 Oct 06 15:37	13°  24'42			2975 Jun 11 01:14	0° 	
	2972 Oct 20 06:58	0° 			2975 Jul 05 15:33	0° 	
	2972 Nov 14 02:31	0° 		asc. node	2975 Jul 15 13:53	12°  08'35	
	2972 Dec 09 06:22	0° 		morning set	2975 Jul 21 22:39	19°  56'22	
	2973 Jan 04 06:13	0° 			2975 Jul 30 03:26	0° 	
evening max el	2973 Jan 25 11:33	22°  49'57	47°08'23		2975 Aug 23 12:13	0° 	
asc. node	2973 Jan 27 18:40	25°  09'15		max. Earth dist.	2975 Aug 24 17:07	1°  29'11	1.73168 AU
	2973 Feb 01 16:55	0° 					
greatest brilliancy	2973 Mar 03 21:06	22°  57'24	-4.6m	superior conj	2975 Aug 27 08:40	4°  26'45	1°19'17
retrograde	2973 Mar 17 06:07	26°  15'37		minimum elong	2975 Aug 27 02:35	4°  26'39	1°19'11
evening set	2973 Apr 03 21:35	20°  14'34			2975 Sep 16 18:14	0° 	
inferior conj	2973 Apr 07 07:27	18°  07'12	8°06'59	evening rise	2975 Oct 02 22:15	20°  03'10	
minimum elong	2973 Apr 07 15:01	17°  55'18	8°06'04		2975 Oct 10 22:37	0° 	
min. Earth dist.	2973 Apr 07 01:10	18°  17'05	0.27977 AU	desc. node	2975 Nov 04 03:37	0°  03'29	
morning rise	2973 Apr 11 08:40	15°  37'15			2975 Nov 04 02:30	0° 	
direct	2973 Apr 28 06:13	10°  07'06			2975 Nov 28 06:37	0° 	
greatest brilliancy	2973 May 09 14:57	12°  27'31	-4.5m		2975 Dec 22 11:54	0° 	
desc. node	2973 May 19 08:12	17°  28'48			2976 Jan 15 20:46	0° 	
	2973 Jun 04 20:34	0° 			2976 Feb 09 14:52	0° 	
morning max el	2973 Jun 16 07:33	10°  29'46	45°53'25	asc. node	2976 Feb 25 06:27	18°  30'12	
	2973 Jul 05 13:04	0° 			2976 Mar 06 05:34	0° 	
	2973 Aug 01 20:21	0° 			2976 Apr 02 20:23	0° 	
	2973 Aug 27 19:41	0° 		evening max el	2976 Apr 06 22:15	4°  05'22	46°09'24
asc. node	2973 Sep 09 11:30	14°  59'25			2976 May 08 18:26	0° 	
	2973 Sep 21 23:35	0° 		greatest brilliancy	2976 May 11 14:32	1°  28'57	-4.5m
	2973 Oct 16 13:49	0° 		retrograde	2976 May 26 10:40	5°  21'51	
	2973 Nov 09 18:55	0° 		evening set	2976 Jun 10 11:44	0° 	
	2973 Dec 03 18:38	0° 			2976 Jun 12 03:03	30°  R II	
morning set	2973 Dec 11 19:13	10°  04'15		desc. node	2976 Jun 15 20:13	27°  II 44'14	
	2973 Dec 27 15:45	0° 		inferior conj	2976 Jun 16 20:16	27°  II 06'36	0°-14'-18
desc. node	2973 Dec 30 01:17	3°  00'54		minimum elong	2976 Jun 16 19:44	27°  II 07'26	0°14'10
	2974 Jan 20 11:59	0° 		transit middle	2976 Jun 16 19:44	27°  II 07'26	0°14'10
				transit begin	2976 Jun 16 17:45	27°  II 10'33	
superior conj	2974 Jan 22 01:40	1°  58'34	0°-51'-40	transit end	2976 Jun 16 21:43	27°  II 04'19	
minimum elong	2974 Jan 21 14:12	1°  22'30	0°51'13	min. Earth dist.	2976 Jun 16 16:17	27°  II 12'51	0.28796 AU
max. Earth dist.	2974 Jan 22 23:22	3°  06'49	1.71107 AU	morning rise	2976 Jun 23 04:05	23°  II 19'04	
	2974 Feb 13 08:37	0° 		direct	2976 Jul 08 08:20	18°  II 52'30	
evening rise	2974 Mar 04 04:21	23°  43'02		greatest brilliancy	2976 Jul 21 12:21	21°  II 55'04	-4.5m
	2974 Mar 09 07:10	0° 			2976 Aug 04 06:34	0° 	
	2974 Apr 02 09:31	0° 		morning max el	2976 Aug 26 03:21	18°  53'02	45°46'00
asc. node	2974 Apr 22 04:20	24°  24'54			2976 Sep 06 13:53	0° 	
	2974 Apr 26 17:36	0° 			2976 Oct 04 04:22	0° 	
	2974 May 21 09:21	0° 		asc. node	2976 Oct 06 23:21	3°  29'10'43	
	2974 Jun 15 11:28	0° 			2976 Oct 29 21:56	0° 	
	2974 Jul 11 05:24	0° 			2976 Nov 23 16:50	0° 	
	2974 Aug 07 04:09	0° 			2976 Dec 17 23:43	0° 	
desc. node	2974 Aug 11 17:52	4°  52'37			2977 Jan 11 00:47	0° 	
evening max el	2974 Aug 30 12:48	23°  54'06	45°53'35	desc. node	2977 Jan 26 13:02	19°  52'29	
	2974 Sep 06 01:36	0° 			2977 Feb 03 23:31	0° 	
greatest brilliancy	2974 Oct 07 22:06	22°  26'01'53	-4.6m	morning set	2977 Feb 26 19:49	28°  58'38'26	
retrograde	2974 Oct 18 15:03	24°  26'06'44			2977 Feb 27 21:52	0° 	
evening set	2974 Nov 03 16:01	19°  26'12'09			2977 Mar 23 21:23	0° 	
inferior conj	2974 Nov 08 11:15	16°  26'21'19	-5°-42'-41				
minimum elong	2974 Nov 08 21:33	16°  26'05'36	5°40'13	superior conj	2977 Apr 08 00:35	18°  52'01	-1°-19'-2
min. Earth dist.	2974 Nov 09 09:30	15°  26'47'23	0.27288 AU	minimum elong	2977 Apr 08 08:41	19°  51'17'13	1°18'54
morning rise	2974 Nov 14 02:24	13°  26'01'16		max. Earth dist.	2977 Apr 11 23:07	23°  51'46'06	1.72251 AU
direct	2974 Nov 29 07:41	8°  26'45			2977 Apr 16 23:26	0° 	
asc. node	2974 Dec 02 20:58	8°  26'41'51			2977 May 11 04:56	0° 	
greatest brilliancy	2974 Dec 13 05:24	11°  26'59'14	-4.6m	evening rise	2977 May 16 21:39	7°  II 01'34	
	2975 Jan 06 21:06	0° 		asc. node	2977 May 19 16:16	10°  II 26'46	
morning max el	2975 Jan 19 01:44	11°  26'49'08	46°57'32		2977 Jun 04 14:10	0° 	

	2977 Jun 29 03:11	0°♈			2979 Dec 06 06:31	0°♍		
	2977 Jul 23 20:47	0°♎			2979 Dec 31 19:42	0°♏		
	2977 Aug 17 20:58	0°♐			2980 Jan 25 13:11	0°♑		
desc. node	2977 Sep 08 05:42	25°♐14'25			2980 Feb 18 22:10	0°♒		
	2977 Sep 12 07:26	0°♓		desc. node	2980 Feb 24 00:52	6°♒19'05		
	2977 Oct 08 10:58	0°♏			2980 Mar 14 03:51	0°♐		
	2977 Nov 05 02:22	0°♑			2980 Apr 07 08:58	0°♎		
evening max el	2977 Nov 11 18:38	6°♑46'59	46°57'53		2980 May 01 15:07	0°♏		
	2977 Dec 08 08:44	0°♒		morning set	2980 May 11 06:07	11°♏52'58		
greatest brilliancy	2977 Dec 20 08:38	6°♒50'25	-4.7m		2980 May 25 22:55	0°♐		
asc. node	2977 Dec 30 08:50	9°♒23'14		asc. node	2980 Jun 16 04:05	26°♐06'25		
retrograde	2978 Jan 01 05:23	9°♒27'23						
evening set	2978 Jan 16 02:17	5°♒02'37		superior conj	2980 Jun 17 15:06	27°♐54'05	0°03'31	
min. Earth dist.	2978 Jan 21 02:34	2°♒05'06	0.26616 AU	minimum elong	2980 Jun 17 14:21	27°♐51'46	0°03'29	
inferior conj	2978 Jan 21 18:06	1°♒41'17	5°26'10	behind sun begin	2980 Jun 16 15:56	26°♐42'53		
minimum elong	2978 Jan 21 07:54	1°♒56'55	5°23'32	behind sun end	2980 Jun 18 12:45	29°♐00'38		
	2978 Jan 24 12:51	30°♒♑		max. Earth dist.	2980 Jun 18 06:35	28°♐41'40	1.73462 AU	
morning rise	2978 Jan 26 13:54	28°♑49'00			2980 Jun 19 08:04	0°♑		
direct	2978 Feb 11 04:28	24°♑02'41			2980 Jul 13 17:49	0°♈		
greatest brilliancy	2978 Feb 22 06:22	26°♑21'04	-4.7m	evening rise	2980 Jul 23 21:38	12°♈28'57		
	2978 Mar 01 14:35	0°♒			2980 Aug 07 03:48	0°♎		
morning max el	2978 Apr 02 06:52	26°♒19'33	46°37'41		2980 Aug 31 14:35	0°♐		
	2978 Apr 05 22:43	0°♐			2980 Sep 25 03:15	0°♓		
desc. node	2978 Apr 20 22:35	15°♐45'33		desc. node	2980 Oct 05 17:44	12°♓55'35		
	2978 May 03 20:48	0°♎			2980 Oct 19 19:00	0°♏		
	2978 May 30 03:05	0°♏			2980 Nov 13 15:24	0°♑		
	2978 Jun 24 16:56	0°♐			2980 Dec 08 20:39	0°♒		
	2978 Jul 19 21:12	0°♑			2981 Jan 03 23:17	0°♐		
asc. node	2978 Aug 12 01:37	27°♑58'39		evening max el	2981 Jan 23 01:05	20°♐26'26	47°09'44	
	2978 Aug 13 17:36	0°♈		asc. node	2981 Jan 26 20:40	24°♐16'44		
	2978 Sep 07 06:32	0°♎			2981 Feb 01 18:34	0°♎		
morning set	2978 Sep 28 07:41	25°♎59'50		greatest brilliancy	2981 Mar 01 13:08	20°♎40'06	-4.6m	
	2978 Oct 01 13:07	0°♐		retrograde	2981 Mar 14 21:06	23°♎57'58		
	2978 Oct 25 15:13	0°♓		evening set	2981 Apr 01 14:58	17°♎53'15		
max. Earth dist.	2978 Nov 02 01:38	9°♓17'24	1.71823 AU	inferior conj	2981 Apr 04 22:20	15°♎49'56	8°15'31	
				minimum elong	2981 Apr 05 05:19	15°♎38'58	8°14'46	
superior conj	2978 Nov 04 22:20	12°♓52'09	0°58'14	min. Earth dist.	2981 Apr 04 15:36	16°♎00'31	0.27939 AU	
minimum elong	2978 Nov 05 08:34	13°♓24'10	0°57'51	morning rise	2981 Apr 08 19:51	13°♎25'38		
	2978 Nov 18 14:47	0°♏		direct	2981 Apr 25 19:58	7°♎50'13		
desc. node	2978 Dec 01 15:32	16°♏20'00		greatest brilliancy	2981 May 07 04:51	10°♎10'42	-4.5m	
	2978 Dec 12 13:08	0°♑		desc. node	2981 May 18 10:22	16°♎09'48		
evening rise	2978 Dec 14 21:56	2°♑58'06			2981 Jun 05 00:42	0°♏		
	2979 Jan 05 11:10	0°♒		morning max el	2981 Jun 13 22:37	8°♏16'08	45°54'28	
	2979 Jan 29 10:13	0°♐			2981 Jul 05 06:08	0°♐		
	2979 Feb 22 12:41	0°♎			2981 Aug 01 10:11	0°♑		
	2979 Mar 18 22:14	0°♏			2981 Aug 27 08:04	0°♈		
asc. node	2979 Mar 24 18:26	7°♏06'16		asc. node	2981 Sep 08 13:34	14°♈29'56		
	2979 Apr 12 20:04	0°♐			2981 Sep 21 11:12	0°♎		
	2979 May 08 14:33	0°♑			2981 Oct 16 01:04	0°♐		
	2979 Jun 05 01:34	0°♈			2981 Nov 09 05:58	0°♓		
evening max el	2979 Jun 17 11:36	12°♈26'07	45°26'55		2981 Dec 03 05:37	0°♏		
	2979 Jul 07 19:01	0°♎		morning set	2981 Dec 09 06:55	7°♏35'47		
desc. node	2979 Jul 14 08:05	4°♎30'38			2981 Dec 27 02:43	0°♑		
greatest brilliancy	2979 Jul 22 21:39	9°♎07'36	-4.5m	desc. node	2981 Dec 29 03:12	2°♑32'28		
retrograde	2979 Aug 05 01:48	12°♎10'16						
evening set	2979 Aug 22 07:46	6°♎36'29		superior conj	2982 Jan 19 11:24	29°♑23'42	0°-48'-22	
inferior conj	2979 Aug 26 13:19	4°♎01'06	-7°-59'-7	minimum elong	2982 Jan 19 00:20	28°♑48'52	0°47'56	
minimum elong	2979 Aug 26 06:13	4°♎12'13	7°58'21		2982 Jan 19 22:57	0°♒		
min. Earth dist.	2979 Aug 26 17:47	3°♎54'07	0.28946 AU	max. Earth dist.	2982 Jan 20 05:16	0°♒19'53	1.71099 AU	
morning rise	2979 Aug 30 04:28	1°♎46'29			2982 Feb 12 19:34	0°♐		
	2979 Sep 02 06:42	30°♎♏		evening rise	2982 Mar 01 15:11	21°♐05'31		
direct	2979 Sep 17 03:21	25°♏24'20			2982 Mar 08 18:07	0°♎		
greatest brilliancy	2979 Oct 01 10:59	29°♏20'17	-4.5m		2982 Apr 01 20:30	0°♏		
	2979 Oct 02 19:25	0°♎		asc. node	2982 Apr 21 06:29	23°♏57'21		
asc. node	2979 Nov 04 11:12	25°♎48'13			2982 Apr 26 04:46	0°♐		
morning max el	2979 Nov 05 21:39	27°♎13'21	46°22'01		2982 May 20 20:55	0°♑		
	2979 Nov 08 16:02	0°♐			2982 Jun 14 23:47	0°♈		

	2982 Jul 10 19:11	0°♍			2984 Nov 23 04:57	0°♍	
	2982 Aug 06 21:08	0°♌			2984 Dec 17 11:26	0°♏	
desc. node	2982 Aug 10 19:52	4°♌10'55			2985 Jan 10 12:17	0°♏	
evening max el	2982 Aug 28 03:16	21°♌38'18	45°51'41	desc. node	2985 Jan 25 15:03	18°♏56'12	
	2982 Sep 06 05:01	0°♍			2985 Feb 03 10:49	0°♎	
greatest brilliancy	2982 Oct 05 09:05	19°♍38'59	-4.6m	morning set	2985 Feb 24 06:07	26°♎05'19	
retrograde	2982 Oct 16 04:29	21°♍45'31			2985 Feb 27 09:03	0°♏	
evening set	2982 Nov 01 08:21	16°♍46'00			2985 Mar 23 08:28	0°♐	
inferior conj	2982 Nov 06 00:37	13°♍59'07	-5°-59'-28				
minimum elong	2982 Nov 06 11:02	13°♍43'11	5°57'05	superior conj	2985 Apr 05 13:39	16°♐28'51	-1°-20'-28
min. Earth dist.	2982 Nov 06 22:58	13°♍25'00	0.27357 AU	minimum elong	2985 Apr 05 21:09	16°♐52'12	1°20'21
morning rise	2982 Nov 11 13:08	10°♍42'48		max. Earth dist.	2985 Apr 09 14:55	21°♐31'38	1.72195 AU
direct	2982 Nov 26 22:22	6°♍03'34			2985 Apr 16 10:28	0°♑	
asc. node	2982 Dec 01 22:57	6°♍33'31			2985 May 10 15:56	0°♒	
greatest brilliancy	2982 Dec 10 20:59	9°♍37'46	-4.6m	evening rise	2985 May 14 13:14	4°♒47'47	
	2983 Jan 07 01:12	0°♏		asc. node	2985 May 18 18:17	9°♒59'08	
morning max el	2983 Jan 16 17:05	9°♏28'46	46°57'05		2985 Jun 04 01:12	0°♓	
	2983 Feb 04 21:15	0°♏			2985 Jun 28 14:25	0°♑	
	2983 Mar 03 01:02	0°♎			2985 Jul 23 08:24	0°♍	
desc. node	2983 Mar 23 12:48	24°♎18'05			2985 Aug 17 09:20	0°♌	
	2983 Mar 28 06:57	0°♏		desc. node	2985 Sep 07 07:48	24°♌41'26	
	2983 Apr 22 03:46	0°♐			2985 Sep 11 21:04	0°♍	
	2983 May 16 20:51	0°♑			2985 Oct 08 03:00	0°♏	
	2983 Jun 10 12:20	0°♒			2985 Nov 05 00:00	0°♏	
	2983 Jul 05 02:24	0°♓		evening max el	2985 Nov 09 08:22	4°♓22'55	46°55'50
asc. node	2983 Jul 14 15:50	11°♓41'34			2985 Dec 09 15:10	0°♎	
morning set	2983 Jul 19 16:51	17°♓52'06		greatest brilliancy	2985 Dec 17 23:37	4°♎23'38	-4.7m
	2983 Jul 29 14:10	0°♑		asc. node	2985 Dec 29 10:48	6°♎57'19	
max. Earth dist.	2983 Aug 22 13:30	29°♑30'51	1.73204 AU	retrograde	2985 Dec 29 17:21	6°♎57'25	
	2983 Aug 22 22:57	0°♍		evening set	2986 Jan 13 12:03	2°♎37'10	
					2986 Jan 17 23:25	30°♒♏	
superior conj	2983 Aug 25 02:49	2°♍40'07	1°18'05	min. Earth dist.	2986 Jan 18 16:10	29°♏34'21	0.26587 AU
minimum elong	2983 Aug 24 20:17	2°♍19'56	1°17'58	inferior conj	2986 Jan 19 06:26	29°♏12'27	5°06'26
	2983 Sep 16 05:03	0°♌		minimum elong	2986 Jan 18 20:34	29°♏27'37	5°03'47
evening rise	2983 Sep 30 14:26	17°♌50'36		morning rise	2986 Jan 24 05:22	26°♏15'32	
	2983 Oct 10 09:35	0°♍		direct	2986 Feb 08 16:26	21°♏34'12	
desc. node	2983 Nov 03 05:41	29°♍35'02		greatest brilliancy	2986 Feb 19 20:32	23°♏54'19	-4.7m
	2983 Nov 03 13:44	0°♏			2986 Mar 03 01:04	0°♎	
	2983 Nov 27 18:11	0°♏		morning max el	2986 Mar 30 18:44	23°♎51'36	46°39'07
	2983 Dec 21 23:52	0°♎			2986 Apr 05 20:22	0°♏	
	2984 Jan 15 09:19	0°♏		desc. node	2986 Apr 20 00:42	15°♏02'23	
	2984 Feb 09 04:22	0°♐			2986 May 03 12:48	0°♐	
asc. node	2984 Feb 24 08:31	17°♐53'55			2986 May 29 16:48	0°♑	
	2984 Mar 05 21:02	0°♑			2986 Jun 24 05:25	0°♒	
	2984 Apr 02 17:10	0°♒			2986 Jul 19 08:56	0°♓	
evening max el	2984 Apr 04 14:55	1°♒54'00	46°11'45	asc. node	2986 Aug 11 03:46	27°♓30'52	
greatest brilliancy	2984 May 09 08:18	29°♒20'38	-4.5m		2986 Aug 13 04:52	0°♑	
	2984 May 10 17:57	0°♓			2986 Sep 06 17:34	0°♍	
retrograde	2984 May 24 03:29	3°♓12'00		morning set	2986 Sep 26 00:17	23°♍48'29	
	2984 Jun 05 19:39	30°♒♒			2986 Oct 01 00:04	0°♌	
evening set	2984 Jun 08 04:57	28°♒45'21			2986 Oct 25 02:13	0°♍	
inferior conj	2984 Jun 14 12:36	24°♒56'55	0°05'40	max. Earth dist.	2986 Oct 30 14:01	6°♍51'40	1.71877 AU
minimum elong	2984 Jun 14 12:49	24°♒56'35	0°05'36				
transit middle	2984 Jun 14 12:49	24°♒56'35	0°05'36	superior conj	2986 Nov 02 12:39	10°♍32'25	1°00'47
transit begin	2984 Jun 14 09:01	25°♒02'33		minimum elong	2986 Nov 02 22:52	11°♍04'20	1°00'26
transit end	2984 Jun 14 16:37	24°♒50'37			2986 Nov 18 01:53	0°♏	
min. Earth dist.	2984 Jun 14 08:33	25°♒03'16	0.28770 AU	desc. node	2986 Nov 30 17:29	15°♏51'05	
desc. node	2984 Jun 14 22:06	24°♒42'02		evening rise	2986 Dec 12 09:20	0°♏28'05	
morning rise	2984 Jun 20 21:07	21°♒08'24			2986 Dec 12 00:22	0°♏	
direct	2984 Jul 06 00:53	16°♒43'25			2987 Jan 04 22:34	0°♎	
greatest brilliancy	2984 Jul 19 01:41	19°♒42'53	-4.5m		2987 Jan 28 21:47	0°♏	
	2984 Aug 04 20:25	0°♓			2987 Feb 22 00:30	0°♐	
morning max el	2984 Aug 23 19:18	16°♓28'21	45°45'16		2987 Mar 18 10:29	0°♑	
	2984 Sep 06 08:19	0°♑		asc. node	2987 Mar 23 20:33	6°♑35'09	
	2984 Oct 03 18:49	0°♍			2987 Apr 12 09:05	0°♒	
asc. node	2984 Oct 06 01:30	2°♍36'06			2987 May 08 05:14	0°♓	
	2984 Oct 29 10:48	0°♌			2987 Jun 04 20:26	0°♑	

evening max el	2987 Jun 15 02:12	10°♏11'48	45°27'27		2989 Dec 02 16:43	0°♏	
	2987 Jul 08 11:25	0°♎		morning set	2989 Dec 06 19:21	5°♏09'24	
desc. node	2987 Jul 13 10:08	3°♎12'57			2989 Dec 26 13:48	0°♏	
greatest brilliancy	2987 Jul 20 10:24	6°♎53'47	-4.5m	desc. node	2989 Dec 28 05:16	2°♏04'06	
retrograde	2987 Aug 02 17:29	10°♎00'24					
evening set	2987 Aug 19 20:36	4°♎30'37		superior conj	2990 Jan 16 21:30	26°♏49'29	0°-45'00
inferior conj	2987 Aug 24 05:27	1°♎50'37	-7°-51'00	minimum elong	2990 Jan 16 10:56	26°♏16'13	0°44'34
minimum elong	2987 Aug 23 21:48	2°♎02'34	7°50'06	max. Earth dist.	2990 Jan 17 14:29	27°♏42'55	1.71099 AU
min. Earth dist.	2987 Aug 24 09:14	1°♎44'43	0.28967 AU		2990 Jan 19 10:03	0°≈	
	2987 Aug 27 04:49	30°♎♏			2990 Feb 12 06:43	0°♏	
morning rise	2987 Aug 27 22:48	29°♏32'49		evening rise	2990 Feb 27 01:58	18°♏34'07	
direct	2987 Sep 14 19:10	23°♏33'28			2990 Mar 08 05:18	0°♎	
greatest brilliancy	2987 Sep 29 03:38	27°♏09'47	-4.5m		2990 Apr 01 07:46	0°♏	
	2987 Oct 04 10:31	0°♎		asc. node	2990 Apr 20 08:24	23°♏28'10	
morning max el	2987 Nov 03 12:26	24°♎56'16	46°20'28		2990 Apr 25 16:13	0°♏	
asc. node	2987 Nov 03 13:11	24°♎58'07			2990 May 20 08:47	0°♏	
	2987 Nov 08 12:41	0°♏			2990 Jun 14 12:26	0°♏	
	2987 Dec 05 22:03	0°♎			2990 Jul 10 09:20	0°♎	
	2987 Dec 31 09:20	0°♏			2990 Aug 06 14:42	0°♏	
	2988 Jan 25 01:52	0°♏		desc. node	2990 Aug 09 21:58	3°♏28'25	
	2988 Feb 18 10:18	0°≈		evening max el	2990 Aug 25 18:10	19°♏23'08	45°49'51
desc. node	2988 Feb 23 03:00	5°≈48'29			2990 Sep 06 10:27	0°♎	
	2988 Mar 13 15:35	0°♏		greatest brilliancy	2990 Oct 02 20:59	17°♎17'13	-4.5m
	2988 Apr 06 20:24	0°♎		retrograde	2990 Oct 13 17:49	19°♎24'24	
	2988 May 01 02:19	0°♏		evening set	2990 Oct 30 00:53	14°♎20'19	
morning set	2988 May 08 21:47	9°♏38'52		inferior conj	2990 Nov 03 14:07	11°♎37'18	-6°-15'-35
	2988 May 25 09:56	0°♏		minimum elong	2990 Nov 04 00:34	11°♎21'18	6°13'18
				min. Earth dist.	2990 Nov 04 12:27	11°♎03'08	0.27421 AU
superior conj	2988 Jun 15 08:21	25°♏45'57	0°00'14	morning rise	2990 Nov 08 23:45	8°♎24'49	
minimum elong	2988 Jun 15 08:18	25°♏45'49	0°00'13	direct	2990 Nov 24 13:12	3°♎41'02	
behind sun begin	2988 Jun 14 09:34	24°♏35'56		asc. node	2990 Dec 01 00:54	4°♎30'28	
behind sun end	2988 Jun 16 07:02	26°♏55'43		greatest brilliancy	2990 Dec 08 11:40	7°♎15'26	-4.6m
asc. node	2988 Jun 15 06:02	25°♏38'48			2991 Jan 07 03:36	0°♏	
max. Earth dist.	2988 Jun 16 01:40	26°♏39'13	1.73442 AU	morning max el	2991 Jan 14 07:39	7°♏06'40	46°56'36
	2988 Jun 18 19:00	0°♏			2991 Feb 04 14:37	0°♏	
	2988 Jul 13 04:45	0°♏			2991 Mar 02 15:29	0°≈	
evening rise	2988 Jul 21 16:22	10°♏25'23		desc. node	2991 Mar 22 14:52	23°≈44'41	
	2988 Aug 06 14:53	0°♎			2991 Mar 27 19:58	0°♏	
	2988 Aug 31 01:53	0°♏			2991 Apr 21 15:57	0°♎	
	2988 Sep 24 14:56	0°♎			2991 May 16 08:28	0°♏	
desc. node	2988 Oct 04 19:49	12°♎25'37			2991 Jun 09 23:34	0°♏	
	2988 Oct 19 07:16	0°♏			2991 Jul 04 13:22	0°♏	
	2988 Nov 13 04:35	0°♏		asc. node	2991 Jul 13 17:58	11°♏14'49	
	2988 Dec 08 11:22	0°≈		morning set	2991 Jul 17 10:36	15°♏46'13	
	2989 Jan 03 17:06	0°♏			2991 Jul 29 00:59	0°♏	
evening max el	2989 Jan 20 15:14	18°♏03'07	47°10'44	max. Earth dist.	2991 Aug 20 08:27	27°♏28'02	1.73234 AU
asc. node	2989 Jan 25 22:44	23°♏21'58			2991 Aug 22 09:43	0°♎	
	2989 Feb 01 22:25	0°♎					
greatest brilliancy	2989 Feb 27 04:09	18°♎19'16	-4.6m	superior conj	2991 Aug 22 20:42	0°♎33'54	1°16'46
retrograde	2989 Mar 12 12:10	21°♎37'33		minimum elong	2991 Aug 22 13:44	0°♎12'26	1°16'37
evening set	2989 Mar 30 07:46	15°♎29'17			2991 Sep 15 15:53	0°♏	
min. Earth dist.	2989 Apr 02 05:21	13°♎41'28	0.27902 AU	evening rise	2991 Sep 28 06:34	15°♏37'49	
inferior conj	2989 Apr 02 12:48	13°♎29'47	8°23'23		2991 Oct 09 20:36	0°♎	
minimum elong	2989 Apr 02 19:08	13°♎19'52	8°22'46	desc. node	2991 Nov 02 07:36	29°♎06'04	
morning rise	2989 Apr 06 06:40	11°♎11'14			2991 Nov 03 00:59	0°♏	
direct	2989 Apr 23 09:46	5°♎30'34			2991 Nov 27 05:45	0°♏	
greatest brilliancy	2989 May 04 18:03	7°♎50'59	-4.5m		2991 Dec 21 11:48	0°≈	
desc. node	2989 May 17 12:16	14°♎51'05			2992 Jan 14 21:47	0°♏	
	2989 Jun 05 03:47	0°♏			2992 Feb 08 17:48	0°♎	
morning max el	2989 Jun 11 14:02	6°♏02'01	45°55'41	asc. node	2992 Feb 23 10:36	17°♎17'55	
	2989 Jul 04 23:16	0°♏			2992 Mar 05 12:33	0°♏	
	2989 Aug 01 00:11	0°♏		evening max el	2992 Apr 02 06:43	29°♏40'31	46°13'48
	2989 Aug 26 20:37	0°♏			2992 Apr 02 14:35	0°♏	
asc. node	2989 Sep 07 15:37	13°♏59'50		greatest brilliancy	2992 May 07 02:26	27°♏12'22	-4.5m
	2989 Sep 20 23:01	0°♎			2992 May 14 10:08	0°♏	
	2989 Oct 15 12:28	0°♏		retrograde	2992 May 21 19:35	1°♏01'26	
	2989 Nov 08 17:09	0°♎			2992 May 28 22:56	30°♎♏	

evening set	2992 Jun 05 22:07	26°II34'01		superior conj	2994 Oct 31 02:50	8°III13'11	1°03'14
inferior conj	2992 Jun 12 04:46	22°II46'39	0°25'53	minimum elong	2994 Oct 31 12:58	8°III44'49	1°02'54
minimum elong	2992 Jun 12 05:43	22°II45'09	0°25'37		2994 Nov 17 12:42	0°II	
min. Earth dist.	2992 Jun 12 01:01	22°II52'33	0.28747 AU	desc. node	2994 Nov 29 19:32	15°II23'28	
desc. node	2992 Jun 14 00:12	21°II38'41		evening rise	2994 Dec 09 20:45	27°II59'14	
morning rise	2992 Jun 18 13:47	18°II57'08			2994 Dec 11 11:18	0°II	
direct	2992 Jul 03 16:57	14°II33'40			2995 Jan 04 09:38	0°II	
greatest brilliancy	2992 Jul 16 15:11	17°II30'16	-4.5m		2995 Jan 28 09:02	0°II	
	2992 Aug 05 06:50	0°II			2995 Feb 21 11:59	0°II	
morning max el	2992 Aug 21 10:10	14°II15'55	45°44'40		2995 Mar 17 22:22	0°II	
	2992 Sep 06 02:18	0°II		asc. node	2995 Mar 22 22:30	6°II04'39	
	2992 Oct 03 09:01	0°II			2995 Apr 11 21:45	0°II	
asc. node	2992 Oct 05 03:29	2°II01'34			2995 May 07 19:36	0°II	
	2992 Oct 28 23:28	0°II			2995 Jun 04 15:17	0°II	
	2992 Nov 22 16:52	0°III		evening max el	2995 Jun 12 17:09	7°II59'44	45°27'58
	2992 Dec 16 22:59	0°II			2995 Jul 09 08:49	0°II	
	2993 Jan 09 23:34	0°II		desc. node	2995 Jul 12 12:13	1°II54'06	
desc. node	2993 Jan 24 17:10	18°II27'53		greatest brilliancy	2995 Jul 17 22:21	4°II40'10	-4.5m
	2993 Feb 02 21:55	0°II		retrograde	2995 Jul 31 09:39	7°II51'29	
morning set	2993 Feb 21 16:40	23°II33'37		evening set	2995 Aug 17 09:19	2°II25'36	
	2993 Feb 26 19:58	0°II			2995 Aug 21 09:14	30°RII	
	2993 Mar 22 19:17	0°II		inferior conj	2995 Aug 21 21:29	29°II40'54	-7°-42'-11
superior conj	2993 Apr 03 02:56	14°II07'14	-1°-21'-45	minimum elong	2995 Aug 21 13:22	29°II53'33	7°41'08
minimum elong	2993 Apr 03 09:45	14°II28'28	1°21'39	min. Earth dist.	2995 Aug 22 00:20	29°II36'28	0.28991 AU
max. Earth dist.	2993 Apr 07 06:59	19°II18'45	1.72139 AU	morning rise	2995 Aug 25 17:14	27°II19'42	
	2993 Apr 15 21:13	0°II		direct	2995 Sep 12 11:17	21°II23'18	
	2993 May 10 02:41	0°II		greatest brilliancy	2995 Sep 26 20:47	25°II00'47	-4.5m
evening rise	2993 May 12 04:47	2°II34'34			2995 Oct 05 13:20	0°II	
asc. node	2993 May 17 20:16	9°II32'04		morning max el	2995 Nov 01 04:07	22°II42'22	46°18'55
	2993 Jun 03 12:02	0°II		asc. node	2995 Nov 02 15:10	24°II09'39	
	2993 Jun 28 01:29	0°II			2995 Nov 08 08:25	0°II	
	2993 Jul 22 19:54	0°II			2995 Dec 05 13:04	0°III	
	2993 Aug 16 21:36	0°II			2995 Dec 30 22:31	0°II	
desc. node	2993 Sep 06 09:50	24°II08'36			2996 Jan 24 14:07	0°II	
	2993 Sep 11 10:40	0°III		desc. node	2996 Feb 17 21:59	0°II	
	2993 Oct 07 19:04	0°II			2996 Feb 22 04:58	5°II18'37	
	2993 Nov 04 22:11	0°II			2996 Mar 13 02:54	0°II	
evening max el	2993 Nov 06 20:56	1°II56'46	46°53'50		2996 Apr 06 07:26	0°II	
	2993 Dec 11 10:42	0°II		morning set	2996 Apr 30 13:05	0°II	
greatest brilliancy	2993 Dec 15 14:26	1°II57'20	-4.7m		2996 May 06 13:31	7°II26'10	
retrograde	2993 Dec 27 05:06	4°II28'22			2996 May 24 20:31	0°II	
asc. node	2993 Dec 28 12:58	4°II26'14		superior conj	2996 Jun 13 01:46	23°II39'37	0°-3'-2
evening set	2994 Jan 10 21:59	0°II11'53		minimum elong	2996 Jun 13 02:24	23°II41'35	0°03'01
	2994 Jan 11 06:41	30°RII		behind sun begin	2996 Jun 12 03:46	22°II31'58	
min. Earth dist.	2994 Jan 16 05:57	27°II04'00	0.26560 AU	behind sun end	2996 Jun 14 01:02	24°II51'11	
inferior conj	2994 Jan 16 18:45	26°II44'23	4°45'58	max. Earth dist.	2996 Jun 13 22:42	24°II43'59	1.73421 AU
minimum elong	2994 Jan 16 09:16	26°II58'55	4°43'20	asc. node	2996 Jun 14 08:11	25°II13'08	
morning rise	2994 Jan 21 20:45	23°II43'06			2996 Jun 18 05:29	0°II	
direct	2994 Feb 06 04:03	19°II06'14			2996 Jul 12 15:16	0°II	
greatest brilliancy	2994 Feb 17 11:35	21°II29'23	-4.7m	evening rise	2996 Jul 19 11:20	8°II23'51	
	2994 Mar 04 01:15	0°II			2996 Aug 06 01:33	0°II	
morning max el	2994 Mar 28 06:45	21°II24'54	46°40'44		2996 Aug 30 12:52	0°II	
	2994 Apr 05 16:51	0°II			2996 Sep 24 02:21	0°III	
desc. node	2994 Apr 19 02:37	14°II20'27		desc. node	2996 Oct 03 21:44	11°III55'59	
	2994 May 03 04:08	0°II			2996 Oct 18 19:20	0°II	
	2994 May 29 05:59	0°II			2996 Nov 12 17:36	0°II	
	2994 Jun 23 17:27	0°II			2996 Dec 08 01:57	0°II	
	2994 Jul 18 20:18	0°II			2997 Jan 03 10:58	0°II	
asc. node	2994 Aug 10 05:47	27°II03'37		evening max el	2997 Jan 18 06:12	15°II42'58	47°11'49
	2994 Aug 12 15:50	0°II		asc. node	2997 Jan 25 00:47	22°II27'10	
	2994 Sep 06 04:20	0°II			2997 Feb 02 03:36	0°II	
morning set	2994 Sep 23 16:39	21°II37'19		greatest brilliancy	2997 Feb 24 19:10	15°II59'33	-4.6m
	2994 Sep 30 10:46	0°II		retrograde	2997 Mar 10 03:33	19°II18'02	
	2994 Oct 24 12:57	0°III		evening set	2997 Mar 28 00:23	13°II06'33	
max. Earth dist.	2994 Oct 28 04:36	4°III33'44	1.71926 AU	inferior conj	2997 Mar 31 03:13	11°II10'31	8°30'29
				minimum elong	2997 Mar 31 08:53	11°II01'38	8°29'59

min. Earth dist.	2997 Mar 30 18:41	11° Υ 23'52	0.27861 AU	desc. node	2999 Nov 01 09:45	28° \mathbb{M} 38'18	
morning rise	2997 Apr 03 17:35	8° Υ 57'31			2999 Nov 02 12:06	0° \mathcal{Z}	
direct	2997 Apr 21 00:02	3° Υ 12'01			2999 Nov 26 17:13	0° \mathcal{Z}	
greatest brilliancy	2997 May 02 06:20	5° Υ 31'16	-4.6m		2999 Dec 20 23:42	0° \approx	
desc. node	2997 May 16 14:22	13° Υ 36'18			3000 Jan 14 10:19	0° \mathcal{H}	
	2997 Jun 05 04:53	0° \mathcal{B}			3000 Feb 08 07:25	0° Υ	
morning max el	2997 Jun 09 05:47	3° \mathcal{B} 49'55	45°56'56	asc. node	3000 Feb 22 12:33	16° Υ 41'08	
	2997 Jul 04 15:34	0° \mathbb{I}			3000 Mar 06 04:23	0° \mathcal{B}	
	2997 Jul 31 13:36	0° \mathcal{G}		evening max el	3000 Mar 31 21:31	27° \mathcal{B} 24'19	46°16'06
	2997 Aug 26 08:42	0° \mathcal{Q}			3000 Apr 03 12:53	0° \mathbb{I}	
asc. node	2997 Sep 06 17:36	13° \mathcal{Q} 30'49		greatest brilliancy	3000 May 05 20:24	25° \mathbb{I} 03'56	-4.5m
	2997 Sep 20 10:25	0° \mathbb{M}		retrograde	3000 May 20 11:29	28° \mathbb{I} 51'19	
	2997 Oct 14 23:32	0° \mathcal{A}		evening set	3000 Jun 04 15:29	24° \mathbb{I} 22'42	
	2997 Nov 08 04:04	0° \mathbb{M}		inferior conj	3000 Jun 10 21:02	20° \mathbb{I} 36'49	0°46'05
	2997 Dec 02 03:35	0° \mathcal{Z}		minimum elong	3000 Jun 10 22:44	20° \mathbb{I} 34'09	0°45'34
morning set	2997 Dec 04 07:36	2° \mathcal{Z} 43'06		min. Earth dist.	3000 Jun 10 17:48	20° \mathbb{I} 41'55	0.28721 AU
	2997 Dec 26 00:41	0° \mathcal{Z}		desc. node	3000 Jun 14 02:19	18° \mathbb{I} 36'41	
desc. node	2997 Dec 27 07:25	1° \mathcal{Z} 36'38		morning rise	3000 Jun 17 06:21	16° \mathbb{I} 46'30	
				direct	3000 Jul 02 08:40	12° \mathbb{I} 24'13	
superior conj	2998 Jan 14 07:12	24° \mathcal{Z} 14'46	0°-41'-30	greatest brilliancy	3000 Jul 15 05:36	15° \mathbb{I} 18'58	-4.5m
minimum elong	2998 Jan 13 21:13	23° \mathcal{Z} 43'22	0°41'04		3000 Aug 06 14:18	0° \mathcal{G}	
max. Earth dist.	2998 Jan 14 22:35	25° \mathcal{Z} 03'10	1.71093 AU	morning max el	3000 Aug 20 00:43	12° \mathcal{G} 02'56	45°44'16
	2998 Jan 18 20:56	0° \approx			3000 Sep 06 19:45	0° \mathcal{Q}	
	2998 Feb 11 17:35	0° \mathcal{H}			3000 Oct 03 22:57	0° \mathbb{M}	
evening rise	2998 Feb 24 12:24	16° \mathcal{H} 02'24		asc. node	3000 Oct 05 05:28	1° \mathbb{M} 27'34	
	2998 Mar 07 16:11	0° Υ			3000 Oct 29 11:57	0° \mathcal{A}	
	2998 Mar 31 18:45	0° \mathcal{B}			3000 Nov 23 04:40	0° \mathbb{M}	
asc. node	2998 Apr 19 10:27	23° \mathcal{B} 00'16			3000 Dec 17 10:26	0° \mathcal{Z}	
	2998 Apr 25 03:25	0° \mathbb{I}			3001 Jan 10 10:50	0° \mathcal{Z}	
	2998 May 19 20:23	0° \mathcal{G}		desc. node	3001 Jan 24 19:09	17° \mathcal{Z} 59'02	
	2998 Jun 14 00:48	0° \mathcal{Q}			3001 Feb 03 09:04	0° \approx	
	2998 Jul 09 23:15	0° \mathbb{M}		morning set	3001 Feb 20 02:43	20° \approx 59'54	
	2998 Aug 06 08:14	0° \mathcal{A}			3001 Feb 27 07:01	0° \mathcal{H}	
desc. node	2998 Aug 09 00:00	2° \mathcal{A} 46'22			3001 Mar 23 06:15	0° Υ	
evening max el	2998 Aug 23 08:47	17° \mathcal{A} 08'30	45°47'56				
	2998 Sep 06 17:30	0° \mathbb{M}		superior conj	3001 Apr 01 15:40	11° Υ 43'18	-1°-22'-53
greatest brilliancy	2998 Sep 30 09:37	14° \mathbb{M} 57'40	-4.5m	minimum elong	3001 Apr 01 21:43	12° Υ 02'10	1°22'49
retrograde	2998 Oct 11 06:41	17° \mathbb{M} 04'38		max. Earth dist.	3001 Apr 05 19:36	16° Υ 54'37	1.72080 AU
evening set	2998 Oct 27 17:33	11° \mathbb{M} 56'02			3001 Apr 16 08:07	0° \mathcal{B}	
inferior conj	2998 Nov 01 03:45	9° \mathbb{M} 16'53	-6°-30'-53	evening rise	3001 May 10 19:47	0° \mathbb{I} 19'11	
minimum elong	2998 Nov 01 14:10	9° \mathbb{M} 00'54	6°28'42		3001 May 10 13:34	0° \mathbb{I}	
min. Earth dist.	2998 Nov 02 02:13	8° \mathbb{M} 42'25	0.27492 AU	asc. node	3001 May 17 22:23	9° \mathbb{I} 05'06	
morning rise	2998 Nov 06 10:20	6° \mathbb{M} 08'12			3001 Jun 03 22:59	0° \mathcal{G}	
direct	2998 Nov 22 03:54	1° \mathbb{M} 19'44			3001 Jun 28 12:39	0° \mathcal{Q}	
asc. node	2998 Nov 30 03:04	2° \mathbb{M} 33'10			3001 Jul 23 07:33	0° \mathbb{M}	
greatest brilliancy	2998 Dec 06 02:32	4° \mathbb{M} 53'58	-4.6m		3001 Aug 17 10:01	0° \mathcal{A}	
	2999 Jan 07 04:32	0° \mathcal{Z}		desc. node	3001 Sep 06 11:49	23° \mathcal{A} 35'15	
morning max el	2999 Jan 11 21:25	4° \mathcal{Z} 42'39	46°55'57		3001 Sep 12 00:26	0° \mathbb{M}	
	2999 Feb 04 07:36	0° \mathcal{Z}			3001 Oct 08 11:26	0° \mathcal{Z}	
	2999 Mar 02 05:42	0° \approx		evening max el	3001 Nov 05 09:14	29° \mathcal{Z} 30'22	46°51'55
desc. node	2999 Mar 21 16:52	23° \approx 11'33			3001 Nov 05 21:12	0° \mathcal{Z}	
	2999 Mar 27 08:47	0° \mathcal{H}		greatest brilliancy	3001 Dec 14 04:25	29° \mathcal{Z} 30'29	-4.7m
	2999 Apr 21 03:54	0° Υ			3001 Dec 15 10:33	0° \approx	
	2999 May 15 19:51	0° \mathcal{B}		retrograde	3001 Dec 25 17:18	2° \approx 00'08	
	2999 Jun 09 10:34	0° \mathbb{I}		asc. node	3001 Dec 28 14:54	1° \approx 49'49	
	2999 Jul 04 00:08	0° \mathcal{G}			3002 Jan 04 15:15	30° \mathcal{R} \mathcal{Z}	
asc. node	2999 Jul 12 19:59	10° \mathcal{G} 48'17		evening set	3002 Jan 09 08:17	27° \mathcal{Z} 46'32	
morning set	2999 Jul 15 04:37	13° \mathcal{G} 41'45		inferior conj	3002 Jan 15 07:12	24° \mathcal{Z} 16'42	4°24'53
	2999 Jul 28 11:36	0° \mathcal{Q}		minimum elong	3002 Jan 14 22:12	24° \mathcal{Z} 30'29	4°22'20
max. Earth dist.	2999 Aug 18 02:40	25° \mathcal{Q} 23'38	1.73263 AU	min. Earth dist.	3002 Jan 14 19:44	24° \mathcal{Z} 34'15	0.26544 AU
				morning rise	3002 Jan 20 12:13	21° \mathcal{Z} 11'25	
superior conj	2999 Aug 20 15:04	28° \mathcal{Q} 29'52	1°15'22	direct	3002 Feb 04 15:58	16° \mathcal{Z} 38'20	
minimum elong	2999 Aug 20 07:43	28° \mathcal{Q} 07'12	1°15'11	greatest brilliancy	3002 Feb 16 03:09	19° \mathcal{Z} 05'05	-4.7m
	2999 Aug 21 20:17	0° \mathbb{M}			3002 Mar 05 19:15	0° \approx	
	2999 Sep 15 02:31	0° \mathcal{A}		morning max el	3002 Mar 26 19:44	18° \approx 59'52	46°42'07
evening rise	2999 Sep 25 23:16	13° \mathcal{A} 27'33			3002 Apr 06 12:57	0° \mathcal{H}	
	2999 Oct 09 07:25	0° \mathbb{M}		desc. node	3002 Apr 19 04:44	13° \mathcal{H} 38'44	

	3002 May 03 19:33	0°♄			3004 Oct 19 07:46	0°♄	
	3002 May 29 19:22	0°♅			3004 Nov 13 07:02	0°♅	
	3002 Jun 24 05:42	0°♆			3004 Dec 08 17:03	0°♆	
	3002 Jul 19 07:51	0°♇			3005 Jan 04 05:35	0°♇	
asc. node	3002 Aug 10 07:44	26°♄35'37		evening max el	3005 Jan 16 21:53	13°♄23'47	47°12'47
	3002 Aug 13 02:58	0°♈		asc. node	3005 Jan 25 02:47	21°♄30'23	
	3002 Sep 06 15:16	0°♉			3005 Feb 03 11:19	0°♄	
morning set	3002 Sep 22 09:17	19°♉26'26		greatest brilliancy	3005 Feb 23 11:11	13°♄40'29	-4.6m
	3002 Sep 30 21:39	0°♊		retrograde	3005 Mar 08 19:03	16°♄57'46	
	3002 Oct 24 23:51	0°♋		evening set	3005 Mar 26 16:51	10°♄43'48	
max. Earth dist.	3002 Oct 26 20:39	2°♌19'50	1.71972 AU	inferior conj	3005 Mar 29 17:45	8°♄50'40	8°36'37
				minimum elong	3005 Mar 29 22:42	8°♄42'55	8°36'15
superior conj	3002 Oct 29 17:28	5°♌54'48	1°05'33	min. Earth dist.	3005 Mar 29 07:58	9°♄05'58	0.27818 AU
minimum elong	3002 Oct 30 03:27	6°♌25'57	1°05'13	morning rise	3005 Apr 02 04:46	6°♄42'48	
	3002 Nov 17 23:41	0°♈		direct	3005 Apr 19 14:40	0°♄53'09	
desc. node	3002 Nov 29 21:39	14°♈55'30		greatest brilliancy	3005 Apr 30 17:49	3°♄09'56	-4.6m
evening rise	3002 Dec 08 08:45	25°♈31'45		desc. node	3005 May 16 16:30	12°♄23'11	
	3002 Dec 11 22:23	0°♉			3005 Jun 06 05:09	0°♉	
	3003 Jan 04 20:51	0°♊		morning max el	3005 Jun 07 21:07	1°♉35'49	45°57'59
	3003 Jan 28 20:27	0°♋			3005 Jul 05 08:00	0°♊	
	3003 Feb 21 23:42	0°♌			3005 Aug 01 03:21	0°♋	
	3003 Mar 18 10:33	0°♍			3005 Aug 26 21:10	0°♌	
asc. node	3003 Mar 23 00:32	5°♍33'29		asc. node	3005 Sep 06 19:41	13°♌00'56	
	3003 Apr 12 10:50	0°♆			3005 Sep 20 22:12	0°♍	
	3003 May 08 10:33	0°♇			3005 Oct 15 10:56	0°♎	
	3003 Jun 05 11:10	0°♈			3005 Nov 08 15:18	0°♏	
evening max el	3003 Jun 11 08:59	5°♈48'41	45°28'43	morning set	3005 Dec 02 20:01	0°♄16'28	
	3003 Jul 11 15:19	0°♉			3005 Dec 02 14:46	0°♄	
desc. node	3003 Jul 12 14:11	0°♉31'34			3005 Dec 26 11:52	0°♅	
greatest brilliancy	3003 Jul 16 10:54	2°♉26'22	-4.5m	desc. node	3005 Dec 27 09:20	1°♅07'30	
retrograde	3003 Jul 30 02:09	5°♉41'38					
evening set	3003 Aug 15 22:07	0°♊19'49		superior conj	3006 Jan 12 17:07	21°♅39'44	0°-37'-55
	3003 Aug 16 11:41	30°♋♌		minimum elong	3006 Jan 12 07:49	21°♅10'28	0°37'32
inferior conj	3003 Aug 20 13:32	27°♌30'20	-7°-32'-43	max. Earth dist.	3006 Jan 13 04:23	22°♅15'10	1.71090 AU
minimum elong	3003 Aug 20 05:01	27°♌43'37	7°31'32		3006 Jan 19 08:09	0°♆	
min. Earth dist.	3003 Aug 20 15:11	27°♌27'47	0.29008 AU		3006 Feb 12 04:48	0°♇	
morning rise	3003 Aug 24 11:47	25°♌05'37		evening rise	3006 Feb 22 22:55	13°♄29'46	
direct	3003 Sep 11 03:50	19°♌12'33			3006 Mar 08 03:24	0°♄	
greatest brilliancy	3003 Sep 25 13:02	22°♌50'07	-4.5m		3006 Apr 01 06:03	0°♅	
	3003 Oct 07 09:15	0°♉		asc. node	3006 Apr 19 12:34	22°♄31'38	
morning max el	3003 Oct 30 20:19	20°♉29'16	46°17'21		3006 Apr 25 14:56	0°♆	
asc. node	3003 Nov 02 17:20	23°♉21'45			3006 May 20 08:21	0°♇	
	3003 Nov 09 03:52	0°♊			3006 Jun 14 13:37	0°♈	
	3003 Dec 06 04:08	0°♋			3006 Jul 10 13:45	0°♉	
	3003 Dec 31 11:52	0°♌			3006 Aug 07 02:41	0°♊	
	3004 Jan 25 02:34	0°♍		desc. node	3006 Aug 09 02:00	2°♊02'25	
	3004 Feb 18 09:53	0°♎		evening max el	3006 Aug 21 22:41	14°♊50'52	45°46'04
desc. node	3004 Feb 22 07:00	4°♎48'19			3006 Sep 08 03:54	0°♋	
	3004 Mar 13 14:26	0°♈		greatest brilliancy	3006 Sep 28 23:13	12°♋38'08	-4.5m
	3004 Apr 06 18:42	0°♉		retrograde	3006 Oct 09 19:20	14°♋44'11	
	3004 May 01 00:09	0°♊		evening set	3006 Oct 26 10:17	9°♋31'03	
morning set	3004 May 05 05:07	5°♊11'58		inferior conj	3006 Oct 30 17:32	6°♋55'55	-6°-45'-18
	3004 May 25 07:27	0°♋		minimum elong	3006 Oct 31 03:50	6°♋40'03	6°43'16
				min. Earth dist.	3006 Oct 31 16:23	6°♋20'46	0.27559 AU
superior conj	3004 Jun 11 18:51	21°♋30'59	0°-6'-19	morning rise	3006 Nov 04 20:54	3°♋51'14	
minimum elong	3004 Jun 11 20:12	21°♋35'09	0°06'15		3006 Nov 13 14:31	30°♋♌	
behind sun begin	3004 Jun 10 22:50	20°♋29'25		direct	3006 Nov 20 18:02	28°♌57'47	
behind sun end	3004 Jun 12 17:34	22°♋40'52			3006 Nov 28 02:13	0°♍	
max. Earth dist.	3004 Jun 12 20:10	22°♋48'54	1.73400 AU	asc. node	3006 Nov 30 05:02	0°♍39'31	
asc. node	3004 Jun 14 10:11	24°♋45'48		greatest brilliancy	3006 Dec 04 17:49	2°♍32'24	-4.6m
	3004 Jun 18 16:22	0°♎			3007 Jan 08 04:38	0°♄	
	3004 Jul 13 02:11	0°♏		morning max el	3007 Jan 10 10:28	2°♄16'01	46°55'16
evening rise	3004 Jul 18 05:59	6°♏20'13			3007 Feb 05 00:31	0°♅	
	3004 Aug 06 12:36	0°♉			3007 Mar 02 20:03	0°♆	
	3004 Aug 31 00:11	0°♊		desc. node	3007 Mar 21 18:57	22°♆38'03	
	3004 Sep 24 14:08	0°♋			3007 Mar 27 21:47	0°♇	
desc. node	3004 Oct 03 23:52	11°♋25'57			3007 Apr 21 16:04	0°♈	

	3007 May 16 07:28	0°♄		asc. node	3009 Dec 27 16:56	29°♅06'07	
	3007 Jun 09 21:49	0°♂		evening set	3010 Jan 06 18:34	25°♅19'36	
	3007 Jul 04 11:08	0°♄		inferior conj	3010 Jan 12 19:25	21°♅47'44	4°03'06
asc. node	3007 Jul 12 21:57	10°♄20'49		minimum elong	3010 Jan 12 10:56	22°♅00'39	4°00'38
morning set	3007 Jul 13 22:40	11°♄36'31		min. Earth dist.	3010 Jan 12 09:02	22°♅03'33	0.26527 AU
	3007 Jul 28 22:29	0°♂		morning rise	3010 Jan 18 03:24	18°♅38'47	
max. Earth dist.	3007 Aug 16 20:46	23°♂17'56	1.73297 AU	direct	3010 Feb 02 04:03	14°♅09'16	
				greatest brilliancy	3010 Feb 13 17:47	16°♅39'03	-4.7m
superior conj	3007 Aug 19 09:23	26°♂24'49	1°13'50		3010 Mar 06 08:54	0°♄	
minimum elong	3007 Aug 19 01:41	26°♂01'05	1°13'39	morning max el	3010 Mar 24 09:29	16°♄36'36	46°43'31
	3007 Aug 22 07:09	0°♄			3010 Apr 06 08:29	0°♄	
	3007 Sep 15 13:29	0°♄		desc. node	3010 Apr 18 06:51	12°♄57'34	
evening rise	3007 Sep 24 15:53	11°♄16'08			3010 May 03 10:45	0°♄	
	3007 Oct 09 18:36	0°♄			3010 May 29 08:37	0°♄	
desc. node	3007 Nov 01 11:47	28°♄09'16			3010 Jun 23 17:52	0°♂	
	3007 Nov 02 23:32	0°♄			3010 Jul 18 19:22	0°♄	
	3007 Nov 27 04:58	0°♅		asc. node	3010 Aug 09 09:53	26°♄08'18	
	3007 Dec 21 11:53	0°♄			3010 Aug 12 14:04	0°♂	
	3008 Jan 14 23:09	0°♄			3010 Sep 06 02:09	0°♄	
	3008 Feb 08 21:23	0°♄		morning set	3010 Sep 20 02:09	17°♄16'37	
asc. node	3008 Feb 22 14:38	16°♄03'48			3010 Sep 30 08:29	0°♄	
	3008 Mar 05 20:44	0°♄			3010 Oct 24 10:43	0°♄	
evening max el	3008 Mar 29 11:37	25°♄05'33	46°18'24	max. Earth dist.	3010 Oct 24 12:39	0°♄06'01	1.72022 AU
	3008 Apr 03 12:27	0°♂					
greatest brilliancy	3008 May 03 13:30	22°♂53'28	-4.5m	superior conj	3010 Oct 27 08:15	3°♄37'01	1°07'44
retrograde	3008 May 18 03:30	26°♂40'31		minimum elong	3010 Oct 27 17:58	4°♄07'23	1°07'27
evening set	3008 Jun 02 08:55	22°♂10'13			3010 Nov 17 10:39	0°♄	
inferior conj	3008 Jun 08 13:15	18°♂26'15	1°06'11	desc. node	3010 Nov 28 23:37	14°♄27'02	
minimum elong	3008 Jun 08 15:41	18°♂22'25	1°05'27	evening rise	3010 Dec 05 20:36	23°♄03'45	
min. Earth dist.	3008 Jun 08 10:37	18°♂30'24	0.28697 AU		3010 Dec 11 09:29	0°♅	
desc. node	3008 Jun 13 04:13	15°♂35'47			3011 Jan 04 08:08	0°♄	
morning rise	3008 Jun 14 22:45	14°♂35'29			3011 Jan 28 07:55	0°♄	
direct	3008 Jun 29 23:55	10°♂13'54			3011 Feb 21 11:25	0°♄	
greatest brilliancy	3008 Jul 12 20:45	13°♂07'59	-4.5m		3011 Mar 17 22:44	0°♄	
	3008 Aug 06 19:46	0°♄		asc. node	3011 Mar 22 02:39	5°♄02'41	
morning max el	3008 Aug 17 15:34	9°♄50'08	45°43'54		3011 Apr 11 23:55	0°♂	
	3008 Sep 06 13:01	0°♂			3011 May 08 01:36	0°♄	
	3008 Oct 03 13:00	0°♄			3011 Jun 05 07:35	0°♂	
asc. node	3008 Oct 04 07:37	0°♄53'35		evening max el	3011 Jun 09 01:36	3°♂39'49	45°29'28
	3008 Oct 29 00:38	0°♄		desc. node	3011 Jul 11 16:17	29°♂06'58	
	3008 Nov 22 16:42	0°♄			3011 Jul 13 11:58	0°♄	
	3008 Dec 16 22:07	0°♄		greatest brilliancy	3011 Jul 14 00:35	0°♄14'23	-4.5m
	3009 Jan 09 22:17	0°♅		retrograde	3011 Jul 27 18:35	3°♄32'07	
desc. node	3009 Jan 23 21:11	17°♅29'54			3011 Aug 10 05:34	30°♄♂	
	3009 Feb 02 20:19	0°♄		evening set	3011 Aug 13 11:00	28°♂14'45	
morning set	3009 Feb 17 12:35	18°♄25'10		inferior conj	3011 Aug 18 05:37	25°♂20'20	-7°-22'-35
	3009 Feb 26 18:10	0°♄		minimum elong	3011 Aug 17 20:44	25°♂34'11	7°21'17
	3009 Mar 22 17:19	0°♄		min. Earth dist.	3011 Aug 18 06:01	25°♂19'42	0.29020 AU
				morning rise	3011 Aug 22 06:24	22°♂51'53	
superior conj	3009 Mar 30 04:18	9°♄18'39	-1°-23'-52	direct	3011 Sep 08 20:38	17°♂02'39	
minimum elong	3009 Mar 30 09:34	9°♄35'04	1°23'50	greatest brilliancy	3011 Sep 23 03:56	20°♂38'29	-4.5m
max. Earth dist.	3009 Apr 03 05:54	14°♄22'50	1.72025 AU		3011 Oct 07 23:43	0°♄	
	3009 Apr 15 19:07	0°♄		morning max el	3011 Oct 28 12:14	18°♄16'20	46°15'44
evening rise	3009 May 08 10:43	28°♄03'14		asc. node	3011 Nov 01 19:18	22°♄34'46	
	3009 May 10 00:34	0°♂			3011 Nov 08 22:31	0°♄	
asc. node	3009 May 17 00:23	8°♂37'17			3011 Dec 05 18:49	0°♄	
	3009 Jun 03 10:04	0°♄			3011 Dec 31 00:57	0°♄	
	3009 Jun 27 23:57	0°♂			3012 Jan 24 14:50	0°♅	
	3009 Jul 22 19:18	0°♄			3012 Feb 17 21:40	0°♄	
	3009 Aug 16 22:35	0°♄		desc. node	3012 Feb 21 09:08	4°♄18'38	
desc. node	3009 Sep 05 13:56	23°♄01'55			3012 Mar 13 01:52	0°♄	
	3009 Sep 11 14:26	0°♄			3012 Apr 06 05:50	0°♄	
	3009 Oct 08 04:16	0°♄			3012 Apr 30 11:03	0°♄	
evening max el	3009 Nov 02 22:05	27°♄04'53	46°49'53	morning set	3012 May 02 20:26	2°♄57'26	
	3009 Nov 05 21:34	0°♅			3012 May 24 18:11	0°♂	
greatest brilliancy	3009 Dec 11 17:32	27°♅01'37	-4.7m				
retrograde	3009 Dec 23 05:51	29°♅30'45		superior conj	3012 Jun 09 11:46	19°♂22'30	0°-9'-35

minimum elong	2012 Jun 09 13:50	19°II28'50	0°09'30	min. Earth dist.	2014 Oct 29 06:50	4°ML00'30	0.27626 AU
behind sun begin	2012 Jun 08 19:07	18°II31'15		morning rise	2014 Nov 02 07:28	1°ML36'12	
behind sun end	2012 Jun 10 08:33	20°II26'24			2014 Nov 05 07:22	30°RL	
max. Earth dist.	2012 Jun 10 18:37	20°II57'24	1.73376 AU	direct	2014 Nov 18 07:56	26°L37'11	
asc. node	2012 Jun 13 12:10	24°II19'02		asc. node	2014 Nov 29 07:02	28°L51'34	
	2012 Jun 18 03:02	0°S			2014 Dec 01 22:38	0°ML	
	2012 Jul 12 12:54	0°L		greatest brilliancy	2014 Dec 02 10:05	0°ML13'37	-4.6m
evening rise	2012 Jul 16 00:39	4°L17'12		morning max el	2015 Jan 07 23:42	29°ML51'11	46°54'47
	2012 Aug 05 23:28	0°ML			2015 Jan 08 03:10	0°L	
	2012 Aug 30 11:19	0°L			2015 Feb 04 16:39	0°S	
	2012 Sep 24 01:40	0°ML			2015 Mar 02 09:46	0°L	
desc. node	2012 Oct 03 01:56	10°ML56'32		desc. node	2015 Mar 20 20:59	22°L05'52	
	2012 Oct 18 19:58	0°L			2015 Mar 27 10:16	0°L	
	2012 Nov 12 20:16	0°S			2015 Apr 21 03:49	0°Y	
	2012 Dec 08 08:02	0°L			2015 May 15 18:43	0°L	
	2013 Jan 04 00:26	0°L			2015 Jun 09 08:44	0°II	
evening max el	2013 Jan 14 13:16	11°L04'12	47°13'23		2015 Jul 03 21:48	0°S	
asc. node	2013 Jan 24 04:52	20°L33'04		morning set	2015 Jul 11 16:30	9°S31'39	
	2013 Feb 03 21:40	0°Y		asc. node	2015 Jul 12 00:06	9°S54'57	
greatest brilliancy	2013 Feb 21 04:03	11°Y22'19	-4.7m		2015 Jul 28 09:00	0°L	
retrograde	2013 Mar 06 09:57	14°Y36'49		max. Earth dist.	2015 Aug 14 16:26	21°L18'17	1.73328 AU
evening set	2013 Mar 24 08:47	8°Y21'13					
inferior conj	2013 Mar 27 08:01	6°Y30'26	8°41'58	superior conj	2015 Aug 17 03:35	24°L20'36	1°12'13
minimum elong	2013 Mar 27 12:11	6°Y23'54	8°41'44	minimum elong	2015 Aug 16 19:35	23°L55'57	1°12'01
min. Earth dist.	2013 Mar 26 21:18	6°Y47'14	0.27773 AU		2015 Aug 21 17:39	0°ML	
morning rise	2013 Mar 30 15:49	4°Y27'19			2015 Sep 15 00:06	0°L	
	2013 Apr 08 19:10	30°RL		evening rise	2015 Sep 22 08:40	9°L06'27	
direct	2013 Apr 17 04:53	28°L34'02			2015 Oct 09 05:25	0°ML	
	2013 Apr 25 22:18	0°Y		desc. node	2015 Oct 31 13:44	27°ML41'00	
greatest brilliancy	2013 Apr 28 05:09	0°Y48'13	-4.6m		2015 Nov 02 10:38	0°L	
desc. node	2013 May 15 18:24	11°Y12'06			2015 Nov 26 16:23	0°S	
morning max el	2013 Jun 05 11:19	29°Y19'22	45°59'11		2015 Dec 20 23:44	0°L	
	2013 Jun 06 04:07	0°L			2016 Jan 14 11:38	0°L	
	2013 Jul 04 23:51	0°II			2016 Feb 08 11:01	0°Y	
	2013 Jul 31 16:39	0°S		asc. node	2016 Feb 21 16:43	15°Y27'34	
	2013 Aug 26 09:14	0°L			2016 Mar 05 12:52	0°L	
asc. node	2013 Sep 05 21:43	12°L31'57		evening max el	2016 Mar 27 01:42	22°L48'01	46°20'39
	2013 Sep 20 09:37	0°ML			2016 Apr 03 12:34	0°II	
	2013 Oct 14 22:00	0°L		greatest brilliancy	2016 May 01 05:28	20°II42'34	-4.5m
	2013 Nov 08 02:11	0°ML		retrograde	2016 May 15 19:50	24°II30'49	
morning set	2013 Nov 30 08:52	27°ML52'18		evening set	2016 May 31 02:28	19°II58'20	
	2013 Dec 02 01:35	0°L		inferior conj	2016 Jun 06 05:28	16°II16'33	1°26'13
	2013 Dec 25 22:41	0°S		minimum elong	2016 Jun 06 08:37	16°II11'36	1°25'18
desc. node	2013 Dec 26 11:26	0°S40'05		min. Earth dist.	2016 Jun 06 03:18	16°II19'56	0.28677 AU
				desc. node	2016 Jun 12 06:20	12°II37'44	
superior conj	2014 Jan 10 03:24	19°S07'04	0°-34'-18	morning rise	2016 Jun 12 15:01	12°II25'45	
minimum elong	2014 Jan 09 18:51	18°S40'11	0°33'56	direct	2016 Jun 27 15:10	8°II04'16	
max. Earth dist.	2014 Jan 10 08:46	19°S23'56	1.71092 AU	greatest brilliancy	2016 Jul 10 12:36	10°II58'43	-4.5m
	2014 Jan 18 18:59	0°L			2016 Aug 06 22:58	0°S	
	2014 Feb 11 15:39	0°L		morning max el	2016 Aug 15 07:24	7°S40'36	45°43'37
evening rise	2014 Feb 20 09:24	10°L58'02			2016 Sep 06 05:35	0°L	
	2014 Mar 07 14:19	0°Y		asc. node	2016 Oct 03 09:36	0°ML20'21	
	2014 Mar 31 17:04	0°L			2016 Oct 03 02:33	0°ML	
asc. node	2014 Apr 18 14:31	22°L03'17			2016 Oct 28 12:55	0°L	
	2014 Apr 25 02:11	0°II			2016 Nov 22 04:21	0°ML	
	2014 May 19 20:03	0°S			2016 Dec 16 09:26	0°L	
	2014 Jun 14 02:10	0°L			2017 Jan 09 09:23	0°S	
	2014 Jul 10 04:03	0°ML		desc. node	2017 Jan 22 23:18	17°S01'56	
	2014 Aug 06 21:12	0°L			2017 Feb 02 07:17	0°L	
desc. node	2014 Aug 08 04:07	1°L19'18		morning set	2017 Feb 14 22:40	15°L52'00	
evening max el	2014 Aug 19 11:49	12°L32'36	45°44'17		2017 Feb 26 05:00	0°L	
	2014 Sep 08 17:09	0°ML			2017 Mar 22 04:03	0°Y	
greatest brilliancy	2014 Sep 26 12:38	10°ML19'43	-4.5m				
retrograde	2014 Oct 07 08:01	12°ML25'29		superior conj	2017 Mar 27 17:08	6°Y55'35	-1°-24'-42
evening set	2014 Oct 24 03:02	7°ML07'32		minimum elong	2017 Mar 27 21:33	7°Y09'23	1°24'41
inferior conj	2014 Oct 28 07:24	4°ML36'34	-6°-58'-53	max. Earth dist.	2017 Mar 31 16:03	11°Y51'39	1.71969 AU
minimum elong	2014 Oct 28 17:31	4°ML21'00	6°57'00		2017 Apr 15 05:47	0°L	

evening rise	3017 May 06 01:52	25° U 48'57		asc. node	3019 Oct 31 21:19	21° M 48'41	
	3017 May 09 11:13	0° II			3019 Nov 08 16:42	0° U	
asc. node	3017 May 16 02:24	8° II 10'36			3019 Dec 05 09:20	0° M	
	3017 Jun 02 20:49	0° S			3019 Dec 30 13:57	0° J	
	3017 Jun 27 10:59	0° Q			3020 Jan 24 03:03	0° Z	
	3017 Jul 22 06:49	0° M			3020 Feb 17 09:26	0° \approx	
	3017 Aug 16 10:58	0° U		desc. node	3020 Feb 20 11:06	3° \approx 48'27	
desc. node	3017 Sep 04 15:57	22° U 28'53			3020 Mar 12 13:18	0° K	
	3017 Sep 11 04:19	0° M			3020 Apr 05 17:00	0° Y	
	3017 Oct 07 21:08	0° J			3020 Apr 29 22:00	0° U	
evening max el	3017 Oct 31 11:52	24° J 42'51	46°47'51	morning set	3020 Apr 30 11:42	0° U 42'23	
	3017 Nov 05 22:47	0° Z			3020 May 24 04:59	0° II	
greatest brilliancy	3017 Dec 09 06:08	24° Z 33'11	-4.7m				
retrograde	3017 Dec 20 18:44	27° Z 02'07		superior conj	3020 Jun 07 04:46	17° II 14'00	0°-12'-51
asc. node	3017 Dec 26 19:05	26° Z 17'12		minimum elong	3020 Jun 07 07:31	17° II 22'29	0°12'44
evening set	3018 Jan 04 05:10	22° Z 53'10		behind sun begin	3020 Jun 06 17:30	16° II 39'19	
inferior conj	3018 Jan 10 07:35	19° Z 19'22	3°40'49	behind sun end	3020 Jun 07 21:33	18° II 05'40	
minimum elong	3018 Jan 09 23:44	19° Z 31'19	3°38'28	max. Earth dist.	3020 Jun 08 16:46	19° II 04'49	1.73343 AU
min. Earth dist.	3018 Jan 09 22:09	19° Z 33'43	0.26514 AU	asc. node	3020 Jun 12 14:19	23° II 52'39	
morning rise	3018 Jan 15 18:25	16° Z 06'56			3020 Jun 17 13:45	0° S	
direct	3018 Jan 30 16:43	11° Z 40'53			3020 Jul 11 23:39	0° Q	
greatest brilliancy	3018 Feb 11 07:44	14° Z 12'43	-4.7m	evening rise	3020 Jul 13 19:24	2° Q 14'22	
	3018 Mar 06 18:50	0° \approx			3020 Aug 05 10:22	0° M	
morning max el	3018 Mar 21 23:56	14° \approx 15'40	46°44'58		3020 Aug 29 22:31	0° U	
	3018 Apr 06 03:15	0° K			3020 Sep 23 13:22	0° M	
desc. node	3018 Apr 17 08:45	12° K 16'57		desc. node	3020 Oct 02 03:51	10° M 26'10	
	3018 May 03 01:29	0° Y			3020 Oct 18 08:24	0° J	
	3018 May 28 21:31	0° U			3020 Nov 12 09:47	0° Z	
	3018 Jun 23 05:44	0° II			3020 Dec 07 23:26	0° \approx	
	3018 Jul 18 06:37	0° S			3021 Jan 03 20:01	0° K	
asc. node	3018 Aug 08 11:54	25° S 41'07		evening max el	3021 Jan 12 03:43	8° K 41'34	47°13'56
	3018 Aug 12 00:59	0° Q		asc. node	3021 Jan 23 06:54	19° K 33'44	
	3018 Sep 05 12:54	0° M			3021 Feb 04 11:53	0° Y	
morning set	3018 Sep 17 19:03	15° M 07'22		greatest brilliancy	3021 Feb 18 21:15	9° Y 03'38	-4.7m
	3018 Sep 29 19:11	0° U		retrograde	3021 Mar 04 00:13	12° Y 14'48	
max. Earth dist.	3018 Oct 22 02:38	27° U 46'25	1.72068 AU	evening set	3021 Mar 22 00:18	5° Y 58'10	
	3018 Oct 23 21:27	0° M		inferior conj	3021 Mar 24 22:12	4° Y 09'16	8°46'33
				minimum elong	3021 Mar 25 01:33	4° Y 04'01	8°46'23
superior conj	3018 Oct 24 23:06	1° M 20'01	1°09'48	min. Earth dist.	3021 Mar 24 10:53	4° Y 27'01	0.27727 AU
minimum elong	3018 Oct 25 08:31	1° M 49'26	1°09'32	morning rise	3021 Mar 28 03:01	2° Y 10'29	
	3018 Nov 16 21:28	0° J			3021 Mar 31 23:18	30° R K	
desc. node	3018 Nov 28 01:41	13° J 59'20		direct	3021 Apr 14 18:28	26° K 13'48	
evening rise	3018 Dec 03 08:27	20° J 36'18		greatest brilliancy	3021 Apr 25 17:13	28° K 26'11	-4.6m
	3018 Dec 10 20:28	0° Z			3021 Apr 29 07:33	0° Y	
	3019 Jan 03 19:18	0° \approx		desc. node	3021 May 14 20:32	10° Y 02'36	
	3019 Jan 27 19:19	0° K		morning max el	3021 Jun 03 00:52	27° Y 00'18	46°00'32
	3019 Feb 20 23:06	0° Y			3021 Jun 06 02:27	0° U	
	3019 Mar 17 10:53	0° U			3021 Jul 04 15:42	0° II	
asc. node	3019 Mar 21 04:36	4° U 31'29			3021 Jul 31 06:03	0° S	
	3019 Apr 11 12:59	0° II			3021 Aug 25 21:26	0° Q	
	3019 May 07 16:42	0° S		asc. node	3021 Sep 04 23:43	12° Q 02'24	
	3019 Jun 05 04:30	0° Q			3021 Sep 19 21:10	0° M	
evening max el	3019 Jun 06 18:20	1° Q 31'44	45°30'14		3021 Oct 14 09:14	0° U	
desc. node	3019 Jul 10 18:20	27° Q 40'06			3021 Nov 07 13:18	0° M	
greatest brilliancy	3019 Jul 11 15:15	28° Q 04'16	-4.5m	morning set	3021 Nov 27 21:36	25° M 26'55	
	3019 Jul 16 16:53	0° M			3021 Dec 01 12:42	0° J	
retrograde	3019 Jul 25 10:45	1° M 23'16			3021 Dec 25 09:49	0° Z	
	3019 Aug 02 19:42	30° R Q		desc. node	3021 Dec 25 13:32	0° Z 11'43	
evening set	3019 Aug 11 00:08	26° Q 10'27					
inferior conj	3019 Aug 15 21:51	23° Q 11'09	-7°-12'00	superior conj	3022 Jan 07 13:26	16° Z 32'41	0°-30'-35
minimum elong	3019 Aug 15 12:41	23° Q 25'30	7°10'33	minimum elong	3022 Jan 07 05:42	16° Z 08'21	0°30'14
min. Earth dist.	3019 Aug 15 21:19	23° Q 12'00	0.29031 AU	max. Earth dist.	3022 Jan 07 11:11	16° Z 25'34	1.71098 AU
morning rise	3019 Aug 20 01:10	20° Q 38'45			3022 Jan 18 06:07	0° \approx	
direct	3019 Sep 06 13:31	14° Q 53'35			3022 Feb 11 02:48	0° K	
greatest brilliancy	3019 Sep 20 18:03	18° Q 26'12	-4.5m	evening rise	3022 Feb 17 19:35	8° K 24'25	
	3019 Oct 08 10:24	0° M			3022 Mar 07 01:31	0° Y	
morning max el	3019 Oct 26 03:38	16° M 02'15	46°14'02		3022 Mar 31 04:25	0° U	

asc. node	2022 Apr 17 16:34	21°♄34'19			2024 Oct 28 01:29	0°♊	
	2022 Apr 24 13:47	0°♈			2024 Nov 21 16:18	0°♌	
	2022 May 19 08:07	0°♉			2024 Dec 15 21:03	0°♍	
	2022 Jun 13 15:08	0°♊			2025 Jan 08 20:48	0°♎	
	2022 Jul 09 18:50	0°♋		desc. node	2025 Jan 22 01:15	16°♏32'24	
	2022 Aug 06 16:32	0°♌			2025 Feb 01 18:35	0°♐	
desc. node	2022 Aug 07 06:07	0°♌34'33		morning set	2025 Feb 12 08:31	13°♐16'54	
evening max el	2022 Aug 17 00:47	10°♌13'22	45°42'44		2025 Feb 25 16:14	0°♑	
	2022 Sep 09 11:15	0°♍			2025 Mar 21 15:12	0°♒	
greatest brilliancy	2022 Sep 24 00:46	7°♍59'42	-4.5m				
retrograde	2022 Oct 04 21:06	10°♍06'51		superior conj	2025 Mar 25 05:19	4°♒29'00	-1°-25'-23
evening set	2022 Oct 21 19:49	4°♍43'42		minimum elong	2025 Mar 25 08:49	4°♒39'56	1°25'22
inferior conj	2022 Oct 25 21:26	2°♍16'55	-7°-11'-36	max. Earth dist.	2025 Mar 29 02:00	9°♒18'16	1.71918 AU
minimum elong	2022 Oct 26 07:16	2°♍01'46	7°09'53		2025 Apr 14 16:53	0°♓	
min. Earth dist.	2022 Oct 26 21:11	1°♍40'23	0.27699 AU	evening rise	2025 May 03 16:21	23°♓31'11	
	2022 Oct 29 15:31	30°♎♊			2025 May 08 22:19	0°♈	
morning rise	2022 Oct 30 18:11	29°♊21'12		asc. node	2025 May 15 04:30	7°♈42'50	
direct	2022 Nov 15 22:11	24°♊16'07			2025 Jun 02 08:01	0°♉	
asc. node	2022 Nov 28 09:13	27°♊07'17			2025 Jun 26 22:27	0°♊	
greatest brilliancy	2022 Nov 30 03:15	27°♊55'31	-4.6m		2025 Jul 21 18:49	0°♋	
	2022 Dec 04 00:32	0°♌			2025 Aug 15 23:51	0°♌	
morning max el	2023 Jan 05 13:55	27°♌27'44	46°54'03	desc. node	2025 Sep 03 17:55	21°♌54'22	
	2023 Jan 08 01:17	0°♍			2025 Sep 10 18:45	0°♍	
	2023 Feb 04 08:59	0°♎			2025 Oct 07 14:43	0°♎	
	2023 Mar 01 23:51	0°♏		evening max el	2025 Oct 29 02:33	22°♎22'24	46°45'53
desc. node	2023 Mar 19 22:59	21°♏32'19			2025 Nov 06 01:44	0°♏	
	2023 Mar 26 23:08	0°♑		greatest brilliancy	2025 Dec 06 18:54	22°♏04'45	-4.6m
	2023 Apr 20 15:56	0°♒		retrograde	2025 Dec 18 07:40	24°♏33'00	
	2023 May 15 06:20	0°♓		asc. node	2025 Dec 25 21:01	23°♏22'15	
	2023 Jun 08 20:01	0°♈		evening set	2026 Jan 01 16:11	20°♏26'15	
	2023 Jul 03 08:51	0°♉		inferior conj	2026 Jan 07 19:50	16°♏50'38	3°18'07
morning set	2023 Jul 09 10:13	7°♉25'09		minimum elong	2026 Jan 07 12:40	17°♏01'32	3°15'56
asc. node	2023 Jul 11 02:05	9°♉27'18		min. Earth dist.	2026 Jan 07 11:19	17°♏03'37	0.26502 AU
	2023 Jul 27 19:55	0°♊		morning rise	2026 Jan 13 09:21	13°♏34'49	
max. Earth dist.	2023 Aug 12 13:18	19°♊21'06	1.73354 AU	direct	2026 Jan 28 05:46	9°♏12'23	
				greatest brilliancy	2026 Feb 08 21:05	11°♏45'08	-4.7m
superior conj	2023 Aug 14 21:51	22°♊15'21	1°10'30		2026 Mar 07 02:22	0°♐	
minimum elong	2023 Aug 14 13:35	21°♊49'52	1°10'16	morning max el	2026 Mar 19 13:57	11°♐52'45	46°46'03
	2023 Aug 21 04:33	0°♋			2026 Apr 05 21:52	0°♑	
	2023 Sep 14 11:05	0°♌		desc. node	2026 Apr 16 10:54	11°♑36'22	
evening rise	2023 Sep 20 01:45	6°♌56'42			2026 May 02 16:25	0°♒	
	2023 Oct 08 16:35	0°♍			2026 May 28 10:42	0°♓	
desc. node	2023 Oct 30 15:52	27°♍12'18			2026 Jun 22 17:56	0°♈	
	2023 Nov 01 22:04	0°♎			2026 Jul 17 18:11	0°♉	
	2023 Nov 26 04:12	0°♏		asc. node	2026 Aug 07 13:51	25°♉12'51	
	2023 Dec 20 12:02	0°♐			2026 Aug 11 12:11	0°♊	
	2024 Jan 14 00:40	0°♑			2026 Sep 04 23:56	0°♋	
	2024 Feb 08 01:19	0°♒		morning set	2026 Sep 15 11:47	12°♋56'48	
asc. node	2024 Feb 20 18:40	14°♒49'02			2026 Sep 29 06:09	0°♌	
	2024 Mar 05 05:54	0°♓		max. Earth dist.	2026 Oct 19 14:15	25°♌18'41	1.72114 AU
evening max el	2024 Mar 24 16:28	20°♓30'29	46°23'06				
	2024 Apr 03 14:41	0°♈		superior conj	2026 Oct 22 14:06	29°♌02'43	1°11'45
greatest brilliancy	2024 Apr 28 20:51	18°♈29'07	-4.5m	minimum elong	2026 Oct 22 23:10	29°♌31'01	1°11'30
retrograde	2024 May 13 12:22	22°♈19'04			2026 Oct 23 08:28	0°♍	
evening set	2024 May 28 19:58	17°♈44'07			2026 Nov 16 08:34	0°♎	
inferior conj	2024 Jun 03 21:27	14°♈04'40	1°46'22	desc. node	2026 Nov 27 03:46	13°♎30'57	
minimum elong	2024 Jun 04 01:19	13°♈58'36	1°45'13	evening rise	2026 Nov 30 20:32	18°♎08'48	
min. Earth dist.	2024 Jun 03 19:28	14°♈07'47	0.28655 AU		2026 Dec 10 07:41	0°♏	
morning rise	2024 Jun 10 06:56	10°♈14'16			2027 Jan 03 06:40	0°♐	
desc. node	2024 Jun 11 08:25	9°♈40'15			2027 Jan 27 06:51	0°♑	
direct	2024 Jun 25 06:38	5°♈52'30			2027 Feb 20 10:56	0°♒	
greatest brilliancy	2024 Jul 08 03:57	8°♈47'12	-4.5m		2027 Mar 16 23:14	0°♓	
	2024 Aug 07 01:17	0°♉		asc. node	2027 Mar 20 06:40	4°♓00'05	
morning max el	2024 Aug 12 23:57	5°♉31'31	45°43'24		2027 Apr 11 02:22	0°♈	
	2024 Sep 05 22:19	0°♊			2027 May 07 08:19	0°♉	
asc. node	2024 Oct 02 11:36	29°♊46'10		evening max el	2027 Jun 04 10:28	29°♉21'07	45°31'00
	2024 Oct 02 16:23	0°♋			2027 Jun 05 02:37	0°♊	

greatest brilliancy	3027 Jul 09 06:27	25°Ω53'38	-4.5m	desc. node	3029 Dec 24 15:28	29°𐌵43'13	
desc. node	3027 Jul 09 20:18	26°Ω09'03			3029 Dec 24 20:48	0°𐌹	
retrograde	3027 Jul 23 02:21	29°Ω13'19					
evening set	3027 Aug 08 13:13	24°Ω05'05		superior conj	3030 Jan 04 23:29	13°𐌹58'47	0°-26'-48
inferior conj	3027 Aug 13 14:01	21°Ω01'05	-7°00'-43	minimum elong	3030 Jan 04 16:37	13°𐌹37'09	0°26'30
minimum elong	3027 Aug 13 04:36	21°Ω15'50	6°59'08	max. Earth dist.	3030 Jan 04 14:53	13°𐌹31'44	1.71108 AU
min. Earth dist.	3027 Aug 13 12:55	21°Ω02'49	0.29039 AU		3030 Jan 17 17:07	0°≈	
morning rise	3027 Aug 17 19:55	18°Ω24'32			3030 Feb 10 13:48	0°𐌵	
direct	3027 Sep 04 05:51	12°Ω43'37		evening rise	3030 Feb 15 05:53	5°𐌵51'37	
greatest brilliancy	3027 Sep 18 07:59	16°Ω12'53	-4.5m		3030 Mar 06 12:33	0°𐌵	
	3027 Oct 08 18:32	0°𐌵			3030 Mar 30 15:32	0°𐌵	
morning max el	3027 Oct 23 17:57	13°𐌵44'58	46°12'23	asc. node	3030 Apr 16 18:42	21°𐌵06'22	
asc. node	3027 Oct 30 23:29	21°𐌵03'04			3030 Apr 24 01:07	0°𐌵	
	3027 Nov 08 10:40	0°𐌵			3030 May 18 19:54	0°𐌵	
	3027 Dec 04 23:51	0°𐌵			3030 Jun 13 03:51	0°Ω	
	3027 Dec 30 03:00	0°𐌵			3030 Jul 09 09:31	0°𐌵	
	3028 Jan 23 15:19	0°𐌹		desc. node	3030 Aug 06 08:08	29°𐌵49'48	
	3028 Feb 16 21:12	0°≈			3030 Aug 06 12:11	0°𐌵	
desc. node	3028 Feb 19 13:07	3°≈18'25		evening max el	3030 Aug 14 14:20	7°𐌵56'21	45°41'09
	3028 Mar 12 00:42	0°𐌵			3030 Sep 10 11:23	0°𐌵	
	3028 Apr 05 04:07	0°𐌵		greatest brilliancy	3030 Sep 21 11:58	5°𐌵39'30	-4.5m
morning set	3028 Apr 28 03:00	28°𐌵27'24		retrograde	3030 Oct 02 10:48	7°𐌵49'06	
	3028 Apr 29 08:56	0°𐌵		evening set	3030 Oct 19 12:34	2°𐌵20'44	
	3028 May 23 15:48	0°𐌵		inferior conj	3030 Oct 23 11:28	29°𐌵58'00	-7°-23'-28
				minimum elong	3030 Oct 23 21:00	29°𐌵43'21	7°21'54
superior conj	3028 Jun 04 21:40	15°𐌵05'05	0°-16'-6		3030 Oct 23 10:10	30°𐌵	
minimum elong	3028 Jun 05 01:06	15°𐌵15'42	0°15'57	min. Earth dist.	3030 Oct 24 11:11	29°𐌵21'34	0.27773 AU
max. Earth dist.	3028 Jun 06 13:24	17°𐌵07'22	1.73314 AU	morning rise	3030 Oct 28 04:54	27°𐌵07'13	
asc. node	3028 Jun 11 16:18	23°𐌵25'32		direct	3030 Nov 13 12:55	21°𐌵55'56	
	3028 Jun 17 00:32	0°𐌵		asc. node	3030 Nov 27 11:07	25°𐌵27'20	
	3028 Jul 11 10:29	0°Ω		greatest brilliancy	3030 Nov 27 20:22	25°𐌵38'25	-4.6m
evening rise	3028 Jul 11 13:54	0°Ω10'31			3030 Dec 05 09:18	0°𐌵	
	3028 Aug 04 21:21	0°𐌵		morning max el	3031 Jan 03 04:56	25°𐌵07'18	46°53'15
	3028 Aug 29 09:48	0°𐌵			3031 Jan 07 22:18	0°𐌵	
	3028 Sep 23 01:09	0°𐌵			3031 Feb 04 00:45	0°𐌹	
desc. node	3028 Oct 01 06:00	9°𐌵56'20			3031 Mar 01 13:30	0°≈	
	3028 Oct 17 20:56	0°𐌵		desc. node	3031 Mar 19 01:04	21°≈00'00	
	3028 Nov 11 23:29	0°𐌹			3031 Mar 26 11:38	0°𐌵	
	3028 Dec 07 15:05	0°≈			3031 Apr 20 03:42	0°𐌵	
	3029 Jan 03 16:11	0°𐌵			3031 May 14 17:36	0°𐌵	
evening max el	3029 Jan 09 17:29	6°𐌵17'09	47°14'31		3031 Jun 08 06:54	0°𐌵	
asc. node	3029 Jan 22 08:55	18°𐌵33'10			3031 Jul 02 19:29	0°𐌵	
	3029 Feb 05 06:43	0°𐌵		morning set	3031 Jul 07 04:17	5°𐌵20'57	
greatest brilliancy	3029 Feb 16 14:26	6°𐌵45'14	-4.7m	asc. node	3031 Jul 10 04:04	9°𐌵00'54	
retrograde	3029 Mar 01 14:25	9°𐌵53'36			3031 Jul 27 06:26	0°Ω	
evening set	3029 Mar 19 15:33	3°𐌵36'30		max. Earth dist.	3031 Aug 10 11:48	17°Ω30'05	1.73384 AU
min. Earth dist.	3029 Mar 22 00:55	2°𐌵07'19	0.27678 AU				
inferior conj	3029 Mar 22 12:33	1°𐌵49'03	8°50'08	superior conj	3031 Aug 12 16:18	20°Ω11'51	1°08'42
minimum elong	3029 Mar 22 15:04	1°𐌵45'06	8°50'02	minimum elong	3031 Aug 12 07:49	19°Ω45'41	1°08'27
	3029 Mar 25 10:51	30°𐌵			3031 Aug 20 15:05	0°𐌵	
morning rise	3029 Mar 25 14:45	29°𐌵54'06			3031 Sep 13 21:45	0°𐌵	
direct	3029 Apr 12 07:40	23°𐌵54'23		evening rise	3031 Sep 17 19:00	4°𐌵48'28	
greatest brilliancy	3029 Apr 23 06:16	26°𐌵06'06	-4.6m		3031 Oct 08 03:28	0°𐌵	
	3029 May 01 05:22	0°𐌵		desc. node	3031 Oct 29 17:54	26°𐌵44'08	
desc. node	3029 May 13 22:37	8°𐌵55'46			3031 Nov 01 09:14	0°𐌵	
morning max el	3029 May 31 14:18	24°𐌵41'33	46°01'51		3031 Nov 25 15:43	0°𐌹	
	3029 Jun 05 23:41	0°𐌵			3031 Dec 20 00:03	0°≈	
	3029 Jul 04 07:06	0°𐌵			3032 Jan 13 13:26	0°𐌵	
	3029 Jul 30 19:13	0°𐌵			3032 Feb 07 15:24	0°𐌵	
	3029 Aug 25 09:30	0°Ω		asc. node	3032 Feb 19 20:45	14°𐌵11'37	
asc. node	3029 Sep 04 01:48	11°Ω33'22			3032 Mar 04 22:53	0°𐌵	
	3029 Sep 19 08:37	0°𐌵		evening max el	3032 Mar 22 08:18	18°𐌵16'39	46°25'33
	3029 Oct 13 20:22	0°𐌵			3032 Apr 03 17:50	0°𐌵	
greatest brilliancy	3029 Nov 06 06:18	29°𐌵03'55	-3.9m	greatest brilliancy	3032 Apr 26 13:17	16°𐌵18'23	-4.6m
	3029 Nov 07 00:17	0°𐌵		retrograde	3032 May 11 05:22	20°𐌵08'42	
morning set	3029 Nov 25 10:24	23°𐌵02'10		evening set	3032 May 26 13:46	15°𐌵31'22	
	3029 Nov 30 23:39	0°𐌵		inferior conj	3032 Jun 01 13:33	11°𐌵54'14	2°06'17

minimum elong	3032 Jun 01 18:06	11°II47'06	2°04'57	evening rise	3034 Nov 28 08:55	15°X43'18	
min. Earth dist.	3032 Jun 01 11:26	11°II57'33	0.28629 AU		3034 Dec 09 18:37	0°Z	
morning rise	3032 Jun 07 22:48	8°II04'35			3035 Jan 02 17:48	0°≈	
desc. node	3032 Jun 10 10:19	6°II48'07			3035 Jan 26 18:13	0°X	
direct	3032 Jun 22 22:40	3°II42'30			3035 Feb 19 22:35	0°Y	
greatest brilliancy	3032 Jul 05 18:17	6°II36'11	-4.5m		3035 Mar 16 11:26	0°8	
	3032 Aug 07 01:32	0°S		asc. node	3035 Mar 19 08:45	3°829'19	
morning max el	3032 Aug 10 16:50	3°S24'54	45°43'10		3035 Apr 10 15:38	0°II	
	3032 Sep 05 14:11	0°Q			3035 May 06 23:56	0°S	
asc. node	3032 Oct 01 13:44	29°Q13'52		evening max el	3035 Jun 02 01:49	27°S09'20	45°31'55
	3032 Oct 02 05:39	0°P			3035 Jun 05 01:19	0°Q	
	3032 Oct 27 13:38	0°A		greatest brilliancy	3035 Jul 06 21:38	23°Q43'59	-4.5m
	3032 Nov 21 03:54	0°M		desc. node	3035 Jul 08 22:25	24°Q36'06	
	3032 Dec 15 08:20	0°X		retrograde	3035 Jul 20 17:56	27°Q04'56	
	3033 Jan 08 07:54	0°Z		evening set	3035 Aug 06 02:33	22°Q00'57	
desc. node	3033 Jan 21 03:20	16°Z04'17		inferior conj	3035 Aug 11 06:23	18°Q52'36	-6°-48'-50
	3033 Feb 01 05:33	0°≈		minimum elong	3035 Aug 10 20:46	19°Q07'40	6°47'09
morning set	3033 Feb 09 18:16	10°≈42'36		min. Earth dist.	3035 Aug 11 04:57	18°Q54'49	0.29042 AU
	3033 Feb 25 03:06	0°X		morning rise	3035 Aug 15 14:53	16°Q11'58	
	3033 Mar 21 02:00	0°Y		direct	3035 Sep 01 21:54	10°Q35'07	
				greatest brilliancy	3035 Sep 15 22:56	14°Q02'13	-4.5m
superior conj	3033 Mar 22 17:18	2°Y02'49	-1°-25'-54		3035 Oct 08 23:44	0°P	
minimum elong	3033 Mar 22 19:51	2°Y10'48	1°25'55	morning max el	3035 Oct 21 07:56	11°P28'11	46°10'54
max. Earth dist.	3033 Mar 26 14:10	6°Y52'50	1.71868 AU	asc. node	3035 Oct 30 01:25	20°P18'43	
	3033 Apr 14 03:38	0°8			3035 Nov 08 03:47	0°A	
evening rise	3033 May 01 06:46	21°814'16			3035 Dec 04 13:50	0°M	
	3033 May 08 09:03	0°II			3035 Dec 29 15:40	0°X	
asc. node	3033 May 14 06:29	7°II15'48			3036 Jan 23 03:20	0°Z	
	3033 Jun 01 18:51	0°S			3036 Feb 16 08:48	0°≈	
	3033 Jun 26 09:32	0°Q		desc. node	3036 Feb 18 15:16	2°≈49'07	
	3033 Jul 21 06:23	0°P			3036 Mar 11 12:00	0°X	
	3033 Aug 15 12:19	0°A			3036 Apr 04 15:09	0°Y	
desc. node	3033 Sep 02 20:04	21°A21'32		morning set	3036 Apr 25 17:41	26°Y10'46	
	3033 Sep 10 08:51	0°M			3036 Apr 28 19:45	0°8	
	3033 Oct 07 08:15	0°X			3036 May 23 02:30	0°II	
evening max el	3033 Oct 26 17:14	20°X02'59	46°43'31				
	3033 Nov 06 05:57	0°Z		superior conj	3036 Jun 02 14:15	12°II55'36	0°-19'-21
greatest brilliancy	3033 Dec 04 08:27	19°Z37'50	-4.6m	minimum elong	3036 Jun 02 18:22	13°II08'18	0°19'11
retrograde	3033 Dec 15 20:02	22°Z04'06		max. Earth dist.	3036 Jun 04 08:28	15°II05'35	1.73280 AU
asc. node	3033 Dec 24 23:03	20°Z21'42		asc. node	3036 Jun 10 18:17	22°II58'52	
evening set	3033 Dec 30 03:20	17°Z59'32			3036 Jun 16 11:11	0°S	
inferior conj	3034 Jan 05 07:58	14°Z22'22	2°54'49	evening rise	3036 Jul 09 08:20	28°S06'55	
minimum elong	3034 Jan 05 01:33	14°Z32'09	2°52'50		3036 Jul 10 21:10	0°Q	
min. Earth dist.	3034 Jan 05 00:40	14°Z33'29	0.26494 AU		3036 Aug 04 08:12	0°P	
morning rise	3034 Jan 10 23:57	11°Z03'07			3036 Aug 28 20:56	0°A	
direct	3034 Jan 25 18:30	6°Z44'22			3036 Sep 22 12:46	0°M	
greatest brilliancy	3034 Feb 06 10:34	9°Z17'58	-4.7m	desc. node	3036 Sep 30 08:02	9°M26'46	
	3034 Mar 07 07:26	0°≈			3036 Oct 17 09:18	0°X	
morning max el	3034 Mar 17 02:54	9°≈27'46	46°47'11		3036 Nov 11 13:00	0°Z	
	3034 Apr 05 15:43	0°X			3036 Dec 07 06:42	0°≈	
desc. node	3034 Apr 15 12:59	10°X57'00			3037 Jan 03 12:47	0°X	
	3034 May 02 06:49	0°Y		evening max el	3037 Jan 07 06:35	3°X51'32	47°14'46
	3034 May 27 23:27	0°8		asc. node	3037 Jan 21 11:00	17°X31'31	
	3034 Jun 22 05:42	0°II			3037 Feb 06 08:24	0°Y	
	3034 Jul 17 05:22	0°S		greatest brilliancy	3037 Feb 14 06:21	4°Y24'41	-4.7m
asc. node	3034 Aug 06 16:00	24°S46'18		retrograde	3037 Feb 27 04:20	7°Y31'40	
	3034 Aug 10 23:01	0°Q		evening set	3037 Mar 17 06:01	1°Y14'31	
	3034 Sep 04 10:34	0°P			3037 Mar 19 06:07	30°R8	
morning set	3034 Sep 13 05:03	10°P49'10		min. Earth dist.	3037 Mar 19 14:40	29°X46'36	0.27636 AU
	3034 Sep 28 16:44	0°A		inferior conj	3037 Mar 20 02:39	29°X27'51	8°52'39
max. Earth dist.	3034 Oct 17 02:48	22°A55'08	1.72166 AU	minimum elong	3037 Mar 20 04:16	29°X25'18	8°52'38
				morning rise	3037 Mar 23 02:40	27°X36'15	
superior conj	3034 Oct 20 05:43	26°A48'39	1°13'32	direct	3037 Apr 09 20:38	21°X33'39	
minimum elong	3034 Oct 20 14:22	27°A15'36	1°13'19	greatest brilliancy	3037 Apr 20 20:11	23°X46'05	-4.6m
	3034 Oct 22 19:05	0°M			3037 May 02 12:50	0°Y	
	3034 Nov 15 19:20	0°X		desc. node	3037 May 13 00:33	7°Y49'49	
desc. node	3034 Nov 26 05:45	13°X03'11		morning max el	3037 May 29 04:03	22°Y23'00	46°03'19

	3037 Jun 05 20:19	0°♄			3039 Dec 19 12:19	0°♁	
	3037 Jul 03 22:21	0°♂			3040 Jan 13 02:26	0°♁	
	3037 Jul 30 08:18	0°♁			3040 Feb 07 05:45	0°♂	
	3037 Aug 24 21:29	0°♂		asc. node	3040 Feb 18 22:50	13°♂33'36	
asc. node	3037 Sep 03 03:49	11°♂04'18			3040 Mar 04 16:20	0°♄	
	3037 Sep 18 20:00	0°♂		evening max el	3040 Mar 20 00:28	16°♄03'10	46°27'48
	3037 Oct 13 07:26	0°♂			3040 Apr 03 22:59	0°♂	
	3037 Nov 06 11:14	0°♂		greatest brilliancy	3040 Apr 24 06:28	14°♂07'51	-4.6m
greatest brilliancy	3037 Nov 11 21:04	6°♂45'15	-3.9m	retrograde	3040 May 08 22:06	17°♂57'04	
morning set	3037 Nov 22 23:51	20°♂39'48		evening set	3040 May 24 07:39	13°♂17'27	
	3037 Nov 30 10:33	0°♄		inferior conj	3040 May 30 05:33	9°♂42'35	2°26'04
desc. node	3037 Dec 23 17:34	29°♄15'36		minimum elong	3040 May 30 10:46	9°♂34'24	2°24'33
	3037 Dec 24 07:42	0°♄		min. Earth dist.	3040 May 30 03:15	9°♂46'11	0.28608 AU
				morning rise	3040 Jun 05 14:21	5°♂53'44	
superior conj	3038 Jan 02 10:04	11°♄26'48	0°-23'-1	desc. node	3040 Jun 09 12:29	3°♂58'01	
minimum elong	3038 Jan 02 04:06	11°♄08'02	0°22'45	direct	3040 Jun 20 14:56	1°♂31'20	
max. Earth dist.	3038 Jan 01 23:04	10°♄52'12	1.71121 AU	greatest brilliancy	3040 Jul 03 07:56	4°♂22'57	-4.5m
	3038 Jan 17 04:02	0°♁			3040 Aug 07 01:14	0°♁	
	3038 Feb 10 00:46	0°♁		morning max el	3040 Aug 08 09:08	1°♁15'37	45°42'53
evening rise	3038 Feb 12 16:29	3°♁19'53			3040 Sep 05 06:14	0°♂	
	3038 Mar 05 23:37	0°♂		asc. node	3040 Sep 30 15:42	28°♂40'08	
	3038 Mar 30 02:45	0°♄			3040 Oct 01 19:12	0°♂	
asc. node	3038 Apr 15 20:36	20°♄37'19			3040 Oct 27 02:03	0°♂	
	3038 Apr 23 12:37	0°♂			3040 Nov 20 15:45	0°♂	
	3038 May 18 07:55	0°♁			3040 Dec 14 19:52	0°♄	
	3038 Jun 12 16:52	0°♂			3041 Jan 07 19:15	0°♄	
	3038 Jul 09 00:37	0°♂		desc. node	3041 Jan 20 05:25	15°♄35'23	
desc. node	3038 Aug 05 10:16	29°♂04'11			3041 Jan 31 16:47	0°♁	
	3038 Aug 06 08:41	0°♂		morning set	3041 Feb 07 04:14	8°♁08'06	
evening max el	3038 Aug 12 04:37	5°♂40'49	45°39'46		3041 Feb 24 14:13	0°♁	
	3038 Sep 11 21:26	0°♂					
greatest brilliancy	3038 Sep 18 22:41	3°♂18'45	-4.5m	superior conj	3041 Mar 20 05:32	29°♁36'36	-1°-26'-16
retrograde	3038 Sep 30 00:54	5°♂31'08		minimum elong	3041 Mar 20 07:07	29°♁41'33	1°26'17
evening set	3038 Oct 17 05:19	29°♂57'47			3041 Mar 20 13:01	0°♂	
	3038 Oct 17 03:47	30°♂♂		max. Earth dist.	3041 Mar 24 04:51	4°♂34'26	1.71815 AU
inferior conj	3038 Oct 21 01:30	27°♂38'52	-7°-34'-33		3041 Apr 13 14:35	0°♄	
minimum elong	3038 Oct 21 10:40	27°♂24'48	7°33'10	evening rise	3041 Apr 28 21:20	18°♄56'59	
min. Earth dist.	3038 Oct 22 00:46	27°♂03'10	0.27842 AU		3041 May 07 20:02	0°♂	
morning rise	3038 Oct 25 15:34	24°♂53'07		asc. node	3041 May 13 08:32	6°♂48'13	
direct	3038 Nov 11 04:06	19°♂35'48			3041 Jun 01 05:59	0°♁	
greatest brilliancy	3038 Nov 25 12:46	23°♂20'23	-4.6m		3041 Jun 25 20:59	0°♂	
asc. node	3038 Nov 26 13:10	23°♂50'55			3041 Jul 20 18:24	0°♂	
	3038 Dec 06 08:50	0°♂			3041 Aug 15 01:17	0°♂	
morning max el	3038 Dec 31 20:27	22°♂48'11	46°52'34	desc. node	3041 Sep 01 22:04	20°♂46'49	
	3039 Jan 07 18:38	0°♄			3041 Sep 09 23:33	0°♂	
	3039 Feb 03 16:16	0°♄			3041 Oct 07 02:39	0°♄	
	3039 Mar 01 03:02	0°♁		evening max el	3041 Oct 24 06:56	17°♄40'07	46°41'14
desc. node	3039 Mar 18 03:06	20°♁27'37			3041 Nov 06 12:40	0°♄	
	3039 Mar 26 00:07	0°♁		greatest brilliancy	3041 Dec 01 22:49	17°♄10'59	-4.6m
	3039 Apr 19 15:33	0°♂		retrograde	3041 Dec 13 07:51	19°♄34'19	
	3039 May 14 05:01	0°♄		asc. node	3041 Dec 24 01:12	17°♄14'36	
	3039 Jun 07 18:01	0°♂		evening set	3041 Dec 27 14:46	15°♄31'35	
	3039 Jul 02 06:23	0°♁		inferior conj	3042 Jan 02 20:09	11°♄53'21	2°31'17
morning set	3039 Jul 04 22:00	3°♁14'49		minimum elong	3042 Jan 02 14:32	12°♄01'56	2°29'31
asc. node	3039 Jul 09 06:13	8°♁34'12		min. Earth dist.	3042 Jan 02 14:26	12°♄02'04	0.26487 AU
	3039 Jul 26 17:13	0°♂		morning rise	3042 Jan 08 14:24	8°♄30'42	
max. Earth dist.	3039 Aug 08 09:58	15°♂37'19	1.73407 AU	direct	3042 Jan 23 06:47	4°♄15'22	
				greatest brilliancy	3042 Feb 04 00:56	6°♄50'43	-4.7m
superior conj	3039 Aug 10 10:23	18°♂06'28	1°06'46		3042 Mar 07 11:06	0°♁	
minimum elong	3039 Aug 10 01:44	17°♂39'49	1°06'31	morning max el	3042 Mar 14 14:59	6°♁59'29	46°48'25
	3039 Aug 20 01:52	0°♂			3042 Apr 05 09:28	0°♁	
	3039 Sep 13 08:39	0°♂		desc. node	3042 Apr 14 14:54	10°♁16'42	
evening rise	3039 Sep 15 12:05	2°♂39'03			3042 May 01 21:19	0°♂	
	3039 Oct 07 14:35	0°♂			3042 May 27 12:21	0°♄	
desc. node	3039 Oct 28 19:52	26°♂15'02			3042 Jun 21 17:42	0°♂	
	3039 Oct 31 20:39	0°♄			3042 Jul 16 16:51	0°♁	
	3039 Nov 25 03:30	0°♄		asc. node	3042 Aug 05 18:01	24°♁18'14	

	3042 Aug 10 10:11	0°♌			3045 Mar 12 22:23	30°♎	
	3042 Sep 03 21:36	0°♍		evening set	3045 Mar 14 20:00	28°♎52'03	
morning set	3042 Sep 10 22:01	8°♍39'23		min. Earth dist.	3045 Mar 17 04:01	27°♎25'25	0.27591 AU
	3042 Sep 28 03:43	0°♎		inferior conj	3045 Mar 17 16:42	27°♎05'36	8°54'24
max. Earth dist.	3042 Oct 14 15:59	20°♎32'24	1.72217 AU	minimum elong	3045 Mar 17 17:25	27°♎04'28	8°54'23
				morning rise	3045 Mar 20 14:58	25°♎16'56	
superior conj	3042 Oct 17 21:08	24°♎32'45	1°15'13	direct	3045 Apr 07 09:49	19°♎11'55	
minimum elong	3042 Oct 18 05:18	24°♎58'14	1°15'01	greatest brilliancy	3045 Apr 18 09:42	21°♎24'58	-4.6m
	3042 Oct 22 06:07	0°♏			3045 May 03 11:51	0°♏	
	3042 Nov 15 06:27	0°♐		desc. node	3045 May 12 02:43	6°♏45'25	
desc. node	3042 Nov 25 07:50	12°♐34'43		morning max el	3045 May 26 18:45	20°♏06'08	46°04'51
evening rise	3042 Nov 25 21:08	13°♐16'17			3045 Jun 05 16:30	0°♑	
	3042 Dec 09 05:55	0°♑			3045 Jul 03 13:33	0°♒	
	3043 Jan 02 05:17	0°♒			3045 Jul 29 21:26	0°♓	
	3043 Jan 26 05:55	0°♓			3045 Aug 24 09:33	0°♌	
	3043 Feb 19 10:37	0°♏		asc. node	3045 Sep 02 05:51	10°♌34'52	
asc. node	3043 Mar 16 00:01	0°♑			3045 Sep 18 07:30	0°♍	
	3043 Mar 18 10:42	2°♑57'00			3045 Oct 12 18:40	0°♎	
	3043 Apr 10 05:19	0°♒			3045 Nov 05 22:22	0°♏	
	3043 May 06 16:06	0°♓		greatest brilliancy	3045 Nov 16 01:14	12°♏38'34	-3.9m
evening max el	3043 May 30 16:23	24°♓54'54	45°32'55	morning set	3045 Nov 20 13:14	18°♏16'32	
	3043 Jun 05 01:21	0°♌			3045 Nov 29 21:42	0°♐	
greatest brilliancy	3043 Jul 04 11:37	21°♌32'04	-4.5m	desc. node	3045 Dec 22 19:42	28°♐47'12	
desc. node	3043 Jul 08 00:28	22°♌58'59			3045 Dec 23 18:51	0°♑	
retrograde	3043 Jul 18 09:45	24°♌55'59					
evening set	3043 Aug 03 15:55	19°♌55'43		superior conj	3045 Dec 30 20:13	8°♑52'34	0°-19'-8
inferior conj	3043 Aug 08 22:45	16°♌43'15	-6°-36'-25	minimum elong	3045 Dec 30 15:13	8°♑36'52	0°18'54
minimum elong	3043 Aug 08 12:59	16°♌58'33	6°34'36	max. Earth dist.	3045 Dec 30 07:51	8°♑13'43	1.71135 AU
min. Earth dist.	3043 Aug 08 21:03	16°♌45'55	0.29051 AU		3046 Jan 16 15:12	0°♒	
morning rise	3043 Aug 13 09:55	13°♌58'39			3046 Feb 09 11:59	0°♓	
direct	3043 Aug 30 13:47	8°♌25'32		evening rise	3046 Feb 10 02:39	0°♓46'02	
greatest brilliancy	3043 Sep 13 15:14	11°♌52'16	-4.5m		3046 Mar 05 10:53	0°♏	
	3043 Oct 09 03:40	0°♍			3046 Mar 29 14:09	0°♑	
morning max el	3043 Oct 18 22:26	9°♍11'26	46°09'24	asc. node	3046 Apr 14 22:43	20°♑08'25	
asc. node	3043 Oct 29 03:28	19°♍33'54			3046 Apr 23 00:17	0°♒	
	3043 Nov 07 21:03	0°♎			3046 May 17 20:05	0°♓	
	3043 Dec 04 04:08	0°♏			3046 Jun 12 06:03	0°♌	
	3043 Dec 29 04:41	0°♐			3046 Jul 08 15:58	0°♍	
	3044 Jan 22 15:39	0°♑		desc. node	3046 Aug 04 12:16	28°♍17'34	
	3044 Feb 15 20:40	0°♒			3046 Aug 06 05:53	0°♎	
desc. node	3044 Feb 17 17:14	2°♒18'29		evening max el	3046 Aug 09 19:49	3°♎27'45	45°38'29
	3044 Mar 10 23:32	0°♓			3046 Sep 14 00:19	0°♏	
	3044 Apr 04 02:27	0°♏		greatest brilliancy	3046 Sep 16 09:56	0°♏59'26	-4.5m
morning set	3044 Apr 23 08:21	23°♏53'00		retrograde	3046 Sep 27 15:13	3°♏14'00	
	3044 Apr 28 06:51	0°♑			3046 Oct 10 11:38	30°♎♎	
	3044 May 22 13:28	0°♒		evening set	3046 Oct 14 22:12	27°♎36'10	
				inferior conj	3046 Oct 18 15:49	25°♎20'41	-7°-44'-41
superior conj	3044 May 31 07:01	10°♒45'50	0°-22'-34	minimum elong	3046 Oct 19 00:31	25°♎07'18	7°43'28
minimum elong	3044 May 31 11:49	11°♒00'36	0°22'22	min. Earth dist.	3046 Oct 19 14:14	24°♎46'12	0.27913 AU
max. Earth dist.	3044 Jun 02 02:41	13°♒00'18	1.73244 AU	morning rise	3046 Oct 23 02:29	22°♎39'46	
asc. node	3044 Jun 09 20:27	22°♒32'04		direct	3046 Nov 08 19:45	17°♎16'50	
	3044 Jun 15 22:05	0°♓		greatest brilliancy	3046 Nov 23 04:19	21°♎01'43	-4.6m
evening rise	3044 Jul 07 03:01	26°♓03'27		asc. node	3046 Nov 25 15:20	22°♎18'22	
	3044 Jul 10 08:06	0°♌			3046 Dec 07 02:10	0°♏	
	3044 Aug 03 19:17	0°♍		morning max el	3046 Dec 29 11:54	20°♏28'46	46°51'27
	3044 Aug 28 08:23	0°♎			3047 Jan 07 14:30	0°♐	
	3044 Sep 22 00:46	0°♏			3047 Feb 03 07:45	0°♑	
desc. node	3044 Sep 29 10:00	8°♏55'49			3047 Feb 28 16:39	0°♒	
	3044 Oct 16 22:07	0°♐		desc. node	3047 Mar 17 05:07	19°♒54'44	
	3044 Nov 11 03:03	0°♑			3047 Mar 25 12:41	0°♓	
	3044 Dec 06 22:58	0°♒			3047 Apr 19 03:27	0°♏	
	3045 Jan 03 10:31	0°♓			3047 May 13 16:27	0°♑	
evening max el	3045 Jan 04 20:00	1°♓25'41	47°15'14		3047 Jun 07 05:05	0°♒	
asc. node	3045 Jan 20 13:02	16°♓27'10			3047 Jul 01 17:14	0°♓	
	3045 Feb 07 21:26	0°♏		morning set	3047 Jul 02 15:52	1°♓09'19	
greatest brilliancy	3045 Feb 11 21:20	2°♏02'03	-4.7m	asc. node	3047 Jul 08 08:12	8°♓07'06	
retrograde	3045 Feb 24 18:40	5°♏08'58			3047 Jul 26 03:57	0°♌	

max. Earth dist.	3047 Aug 06 07:22	13°Ω42'22	1.73424 AU	min. Earth dist.	3049 Dec 31 04:40	9°☾32'27	0.26487 AU
superior conj	3047 Aug 08 04:47	16°Ω02'13	1°04'47	morning rise	3050 Jan 06 04:56	6°☾00'42	
minimum elong	3047 Aug 07 20:02	15°Ω35'14	1°04'30	direct	3050 Jan 20 18:53	1°☾48'12	
	3047 Aug 19 12:36	0°♍		greatest brilliancy	3050 Feb 01 16:19	4°☾26'24	-4.7m
	3047 Sep 12 19:29	0°♌			3050 Mar 07 12:44	0°≈	
evening rise	3047 Sep 13 05:36	0°♌31'16		morning max el	3050 Mar 12 02:55	4°≈31'44	46°49'26
	3047 Oct 07 01:37	0°♍			3050 Apr 05 02:32	0°♋	
desc. node	3047 Oct 27 22:01	25°♍46'55		desc. node	3050 Apr 13 17:03	9°♋38'12	
	3047 Oct 31 07:57	0°♌			3050 May 01 11:25	0°♍	
	3047 Nov 24 15:13	0°☾			3050 May 27 00:59	0°♌	
	3047 Dec 19 00:35	0°≈			3050 Jun 21 05:27	0°♍	
	3048 Jan 12 15:33	0°♋			3050 Jul 16 04:02	0°☾	
	3048 Feb 06 20:20	0°♍		asc. node	3050 Aug 04 20:00	23°☾51'06	
asc. node	3048 Feb 18 00:47	12°♍54'28			3050 Aug 09 21:02	0°Ω	
	3048 Mar 04 10:18	0°♌			3050 Sep 03 08:16	0°♍	
evening max el	3048 Mar 17 16:25	13°♌48'39	46°30'05	morning set	3050 Sep 08 15:00	6°♍30'44	
	3048 Apr 04 06:29	0°♍			3050 Sep 27 14:21	0°♌	
greatest brilliancy	3048 Apr 22 00:48	11°♍58'25	-4.6m	max. Earth dist.	3050 Oct 12 07:32	18°♌18'07	1.72269 AU
retrograde	3048 May 06 14:25	15°♍44'56		superior conj	3050 Oct 15 12:45	22°♌18'37	1°16'45
evening set	3048 May 22 01:35	11°♍03'10		minimum elong	3050 Oct 15 20:27	22°♌42'35	1°16'36
inferior conj	3048 May 27 21:27	7°♍30'46	2°45'45		3050 Oct 21 16:48	0°♍	
minimum elong	3048 May 28 03:19	7°♍21'35	2°44'05		3050 Nov 14 17:16	0°♌	
min. Earth dist.	3048 May 27 19:08	7°♍34'25	0.28579 AU	evening rise	3050 Nov 23 09:47	10°♌51'49	
morning rise	3048 Jun 03 05:33	3°♍42'46		desc. node	3050 Nov 24 09:54	12°♌07'13	
desc. node	3048 Jun 08 14:32	1°♍11'46			3050 Dec 08 16:52	0°☾	
	3048 Jun 12 12:17	30°♌			3051 Jan 01 16:24	0°≈	
direct	3048 Jun 18 06:56	29°♌20'13			3051 Jan 25 17:14	0°♋	
	3048 Jun 24 05:29	0°♍			3051 Feb 18 22:16	0°♍	
greatest brilliancy	3048 Jun 30 20:55	2°♍08'56	-4.5m		3051 Mar 15 12:16	0°♌	
morning max el	3048 Aug 06 00:32	29°♍04'32	45°42'44	asc. node	3051 Mar 17 12:48	2°♌26'12	
	3048 Aug 06 23:44	0°☾			3051 Apr 09 18:46	0°♍	
	3048 Sep 04 21:50	0°Ω			3051 May 06 08:14	0°☾	
asc. node	3048 Sep 29 17:44	28°Ω07'23		evening max el	3051 May 28 07:10	22°☾41'44	45°34'00
	3048 Oct 01 08:25	0°♍			3051 Jun 05 02:18	0°Ω	
	3048 Oct 26 14:11	0°♌		greatest brilliancy	3051 Jul 02 00:55	19°Ω19'59	-4.5m
	3048 Nov 20 03:19	0°♍		desc. node	3051 Jul 07 02:26	21°Ω18'59	
	3048 Dec 14 07:09	0°♌		retrograde	3051 Jul 16 02:05	22°Ω47'51	
	3049 Jan 07 06:22	0°☾		evening set	3051 Aug 01 05:20	17°Ω51'00	
desc. node	3049 Jan 19 07:24	15°☾06'47		inferior conj	3051 Aug 06 15:04	14°Ω34'41	-6°-23'-25
	3049 Jan 31 03:49	0°≈		minimum elong	3051 Aug 06 05:13	14°Ω50'06	6°21'30
morning set	3049 Feb 04 14:05	5°≈33'44		min. Earth dist.	3051 Aug 06 12:56	14°Ω38'02	0.29056 AU
	3049 Feb 24 01:11	0°♋		morning rise	3051 Aug 11 04:57	11°Ω46'16	
				direct	3051 Aug 28 05:41	6°Ω16'48	
superior conj	3049 Mar 17 17:18	27°♋09'13	-1°-26'-27	greatest brilliancy	3051 Sep 11 08:02	9°Ω44'11	-4.5m
minimum elong	3049 Mar 17 17:52	27°♋10'58	1°26'28		3051 Oct 09 05:28	0°♍	
	3049 Mar 19 23:56	0°♍		morning max el	3051 Oct 16 13:42	6°♍58'01	46°07'57
max. Earth dist.	3049 Mar 21 17:35	2°♍10'09	1.71764 AU	asc. node	3051 Oct 28 05:38	18°♍51'16	
	3049 Apr 13 01:27	0°♌			3051 Nov 07 13:29	0°♌	
evening rise	3049 Apr 26 11:12	16°♌37'44			3051 Dec 03 17:51	0°♍	
	3049 May 07 06:54	0°♍			3051 Dec 28 17:12	0°♌	
asc. node	3049 May 12 10:38	6°♍21'14			3052 Jan 22 03:30	0°☾	
	3049 May 31 16:58	0°☾			3052 Feb 15 08:05	0°≈	
	3049 Jun 25 08:16	0°Ω		desc. node	3052 Feb 16 19:16	1°≈49'24	
	3049 Jul 20 06:13	0°♍			3052 Mar 10 10:37	0°♋	
	3049 Aug 14 14:04	0°♌			3052 Apr 03 13:17	0°♍	
desc. node	3049 Sep 01 00:03	20°♌12'39		morning set	3052 Apr 20 23:00	21°♍36'25	
	3049 Sep 09 14:08	0°♍			3052 Apr 27 17:32	0°♌	
	3049 Oct 06 21:08	0°♌			3052 May 22 00:03	0°♍	
evening max el	3049 Oct 21 19:55	15°♌16'46	46°39'01				
	3049 Nov 06 21:11	0°☾		superior conj	3052 May 28 23:37	8°♍36'36	0°-25'-47
greatest brilliancy	3049 Nov 29 13:36	14°☾46'16	-4.6m	minimum elong	3052 May 29 05:04	8°♍53'22	0°25'32
retrograde	3049 Dec 10 19:35	17°☾06'46		max. Earth dist.	3052 May 30 20:42	10°♍55'27	1.73214 AU
asc. node	3049 Dec 23 03:07	14°☾04'58		asc. node	3052 Jun 08 22:25	22°♍05'38	
evening set	3049 Dec 25 02:39	13°☾05'10			3052 Jun 15 08:39	0°☾	
inferior conj	3049 Dec 31 08:36	9°☾26'27	2°07'37	evening rise	3052 Jul 04 21:27	24°☾00'15	
minimum elong	3049 Dec 31 03:49	9°☾33'46	2°06'05		3052 Jul 09 18:42	0°Ω	

	3052 Aug 03 06:04	0°♎			3054 Dec 07 14:50	0°♌		
	3052 Aug 27 19:30	0°♊		morning max el	3054 Dec 27 02:23	18°♌07'38	46°50'19	
	3052 Sep 21 12:26	0°♌			3055 Jan 07 09:30	0°♏		
desc. node	3052 Sep 28 12:08	8°♌26'31			3055 Feb 02 22:45	0°♎		
	3052 Oct 16 10:36	0°♏			3055 Feb 28 05:54	0°♌		
	3052 Nov 10 16:50	0°♎		desc. node	3055 Mar 16 07:11	19°♌22'52		
	3052 Dec 06 15:06	0°♌			3055 Mar 25 00:59	0°♏		
evening max el	3053 Jan 02 10:22	29°♌03'27	47°15'34		3055 Apr 18 15:06	0°♎		
	3053 Jan 03 08:39	0°♏			3055 May 13 03:39	0°♊		
asc. node	3053 Jan 19 15:03	15°♏22'15			3055 Jun 06 15:57	0°♌		
greatest brilliancy	3053 Feb 09 11:56	29°♏39'55	-4.7m	morning set	3055 Jun 30 09:49	29°♌04'40		
	3053 Feb 10 06:01	0°♎			3055 Jul 01 03:53	0°♏		
retrograde	3053 Feb 22 09:33	2°♎47'08		asc. node	3055 Jul 07 10:12	7°♏40'39		
	3053 Mar 06 00:37	30°♏			3055 Jul 25 14:31	0°♌		
evening set	3053 Mar 12 09:26	26°♏31'11		max. Earth dist.	3055 Aug 04 03:45	11°♌44'53	1.73445 AU	
min. Earth dist.	3053 Mar 14 16:56	25°♏05'31	0.27543 AU					
inferior conj	3053 Mar 15 06:38	24°♏44'10	8°55'08	superior conj	3055 Aug 05 23:12	13°♌58'37	1°02'42	
minimum elong	3053 Mar 15 06:28	24°♏44'25	8°55'08	minimum elong	3055 Aug 05 14:22	13°♌31'25	1°02'24	
morning rise	3053 Mar 18 03:39	22°♏57'41			3055 Aug 18 23:12	0°♎		
direct	3053 Apr 04 23:21	16°♏51'12		evening rise	3055 Sep 10 23:03	28°♎23'38		
greatest brilliancy	3053 Apr 15 22:05	19°♏03'46	-4.6m		3055 Sep 12 06:14	0°♊		
	3053 May 04 04:16	0°♎			3055 Oct 06 12:35	0°♌		
desc. node	3053 May 11 04:45	5°♎43'38		desc. node	3055 Oct 27 00:01	25°♌18'26		
morning max el	3053 May 24 09:54	17°♎51'35	46°06'19		3055 Oct 30 19:14	0°♏		
	3053 Jun 05 11:37	0°♊			3055 Nov 24 02:53	0°♎		
	3053 Jul 03 04:10	0°♌			3055 Dec 18 12:50	0°♌		
	3053 Jul 29 10:09	0°♏			3056 Jan 12 04:39	0°♏		
	3053 Aug 23 21:16	0°♌			3056 Feb 06 10:59	0°♎		
asc. node	3053 Sep 01 07:55	10°♌06'29		asc. node	3056 Feb 17 02:53	12°♎15'44		
	3053 Sep 17 18:41	0°♎			3056 Mar 04 04:36	0°♊		
	3053 Oct 12 05:34	0°♊		evening max el	3056 Mar 15 07:31	11°♊31'58	46°32'18	
	3053 Nov 05 09:10	0°♌			3056 Apr 04 16:40	0°♌		
morning set	3053 Nov 18 02:42	15°♌54'43		greatest brilliancy	3056 Apr 19 19:29	9°♌49'22	-4.6m	
	3053 Nov 29 08:29	0°♏		retrograde	3056 May 04 06:15	13°♌32'47		
desc. node	3053 Dec 21 21:35	28°♏19'09		evening set	3056 May 19 19:37	8°♌48'42		
	3053 Dec 23 05:40	0°♎		inferior conj	3056 May 25 13:21	5°♌19'03	3°05'18	
max. Earth dist.	3053 Dec 27 17:10	5°♎38'00	1.71151 AU	minimum elong	3056 May 25 19:49	5°♌08'54	3°03'28	
				min. Earth dist.	3056 May 25 11:17	5°♌22'18	0.28549 AU	
superior conj	3053 Dec 28 06:27	6°♎19'44	0°-15'-14	morning rise	3056 May 31 20:30	1°♌32'00		
minimum elong	3053 Dec 28 02:27	6°♎07'11	0°15'03		3056 Jun 03 21:15	30°♏		
behind sun begin	3053 Dec 27 16:11	5°♎34'54		desc. node	3056 Jun 07 16:27	28°♏29'55		
behind sun end	3053 Dec 28 12:43	6°♎39'27		direct	3056 Jun 15 22:27	27°♏09'07		
	3054 Jan 16 02:03	0°♌		greatest brilliancy	3056 Jun 28 10:07	29°♏55'10	-4.5m	
evening rise	3054 Feb 07 12:52	28°♌13'16			3056 Jun 28 14:43	0°♌		
	3054 Feb 08 22:53	0°♏		morning max el	3056 Aug 03 15:09	26°♌51'44	45°42'41	
	3054 Mar 04 21:51	0°♎			3056 Aug 06 21:16	0°♏		
	3054 Mar 29 01:14	0°♊			3056 Sep 04 13:08	0°♌		
asc. node	3054 Apr 14 00:48	19°♊40'28		asc. node	3056 Sep 28 19:52	27°♌35'05		
	3054 Apr 22 11:37	0°♌			3056 Sep 30 21:32	0°♎		
	3054 May 17 07:58	0°♏			3056 Oct 26 02:19	0°♊		
	3054 Jun 11 19:01	0°♌			3056 Nov 19 14:57	0°♌		
	3054 Jul 08 07:16	0°♎			3056 Dec 13 18:30	0°♏		
desc. node	3054 Aug 03 14:17	27°♎30'49			3057 Jan 06 17:34	0°♎		
	3054 Aug 06 03:39	0°♊		desc. node	3057 Jan 18 09:28	14°♎38'18		
evening max el	3054 Aug 07 11:06	1°♊15'24	45°37'02		3057 Jan 30 14:54	0°♌		
greatest brilliancy	3054 Sep 13 22:21	28°♊41'49	-4.5m	morning set	3057 Feb 01 23:41	2°♌58'20		
	3054 Sep 18 00:09	0°♌			3057 Feb 23 12:12	0°♏		
retrograde	3054 Sep 25 05:02	0°♌57'06						
	3054 Oct 02 03:31	30°♏		superior conj	3057 Mar 15 04:55	24°♏41'13	-1°-26'-28	
evening set	3054 Oct 12 14:56	25°♊15'18		minimum elong	3057 Mar 15 04:26	24°♏39'41	1°26'30	
inferior conj	3054 Oct 16 06:05	23°♊03'04	-7°-54'-7	max. Earth dist.	3057 Mar 19 04:25	29°♏39'50	1.71712 AU	
minimum elong	3054 Oct 16 14:16	22°♊50'27	7°53'03		3057 Mar 19 10:52	0°♎		
min. Earth dist.	3054 Oct 17 03:52	22°♊29'29	0.27979 AU		3057 Apr 12 12:21	0°♊		
morning rise	3054 Oct 20 13:18	20°♊26'51		evening rise	3057 Apr 24 00:55	14°♊17'44		
direct	3054 Nov 06 11:09	14°♊58'33			3057 May 06 17:50	0°♌		
greatest brilliancy	3054 Nov 20 18:47	18°♊42'14	-4.6m	asc. node	3057 May 11 12:36	5°♌53'31		
asc. node	3054 Nov 24 17:14	20°♊49'05			3057 May 31 04:03	0°♏		

	3057 Jun 24 19:39	0°♈			3060 Jan 21 15:40	0°♈		
	3057 Jul 19 18:10	0°♎			3060 Feb 14 19:52	0°♎		
	3057 Aug 14 03:01	0°♊			3060 Feb 15 21:23	1°♎19'23		
desc. node	3057 Aug 31 02:12	19°♊38'27		desc. node	3060 Mar 09 22:07	0°♋		
	3057 Sep 09 05:00	0°♌			3060 Apr 03 00:33	0°♎		
	3057 Oct 06 16:19	0°♏		morning set	3060 Apr 18 13:08	19°♎16'50		
evening max el	3057 Oct 19 08:03	12°♏50'48 46°36'36			3060 Apr 27 04:37	0°♌		
	3057 Nov 07 09:11	0°♈			3060 May 21 11:01	0°♌		
greatest brilliancy	3057 Nov 27 03:40	12°♈19'26 -4.6m						
retrograde	3057 Dec 08 07:09	14°♈37'48		superior conj	3060 May 26 15:48	6°♌24'53 0°-28'-58		
asc. node	3057 Dec 22 05:11	10°♈48'38		minimum elong	3060 May 26 21:53	6°♌43'36 0°28'42		
evening set	3057 Dec 22 14:26	10°♈36'32		max. Earth dist.	3060 May 28 16:03	8°♌53'35 1.73179 AU		
inferior conj	3057 Dec 28 20:46	6°♈57'52 1°43'21		asc. node	3060 Jun 08 00:25	21°♌38'14		
minimum elong	3057 Dec 28 16:51	7°♈03'50 1°42'06			3060 Jun 14 19:33	0°♍		
min. Earth dist.	3057 Dec 28 18:43	7°♈00'58 0.26493 AU		evening rise	3060 Jul 02 15:46	21°♍55'33		
morning rise	3058 Jan 03 19:03	3°♈29'24			3060 Jul 09 05:40	0°♈		
	3058 Jan 12 12:12	30°♏♏			3060 Aug 02 17:14	0°♎		
direct	3058 Jan 18 06:34	29°♏19'01			3060 Aug 27 07:01	0°♊		
	3058 Jan 24 04:42	0°♈			3060 Sep 21 00:31	0°♌		
greatest brilliancy	3058 Jan 30 08:09	2°♈01'12 -4.7m		desc. node	3060 Sep 27 14:09	7°♌55'39		
	3058 Mar 07 13:29	0°♎			3060 Oct 15 23:30	0°♏		
morning max el	3058 Mar 09 15:28	2°♎04'27 46°50'36			3060 Nov 10 07:03	0°♈		
	3058 Apr 04 19:30	0°♋			3060 Dec 06 07:51	0°♎		
desc. node	3058 Apr 12 19:07	8°♋59'07		evening max el	3060 Dec 31 01:30	26°♎42'09 47°15'38		
	3058 May 01 01:35	0°♎			3061 Jan 03 08:08	0°♋		
	3058 May 26 13:43	0°♌		asc. node	3061 Jan 18 17:07	14°♋14'21		
	3058 Jun 20 17:21	0°♌		greatest brilliancy	3061 Feb 07 02:31	27°♋16'11 -4.7m		
	3058 Jul 15 15:25	0°♍			3061 Feb 15 15:27	0°♎		
asc. node	3058 Aug 03 22:08	23°♍23'46		retrograde	3061 Feb 20 00:20	0°♎23'01		
	3058 Aug 09 08:06	0°♈			3061 Feb 24 07:02	30°♏♋		
	3058 Sep 02 19:10	0°♎		evening set	3061 Mar 09 22:10	24°♋09'00		
morning set	3058 Sep 06 08:14	4°♎22'16		min. Earth dist.	3061 Mar 12 05:32	22°♋43'36 0.27496 AU		
	3058 Sep 27 01:11	0°♊		inferior conj	3061 Mar 12 20:20	22°♋20'32 8°54'52		
max. Earth dist.	3058 Oct 10 01:23	16°♊10'22 1.72321 AU		minimum elong	3061 Mar 12 19:17	22°♋22'10 8°54'51		
				morning rise	3061 Mar 15 16:36	20°♋35'24		
superior conj	3058 Oct 13 04:39	20°♊04'41 1°18'10		direct	3061 Apr 02 13:07	14°♋28'28		
minimum elong	3058 Oct 13 11:47	20°♊26'55 1°18'01		greatest brilliancy	3061 Apr 13 09:37	16°♋39'33 -4.6m		
	3058 Oct 21 03:42	0°♌			3061 May 04 17:19	0°♎		
	3058 Nov 14 04:19	0°♏		desc. node	3061 May 10 06:41	4°♎41'26		
evening rise	3058 Nov 20 22:37	8°♏27'11		morning max el	3061 May 22 00:54	15°♎35'02 46°07'46		
desc. node	3058 Nov 23 11:52	11°♏38'37			3061 Jun 05 06:45	0°♌		
	3058 Dec 08 04:07	0°♈			3061 Jul 02 19:03	0°♌		
	3059 Jan 01 03:51	0°♎			3061 Jul 28 23:10	0°♍		
	3059 Jan 25 04:55	0°♋			3061 Aug 23 09:19	0°♈		
	3059 Feb 18 10:18	0°♎		asc. node	3061 Aug 31 09:57	9°♈36'57		
	3059 Mar 15 00:57	0°♌			3061 Sep 17 06:12	0°♎		
asc. node	3059 Mar 16 14:51	1°♌54'05			3061 Oct 11 16:51	0°♊		
	3059 Apr 09 08:42	0°♌			3061 Nov 04 20:20	0°♌		
	3059 May 06 01:02	0°♍		morning set	3061 Nov 15 16:37	13°♌33'16		
evening max el	3059 May 25 22:39	20°♍29'25 45°35'17			3061 Nov 28 19:37	0°♏		
	3059 Jun 05 05:04	0°♈		desc. node	3061 Dec 20 23:44	27°♏50'58		
greatest brilliancy	3059 Jun 29 14:02	17°♈06'48 -4.5m			3061 Dec 22 16:47	0°♈		
desc. node	3059 Jul 06 04:33	19°♈34'29		max. Earth dist.	3061 Dec 25 01:35	2°♈58'30 1.71164 AU		
retrograde	3059 Jul 13 18:48	20°♈38'43						
evening set	3059 Jul 29 18:52	15°♈45'07		superior conj	3061 Dec 25 17:15	3°♈47'46 0°-11'-20		
inferior conj	3059 Aug 04 07:21	12°♈25'02 -6°-9'-46		minimum elong	3061 Dec 25 14:16	3°♈38'23 0°11'13		
minimum elong	3059 Aug 03 21:28	12°♈40'28 6°07'46		behind sun begin	3061 Dec 24 19:04	2°♈38'01		
min. Earth dist.	3059 Aug 04 04:31	12°♈29'28 0.29057 AU		behind sun end	3061 Dec 26 09:28	4°♈38'46		
morning rise	3059 Aug 08 23:58	9°♈32'52			3062 Jan 15 13:12	0°♎		
direct	3059 Aug 25 21:54	4°♈07'02		evening rise	3062 Feb 04 23:23	25°♎40'22		
greatest brilliancy	3059 Sep 09 00:28	7°♈34'51 -4.5m			3062 Feb 08 10:05	0°♋		
	3059 Oct 09 06:19	0°♎			3062 Mar 04 09:10	0°♎		
morning max el	3059 Oct 14 05:53	4°♎46'15 46°06'36			3062 Mar 28 12:42	0°♌		
asc. node	3059 Oct 27 07:32	18°♎07'34		asc. node	3062 Apr 13 02:43	19°♌10'42		
	3059 Nov 07 05:56	0°♊			3062 Apr 21 23:23	0°♌		
	3059 Dec 03 07:45	0°♌			3062 May 16 20:18	0°♍		
	3059 Dec 28 05:58	0°♏			3062 Jun 11 08:29	0°♈		

	3062 Jul 07 23:13	0° \mathbb{M}		desc. node	3065 Jan 17 11:33	14° \mathcal{C} 09'34	
desc. node	3062 Aug 02 16:24	26° \mathbb{M} 42'28		morning set	3065 Jan 30 09:21	0° \approx 22'48	
evening max el	3062 Aug 05 01:54	29° \mathbb{M} 00'54	45°35'42		3065 Jan 30 02:06	0° \approx	
	3062 Aug 06 02:46	0° $\underline{\mathcal{A}}$			3065 Feb 22 23:17	0° \mathbb{K}	
greatest brilliancy	3062 Sep 11 11:30	26° $\underline{\mathcal{A}}$ 24'25	-4.5m				
retrograde	3062 Sep 22 18:27	28° $\underline{\mathcal{A}}$ 39'53		superior conj	3065 Mar 12 16:41	22° \mathbb{K} 13'28	-1°-26'-19
evening set	3062 Oct 10 07:40	22° $\underline{\mathcal{A}}$ 54'22		minimum elong	3065 Mar 12 15:10	22° \mathbb{K} 08'42	1°26'20
inferior conj	3062 Oct 13 20:33	20° $\underline{\mathcal{A}}$ 45'12	-8°-2'-38	max. Earth dist.	3065 Mar 16 12:26	27° \mathbb{K} 00'30	1.71657 AU
minimum elong	3062 Oct 14 04:09	20° $\underline{\mathcal{A}}$ 33'25	8°01'44		3065 Mar 18 21:51	0° \mathbb{Y}	
min. Earth dist.	3062 Oct 14 18:00	20° $\underline{\mathcal{A}}$ 12'02	0.28044 AU		3065 Apr 11 23:17	0° \mathcal{B}	
morning rise	3062 Oct 18 00:21	18° $\underline{\mathcal{A}}$ 13'32		evening rise	3065 Apr 21 14:45	11° \mathcal{B} 58'04	
direct	3062 Nov 04 02:15	12° $\underline{\mathcal{A}}$ 39'52			3065 May 06 04:47	0° \mathbb{I}	
greatest brilliancy	3062 Nov 18 09:36	16° $\underline{\mathcal{A}}$ 22'27	-4.6m	asc. node	3065 May 10 14:39	5° \mathbb{I} 26'07	
asc. node	3062 Nov 23 19:18	19° $\underline{\mathcal{A}}$ 22'10			3065 May 30 15:10	0° \mathcal{S}	
	3062 Dec 08 00:36	0° \mathbb{M}			3065 Jun 24 07:05	0° \mathcal{Q}	
morning max el	3062 Dec 24 16:12	15° \mathbb{M} 43'59	46°49'21		3065 Jul 19 06:12	0° \mathbb{M}	
	3063 Jan 07 04:19	0° \mathcal{X}			3065 Aug 13 16:07	0° $\underline{\mathcal{A}}$	
	3063 Feb 02 13:48	0° \mathcal{C}		desc. node	3065 Aug 30 04:10	19° $\underline{\mathcal{A}}$ 03'20	
	3063 Feb 27 19:17	0° \approx			3065 Sep 08 20:07	0° \mathbb{M}	
desc. node	3063 Mar 15 09:13	18° \approx 50'20			3065 Oct 06 12:04	0° \mathcal{X}	
	3063 Mar 24 13:26	0° \mathbb{K}		evening max el	3065 Oct 16 20:27	10° \mathcal{X} 25'55	46°34'21
	3063 Apr 18 02:58	0° \mathbb{Y}			3065 Nov 08 01:04	0° \mathcal{C}	
	3063 May 12 15:06	0° \mathcal{B}		greatest brilliancy	3065 Nov 24 16:48	9° \mathcal{C} 51'59	-4.6m
	3063 Jun 06 03:06	0° \mathbb{I}		retrograde	3065 Dec 05 19:15	12° \mathcal{C} 09'31	
morning set	3063 Jun 28 03:35	26° \mathbb{I} 58'28		evening set	3065 Dec 20 02:33	8° \mathcal{C} 07'56	
	3063 Jun 30 14:50	0° \mathcal{S}		asc. node	3065 Dec 21 07:18	7° \mathcal{C} 29'05	
asc. node	3063 Jul 06 12:21	7° \mathcal{S} 13'48		inferior conj	3065 Dec 26 08:59	4° \mathcal{C} 29'38	1°19'01
	3063 Jul 25 01:22	0° \mathcal{Q}		minimum elong	3065 Dec 26 05:58	4° \mathcal{C} 34'14	1°18'02
max. Earth dist.	3063 Aug 01 22:56	9° \mathcal{Q} 42'55	1.73461 AU	min. Earth dist.	3065 Dec 26 08:37	4° \mathcal{C} 30'12	0.26505 AU
				morning rise	3066 Jan 01 09:06	0° \mathcal{C} 58'56	
superior conj	3063 Aug 03 17:31	11° \mathcal{Q} 53'54	1°00'31		3066 Jan 03 07:08	30° \mathbb{R} \mathcal{X}	
minimum elong	3063 Aug 03 08:40	11° \mathcal{Q} 26'40	1°00'14	direct	3066 Jan 15 18:45	26° \mathcal{X} 50'03	
	3063 Aug 18 10:04	0° \mathbb{M}		greatest brilliancy	3066 Jan 28 00:03	29° \mathcal{X} 36'24	-4.7m
evening rise	3063 Sep 08 16:33	26° \mathbb{M} 15'32			3066 Jan 28 21:24	0° \mathcal{C}	
	3063 Sep 11 17:13	0° $\underline{\mathcal{A}}$		morning max el	3066 Mar 07 05:16	29° \mathcal{C} 40'24	46°51'45
	3063 Oct 05 23:48	0° \mathbb{M}			3066 Mar 07 13:04	0° \approx	
desc. node	3063 Oct 26 01:59	24° \mathbb{M} 49'04			3066 Apr 04 12:05	0° \mathbb{K}	
	3063 Oct 30 06:46	0° \mathcal{X}		desc. node	3066 Apr 11 21:02	8° \mathbb{K} 20'12	
	3063 Nov 23 14:51	0° \mathcal{C}			3066 Apr 30 15:30	0° \mathbb{Y}	
	3063 Dec 18 01:22	0° \approx			3066 May 26 02:15	0° \mathcal{B}	
	3064 Jan 11 18:01	0° \mathbb{K}			3066 Jun 20 05:04	0° \mathbb{I}	
	3064 Feb 06 01:56	0° \mathbb{Y}			3066 Jul 15 02:38	0° \mathcal{S}	
asc. node	3064 Feb 16 04:57	11° \mathbb{Y} 36'06		asc. node	3066 Aug 03 00:07	22° \mathcal{S} 56'22	
	3064 Mar 03 23:27	0° \mathcal{B}			3066 Aug 08 19:02	0° \mathcal{Q}	
evening max el	3064 Mar 12 21:46	9° \mathcal{B} 12'49	46°34'30		3066 Sep 02 05:56	0° \mathbb{M}	
	3064 Apr 05 06:27	0° \mathbb{I}		morning set	3066 Sep 04 01:35	2° \mathbb{M} 14'29	
greatest brilliancy	3064 Apr 17 13:19	7° \mathbb{I} 38'56	-4.6m		3066 Sep 26 11:56	0° $\underline{\mathcal{A}}$	
retrograde	3064 May 01 22:00	11° \mathbb{I} 20'41		max. Earth dist.	3066 Oct 07 19:04	14° $\underline{\mathcal{A}}$ 02'25	1.72370 AU
evening set	3064 May 17 13:50	6° \mathbb{I} 33'50					
inferior conj	3064 May 23 05:24	3° \mathbb{I} 07'19	3°24'25	superior conj	3066 Oct 10 20:37	17° $\underline{\mathcal{A}}$ 51'20	1°19'26
minimum elong	3064 May 23 12:25	2° \mathbb{I} 56'15	3°22'28	minimum elong	3066 Oct 11 03:10	18° $\underline{\mathcal{A}}$ 11'42	1°19'19
min. Earth dist.	3064 May 23 03:51	3° \mathbb{I} 09'45	0.28524 AU		3066 Oct 20 14:31	0° \mathbb{M}	
	3064 May 28 08:00	30° \mathbb{R} \mathcal{B}			3066 Nov 13 15:16	0° \mathcal{X}	
morning rise	3064 May 29 11:26	29° \mathcal{B} 21'26		evening rise	3066 Nov 18 11:33	6° \mathcal{X} 03'19	
desc. node	3064 Jun 06 18:36	25° \mathcal{B} 52'28		desc. node	3066 Nov 22 13:59	11° \mathcal{X} 10'52	
direct	3064 Jun 13 13:37	24° \mathcal{B} 57'44			3066 Dec 07 15:14	0° \mathcal{C}	
greatest brilliancy	3064 Jun 26 00:31	27° \mathcal{B} 42'24	-4.5m		3066 Dec 31 15:10	0° \approx	
	3064 Jun 30 19:31	0° \mathbb{I}			3067 Jan 24 16:30	0° \mathbb{K}	
morning max el	3064 Aug 01 05:55	24° \mathbb{I} 38'37	45°42'42		3067 Feb 17 22:16	0° \mathbb{Y}	
	3064 Aug 06 18:16	0° \mathcal{S}			3067 Mar 14 13:34	0° \mathcal{B}	
	3064 Sep 04 04:24	0° \mathcal{Q}		asc. node	3067 Mar 15 16:47	1° \mathcal{B} 21'50	
asc. node	3064 Sep 27 21:49	27° \mathcal{Q} 02'02			3067 Apr 08 22:36	0° \mathbb{I}	
	3064 Sep 30 10:42	0° \mathbb{M}			3067 May 05 17:55	0° \mathcal{S}	
	3064 Oct 25 14:29	0° $\underline{\mathcal{A}}$		evening max el	3067 May 23 15:05	18° \mathcal{S} 20'08	45°36'40
	3064 Nov 19 02:37	0° \mathbb{M}			3067 Jun 05 09:07	0° \mathcal{Q}	
	3064 Dec 13 05:55	0° \mathcal{X}		greatest brilliancy	3067 Jun 27 03:58	14° \mathcal{Q} 55'44	-4.5m
	3065 Jan 06 04:51	0° \mathcal{C}		desc. node	3067 Jul 05 06:35	17° \mathcal{Q} 47'16	

retrograde	3067 Jul 11 11:45	18°Ω30'41		minimum elong	3069 Dec 23 02:00	1°☾10'14	0°07'21
evening set	3067 Jul 27 08:44	13°Ω40'24		behind sun begin	3069 Dec 22 02:30	29°☾56'22	
inferior conj	3067 Aug 01 23:45	10°Ω16'34	-5°-55'-43	behind sun end	3069 Dec 24 01:30	2°☾24'07	
minimum elong	3067 Aug 01 13:55	10°Ω31'56	5°53'39		3070 Jan 15 00:07	0°≈	
min. Earth dist.	3067 Aug 01 20:03	10°Ω22'22	0.29057 AU	evening rise	3070 Feb 02 09:26	23°≈06'49	
morning rise	3067 Aug 06 19:04	7°Ω20'40			3070 Feb 07 21:03	0°✕	
direct	3067 Aug 23 14:44	1°Ω58'39			3070 Mar 03 20:12	0°Υ	
greatest brilliancy	3067 Sep 06 15:58	5°Ω25'28	-4.5m		3070 Mar 27 23:54	0°♄	
	3067 Oct 09 05:43	0°♍		asc. node	3070 Apr 12 04:50	18°♄42'25	
morning max el	3067 Oct 11 22:31	2°♍36'26	46°05'05		3070 Apr 21 10:53	0°♊	
asc. node	3067 Oct 26 09:37	17°♍25'31			3070 May 16 08:24	0°☿	
	3067 Nov 06 21:55	0°♊			3070 Jun 10 21:48	0°♈	
	3067 Dec 02 21:21	0°♋			3070 Jul 07 15:07	0°♎	
	3067 Dec 27 18:29	0°♌		desc. node	3070 Aug 01 18:24	25°♎54'06	
	3068 Jan 21 03:34	0°☾		evening max el	3070 Aug 02 15:59	26°♎45'47	45°34'31
	3068 Feb 14 07:22	0°≈			3070 Aug 06 02:28	0°♊	
desc. node	3068 Feb 14 23:22	0°≈49'46		greatest brilliancy	3070 Sep 09 00:43	24°♊08'36	-4.5m
	3068 Mar 09 09:20	0°✕		retrograde	3070 Sep 20 07:51	26°♊24'39	
	3068 Apr 02 11:33	0°Υ		evening set	3070 Oct 08 00:18	20°♊35'38	
morning set	3068 Apr 16 03:07	16°Υ57'26		inferior conj	3070 Oct 11 11:12	18°♊29'19	-8°-10'-10
	3068 Apr 26 15:28	0°♄		minimum elong	3070 Oct 11 18:10	18°♊18'30	8°09'27
	3068 May 20 21:44	0°♊		min. Earth dist.	3070 Oct 12 08:27	17°♊56'24	0.28108 AU
				morning rise	3070 Oct 15 11:42	16°♊02'08	
superior conj	3068 May 24 07:57	4°♊13'37	0°-32'-8	direct	3070 Nov 01 17:02	10°♊23'02	
minimum elong	3068 May 24 14:38	4°♊34'14	0°31'51	greatest brilliancy	3070 Nov 16 01:11	14°♊05'26	-4.6m
max. Earth dist.	3068 May 26 12:27	6°♊55'29	1.73140 AU	asc. node	3070 Nov 22 21:26	17°♊59'38	
asc. node	3068 Jun 07 02:34	21°♊12'05			3070 Dec 08 07:09	0°♋	
	3068 Jun 14 06:13	0°☿		morning max el	3070 Dec 22 05:40	13°♋20'33	46°48'10
evening rise	3068 Jun 30 10:10	19°☿51'56			3071 Jan 06 22:17	0°♌	
	3068 Jul 08 16:22	0°♈			3071 Feb 02 04:25	0°☾	
	3068 Aug 02 04:07	0°♍			3071 Feb 27 08:21	0°≈	
	3068 Aug 26 18:16	0°♊		desc. node	3071 Mar 14 11:14	18°≈18'33	
	3068 Sep 20 12:21	0°♋			3071 Mar 24 01:37	0°✕	
desc. node	3068 Sep 26 16:07	7°♋25'25			3071 Apr 17 14:33	0°Υ	
	3068 Oct 15 12:13	0°♌			3071 May 12 02:14	0°♄	
	3068 Nov 09 21:11	0°☾			3071 Jun 05 13:56	0°♊	
	3068 Dec 06 00:40	0°≈		morning set	3071 Jun 25 21:07	24°♊52'26	
evening max el	3068 Dec 28 17:03	24°≈22'33	47°15'38		3071 Jun 30 01:29	0°☿	
	3069 Jan 03 08:24	0°✕		asc. node	3071 Jul 05 14:18	6°☿47'13	
asc. node	3069 Jan 17 19:08	13°✕05'19			3071 Jul 24 11:56	0°♈	
greatest brilliancy	3069 Feb 04 17:59	24°✕54'20	-4.7m	max. Earth dist.	3071 Jul 30 17:36	7°♈40'12	1.73478 AU
retrograde	3069 Feb 17 14:53	27°✕59'27					
evening set	3069 Mar 07 10:26	21°✕48'26		superior conj	3071 Aug 01 11:49	9°♈50'05	0°58'16
inferior conj	3069 Mar 10 10:03	19°✕57'42	8°53'42	minimum elong	3071 Aug 01 03:00	9°♈22'56	0°57'57
minimum elong	3069 Mar 10 08:06	20°✕00'45	8°53'39		3071 Aug 17 20:39	0°♍	
min. Earth dist.	3069 Mar 09 18:15	20°✕22'19	0.27447 AU	evening rise	3071 Sep 06 10:18	24°♍09'08	
morning rise	3069 Mar 13 05:57	18°✕13'08			3071 Sep 11 03:55	0°♊	
direct	3069 Mar 31 02:54	12°✕06'44			3071 Oct 05 10:41	0°♋	
greatest brilliancy	3069 Apr 10 20:48	14°✕15'40	-4.6m	desc. node	3071 Oct 25 04:10	24°♋21'25	
	3069 May 05 02:37	0°Υ			3071 Oct 29 17:58	0°♌	
desc. node	3069 May 09 08:53	3°Υ42'10			3071 Nov 23 02:30	0°☾	
morning max el	3069 May 19 15:18	13°Υ17'50	46°09'10		3071 Dec 17 13:37	0°≈	
	3069 Jun 05 01:03	0°♄			3072 Jan 11 07:13	0°✕	
	3069 Jul 02 09:25	0°♊			3072 Feb 05 16:52	0°Υ	
	3069 Jul 28 11:46	0°☿		asc. node	3072 Feb 15 06:54	10°Υ56'17	
	3069 Aug 22 20:58	0°♈			3072 Mar 03 18:40	0°♄	
asc. node	3069 Aug 30 11:57	9°♈08'29		evening max el	3072 Mar 10 11:35	6°♄52'47	46°36'45
	3069 Sep 16 17:21	0°♍			3072 Apr 06 00:55	0°♊	
	3069 Oct 11 03:45	0°♊		greatest brilliancy	3072 Apr 15 06:04	5°♊26'58	-4.6m
	3069 Nov 04 07:10	0°♋		retrograde	3072 Apr 29 13:41	9°♊08'28	
morning set	3069 Nov 13 06:35	11°♋13'03		evening set	3072 May 15 07:54	4°♊18'19	
	3069 Nov 28 06:26	0°♌		inferior conj	3072 May 20 21:13	0°♊55'18	3°43'21
desc. node	3069 Dec 20 01:49	27°♌23'25		minimum elong	3072 May 21 04:46	0°♊43'25	3°41'18
	3069 Dec 22 03:39	0°☾		min. Earth dist.	3072 May 20 20:09	0°♊56'59	0.28499 AU
max. Earth dist.	3069 Dec 22 06:12	0°☾08'01	1.71183 AU		3072 May 22 08:26	30°♋	
				morning rise	3072 May 27 01:58	27°♋11'04	
superior conj	3069 Dec 23 03:57	1°☾16'23	0°-7'-26	desc. node	3072 Jun 05 20:39	23°♋19'32	

direct	3072 Jun 11 04:19	22° ♄ 45'55		3074 Dec 07 02:20	0° ♄	
greatest brilliancy	3072 Jun 23 15:28	25° ♄ 30'24	-4.5m	3074 Dec 31 02:25	0° \approx	
	3072 Jul 02 05:59	0° ♄		3075 Jan 24 03:58	0° ♄	
morning max el	3072 Jul 29 21:05	22° ♄ 27'00	45°42'50	3075 Feb 17 10:08	0° ♄	
	3072 Aug 06 14:21	0° ♄		3075 Mar 14 02:08	0° ♄	
	3072 Sep 03 19:15	0° ♄		3075 Mar 14 18:55	0° ♄ 50'23	
asc. node	3072 Sep 26 23:51	26° ♄ 30'03		3075 Apr 08 12:33	0° ♄	
	3072 Sep 29 23:33	0° ♄		3075 May 05 11:10	0° ♄	
	3072 Oct 25 02:23	0° ♄		3075 May 21 08:02	16° ♄ 11'52	45°37'54
	3072 Nov 18 14:01	0° ♄		3075 Jun 05 15:20	0° ♄	
	3072 Dec 12 17:03	0° ♄		3075 Jun 24 19:10	12° ♄ 45'46	-4.5m
	3073 Jan 05 15:51	0° ♄		3075 Jul 04 08:34	15° ♄ 55'28	
desc. node	3073 Jan 16 13:31	13° ♄ 41'25		3075 Jul 09 04:22	16° ♄ 21'49	
morning set	3073 Jan 27 19:11	27° ♄ 48'35		3075 Jul 24 22:40	11° ♄ 35'01	
	3073 Jan 29 13:01	0° \approx		3075 Jul 30 16:03	8° ♄ 07'28	-5°-41'-8
	3073 Feb 22 10:09	0° ♄		3075 Jul 30 06:19	8° ♄ 22'42	5°39'00
				3075 Jul 30 11:36	8° ♄ 14'26	0.29055 AU
superior conj	3073 Mar 10 04:09	19° ♄ 45'11	-1°-26'00	3075 Aug 04 14:01	5° ♄ 07'45	
minimum elong	3073 Mar 10 01:35	19° ♄ 37'09	1°26'00	3075 Aug 18 09:18	30° ♄	
max. Earth dist.	3073 Mar 13 17:58	24° ♄ 13'48	1.71613 AU	3075 Aug 21 07:40	29° ♄ 49'49	
	3073 Mar 18 08:40	0° ♄		3075 Aug 24 07:05	0° ♄	
	3073 Apr 11 10:04	0° ♄		3075 Sep 04 06:18	3° ♄ 14'10	-4.5m
evening rise	3073 Apr 19 04:05	9° ♄ 37'10		3075 Oct 09 04:16	0° ♄	
	3073 May 05 15:38	0° ♄		3075 Oct 09 14:19	0° ♄ 24'27	46°03'32
asc. node	3073 May 09 16:45	4° ♄ 59'11		3075 Oct 25 11:47	16° ♄ 43'55	
	3073 May 30 02:10	0° ♄		3075 Nov 06 13:43	0° ♄	
	3073 Jun 23 18:25	0° ♄		3075 Dec 02 10:55	0° ♄	
	3073 Jul 18 18:09	0° ♄		3075 Dec 27 07:00	0° ♄	
	3073 Aug 13 05:11	0° ♄		3076 Jan 20 15:30	0° ♄	
desc. node	3073 Aug 29 06:12	18° ♄ 28'29		3076 Feb 13 18:53	0° \approx	
	3073 Sep 08 11:20	0° ♄		3076 Feb 14 01:25	0° \approx 20'20	
	3073 Oct 06 08:17	0° ♄		3076 Mar 08 20:33	0° ♄	
evening max el	3073 Oct 14 09:59	8° ♄ 04'32	46°32'14	3076 Apr 01 22:33	0° ♄	
	3073 Nov 08 21:53	0° ♄		3076 Apr 13 17:24	14° ♄ 38'57	
greatest brilliancy	3073 Nov 22 05:12	7° ♄ 24'52	-4.6m	3076 Apr 26 02:19	0° ♄	
retrograde	3073 Dec 03 07:56	9° ♄ 42'31		3076 May 20 08:29	0° ♄	
evening set	3073 Dec 17 15:06	5° ♄ 40'23				
asc. node	3073 Dec 20 09:14	4° ♄ 08'24		superior conj	3076 May 22 00:13	2° ♄ 02'35 0°-35'-14
inferior conj	3073 Dec 23 21:20	2° ♄ 02'35	0°54'42	minimum elong	3076 May 22 07:28	2° ♄ 24'57 0°34'56
minimum elong	3073 Dec 23 19:14	2° ♄ 05'46	0°54'00	max. Earth dist.	3076 May 24 10:07	5° ♄ 01'12 1.73104 AU
min. Earth dist.	3073 Dec 23 22:16	2° ♄ 01'11	0.26517 AU	asc. node	3076 Jun 06 04:32	20° ♄ 45'07
	3073 Dec 27 07:04	30° ♄		3076 Jun 13 16:57	0° ♄	
morning rise	3073 Dec 29 23:06	28° ♄ 30'05		3076 Jun 28 04:28	17° ♄ 47'41	
direct	3074 Jan 13 07:45	24° ♄ 22'32		3076 Jul 08 03:11	0° ♄	
greatest brilliancy	3074 Jan 25 15:08	27° ♄ 11'56	-4.7m	3076 Aug 01 15:09	0° ♄	
	3074 Jan 31 03:39	0° ♄		3076 Aug 26 05:42	0° ♄	
morning max el	3074 Mar 04 19:47	27° ♄ 19'03	46°52'38	3076 Sep 20 00:23	0° ♄	
	3074 Mar 07 11:19	0° \approx		3076 Sep 25 18:16	6° ♄ 55'05	
	3074 Apr 04 04:09	0° ♄		3076 Oct 15 01:11	0° ♄	
desc. node	3074 Apr 10 23:13	7° ♄ 42'54		3076 Nov 09 11:39	0° ♄	
	3074 Apr 30 05:10	0° ♄		3076 Dec 05 18:02	0° \approx	
	3074 May 25 14:40	0° ♄		3076 Dec 26 08:04	22° \approx 00'58	47°15'30
	3074 Jun 19 16:44	0° ♄		3077 Jan 03 10:09	0° ♄	
	3074 Jul 14 13:49	0° ♄		3077 Jan 16 21:11	11° ♄ 53'47	
asc. node	3074 Aug 02 02:08	22° ♄ 29'16		3077 Feb 02 10:29	22° ♄ 33'09	-4.7m
	3074 Aug 08 05:54	0° ♄		3077 Feb 15 05:02	25° ♄ 35'15	
morning set	3074 Sep 01 18:46	0° ♄ 06'26		3077 Mar 04 22:22	19° ♄ 28'13	
	3074 Sep 01 16:40	0° ♄		3077 Mar 07 23:48	17° ♄ 34'36	8°51'42
	3074 Sep 25 22:39	0° ♄		3077 Mar 07 20:57	17° ♄ 39'02	8°51'35
max. Earth dist.	3074 Oct 05 11:32	11° ♄ 50'55	1.72417 AU	min. Earth dist.	3077 Mar 07 07:25	18° ♄ 00'08 0.27391 AU
				morning rise	3077 Mar 10 19:46	15° ♄ 49'50
superior conj	3074 Oct 08 12:33	15° ♄ 38'01	1°20'35	direct	3077 Mar 28 16:19	9° ♄ 44'47
minimum elong	3074 Oct 08 18:29	15° ♄ 56'28	1°20'30	greatest brilliancy	3077 Apr 08 08:38	11° ♄ 52'05 -4.6m
	3074 Oct 20 01:19	0° ♄		3077 May 05 09:23	0° ♄	
	3074 Nov 13 02:12	0° ♄		3077 May 08 10:53	2° ♄ 43'48	
evening rise	3074 Nov 16 00:32	3° ♄ 39'42		3077 May 17 04:42	10° ♄ 57'53	46°10'39
desc. node	3074 Nov 21 16:02	10° ♄ 42'58		3077 Jun 04 18:56	0° ♄	

	3077 Jul 01 23:43	0°♁				3080 Feb 05 08:23	0°♁	
	3077 Jul 28 00:26	0°♁			asc. node	3080 Feb 14 09:02	10°♁15'29	
	3077 Aug 22 08:47	0°♁				3080 Mar 03 14:52	0°♁	
asc. node	3077 Aug 29 14:03	8°♁39'45			evening max el	3080 Mar 08 01:42	4°♁32'22	46°39'02
	3077 Sep 16 04:43	0°♁				3080 Apr 07 02:52	0°♁	
	3077 Oct 10 14:53	0°♁			greatest brilliancy	3080 Apr 12 22:13	3°♁13'07	-4.6m
	3077 Nov 03 18:13	0°♁			retrograde	3080 Apr 27 05:48	6°♁55'18	
morning set	3077 Nov 10 20:30	8°♁51'56			evening set	3080 May 13 02:05	2°♁01'30	
	3077 Nov 27 17:29	0°♁				3080 May 16 11:19	30°♁	
desc. node	3077 Dec 19 03:44	26°♁54'38			inferior conj	3080 May 18 13:02	28°♁42'13	4°02'07
max. Earth dist.	3077 Dec 19 09:54	27°♁13'59	1.71206 AU		minimum elong	3080 May 18 21:05	28°♁29'34	3°59'57
					min. Earth dist.	3080 May 18 12:13	28°♁43'30	0.28472 AU
superior conj	3077 Dec 20 14:41	28°♁44'26	0°-3'-31		morning rise	3080 May 24 16:21	25°♁00'06	
minimum elong	3077 Dec 20 13:45	28°♁41'31	0°03'29		desc. node	3080 Jun 04 22:36	20°♁50'44	
behind sun begin	3077 Dec 19 12:15	27°♁21'22			direct	3080 Jun 08 19:14	20°♁32'59	
behind sun end	3077 Dec 21 15:16	0°♁01'40			greatest brilliancy	3080 Jun 21 06:31	23°♁17'44	-4.5m
	3077 Dec 21 14:44	0°♁				3080 Jul 03 06:53	0°♁	
	3078 Jan 14 11:16	0°♁			morning max el	3080 Jul 27 13:08	20°♁16'49	45°43'09
evening rise	3078 Jan 30 19:30	20°♁32'30				3080 Aug 06 10:05	0°♁	
	3078 Feb 07 08:16	0°♁				3080 Sep 03 10:07	0°♁	
	3078 Mar 03 07:30	0°♁			asc. node	3080 Sep 26 02:00	25°♁57'48	
	3078 Mar 27 11:19	0°♁				3080 Sep 29 12:34	0°♁	
asc. node	3078 Apr 11 06:55	18°♁13'18				3080 Oct 24 14:31	0°♁	
	3078 Apr 20 22:35	0°♁				3080 Nov 18 01:43	0°♁	
	3078 May 15 20:44	0°♁				3080 Dec 12 04:32	0°♁	
	3078 Jun 10 11:22	0°♁				3081 Jan 05 03:13	0°♁	
	3078 Jul 07 07:31	0°♁			desc. node	3081 Jan 15 15:37	13°♁12'29	
evening max el	3078 Jul 31 05:27	24°♁28'34	45°33'16		morning set	3081 Jan 25 04:49	25°♁12'28	
desc. node	3078 Jul 31 20:26	25°♁04'14				3081 Jan 29 00:18	0°♁	
	3078 Aug 06 03:41	0°♁				3081 Feb 21 21:21	0°♁	
greatest brilliancy	3078 Sep 06 13:14	21°♁51'15	-4.5m					
retrograde	3078 Sep 17 21:29	24°♁08'56			superior conj	3081 Mar 07 15:16	17°♁14'43	-1°-25'-30
evening set	3078 Oct 05 16:46	18°♁16'21			minimum elong	3081 Mar 07 11:38	17°♁03'22	1°25'29
inferior conj	3078 Oct 09 01:55	16°♁12'43	-8°-16'-53		max. Earth dist.	3081 Mar 11 01:17	21°♁31'35	1.71569 AU
minimum elong	3078 Oct 09 08:13	16°♁02'58	8°16'18			3081 Mar 17 19:48	0°♁	
min. Earth dist.	3078 Oct 09 23:01	15°♁40'03	0.28176 AU			3081 Apr 10 21:11	0°♁	
morning rise	3078 Oct 12 23:20	13°♁50'00			evening rise	3081 Apr 16 17:20	7°♁14'57	
direct	3078 Oct 30 07:50	8°♁05'16				3081 May 05 02:49	0°♁	
greatest brilliancy	3078 Nov 13 18:02	11°♁49'17	-4.6m		asc. node	3081 May 08 18:43	4°♁30'47	
asc. node	3078 Nov 21 23:21	16°♁38'25				3081 May 29 13:30	0°♁	
	3078 Dec 08 12:05	0°♁				3081 Jun 23 06:04	0°♁	
morning max el	3078 Dec 19 19:29	10°♁57'05	46°47'03			3081 Jul 18 06:23	0°♁	
	3079 Jan 06 16:12	0°♁				3081 Aug 12 18:33	0°♁	
	3079 Feb 01 19:10	0°♁			desc. node	3081 Aug 28 08:20	17°♁53'11	
	3079 Feb 26 21:38	0°♁				3081 Sep 08 02:57	0°♁	
desc. node	3079 Mar 13 13:21	17°♁46'19				3081 Oct 06 05:26	0°♁	
	3079 Mar 23 14:02	0°♁			evening max el	3081 Oct 12 00:09	5°♁44'16	46°29'51
	3079 Apr 17 02:23	0°♁				3081 Nov 10 03:00	0°♁	
	3079 May 11 13:39	0°♁			greatest brilliancy	3081 Nov 19 17:10	4°♁56'24	-4.6m
	3079 Jun 05 01:02	0°♁			retrograde	3081 Nov 30 20:35	7°♁14'02	
morning set	3079 Jun 23 15:01	22°♁46'41			evening set	3081 Dec 15 03:47	3°♁11'17	
	3079 Jun 29 12:22	0°♁			asc. node	3081 Dec 19 11:19	0°♁43'47	
asc. node	3079 Jul 04 16:21	6°♁20'13				3081 Dec 20 16:21	30°♁	
	3079 Jul 23 22:44	0°♁			inferior conj	3081 Dec 21 09:32	29°♁33'56	0°30'02
max. Earth dist.	3079 Jul 28 14:17	5°♁42'58	1.73496 AU		minimum elong	3081 Dec 21 08:23	29°♁35'42	0°29'40
					min. Earth dist.	3081 Dec 21 11:36	29°♁30'49	0.26537 AU
superior conj	3079 Jul 30 06:29	7°♁46'36	0°55'58		morning rise	3081 Dec 27 12:45	25°♁59'49	
minimum elong	3079 Jul 29 21:43	7°♁19'38	0°55'38		direct	3082 Jan 10 21:01	21°♁53'34	
	3079 Aug 17 07:30	0°♁			greatest brilliancy	3082 Jan 23 05:35	24°♁45'02	-4.7m
evening rise	3079 Sep 04 04:24	22°♁03'05				3082 Feb 01 15:57	0°♁	
	3079 Sep 10 14:55	0°♁			morning max el	3082 Mar 02 10:08	24°♁55'53	46°53'27
	3079 Oct 04 21:56	0°♁				3082 Mar 07 09:14	0°♁	
desc. node	3079 Oct 24 06:08	23°♁51'57				3082 Apr 03 20:21	0°♁	
	3079 Oct 29 05:34	0°♁			desc. node	3082 Apr 10 01:14	7°♁04'21	
	3079 Nov 22 14:34	0°♁				3082 Apr 29 19:03	0°♁	
	3079 Dec 17 02:19	0°♁				3082 May 25 03:18	0°♁	
	3080 Jan 10 20:53	0°♁				3082 Jun 19 04:37	0°♁	

	3082 Jul 14 01:13	0°☿		asc. node	3085 Jan 15 23:15	10°☿40'23	
asc. node	3082 Aug 01 04:16	22°☿01'50		greatest brilliancy	3085 Jan 31 02:45	20°☿11'22	-4.7m
	3082 Aug 07 16:59	0°♊		retrograde	3085 Feb 12 18:25	23°☿10'31	
morning set	3082 Aug 30 12:23	27°♊59'18		evening set	3085 Mar 02 09:35	17°☿08'08	
	3082 Sep 01 03:34	0°♋		min. Earth dist.	3085 Mar 04 20:48	15°☿36'49	0.27344 AU
	3082 Sep 25 09:31	0°♌		inferior conj	3085 Mar 05 13:23	15°☿10'55	8°48'29
max. Earth dist.	3082 Oct 03 03:33	9°♌37'40	1.72462 AU	minimum elong	3085 Mar 05 09:40	15°☿16'43	8°48'17
				morning rise	3085 Mar 08 09:58	13°☿25'06	
superior conj	3082 Oct 06 05:03	13°♌26'10	1°21'36	direct	3085 Mar 26 05:09	7°☿21'55	
minimum elong	3082 Oct 06 10:20	13°♌42'35	1°21'32	greatest brilliancy	3085 Apr 05 21:48	9°☿29'06	-4.6m
	3082 Oct 19 12:15	0°♍			3085 May 05 14:18	0°♎	
	3082 Nov 12 13:18	0°♏		desc. node	3085 May 07 12:50	1°♎46'03	
evening rise	3082 Nov 13 13:56	1°♏16'55		morning max el	3085 May 14 17:23	8°♎35'22	46°12'10
desc. node	3082 Nov 20 18:00	10°♏14'18			3085 Jun 04 12:34	0°♐	
	3082 Dec 06 13:37	0°♑			3085 Jul 01 13:55	0°♑	
	3082 Dec 30 13:56	0°♒			3085 Jul 27 13:03	0°☿	
	3083 Jan 23 15:47	0°♓			3085 Aug 21 20:31	0°♊	
asc. node	3083 Feb 16 22:22	0°♈		asc. node	3085 Aug 28 16:03	8°♊10'57	
	3083 Mar 13 20:58	0°♉17'34			3085 Sep 15 15:59	0°♋	
	3083 Mar 13 15:06	0°♊			3085 Oct 10 01:55	0°♌	
	3083 Apr 08 02:57	0°♋			3085 Nov 03 05:08	0°♍	
	3083 May 05 05:06	0°☿		morning set	3085 Nov 08 10:45	6°♍32'17	
evening max el	3083 May 19 00:34	14°☿01'46	45°39'16		3085 Nov 27 04:22	0°♏	
	3083 Jun 06 00:18	0°♊		max. Earth dist.	3085 Dec 16 16:23	24°♏29'20	1.71229 AU
greatest brilliancy	3083 Jun 22 11:31	10°♊36'39	-4.5m				
desc. node	3083 Jul 03 10:41	13°♊59'12		superior conj	3085 Dec 18 01:56	26°♏14'46	0°00'24
retrograde	3083 Jul 06 20:39	14°♊12'29		minimum elong	3085 Dec 18 02:01	26°♏15'01	0°00'24
evening set	3083 Jul 22 12:48	9°♊29'11		behind sun begin	3085 Dec 17 00:13	24°♏53'57	
inferior conj	3083 Jul 28 08:24	5°♊58'08	-5°-26'-4	behind sun end	3085 Dec 19 03:49	27°♏36'04	
minimum elong	3083 Jul 27 22:49	6°♊13'08	5°23'54	desc. node	3085 Dec 18 05:56	26°♏27'20	
min. Earth dist.	3083 Jul 28 03:30	6°♊05'49	0.29045 AU		3085 Dec 21 01:37	0°♑	
morning rise	3083 Aug 02 08:56	2°♊54'30			3086 Jan 13 22:12	0°♒	
	3083 Aug 08 03:18	30°♒☿		evening rise	3086 Jan 28 06:04	18°♒00'27	
direct	3083 Aug 19 00:22	27°☿40'53			3086 Feb 06 19:17	0°♓	
	3083 Aug 30 09:21	0°♊			3086 Mar 02 18:36	0°♈	
greatest brilliancy	3083 Sep 01 20:05	1°♊01'54	-4.5m		3086 Mar 26 22:37	0°♉	
morning max el	3083 Oct 07 05:18	28°♊10'27	46°02'12	asc. node	3086 Apr 10 08:50	17°♉44'00	
	3083 Oct 09 01:59	0°♋			3086 Apr 20 10:14	0°♊	
asc. node	3083 Oct 24 13:40	16°♋02'05			3086 May 15 09:03	0°☿	
	3083 Nov 06 05:16	0°♌			3086 Jun 10 01:01	0°♊	
	3083 Dec 02 00:21	0°♍			3086 Jul 07 00:09	0°♋	
	3083 Dec 26 19:28	0°♏		evening max el	3086 Jul 28 18:53	22°♋11'39	45°32'18
desc. node	3084 Jan 20 03:26	0°♑		desc. node	3086 Jul 30 22:32	24°♋13'57	
	3084 Feb 13 03:31	29°♑50'45			3086 Aug 06 06:11	0°♌	
	3084 Feb 13 06:29	0°♒		greatest brilliancy	3086 Sep 04 00:38	19°♌33'12	-4.5m
	3084 Mar 08 07:55	0°♓		retrograde	3086 Sep 15 11:37	21°♌53'55	
	3084 Apr 01 09:44	0°♈		evening set	3086 Oct 03 08:57	15°♌57'50	
morning set	3084 Apr 11 07:00	12°♈17'41		inferior conj	3086 Oct 06 16:35	13°♌56'34	-8°-22'-49
	3084 Apr 25 13:19	0°♉		minimum elong	3086 Oct 06 22:11	13°♌47'54	8°22'22
				min. Earth dist.	3086 Oct 07 13:12	13°♌24'41	0.28240 AU
superior conj	3084 May 19 15:56	29°♉49'24	0°-38'-21	morning rise	3086 Oct 10 11:07	11°♌38'17	
minimum elong	3084 May 19 23:43	0°♊13'24	0°38'00	direct	3086 Oct 27 22:48	5°♌48'01	
	3084 May 19 19:22	0°♊		greatest brilliancy	3086 Nov 11 11:27	9°♌34'44	-4.6m
max. Earth dist.	3084 May 22 06:57	3°♊03'50	1.73061 AU	asc. node	3086 Nov 21 01:28	15°♌20'37	
asc. node	3084 Jun 05 06:33	20°♊17'58			3086 Dec 08 14:57	0°♍	
	3084 Jun 13 03:47	0°☿		morning max el	3086 Dec 17 10:12	8°♍36'51	46°46'04
evening rise	3084 Jun 25 22:23	15°☿41'55			3087 Jan 06 09:25	0°♏	
	3084 Jul 07 14:06	0°♊			3087 Feb 01 09:24	0°♑	
	3084 Aug 01 02:17	0°♋			3087 Feb 26 10:28	0°♒	
	3084 Aug 25 17:13	0°♌		desc. node	3087 Mar 12 15:20	17°♒14'57	
	3084 Sep 19 12:28	0°♍			3087 Mar 23 02:03	0°♓	
desc. node	3084 Sep 24 20:15	6°♍24'13			3087 Apr 16 13:52	0°♈	
	3084 Oct 14 14:09	0°♏			3087 May 11 00:44	0°♉	
	3084 Nov 09 02:09	0°♑			3087 Jun 04 11:52	0°♊	
	3084 Dec 05 11:37	0°♒		morning set	3087 Jun 21 08:28	20°♊40'09	
evening max el	3084 Dec 23 21:56	19°♒36'43	47°15'05		3087 Jun 28 23:02	0°☿	
	3085 Jan 03 13:14	0°♓		asc. node	3087 Jul 03 18:29	5°☿54'07	

	3087 Jul 23 09:20	0°♈		minimum elong	3089 Dec 18 21:30	27°♏06'48	0°05'21
max. Earth dist.	3087 Jul 26 11:30	3°♈48'04	1.73512 AU	transit middle	3089 Dec 18 21:30	27°♏06'48	0°05'21
				transit begin	3089 Dec 18 17:39	27°♏12'40	
superior conj	3087 Jul 28 00:36	5°♈42'10	0°53'32	transit end	3089 Dec 19 01:22	27°♏00'56	
minimum elong	3087 Jul 27 15:57	5°♈15'32	0°53'12	asc. node	3089 Dec 18 13:24	27°♏19'06	
	3087 Aug 16 18:07	0°♏		min. Earth dist.	3089 Dec 19 00:59	27°♏01'31	0.26556 AU
evening rise	3087 Sep 01 22:10	19°♏56'50		morning rise	3089 Dec 25 02:06	23°♏30'47	
	3087 Sep 10 01:39	0°♐		direct	3090 Jan 08 10:11	19°♏25'55	
	3087 Oct 04 08:55	0°♑		greatest brilliancy	3090 Jan 20 19:31	22°♏18'29	-4.7m
desc. node	3087 Oct 23 08:07	23°♑23'18			3090 Feb 02 17:09	0°♐	
	3087 Oct 28 16:55	0°♏		morning max el	3090 Feb 27 23:40	22°♐31'41	46°54'13
	3087 Nov 22 02:23	0°♐			3090 Mar 07 05:57	0°♑	
	3087 Dec 16 14:45	0°♑			3090 Apr 03 11:53	0°♒	
	3088 Jan 10 10:17	0°♒		desc. node	3090 Apr 09 03:11	6°♒27'09	
	3088 Feb 04 23:39	0°♓			3090 Apr 29 08:23	0°♓	
asc. node	3088 Feb 13 11:04	9°♓35'21			3090 May 24 15:27	0°♈	
	3088 Mar 03 11:11	0°♈			3090 Jun 18 16:02	0°♉	
evening max el	3088 Mar 05 16:33	2°♈15'13	46°41'22		3090 Jul 13 12:10	0°♊	
	3088 Apr 08 14:40	0°♉		asc. node	3090 Jul 31 06:14	21°♊35'07	
greatest brilliancy	3088 Apr 10 13:56	1°♉00'06	-4.6m		3090 Aug 07 03:41	0°♋	
retrograde	3088 Apr 24 22:16	4°♉43'17		morning set	3090 Aug 28 05:51	25°♋52'43	
	3088 May 10 10:13	30°♋			3090 Aug 31 14:09	0°♌	
evening set	3088 May 10 20:21	29°♋45'38			3090 Sep 24 20:06	0°♍	
inferior conj	3088 May 16 04:48	26°♋30'03	4°20'26	max. Earth dist.	3090 Sep 30 17:24	7°♍18'35	1.72512 AU
minimum elong	3088 May 16 13:18	26°♋16'43	4°18'11				
min. Earth dist.	3088 May 16 03:49	26°♋31'36	0.28449 AU	superior conj	3090 Oct 03 21:25	11°♍14'47	1°22'29
morning rise	3088 May 22 06:34	22°♋50'29		minimum elong	3090 Oct 04 02:00	11°♍29'02	1°22'26
desc. node	3088 Jun 04 00:44	18°♋28'02			3090 Oct 18 22:57	0°♎	
direct	3088 Jun 06 10:44	18°♋21'05		evening rise	3090 Nov 11 03:04	28°♎54'14	
greatest brilliancy	3088 Jun 18 21:10	21°♋05'38	-4.5m		3090 Nov 12 00:08	0°♏	
	3088 Jul 04 00:43	0°♐		desc. node	3090 Nov 19 20:07	9°♏46'57	
morning max el	3088 Jul 25 05:44	18°♐08'51	45°43'17		3090 Dec 06 00:37	0°♐	
	3088 Aug 06 04:55	0°♑			3090 Dec 30 01:09	0°♑	
	3088 Sep 03 00:32	0°♒			3091 Jan 23 03:18	0°♒	
asc. node	3088 Sep 25 03:55	25°♒25'59			3091 Feb 16 10:20	0°♓	
	3088 Sep 29 01:12	0°♏		asc. node	3091 Mar 12 22:54	29°♓45'18	
	3088 Oct 24 02:17	0°♐			3091 Mar 13 03:48	0°♈	
	3088 Nov 17 13:02	0°♑			3091 Apr 07 17:09	0°♉	
	3088 Dec 11 15:39	0°♏			3091 May 04 23:01	0°♊	
desc. node	3089 Jan 04 14:13	0°♐		evening max el	3091 May 16 16:20	11°♊50'51	45°40'44
	3089 Jan 14 17:40	12°♐44'32			3091 Jun 06 11:44	0°♋	
morning set	3089 Jan 22 14:33	22°♐37'55		greatest brilliancy	3091 Jun 20 03:54	8°♋28'52	-4.5m
	3089 Jan 28 11:12	0°♑		desc. node	3091 Jul 02 12:42	12°♋00'12	
	3089 Feb 21 08:09	0°♒		retrograde	3091 Jul 04 12:41	12°♋04'47	
				evening set	3091 Jul 20 03:14	7°♋24'38	
superior conj	3089 Mar 05 02:25	14°♒45'27	-1°-24'-49	inferior conj	3091 Jul 26 00:56	3°♌50'28	-5°-10'-36
minimum elong	3089 Mar 04 21:46	14°♒30'53	1°24'48	minimum elong	3091 Jul 25 15:33	4°♌05'11	5°08'25
max. Earth dist.	3089 Mar 08 10:56	18°♒57'48	1.71523 AU	min. Earth dist.	3091 Jul 25 19:52	3°♌58'24	0.29037 AU
	3089 Mar 17 06:31	0°♓		morning rise	3091 Jul 31 03:55	0°♌42'56	
	3089 Apr 10 07:53	0°♈			3091 Aug 01 10:30	30°♌	
evening rise	3089 Apr 14 06:40	4°♈54'19		direct	3091 Aug 16 16:45	25°♌33'27	
	3089 May 04 13:33	0°♉		greatest brilliancy	3091 Aug 30 10:26	28°♌51'31	-4.5m
asc. node	3089 May 07 20:48	4°♉04'08			3091 Sep 01 19:17	0°♍	
	3089 May 29 00:24	0°♊		morning max el	3091 Oct 04 19:35	25°♍55'31	46°00'42
	3089 Jun 22 17:20	0°♋			3091 Oct 08 22:38	0°♎	
	3089 Jul 17 18:20	0°♌		asc. node	3091 Oct 23 15:47	15°♎21'58	
desc. node	3089 Aug 12 07:44	0°♍			3091 Nov 05 20:26	0°♏	
	3089 Aug 27 10:17	17°♍17'54			3091 Dec 01 13:34	0°♐	
	3089 Sep 07 18:32	0°♎			3091 Dec 26 07:44	0°♑	
	3089 Oct 06 03:02	0°♏			3092 Jan 19 15:09	0°♒	
evening max el	3089 Oct 09 14:33	3°♏25'32	46°27'32	desc. node	3092 Feb 12 05:30	29°♒21'31	
	3089 Nov 11 20:06	0°♐			3092 Feb 12 17:51	0°♑	
greatest brilliancy	3089 Nov 17 05:54	2°♐30'02	-4.6m		3092 Mar 07 19:01	0°♒	
retrograde	3089 Nov 28 09:00	4°♐46'28			3092 Mar 31 20:39	0°♓	
evening set	3089 Dec 12 16:44	0°♑43'13		morning set	3092 Apr 08 20:27	9°♓56'37	
	3089 Dec 14 00:25	30°♑			3092 Apr 25 00:06	0°♈	
inferior conj	3089 Dec 18 21:43	27°♑06'29	0°05'24				

superior conj	3092 May 17 07:46	27°♄37'10	0°-41'-22	morning rise	3094 Oct 07 23:26	9°♂27'09	
minimum elong	3092 May 17 16:02	28°♄02'42	0°41'02	direct	3094 Oct 25 14:27	3°♂31'56	
	3092 May 19 06:02	0°♂		greatest brilliancy	3094 Nov 09 04:27	7°♂20'32	-4.6m
max. Earth dist.	3092 May 20 02:11	1°♂02'12	1.73014 AU	asc. node	3094 Nov 20 03:33	14°♂05'37	
asc. node	3092 Jun 04 08:42	19°♂51'52			3094 Dec 08 16:21	0°♂	
	3092 Jun 12 14:24	0°♂		morning max el	3094 Dec 15 01:52	6°♂19'09	46°44'44
evening rise	3092 Jun 23 16:26	13°♂37'14			3095 Jan 06 02:24	0°♂	
	3092 Jul 07 00:47	0°♂			3095 Jan 31 23:43	0°♂	
	3092 Jul 31 13:11	0°♂			3095 Feb 25 23:29	0°♂	
	3092 Aug 25 04:31	0°♂		desc. node	3095 Mar 11 17:22	16°♂42'59	
	3092 Sep 19 00:26	0°♂			3095 Mar 22 14:17	0°♂	
desc. node	3092 Sep 23 22:15	5°♂53'46			3095 Apr 16 01:33	0°♂	
	3092 Oct 14 03:08	0°♂			3095 May 10 12:01	0°♂	
	3092 Nov 08 16:48	0°♂			3095 Jun 03 22:51	0°♂	
	3092 Dec 05 05:39	0°♂		morning set	3095 Jun 19 01:53	18°♂32'59	
evening max el	3092 Dec 21 10:51	17°♂09'56	47°14'42		3095 Jun 28 09:52	0°♂	
	3093 Jan 03 18:08	0°♂		asc. node	3095 Jul 02 20:24	5°♂26'53	
asc. node	3093 Jan 15 01:15	9°♂24'30			3095 Jul 22 20:06	0°♂	
greatest brilliancy	3093 Jan 28 18:42	17°♂48'45	-4.7m	max. Earth dist.	3095 Jul 24 10:06	1°♂56'49	1.73523 AU
retrograde	3093 Feb 10 07:38	20°♂45'35					
evening set	3093 Feb 27 20:15	14°♂48'15		superior conj	3095 Jul 25 18:51	3°♂37'34	0°51'02
min. Earth dist.	3093 Mar 02 10:07	13°♂13'05	0.27293 AU	minimum elong	3095 Jul 25 10:21	3°♂11'25	0°50'42
inferior conj	3093 Mar 03 02:51	12°♂47'00	8°44'19		3095 Aug 16 04:55	0°♂	
minimum elong	3093 Mar 02 22:16	12°♂54'09	8°44'01	evening rise	3095 Aug 30 16:19	17°♂51'16	
morning rise	3093 Mar 06 00:27	10°♂59'41			3095 Sep 09 12:34	0°♂	
direct	3093 Mar 23 17:30	4°♂58'38			3095 Oct 03 20:04	0°♂	
greatest brilliancy	3093 Apr 03 11:27	7°♂06'42	-4.6m	desc. node	3095 Oct 22 10:17	22°♂54'47	
	3093 May 05 17:20	0°♂			3095 Oct 28 04:25	0°♂	
desc. node	3093 May 06 15:03	0°♂50'30			3095 Nov 21 14:23	0°♂	
morning max el	3093 May 12 06:13	6°♂13'25	46°13'48		3095 Dec 16 03:27	0°♂	
	3093 Jun 04 05:40	0°♂			3096 Jan 10 00:04	0°♂	
	3093 Jul 01 03:51	0°♂			3096 Feb 04 15:32	0°♂	
	3093 Jul 27 01:27	0°♂		asc. node	3096 Feb 12 13:01	8°♂53'20	
	3093 Aug 21 08:06	0°♂			3096 Mar 03 08:44	0°♂	
asc. node	3093 Aug 27 18:04	7°♂42'37		evening max el	3096 Mar 03 08:17	29°♂58'53	46°43'34
	3093 Sep 15 03:07	0°♂		greatest brilliancy	3096 Apr 08 06:41	28°♂46'46	-4.6m
	3093 Oct 09 12:51	0°♂			3096 Apr 11 00:31	0°♂	
	3093 Nov 02 16:01	0°♂		retrograde	3096 Apr 22 14:48	2°♂29'12	
morning set	3093 Nov 06 01:09	4°♂13'20			3096 May 03 16:01	30°♂	
	3093 Nov 26 15:16	0°♂		evening set	3096 May 08 14:35	27°♂27'54	
max. Earth dist.	3093 Dec 14 00:51	21°♂50'39	1.71260 AU	inferior conj	3096 May 13 20:22	24°♂15'58	4°38'29
				minimum elong	3096 May 14 05:17	24°♂02'01	4°36'12
superior conj	3093 Dec 15 12:59	23°♂44'11	0°04'20	min. Earth dist.	3096 May 13 18:57	24°♂18'12	0.28421 AU
minimum elong	3093 Dec 15 14:05	23°♂47'41	0°04'16	morning rise	3096 May 19 20:22	20°♂39'15	
behind sun begin	3093 Dec 14 12:58	22°♂28'46		desc. node	3096 Jun 03 02:46	16°♂08'45	
behind sun end	3093 Dec 16 15:12	25°♂06'36		direct	3096 Jun 04 02:21	16°♂07'36	
desc. node	3093 Dec 17 07:56	25°♂59'10		greatest brilliancy	3096 Jun 16 10:32	18°♂50'37	-4.5m
	3093 Dec 20 12:36	0°♂			3096 Jul 04 14:32	0°♂	
	3094 Jan 13 09:15	0°♂		morning max el	3096 Jul 22 22:09	15°♂59'31	45°43'31
evening rise	3094 Jan 25 16:11	15°♂26'45			3096 Aug 05 23:36	0°♂	
	3094 Feb 06 06:24	0°♂			3096 Sep 02 15:03	0°♂	
	3094 Mar 02 05:48	0°♂		asc. node	3096 Sep 24 05:59	24°♂53'57	
	3094 Mar 26 09:59	0°♂			3096 Sep 28 14:00	0°♂	
asc. node	3094 Apr 09 10:57	17°♂15'07			3096 Oct 23 14:15	0°♂	
	3094 Apr 19 21:57	0°♂			3096 Nov 17 00:35	0°♂	
	3094 May 14 21:28	0°♂			3096 Dec 11 02:59	0°♂	
	3094 Jun 09 14:50	0°♂			3097 Jan 04 01:27	0°♂	
	3094 Jul 06 17:06	0°♂		desc. node	3097 Jan 13 19:38	12°♂15'36	
evening max el	3094 Jul 26 09:21	19°♂57'32	45°31'32	morning set	3097 Jan 20 00:43	20°♂03'59	
desc. node	3094 Jul 30 00:32	23°♂22'41			3097 Jan 27 22:22	0°♂	
	3094 Aug 06 10:12	0°♂			3097 Feb 20 19:16	0°♂	
greatest brilliancy	3094 Sep 01 11:31	17°♂15'30	-4.5m				
retrograde	3094 Sep 13 02:37	19°♂39'58		superior conj	3097 Mar 02 13:24	12°♂14'34	-1°-23'-58
evening set	3094 Oct 01 01:05	13°♂40'52		minimum elong	3097 Mar 02 07:47	11°♂56'56	1°23'55
inferior conj	3094 Oct 04 07:30	11°♂41'25	-8°-27'-43	max. Earth dist.	3097 Mar 05 21:45	16°♂26'27	1.71485 AU
minimum elong	3094 Oct 04 12:24	11°♂33'51	8°27'24		3097 Mar 16 17:37	0°♂	
min. Earth dist.	3094 Oct 05 03:11	11°♂11'01	0.28304 AU		3097 Apr 09 18:59	0°♂	

evening rise	3097 Apr 11 19:30	2°♄30'41		morning max el	3099 Oct 02 09:45	23°♄39'16	45°59'25
	3097 May 04 00:43	0°♄			3099 Oct 08 19:02	0°♄	
asc. node	3097 May 06 22:52	3°♄36'02		asc. node	3099 Oct 22 17:53	14°♄41'21	
	3097 May 28 11:44	0°♄			3099 Nov 05 11:42	0°♄	
	3097 Jun 22 05:01	0°♄			3099 Dec 01 02:57	0°♄	
	3097 Jul 17 06:43	0°♄			3099 Dec 25 20:14	0°♄	
	3097 Aug 11 21:24	0°♄			3100 Jan 19 03:07	0°♄	
desc. node	3097 Aug 26 12:20	16°♄41'38		desc. node	3100 Feb 11 07:32	28°♄51'39	
	3097 Sep 07 10:46	0°♄			3100 Feb 12 05:28	0°♄	
	3097 Oct 06 01:53	0°♄			3100 Mar 08 06:23	0°♄	
evening max el	3097 Oct 07 04:49	1°♄05'43	46°25'11		3100 Apr 01 07:49	0°♄	
	3097 Nov 14 14:53	0°♄		morning set	3100 Apr 07 09:58	7°♄34'51	
greatest brilliancy	3097 Nov 14 19:51	0°♄04'48	-4.6m		3100 Apr 25 11:06	0°♄	
retrograde	3097 Nov 25 21:09	2°♄18'56					
	3097 Dec 06 14:41	30°♄		superior conj	3100 May 15 23:37	25°♄24'13	0°-44'-20
evening set	3097 Dec 10 06:10	28°♄15'01		minimum elong	3100 May 16 08:20	25°♄51'08	0°43'59
inferior conj	3097 Dec 16 10:11	24°♄39'17	0°-18'-55	max. Earth dist.	3100 May 18 19:57	28°♄55'10	1.72971 AU
minimum elong	3097 Dec 16 10:55	24°♄38'10	0°18'42		3100 May 19 16:57	0°♄	
min. Earth dist.	3097 Dec 16 14:55	24°♄32'05	0.26577 AU	asc. node	3100 Jun 04 10:38	19°♄24'12	
asc. node	3097 Dec 17 15:20	23°♄54'59			3100 Jun 13 01:19	0°♄	
morning rise	3097 Dec 22 15:27	21°♄02'03		evening rise	3100 Jun 22 10:20	11°♄31'14	
direct	3098 Jan 05 23:10	16°♄58'27			3100 Jul 07 11:49	0°♄	
greatest brilliancy	3098 Jan 18 09:47	19°♄52'05	-4.7m		3100 Aug 01 00:27	0°♄	
	3098 Feb 03 11:53	0°♄			3100 Aug 25 16:11	0°♄	
morning max el	3098 Feb 25 12:21	20°♄04'36	46°54'50		3100 Sep 19 12:44	0°♄	
	3098 Mar 07 02:14	0°♄		desc. node	3100 Sep 24 00:23	5°♄22'47	
	3098 Apr 03 03:30	0°♄			3100 Oct 14 16:27	0°♄	
desc. node	3098 Apr 08 05:22	5°♄49'59			3100 Nov 09 07:52	0°♄	
	3098 Apr 28 22:00	0°♄			3100 Dec 06 00:21	0°♄	
	3098 May 24 03:58	0°♄		evening max el	3100 Dec 19 23:43	14°♄42'31	47°14'17
	3098 Jun 18 03:52	0°♄					
	3098 Jul 12 23:32	0°♄					
asc. node	3098 Jul 30 08:15	21°♄07'19					
	3098 Aug 06 14:45	0°♄					
morning set	3098 Aug 25 23:14	23°♄44'47					
	3098 Aug 31 01:05	0°♄					
	3098 Sep 24 07:02	0°♄					
max. Earth dist.	3098 Sep 28 08:01	5°♄01'00	1.72561 AU				
superior conj	3098 Oct 01 13:58	9°♄03'04	1°23'14				
minimum elong	3098 Oct 01 17:51	9°♄15'09	1°23'12				
	3098 Oct 18 09:59	0°♄					
evening rise	3098 Nov 08 16:36	26°♄31'51					
	3098 Nov 11 11:19	0°♄					
desc. node	3098 Nov 18 22:08	9°♄18'09					
	3098 Dec 05 11:58	0°♄					
	3098 Dec 29 12:42	0°♄					
	3099 Jan 22 15:08	0°♄					
	3099 Feb 15 22:36	0°♄					
asc. node	3099 Mar 12 01:02	29°♄12'39					
	3099 Mar 12 16:52	0°♄					
	3099 Apr 07 07:50	0°♄					
	3099 May 04 17:51	0°♄					
evening max el	3099 May 14 07:19	9°♄36'38	45°42'06				
	3099 Jun 07 04:03	0°♄					
greatest brilliancy	3099 Jun 17 19:33	6°♄18'25	-4.5m				
desc. node	3099 Jul 01 14:41	9°♄55'07					
retrograde	3099 Jul 02 04:33	9°♄55'30					
evening set	3099 Jul 17 17:39	5°♄18'02					
inferior conj	3099 Jul 23 17:21	1°♄41'12	-4°-54'-38				
minimum elong	3099 Jul 23 08:13	1°♄55'32	4°52'27				
min. Earth dist.	3099 Jul 23 12:25	1°♄48'56	0.29028 AU				
	3099 Jul 26 10:18	30°♄					
morning rise	3099 Jul 28 22:47	28°♄29'55					
direct	3099 Aug 14 08:36	23°♄24'16					
greatest brilliancy	3099 Aug 28 01:45	26°♄40'55	-4.5m				
	3099 Sep 03 08:58	0°♄					

superior conj	3100 May 15 23:37	25°♄24'13	0°-44'-20	minimum elong	3102 Oct 03 02:26	9°♊19'04	8°31'42
minimum elong	3100 May 16 08:20	25°♄51'08	0°43'59	min. Earth dist.	3102 Oct 03 16:49	8°♊56'51	0.28366 AU
max. Earth dist.	3100 May 18 19:57	28°♄55'10	1.72971 AU	morning rise	3102 Oct 06 11:47	7°♊14'51	
	3100 May 19 16:57	0°♊		direct	3102 Oct 24 06:20	1°♊15'15	
asc. node	3100 Jun 04 10:38	19°♊24'12		greatest brilliancy	3102 Nov 07 20:22	5°♊04'21	-4.6m
	3100 Jun 13 01:19	0°♊		asc. node	3102 Nov 20 05:28	12°♊51'54	
evening rise	3100 Jun 22 10:20	11°♊31'14			3102 Dec 09 16:42	0°♋	
	3100 Jul 07 11:49	0°♋		morning max el	3102 Dec 13 17:38	4°♋01'34	46°43'28
	3100 Aug 01 00:27	0°♋			3103 Jan 06 19:08	0°♋	
	3100 Aug 25 16:11	0°♊			3103 Feb 01 13:54	0°♋	
	3100 Sep 19 12:44	0°♋			3103 Feb 26 12:25	0°♋	
desc. node	3100 Sep 24 00:23	5°♋22'47		desc. node	3103 Mar 11 19:29	16°♋11'28	
	3100 Oct 14 16:27	0°♋			3103 Mar 23 02:27	0°♋	
	3100 Nov 09 07:52	0°♋			3103 Apr 16 13:11	0°♋	
	3100 Dec 06 00:21	0°♋			3103 May 10 23:16	0°♋	
evening max el	3100 Dec 19 23:43	14°♋42'31	47°14'17		3103 Jun 04 09:49	0°♋	
	3101 Jan 05 01:25	0°♋		morning set	3103 Jun 17 19:30	16°♋26'30	
asc. node	3101 Jan 15 03:18	8°♋05'46			3103 Jun 28 20:39	0°♋	
greatest brilliancy	3101 Jan 27 09:53	15°♋24'29	-4.7m	asc. node	3103 Jul 02 22:29	5°♋00'14	
retrograde	3101 Feb 08 21:14	18°♋20'14			3103 Jul 23 06:49	0°♋	
evening set	3101 Feb 26 06:34	12°♋28'05		max. Earth dist.	3103 Jul 23 09:30	0°♋08'13	1.73533 AU
min. Earth dist.	3101 Feb 28 23:21	10°♋48'52	0.27244 AU				
inferior conj	3101 Mar 01 16:20	10°♋22'27	8°39'11	superior conj	3103 Jul 24 13:13	1°♋33'27	0°48'29
minimum elong	3101 Mar 01 10:54	10°♋30'54	8°38'45	minimum elong	3103 Jul 24 04:55	1°♋07'57	0°48'09
morning rise	3101 Mar 04 15:25	8°♋33'08			3103 Aug 16 15:40	0°♋	
direct	3101 Mar 22 05:56	2°♋34'37		evening rise	3103 Aug 29 10:33	15°♋46'02	
greatest brilliancy	3101 Apr 02 01:12	4°♋43'58	-4.6m		3103 Sep 09 23:29	0°♊	
desc. node	3101 May 06 17:00	29°♋55'15			3103 Oct 04 07:15	0°♋	
	3101 May 06 19:01	0°♋		desc. node	3103 Oct 22 12:16	22°♋25'34	
morning max el	3101 May 10 19:51	3°♋52'58	46°15'31		3103 Oct 28 15:59	0°♋	
	3101 Jun 04 22:34	0°♋			3103 Nov 22 02:26	0°♋	
	3101 Jul 01 17:47	0°♊			3103 Dec 16 16:10	0°♋	
	3101 Jul 27 13:59	0°♊			3104 Jan 10 13:52	0°♋	
	3101 Aug 21 19:53	0°♋			3104 Feb 05 07:33	0°♋	
asc. node	3101 Aug 27 20:10	7°♋13'51		asc. node	3104 Feb 12 15:09	8°♋11'45	
	3101 Sep 15 14:29	0°♋		evening max el	3104 Mar 02 00:11	27°♋43'08	46°45'42
	3101 Oct 10 00:00	0°♊			3104 Mar 04 06:58	0°♋	
	3101 Nov 03 03:04	0°♋		greatest brilliancy	3104 Apr 07 00:26	26°♋34'56	-4.6m
morning set	3101 Nov 04 15:38	1°♋54'11			3104 Apr 17 17:18	0°♊	
	3101 Nov 27 02:19	0°♋		retrograde	3104 Apr 21 07:10	0°♊15'06	
max. Earth dist.	3101 Dec 12 12:33	19°♋21'50	1.71289 AU		3104 Apr 24 19:25	30°♋	
				evening set	3104 May 07 08:55	25°♋10'21	
superior conj	3101 Dec 14 00:07	21°♋13'32	0°08'12	inferior conj	3104 May 12 11:55	22°♋02'06	4°56'15
minimum elong	3101 Dec 14 02:13	21°♋20'10	0°08'06	minimum elong	3104 May 12 21:10	21°♋47'35	4°53'56
behind sun begin	3101 Dec 13 03:36	20°♋09'06		min. Earth dist.	3104 May 12 10:06	22°♋04'58	0.28391 AU
behind sun end	3101 Dec 15 00:50	22°♋31'13		morning rise	3104 May 18 09:53	18°♋28'16	
desc. node	3101 Dec 17 09:53	25°♋30'26		direct	3104 Jun 02 17:59	13°♋54'28	
	3101 Dec 20 23:41	0°♋		desc. node	3104 Jun 03 04:44	13°♋54'42	
	3102 Jan 13 20:25	0°♋		greatest brilliancy	3104 Jun 14 22:58	16°♋34'42	-4.5m
evening rise	3102 Jan 24 02:30	12°♋53'14			3104 Jul 06 00:39	0°♊	
	3102 Feb 06 17:39	0°♋		morning max el	3104 Jul 21 13:58	13°♊49'08	45°43'49
	3102 Mar 02 17:08	0°♋			3104 Aug 06 17:37	0°♊	
	3102 Mar 26 21:29	0°♋			3104 Sep 03 05:13	0°♋	
asc. node	3102 Apr 09 13:00	16°♋45'38		asc. node	3104 Sep 24 08:06	24°♋22'44	
	3102 Apr 20 09:49	0°♊			3104 Sep 29 02:34	0°♋	
	3102 May 15 10:02	0°♊			3104 Oct 24 02:02	0°♊	
	3102 Jun 10 04:51	0°♋			3104 Nov 17 12:00	0°♋	
	3102 Jul 07 10:33	0°♋			3104 Dec 11 14:13	0°♋	
evening max el	3102 Jul 25 00:37	17°♋44'59	45°30'38		3105 Jan 04 12:34	0°♋	
desc. node	3102 Jul 30 02:35	22°♋30'08		desc. node	3105 Jan 13 21:47	11°♋47'31	
	3102 Aug 07 16:28	0°♊		morning set	3105 Jan 18 10:34	17°♋29'23	
greatest brilliancy	3102 Aug 30 22:29	14°♊57'17	-4.5m		3105 Jan 28 09:23	0°♋	
retrograde	3102 Sep 11 17:32	17°♊25'02			3105 Feb 21 06:12	0°♋	
evening set	3102 Sep 29 16:51	11°♊23'36					
inferior conj	3102 Oct 02 22:18	9°♊25'27	-8°-31'-55	superior conj	3105 Mar 01 00:06	9°♋43'17	-1°-22'-56

minimum elong	3105 Feb 28 17:31	9° ✕ 22'40	1°22'52	greatest brilliancy	3107 Aug 26 17:58	24° ☿ 32'35	-4.5m
max. Earth dist.	3105 Mar 04 08:41	13° ✕ 56'00	1.71442 AU		3107 Sep 05 10:47	0° ♈	
	3105 Mar 17 04:30	0° ♊		morning max el	3107 Oct 01 00:53	21° ♈ 26'37	45°58'19
evening rise	3105 Apr 10 08:06	0° ♋ 06'55			3107 Oct 09 14:24	0° ♉	
	3105 Apr 10 05:53	0° ♌		asc. node	3107 Oct 22 19:47	14° ♉ 01'45	
	3105 May 04 11:41	0° ♍			3107 Nov 06 02:23	0° ♊	
asc. node	3105 May 07 00:49	3° ♍ 08'17			3107 Dec 01 15:52	0° ♋	
	3105 May 28 22:52	0° ☿			3107 Dec 26 08:17	0° ♌	
	3105 Jun 22 16:31	0° ♈			3108 Jan 19 14:42	0° ♍	
	3105 Jul 17 18:55	0° ♉		desc. node	3108 Feb 11 09:39	28° ♍ 23'00	
	3105 Aug 12 10:55	0° ♊			3108 Feb 12 16:45	0° ♋	
desc. node	3105 Aug 26 14:29	16° ♊ 06'15			3108 Mar 07 17:28	0° ♌	
	3105 Sep 08 02:59	0° ♍			3108 Mar 31 18:43	0° ♉	
evening max el	3105 Oct 05 17:58	28° ♍ 43'59	46°22'39	morning set	3108 Apr 04 22:55	5° ♊ 11'58	
	3105 Oct 07 01:25	0° ♌			3108 Apr 24 21:51	0° ♋	
greatest brilliancy	3105 Nov 13 10:06	27° ♌ 40'19	-4.6m				
retrograde	3105 Nov 24 08:38	29° ♌ 51'42		superior conj	3108 May 13 15:05	23° ♌ 10'51	0°-47'-16
evening set	3105 Dec 08 19:36	25° ♌ 46'33		minimum elong	3108 May 14 00:12	23° ♌ 39'02	0°46'54
inferior conj	3105 Dec 14 22:32	22° ♌ 12'20	0°-43'-20	max. Earth dist.	3108 May 16 11:56	26° ♌ 43'32	1.72923 AU
minimum elong	3105 Dec 15 00:11	22° ♌ 09'48	0°42'49		3108 May 19 03:34	0° ♍	
min. Earth dist.	3105 Dec 15 05:07	22° ♌ 02'17	0.26605 AU	asc. node	3108 Jun 03 12:42	18° ♍ 57'54	
asc. node	3105 Dec 17 17:26	20° ♌ 31'10			3108 Jun 12 11:55	0° ☿	
morning rise	3105 Dec 21 04:26	18° ♌ 33'45		evening rise	3108 Jun 20 04:04	9° ☿ 25'42	
direct	3106 Jan 04 11:32	14° ♌ 30'50			3108 Jul 06 22:31	0° ♈	
greatest brilliancy	3106 Jan 17 01:01	17° ♌ 26'54	-4.7m		3108 Jul 31 11:24	0° ♉	
	3106 Feb 05 01:50	0° ♊			3108 Aug 25 03:34	0° ♊	
morning max el	3106 Feb 24 00:32	17° ♊ 36'19	46°55'33		3108 Sep 19 00:46	0° ♋	
	3106 Mar 07 21:47	0° ♋		desc. node	3108 Sep 23 02:22	4° ♋ 52'15	
	3106 Apr 03 18:41	0° ♌			3108 Oct 14 05:31	0° ♌	
desc. node	3106 Apr 08 07:22	5° ♌ 13'18			3108 Nov 08 22:44	0° ♍	
	3106 Apr 29 11:14	0° ♉			3108 Dec 05 19:05	0° ♋	
	3106 May 24 16:08	0° ♊		evening max el	3108 Dec 17 13:26	12° ♋ 18'43	47°13'48
	3106 Jun 18 15:21	0° ♋			3109 Jan 05 10:42	0° ♌	
	3106 Jul 13 10:34	0° ☿		asc. node	3109 Jan 14 05:23	6° ♌ 45'52	
asc. node	3106 Jul 30 10:23	20° ☿ 40'48		greatest brilliancy	3109 Jan 24 23:53	12° ♌ 59'51	-4.7m
	3106 Aug 07 01:30	0° ♈		retrograde	3109 Feb 06 11:17	15° ♌ 55'50	
morning set	3106 Aug 24 16:50	21° ♈ 38'25		evening set	3109 Feb 23 16:32	10° ♌ 09'00	
	3106 Aug 31 11:43	0° ♉		min. Earth dist.	3109 Feb 26 12:14	8° ♌ 25'41	0.27199 AU
	3106 Sep 24 17:40	0° ♊		inferior conj	3109 Feb 27 05:45	7° ♌ 58'33	8°33'00
max. Earth dist.	3106 Sep 27 00:26	2° ♊ 49'57	1.72610 AU	minimum elong	3109 Feb 26 23:32	8° ♌ 08'11	8°32'24
				morning rise	3109 Mar 02 06:43	6° ♌ 06'41	
superior conj	3106 Sep 30 06:52	6° ♊ 53'27	1°23'51	direct	3109 Mar 19 18:48	0° ♌ 11'14	
minimum elong	3106 Sep 30 10:03	7° ♊ 03'23	1°23'50	greatest brilliancy	3109 Mar 30 14:25	2° ♌ 21'21	-4.6m
	3106 Oct 18 20:41	0° ♋		desc. node	3109 May 05 19:01	29° ♌ 01'54	
evening rise	3106 Nov 07 06:29	24° ♋ 11'41			3109 May 06 19:10	0° ♉	
	3106 Nov 11 22:10	0° ♌		morning max el	3109 May 08 10:31	1° ♉ 35'38	46°17'09
desc. node	3106 Nov 19 00:09	8° ♌ 50'19			3109 Jun 04 14:53	0° ♊	
	3106 Dec 05 23:01	0° ♍			3109 Jul 01 07:20	0° ♋	
	3106 Dec 30 00:01	0° ♋			3109 Jul 27 02:09	0° ☿	
	3107 Jan 23 02:45	0° ♌			3109 Aug 21 07:18	0° ♈	
	3107 Feb 16 10:41	0° ♉		asc. node	3109 Aug 26 22:11	6° ♈ 45'53	
asc. node	3107 Mar 12 03:03	28° ♉ 40'14			3109 Sep 15 01:30	0° ♉	
	3107 Mar 13 05:47	0° ♊			3109 Oct 09 10:49	0° ♊	
	3107 Apr 07 22:25	0° ♋		morning set	3109 Nov 02 06:25	29° ♊ 36'55	
	3107 May 05 12:51	0° ☿			3109 Nov 02 13:49	0° ♋	
evening max el	3107 May 12 21:53	7° ☿ 22'19	45°43'43		3109 Nov 26 13:04	0° ♌	
	3107 Jun 09 01:25	0° ♈		max. Earth dist.	3109 Dec 10 00:03	16° ♌ 53'19	1.71314 AU
greatest brilliancy	3107 Jun 16 10:05	4° ♈ 07'37	-4.5m				
retrograde	3107 Jun 30 20:46	7° ♈ 47'30		superior conj	3109 Dec 11 11:39	18° ♌ 45'08	0°12'02
desc. node	3107 Jul 01 16:48	7° ♈ 46'41		minimum elong	3109 Dec 11 14:43	18° ♌ 54'45	0°11'53
evening set	3107 Jul 16 08:13	3° ♈ 12'08		behind sun begin	3109 Dec 10 20:55	17° ♌ 58'53	
	3107 Jul 21 16:34	30° ♉		behind sun end	3109 Dec 12 08:30	19° ♌ 50'38	
inferior conj	3107 Jul 22 09:47	29° ☿ 33'00	-4°-38'-14	desc. node	3109 Dec 16 12:02	25° ♌ 03'18	
minimum elong	3107 Jul 22 00:57	29° ☿ 46'51	4°36'03		3109 Dec 20 10:29	0° ♍	
min. Earth dist.	3107 Jul 22 04:58	29° ☿ 40'33	0.29020 AU		3110 Jan 13 07:16	0° ♋	
morning rise	3107 Jul 27 17:39	26° ☿ 18'13		evening rise	3110 Jan 21 13:10	10° ♋ 21'51	
direct	3107 Aug 13 00:17	21° ☿ 16'00			3110 Feb 06 04:33	0° ♌	

	3110 Mar 02 04:10	0°♄		asc. node	3112 Sep 23 10:02	23°♌51'11	
	3110 Mar 26 08:43	0°♄			3112 Sep 28 15:02	0°♍	
asc. node	3110 Apr 08 14:56	16°♄16'35			3112 Oct 23 13:45	0°♎	
	3110 Apr 19 21:28	0°♌			3112 Nov 16 23:21	0°♏	
	3110 May 14 22:27	0°♍			3112 Dec 11 01:24	0°♐	
	3110 Jun 09 18:48	0°♎			3113 Jan 03 23:40	0°♑	
	3110 Jul 07 04:07	0°♍		desc. node	3113 Jan 12 23:47	11°♑19'01	
evening max el	3110 Jul 22 16:32	15°♍34'50	45°29'54	morning set	3113 Jan 15 20:25	14°♑54'44	
desc. node	3110 Jul 29 04:41	21°♍37'31			3113 Jan 27 20:25	0°♒	
	3110 Aug 08 00:42	0°♎			3113 Feb 20 17:11	0°♓	
greatest brilliancy	3110 Aug 28 10:23	12°♎41'21	-4.5m				
retrograde	3110 Sep 09 08:17	15°♎11'21		superior conj	3113 Feb 26 10:51	7°♓12'04	-1°-21'-44
evening set	3110 Sep 27 08:31	9°♎08'18		minimum elong	3113 Feb 26 03:22	6°♓48'35	1°21'38
inferior conj	3110 Sep 30 13:17	7°♎10'53	-8°-35'-22	max. Earth dist.	3113 Mar 01 16:30	11°♓15'38	1.71397 AU
minimum elong	3110 Sep 30 16:38	7°♎05'42	8°35'12		3113 Mar 16 15:26	0°♈	
min. Earth dist.	3110 Oct 01 06:35	6°♎44'07	0.28423 AU	evening rise	3113 Apr 07 20:44	27°♈43'06	
morning rise	3110 Oct 04 00:33	5°♎03'25			3113 Apr 09 16:47	0°♉	
	3110 Oct 14 22:05	30°♏♍			3113 May 03 22:38	0°♊	
direct	3110 Oct 21 22:30	29°♏00'08		asc. node	3113 May 06 02:56	2°♊41'01	
	3110 Oct 29 03:53	0°♎			3113 May 28 10:00	0°♋	
greatest brilliancy	3110 Nov 05 11:16	2°♎47'57	-4.6m		3113 Jun 22 04:04	0°♌	
asc. node	3110 Nov 19 07:37	11°♎41'39			3113 Jul 17 07:13	0°♍	
	3110 Dec 09 15:41	0°♏			3113 Aug 12 00:38	0°♎	
morning max el	3110 Dec 11 09:07	1°♏44'08	46°42'07	desc. node	3113 Aug 25 16:24	15°♎29'44	
	3111 Jan 06 11:20	0°♐			3113 Sep 07 19:36	0°♏	
	3111 Feb 01 03:42	0°♑		evening max el	3113 Oct 03 06:30	26°♏20'45	46°20'16
	3111 Feb 26 01:00	0°♒			3113 Oct 07 02:11	0°♐	
desc. node	3111 Mar 10 21:27	15°♒40'26		greatest brilliancy	3113 Nov 11 00:12	25°♐15'53	-4.6m
	3111 Mar 22 14:18	0°♓		retrograde	3113 Nov 21 20:12	27°♐25'10	
	3111 Apr 16 00:31	0°♈		evening set	3113 Dec 06 09:23	23°♐18'04	
	3111 May 10 10:16	0°♉		inferior conj	3113 Dec 12 11:04	19°♐45'51	-1°-7'-30
	3111 Jun 03 20:36	0°♊		minimum elong	3113 Dec 12 13:39	19°♐41'54	1°06'40
morning set	3111 Jun 15 13:03	14°♊20'21		min. Earth dist.	3113 Dec 12 19:36	19°♐32'50	0.26639 AU
	3111 Jun 28 07:17	0°♋		asc. node	3113 Dec 16 19:31	17°♐09'45	
asc. node	3111 Jul 02 00:36	4°♋34'08		morning rise	3113 Dec 18 17:24	16°♐06'19	
max. Earth dist.	3111 Jul 21 07:33	28°♋15'59	1.73538 AU	direct	3114 Jan 01 23:54	12°♐03'21	
				greatest brilliancy	3114 Jan 14 17:21	15°♐03'11	-4.7m
superior conj	3111 Jul 22 07:26	29°♋29'24	0°45'51		3114 Feb 05 12:19	0°♑	
minimum elong	3111 Jul 21 23:24	29°♋04'41	0°45'31	morning max el	3114 Feb 21 13:12	15°♑08'49	46°56'10
	3111 Jul 22 17:24	0°♎			3114 Mar 07 16:56	0°♒	
	3111 Aug 16 02:16	0°♍			3114 Apr 03 09:49	0°♓	
evening rise	3111 Aug 27 04:41	13°♍41'02		desc. node	3114 Apr 07 09:19	4°♓36'15	
	3111 Sep 09 10:14	0°♎			3114 Apr 29 00:33	0°♈	
	3111 Oct 03 18:17	0°♏			3114 May 24 04:23	0°♉	
desc. node	3111 Oct 21 14:15	21°♏56'50			3114 Jun 18 02:55	0°♊	
	3111 Oct 28 03:26	0°♐			3114 Jul 12 21:42	0°♋	
	3111 Nov 21 14:25	0°♑		asc. node	3114 Jul 29 12:21	20°♋13'21	
	3111 Dec 16 04:51	0°♒			3114 Aug 06 12:24	0°♌	
	3112 Jan 10 03:42	0°♓		morning set	3114 Aug 22 10:31	19°♌31'52	
	3112 Feb 04 23:42	0°♈			3114 Aug 30 22:31	0°♍	
asc. node	3112 Feb 11 17:12	7°♈29'57			3114 Sep 24 04:29	0°♎	
evening max el	3112 Feb 28 15:46	25°♈26'57	46°47'49	max. Earth dist.	3114 Sep 24 18:21	0°♎42'59	1.72661 AU
	3112 Mar 04 05:55	0°♉					
greatest brilliancy	3112 Apr 04 18:44	24°♉24'30	-4.6m	superior conj	3114 Sep 27 23:47	4°♎43'18	1°24'21
retrograde	3112 Apr 18 23:06	28°♉01'43		minimum elong	3114 Sep 28 02:15	4°♎50'59	1°24'19
evening set	3112 May 05 03:27	22°♉53'35			3114 Oct 18 07:37	0°♏	
inferior conj	3112 May 10 03:37	19°♉49'08	5°13'30	evening rise	3114 Nov 04 20:24	21°♏51'02	
minimum elong	3112 May 10 13:09	19°♉34'08	5°11'10		3114 Nov 11 09:15	0°♐	
min. Earth dist.	3112 May 10 01:39	19°♉52'14	0.28361 AU	desc. node	3114 Nov 18 02:15	8°♐22'09	
morning rise	3112 May 15 23:20	16°♉18'11			3114 Dec 05 10:18	0°♑	
direct	3112 May 31 09:33	11°♉42'12			3114 Dec 29 11:33	0°♒	
desc. node	3112 Jun 02 06:53	11°♉46'21			3115 Jan 22 14:39	0°♓	
greatest brilliancy	3112 Jun 12 11:32	14°♉19'23	-4.5m		3115 Feb 15 23:06	0°♈	
	3112 Jul 06 07:50	0°♊		asc. node	3115 Mar 11 05:00	28°♈06'38	
morning max el	3112 Jul 19 05:07	11°♊37'20	45°44'03		3115 Mar 12 19:04	0°♉	
	3112 Aug 06 11:08	0°♋			3115 Apr 07 13:30	0°♊	
	3112 Sep 02 19:12	0°♌			3115 May 05 08:44	0°♋	

evening max el	3115 May 10 12:59	5°08'32	45°45'32	morning set	3117 Oct 30 21:25	27°19'27	
	3115 Jun 10 07:32	0°0			3117 Nov 02 00:53	0°0	
greatest brilliancy	3115 Jun 14 00:04	1°05'33	-4.5m		3117 Nov 26 00:10	0°0	
retrograde	3115 Jun 28 13:32	5°03'09		max. Earth dist.	3117 Dec 07 09:12	14°01'621	1.71346 AU
desc. node	3115 Jun 30 18:49	5°03'18					
evening set	3115 Jul 13 23:02	1°05'32		superior conj	3117 Dec 08 23:15	16°01'5'47	0°15'50
	3115 Jul 15 20:52	30°00'		minimum elong	3117 Dec 09 03:13	16°01'28'16	0°15'38
inferior conj	3115 Jul 20 02:18	27°02'421	-4°-21'-25	behind sun begin	3117 Dec 08 20:03	16°01'05'45	
minimum elong	3115 Jul 19 17:49	27°03'37'38	4°19'17	behind sun end	3117 Dec 09 10:23	16°01'50'46	
min. Earth dist.	3115 Jul 19 21:19	27°03'32'08	0.29009 AU	desc. node	3117 Dec 15 14:04	24°01'34'32	
morning rise	3115 Jul 25 12:33	24°00'06'23			3117 Dec 19 21:40	0°0	
direct	3115 Aug 10 16:15	19°00'07'18			3118 Jan 12 18:33	0°0	
greatest brilliancy	3115 Aug 24 10:21	22°02'421	-4.5m	evening rise	3118 Jan 18 23:26	7°00'47'49	
	3115 Sep 06 05:54	0°0			3118 Feb 05 15:55	0°0	
morning max el	3115 Sep 28 16:55	19°01'5'40	45°57'05		3118 Mar 01 15:37	0°0	
	3115 Oct 09 09:29	0°0			3118 Mar 25 20:24	0°0	
asc. node	3115 Oct 21 21:56	13°00'22'27		asc. node	3118 Apr 07 17:05	15°00'46'50	
	3115 Nov 05 17:12	0°0			3118 Apr 19 09:34	0°0	
	3115 Dec 01 05:02	0°0			3118 May 14 11:22	0°0	
	3115 Dec 25 20:38	0°0			3118 Jun 09 09:20	0°0	
	3116 Jan 19 02:34	0°0			3118 Jul 06 22:34	0°0	
desc. node	3116 Feb 10 11:37	27°00'52'57		evening max el	3118 Jul 20 08:15	13°00'22'58	45°29'14
	3116 Feb 12 04:20	0°0		desc. node	3118 Jul 28 06:39	20°00'42'24	
	3116 Mar 07 04:50	0°0			3118 Aug 08 12:31	0°0	
	3116 Mar 31 05:55	0°0		greatest brilliancy	3118 Aug 25 23:30	10°00'26'00	-4.5m
morning set	3116 Apr 02 11:34	2°00'47'07		retrograde	3118 Sep 06 22:44	12°00'57'05	
	3116 Apr 24 08:54	0°0		evening set	3118 Sep 24 23:59	6°00'53'14	
				inferior conj	3118 Sep 28 04:24	4°00'56'02	-8°-37'-55
superior conj	3116 May 11 06:20	20°00'55'41	0°-50'-8	minimum elong	3118 Sep 28 06:57	4°00'52'04	8°37'50
minimum elong	3116 May 11 15:49	21°00'25'00	0°49'46	min. Earth dist.	3118 Sep 28 20:42	4°00'30'44	0.28474 AU
max. Earth dist.	3116 May 14 03:44	24°00'30'09	1.72877 AU	morning rise	3118 Oct 01 13:45	2°00'51'09	
	3116 May 18 14:33	0°0			3118 Oct 06 18:16	30°00'00'	
asc. node	3116 Jun 02 14:49	18°00'30'38		direct	3118 Oct 19 14:27	26°00'44'52	
	3116 Jun 11 22:53	0°0			3118 Nov 01 23:52	0°0	
evening rise	3116 Jun 17 21:45	7°00'18'57		greatest brilliancy	3118 Nov 03 01:25	0°00'30'07	-4.6m
	3116 Jul 06 09:34	0°0		asc. node	3118 Nov 18 09:40	10°00'32'38	
	3116 Jul 30 22:41	0°0		morning max el	3118 Dec 08 23:33	29°00'23'27	46°40'36
	3116 Aug 24 15:16	0°0			3118 Dec 09 14:00	0°0	
	3116 Sep 18 13:09	0°0			3119 Jan 06 03:34	0°0	
desc. node	3116 Sep 22 04:22	4°00'20'46			3119 Jan 31 17:44	0°0	
	3116 Oct 13 19:02	0°0			3119 Feb 25 13:56	0°0	
	3116 Nov 08 14:15	0°0		desc. node	3119 Mar 09 23:30	15°00'08'24	
	3116 Dec 05 14:54	0°0			3119 Mar 22 02:31	0°0	
evening max el	3116 Dec 15 04:05	9°00'55'51	47°13'10		3119 Apr 15 12:15	0°0	
	3117 Jan 06 00:07	0°0			3119 May 09 21:38	0°0	
asc. node	3117 Jan 13 07:22	5°00'21'22			3119 Jun 03 07:43	0°0	
greatest brilliancy	3117 Jan 22 13:31	10°00'32'55	-4.7m	morning set	3119 Jun 13 06:15	12°00'12'02	
retrograde	3117 Feb 04 01:26	13°00'29'01			3119 Jun 27 18:15	0°0	
evening set	3117 Feb 21 01:58	7°00'48'02		asc. node	3119 Jul 01 02:32	4°00'06'26	
min. Earth dist.	3117 Feb 24 00:39	6°00'00'30	0.27151 AU	max. Earth dist.	3119 Jul 19 04:07	26°00'18'07	1.73542 AU
inferior conj	3117 Feb 24 18:51	5°00'32'19	8°25'41				
minimum elong	3117 Feb 24 11:54	5°00'43'05	8°24'57	superior conj	3119 Jul 20 01:29	27°00'23'50	0°43'08
morning rise	3117 Feb 27 22:03	3°00'37'24		minimum elong	3119 Jul 19 17:45	27°00'00'04	0°42'49
	3117 Mar 06 21:09	30°00'00'			3119 Jul 22 04:18	0°0	
direct	3117 Mar 17 07:51	27°00'45'45			3119 Aug 15 13:13	0°0	
greatest brilliancy	3117 Mar 28 02:30	29°00'55'35	-4.6m	evening rise	3119 Aug 24 22:50	11°00'35'06	
	3117 Mar 28 07:06	0°0			3119 Sep 08 21:19	0°0	
desc. node	3117 May 04 21:11	28°00'08'43			3119 Oct 03 05:37	0°0	
morning max el	3117 May 06 01:19	29°00'17'15	46°18'42	desc. node	3119 Oct 20 16:25	21°00'27'53	
	3117 May 06 18:45	0°0			3119 Oct 27 15:08	0°0	
	3117 Jun 04 07:21	0°0			3119 Nov 21 02:37	0°0	
	3117 Jun 30 21:10	0°0			3119 Dec 15 17:48	0°0	
	3117 Jul 26 14:40	0°0			3120 Jan 09 17:55	0°0	
	3117 Aug 20 19:04	0°0			3120 Feb 04 16:29	0°0	
asc. node	3117 Aug 26 00:11	6°00'16'48		asc. node	3120 Feb 10 19:08	6°00'46'19	
	3117 Sep 14 12:51	0°0		evening max el	3120 Feb 26 06:23	23°00'06'53	46°49'40
	3117 Oct 08 21:57	0°0			3120 Mar 04 06:28	0°0	

greatest brilliancy	3120 Apr 02 12:59	22°♄11'58	-4.6m	superior conj	3122 Sep 25 16:29	2°♁32'44	1°24'42
retrograde	3120 Apr 16 14:19	25°♄46'08		minimum elong	3122 Sep 25 18:13	2°♁38'07	1°24'42
evening set	3120 May 02 21:46	20°♄34'28			3122 Oct 17 18:29	0°♁	
inferior conj	3120 May 07 19:02	17°♄34'07	5°30'20	evening rise	3122 Nov 02 10:20	19°♁30'42	
minimum elong	3120 May 08 04:48	17°♄18'45	5°28'02		3122 Nov 10 20:17	0°♄	
min. Earth dist.	3120 May 07 17:13	17°♄36'59	0.28330 AU	desc. node	3122 Nov 17 04:15	7°♄53'46	
morning rise	3120 May 13 12:15	14°♄06'19			3122 Dec 04 21:31	0°♄	
direct	3120 May 29 00:17	9°♄27'50			3122 Dec 28 23:00	0°≈	
desc. node	3120 Jun 01 08:52	9°♄40'47			3123 Jan 22 02:24	0°♄	
greatest brilliancy	3120 Jun 10 00:36	12°♄02'54	-4.5m		3123 Feb 15 11:18	0°♄	
	3120 Jul 06 13:20	0°♁		asc. node	3123 Mar 10 07:09	27°♄34'18	
morning max el	3120 Jul 16 19:26	9°♁22'21	45°44'27		3123 Mar 12 08:08	0°♄	
	3120 Aug 06 04:35	0°♄			3123 Apr 07 04:29	0°♁	
	3120 Sep 02 09:17	0°♁			3123 May 05 04:59	0°♄	
asc. node	3120 Sep 22 12:08	23°♁19'33		evening max el	3123 May 08 04:54	2°♄57'24	45°47'13
	3120 Sep 28 03:38	0°♄		greatest brilliancy	3123 Jun 11 14:28	29°♄44'22	-4.5m
	3120 Oct 23 01:38	0°♁			3123 Jun 12 03:43	0°♁	
	3120 Nov 16 10:51	0°♁		retrograde	3123 Jun 26 06:30	3°♁30'49	
	3120 Dec 10 12:41	0°♄		desc. node	3123 Jun 29 20:48	3°♁15'22	
	3121 Jan 03 10:50	0°♄			3123 Jul 09 15:37	30°♄	
desc. node	3121 Jan 12 01:46	10°♄50'18		evening set	3123 Jul 11 13:57	28°♄58'53	
morning set	3121 Jan 13 06:43	12°♄21'16		inferior conj	3123 Jul 17 18:41	25°♄15'41	-4°-4'-8
	3121 Jan 27 07:30	0°≈		minimum elong	3123 Jul 17 10:36	25°♄28'20	4°02'03
	3121 Feb 20 04:13	0°♄		min. Earth dist.	3123 Jul 17 13:19	25°♄24'05	0.29000 AU
				morning rise	3123 Jul 23 07:18	21°♄54'43	
superior conj	3121 Feb 23 21:41	4°♄40'51	-1°-20'-22	direct	3123 Aug 08 08:42	16°♄58'44	
minimum elong	3121 Feb 23 13:23	4°♄14'46	1°20'14	greatest brilliancy	3123 Aug 22 02:21	20°♄15'38	-4.5m
max. Earth dist.	3121 Feb 26 22:03	8°♄27'52	1.71361 AU		3123 Sep 06 19:58	0°♁	
	3121 Mar 16 02:28	0°♄		morning max el	3123 Sep 26 09:24	17°♁06'25	45°55'51
evening rise	3121 Apr 05 09:02	25°♄17'41			3123 Oct 09 03:54	0°♄	
	3121 Apr 09 03:51	0°♄		asc. node	3123 Oct 21 00:01	12°♄43'56	
	3121 May 03 09:46	0°♁			3123 Nov 05 07:38	0°♁	
asc. node	3121 May 05 04:59	2°♁13'01			3123 Nov 30 17:53	0°♁	
	3121 May 27 21:19	0°♄			3123 Dec 25 08:42	0°♄	
	3121 Jun 21 15:48	0°♁			3124 Jan 18 14:11	0°♄	
	3121 Jul 16 19:44	0°♄		desc. node	3124 Feb 09 13:40	27°♄24'00	
	3121 Aug 11 14:38	0°♁			3124 Feb 11 15:38	0°≈	
desc. node	3121 Aug 24 18:28	14°♁52'55			3124 Mar 06 15:54	0°♄	
	3121 Sep 07 12:41	0°♁			3124 Mar 30 16:46	0°♄	
evening max el	3121 Sep 30 18:51	23°♁56'56	46°17'59	morning set	3124 Mar 31 00:32	0°♄24'11	
	3121 Oct 07 04:25	0°♄			3124 Apr 23 19:36	0°♄	
greatest brilliancy	3121 Nov 08 13:26	22°♄50'25	-4.6m				
retrograde	3121 Nov 19 08:09	24°♄58'54		superior conj	3124 May 08 21:49	18°♄42'12	0°-52'-54
evening set	3121 Dec 03 23:19	20°♄49'15		minimum elong	3124 May 09 07:37	19°♄12'30	0°52'33
inferior conj	3121 Dec 09 23:34	17°♄19'23	-1°-31'-27	max. Earth dist.	3124 May 11 22:07	22°♄25'47	1.72833 AU
minimum elong	3121 Dec 10 03:03	17°♄14'05	1°30'21		3124 May 18 01:09	0°♁	
min. Earth dist.	3121 Dec 10 09:50	17°♄03'46	0.26673 AU	asc. node	3124 Jun 01 16:45	18°♁03'55	
asc. node	3121 Dec 15 21:26	13°♄51'15			3124 Jun 11 09:30	0°♄	
morning rise	3121 Dec 16 06:09	13°♄39'33		evening rise	3124 Jun 15 15:34	5°♄13'36	
direct	3121 Dec 30 12:25	9°♄35'52			3124 Jul 05 20:18	0°♁	
greatest brilliancy	3122 Jan 12 09:47	12°♄40'04	-4.7m		3124 Jul 30 09:41	0°♄	
	3122 Feb 05 19:51	0°♄			3124 Aug 24 02:42	0°♁	
morning max el	3122 Feb 19 02:39	12°♄43'46	46°56'50		3124 Sep 18 01:19	0°♁	
	3122 Mar 07 11:24	0°≈		desc. node	3124 Sep 21 06:30	3°♁50'25	
	3122 Apr 03 00:38	0°♄			3124 Oct 13 08:23	0°♄	
desc. node	3122 Apr 06 11:30	4°♄00'33			3124 Nov 08 05:41	0°♄	
	3122 Apr 28 13:40	0°♄			3124 Dec 05 10:59	0°≈	
	3122 May 23 16:32	0°♄		evening max el	3124 Dec 12 19:18	7°≈35'21	47°12'23
	3122 Jun 17 14:28	0°♁			3125 Jan 06 17:29	0°♄	
	3122 Jul 12 08:49	0°♄		asc. node	3125 Jan 12 09:25	3°♄54'57	
asc. node	3122 Jul 28 14:24	19°♄46'13		greatest brilliancy	3125 Jan 20 03:46	8°♄07'36	-4.7m
	3122 Aug 05 23:15	0°♁		retrograde	3125 Feb 01 15:26	11°♄02'45	
morning set	3122 Aug 20 03:53	17°♁24'33		evening set	3125 Feb 18 11:14	5°♄28'09	
	3122 Aug 30 09:16	0°♄		min. Earth dist.	3125 Feb 21 13:04	3°♄35'58	0.27098 AU
max. Earth dist.	3122 Sep 22 13:37	28°♄40'27	1.72710 AU	inferior conj	3125 Feb 22 07:53	3°♄06'52	8°17'31
	3122 Sep 23 15:15	0°♁		minimum elong	3125 Feb 22 00:15	3°♄18'42	8°16'36
				morning rise	3125 Feb 25 13:31	1°♄08'31	

	3125 Feb 27 12:59	30° \approx		evening rise	3127 Aug 22 17:22	9° \cap 31'46	
direct	3125 Mar 14 21:08	25° \approx 21'20			3127 Sep 08 08:00	0° $\underline{\cap}$	
greatest brilliancy	3125 Mar 25 14:05	27° \approx 30'07	-4.6m		3127 Oct 02 16:38	0° \cap	
	3125 Mar 31 01:08	0° \times		desc. node	3127 Oct 19 18:22	20° \cap 59'14	
morning max el	3125 May 03 15:30	26° \times 58'37	46°20'24		3127 Oct 27 02:34	0° \times	
desc. node	3125 May 03 23:08	27° \times 17'20			3127 Nov 20 14:36	0° $\overline{\cap}$	
	3125 May 06 16:49	0° \cap			3127 Dec 15 06:34	0° \approx	
	3125 Jun 03 23:00	0° $\overline{\cap}$			3128 Jan 09 07:58	0° \times	
	3125 Jun 30 10:23	0° \cap			3128 Feb 04 09:15	0° \cap	
	3125 Jul 26 02:40	0° $\overline{\cap}$		asc. node	3128 Feb 09 21:17	6° \cap 03'37	
	3125 Aug 20 06:24	0° \cap		evening max el	3128 Feb 23 19:59	20° \cap 45'04	46°51'35
asc. node	3125 Aug 25 02:17	5° \cap 49'15			3128 Mar 04 07:53	0° $\overline{\cap}$	
	3125 Sep 13 23:49	0° \cap		greatest brilliancy	3128 Mar 31 06:32	19° $\overline{\cap}$ 59'16	-4.6m
	3125 Oct 08 08:44	0° $\underline{\cap}$		retrograde	3128 Apr 14 05:29	23° $\overline{\cap}$ 31'37	
morning set	3125 Oct 28 12:23	25° $\underline{\cap}$ 03'02		evening set	3128 Apr 30 16:06	18° $\overline{\cap}$ 16'00	
	3125 Nov 01 11:36	0° \cap		inferior conj	3128 May 05 10:28	15° $\overline{\cap}$ 20'03	5°46'45
	3125 Nov 25 10:55	0° \times		minimum elong	3128 May 05 20:23	15° $\overline{\cap}$ 04'25	5°44'29
max. Earth dist.	3125 Dec 04 16:21	11° \times 34'22	1.71379 AU	min. Earth dist.	3128 May 05 08:57	15° $\overline{\cap}$ 22'27	0.28299 AU
				morning rise	3128 May 11 01:01	11° $\overline{\cap}$ 55'45	
superior conj	3125 Dec 06 10:56	13° \times 47'59	0°19'35	direct	3128 May 26 14:37	7° $\overline{\cap}$ 14'09	
minimum elong	3125 Dec 06 15:46	14° \times 03'10	0°19'20	desc. node	3128 May 31 10:52	7° $\overline{\cap}$ 40'45	
desc. node	3125 Dec 14 16:01	24° \times 06'41		greatest brilliancy	3128 Jun 07 14:44	9° $\overline{\cap}$ 48'31	-4.5m
	3125 Dec 19 08:30	0° $\overline{\cap}$			3128 Jul 06 16:31	0° \cap	
	3126 Jan 12 05:27	0° \approx		morning max el	3128 Jul 14 10:00	7° \cap 08'56	45°45'07
evening rise	3126 Jan 16 09:41	5° \approx 14'53			3128 Aug 05 21:14	0° $\overline{\cap}$	
	3126 Feb 05 02:55	0° \times			3128 Sep 01 22:48	0° \cap	
	3126 Mar 01 02:44	0° \cap		asc. node	3128 Sep 21 14:11	22° \cap 49'07	
	3126 Mar 25 07:43	0° $\overline{\cap}$			3128 Sep 27 15:47	0° \cap	
asc. node	3126 Apr 06 19:06	15° $\overline{\cap}$ 17'56			3128 Oct 22 13:07	0° $\underline{\cap}$	
	3126 Apr 18 21:16	0° \cap			3128 Nov 15 22:02	0° \cap	
	3126 May 13 23:51	0° $\overline{\cap}$			3128 Dec 09 23:45	0° \times	
	3126 Jun 08 23:28	0° \cap			3129 Jan 02 21:48	0° $\overline{\cap}$	
	3126 Jul 06 16:53	0° \cap		morning set	3129 Jan 10 16:45	9° $\overline{\cap}$ 47'26	
evening max el	3126 Jul 17 23:11	11° \cap 10'45	45°28'29	desc. node	3129 Jan 11 03:54	10° $\overline{\cap}$ 22'29	
desc. node	3126 Jul 27 08:43	19° \cap 47'53			3129 Jan 26 18:25	0° \approx	
	3126 Aug 09 03:25	0° $\underline{\cap}$			3129 Feb 19 15:05	0° \times	
greatest brilliancy	3126 Aug 23 12:59	8° $\underline{\cap}$ 12'37	-4.5m				
retrograde	3126 Sep 04 12:54	10° $\underline{\cap}$ 44'38		superior conj	3129 Feb 21 08:05	2° \times 08'44	-1°-18'-49
evening set	3126 Sep 22 15:10	4° $\underline{\cap}$ 40'29		minimum elong	3129 Feb 20 23:00	1° \times 40'12	1°18'39
inferior conj	3126 Sep 25 19:41	2° $\underline{\cap}$ 42'57	-8°-39'-33	max. Earth dist.	3129 Feb 24 01:47	5° \times 34'56	1.71326 AU
minimum elong	3126 Sep 25 21:25	2° $\underline{\cap}$ 40'16	8°39'32		3129 Mar 15 13:19	0° \cap	
min. Earth dist.	3126 Sep 26 11:17	2° $\underline{\cap}$ 18'42	0.28528 AU	evening rise	3129 Apr 02 21:02	22° \cap 51'57	
morning rise	3126 Sep 29 03:29	0° $\underline{\cap}$ 40'07			3129 Apr 08 14:42	0° $\overline{\cap}$	
	3126 Sep 30 06:30	30° \cap			3129 May 02 20:42	0° \cap	
direct	3126 Oct 17 06:05	24° \cap 31'09		asc. node	3129 May 04 06:56	1° \cap 45'20	
greatest brilliancy	3126 Oct 31 16:36	28° \cap 14'56	-4.6m		3129 May 27 08:28	0° $\overline{\cap}$	
	3126 Nov 04 00:23	0° $\underline{\cap}$			3129 Jun 21 03:21	0° \cap	
asc. node	3126 Nov 17 11:35	9° $\underline{\cap}$ 26'14			3129 Jul 16 08:05	0° \cap	
morning max el	3126 Dec 06 13:12	27° $\underline{\cap}$ 01'46	46°39'07		3129 Aug 11 04:29	0° $\underline{\cap}$	
	3126 Dec 09 11:07	0° \cap		desc. node	3129 Aug 23 20:36	14° $\underline{\cap}$ 16'56	
	3127 Jan 05 19:11	0° \times			3129 Sep 07 05:47	0° \cap	
	3127 Jan 31 07:17	0° $\overline{\cap}$		evening max el	3129 Sep 28 07:41	21° \cap 35'34	46°15'42
	3127 Feb 25 02:23	0° \approx			3129 Oct 07 07:46	0° \times	
desc. node	3127 Mar 09 01:36	14° \approx 37'50		greatest brilliancy	3129 Nov 06 01:26	20° \times 24'48	-4.6m
	3127 Mar 21 14:18	0° \times		retrograde	3129 Nov 16 20:35	22° \times 33'42	
	3127 Apr 14 23:34	0° \cap		evening set	3129 Dec 01 13:31	18° \times 21'03	
	3127 May 09 08:37	0° $\overline{\cap}$		inferior conj	3129 Dec 07 12:07	14° \times 53'34	-1°-55'-3
	3127 Jun 02 18:27	0° \cap		minimum elong	3129 Dec 07 16:28	14° \times 46'57	1°53'42
morning set	3127 Jun 10 23:39	10° \cap 05'31		min. Earth dist.	3129 Dec 07 23:43	14° \times 35'56	0.26718 AU
	3127 Jun 27 04:48	0° $\overline{\cap}$		morning rise	3129 Dec 13 18:47	11° \times 13'52	
asc. node	3127 Jun 30 04:36	3° $\overline{\cap}$ 40'29		asc. node	3129 Dec 14 23:32	10° \times 36'40	
max. Earth dist.	3127 Jul 17 00:05	24° $\overline{\cap}$ 19'54	1.73542 AU	direct	3129 Dec 28 01:41	7° \times 08'57	
				greatest brilliancy	3130 Jan 10 02:10	10° \times 17'14	-4.7m
superior conj	3127 Jul 17 19:53	25° $\overline{\cap}$ 20'43	0°40'25		3130 Feb 06 01:12	0° $\overline{\cap}$	
minimum elong	3127 Jul 17 12:29	24° $\overline{\cap}$ 58'00	0°40'05	morning max el	3130 Feb 16 17:07	10° $\overline{\cap}$ 21'10	46°57'19
	3127 Jul 21 14:45	0° \cap			3130 Mar 07 05:28	0° \approx	
	3127 Aug 14 23:42	0° \cap			3130 Apr 02 15:18	0° \times	

desc. node	3130 Apr 05 13:27	3° H 24'19		3132 Nov 07 21:28	0° Z	
	3130 Apr 28 02:41	0° Y		3132 Dec 05 07:47	0° \approx	
	3130 May 23 04:35	0° B	evening max el	3132 Dec 10 10:19	5° \approx 14'14	47°11'30
	3130 Jun 17 01:53	0° II		3133 Jan 07 16:54	0° H	
	3130 Jul 11 19:50	0° S	asc. node	3133 Jan 11 11:28	2° H 25'25	
asc. node	3130 Jul 27 16:29	19° S 19'26	greatest brilliancy	3133 Jan 17 18:40	5° H 43'06	-4.7m
	3130 Aug 05 10:02	0° Q	retrograde	3133 Jan 30 05:05	8° H 36'15	
morning set	3130 Aug 17 21:38	15° Q 18'37	evening set	3133 Feb 15 20:34	3° H 08'22	
	3130 Aug 29 19:56	0° M	min. Earth dist.	3133 Feb 19 01:53	1° H 10'57	0.27051 AU
max. Earth dist.	3130 Sep 20 09:20	26° M 39'41	inferior conj	3133 Feb 19 21:02	0° H 41'17	8°08'25
		1.72751 AU	minimum elong	3133 Feb 19 12:47	0° H 54'04	8°07'19
superior conj	3130 Sep 23 09:42	0° A 24'08		3133 Feb 20 23:47	30° R \approx	
minimum elong	3130 Sep 23 10:44	0° A 27'19	morning rise	3133 Feb 23 05:19	28° \approx 38'59	
	3130 Sep 23 01:55	0° A	direct	3133 Mar 12 10:25	22° \approx 56'45	
	3130 Oct 17 05:14	0° M	greatest brilliancy	3133 Mar 23 02:15	25° \approx 04'35	-4.6m
evening rise	3130 Oct 31 00:53	17° M 12'43		3133 Apr 01 18:08	0° H	
	3130 Nov 10 07:11	0° X	morning max el	3133 May 01 04:49	24° H 36'41	46°21'49
desc. node	3130 Nov 16 06:16	7° X 25'50	desc. node	3133 May 03 01:10	26° H 26'06	
	3130 Dec 04 08:40	0° Z		3133 May 06 14:27	0° Y	
	3130 Dec 28 10:27	0° \approx		3133 Jun 03 14:50	0° B	
	3131 Jan 21 14:13	0° H		3133 Jun 29 23:54	0° II	
	3131 Feb 14 23:41	0° Y		3133 Jul 25 14:59	0° S	
asc. node	3131 Mar 09 09:08	27° Y 00'53		3133 Aug 19 18:03	0° Q	
	3131 Mar 11 21:28	0° B	asc. node	3133 Aug 24 04:16	5° Q 20'24	
	3131 Apr 06 19:51	0° II		3133 Sep 13 11:04	0° M	
	3131 May 05 02:08	0° S		3133 Oct 07 19:48	0° A	
evening max el	3131 May 05 21:17	0° S 46'53	morning set	3133 Oct 26 03:24	22° A 45'52	
greatest brilliancy	3131 Jun 09 06:05	27° S 34'19		3133 Oct 31 22:37	0° M	
	3131 Jun 15 09:19	0° Q		3133 Nov 24 21:57	0° X	
retrograde	3131 Jun 23 23:27	1° Q 21'47	max. Earth dist.	3133 Dec 01 22:29	8° X 48'24	1.71409 AU
desc. node	3131 Jun 28 22:55	0° Q 52'03				
	3131 Jul 02 05:22	30° R S	superior conj	3133 Dec 03 23:02	11° X 20'44	0°23'15
evening set	3131 Jul 09 05:01	26° S 51'37	minimum elong	3133 Dec 04 04:42	11° X 38'29	0°22'59
inferior conj	3131 Jul 15 10:58	23° S 06'24	desc. node	3133 Dec 13 18:10	23° X 38'41	
minimum elong	3131 Jul 15 03:20	23° S 18'20		3133 Dec 18 19:35	0° Z	
min. Earth dist.	3131 Jul 15 05:06	23° S 15'35		3134 Jan 11 16:35	0° \approx	
morning rise	3131 Jul 21 01:51	19° S 42'29	evening rise	3134 Jan 13 20:21	2° \approx 42'35	
direct	3131 Aug 06 01:27	14° S 49'46		3134 Feb 04 14:07	0° H	
greatest brilliancy	3131 Aug 19 17:12	18° S 05'18		3134 Feb 28 14:05	0° Y	
	3131 Sep 07 06:33	0° Q		3134 Mar 24 19:20	0° B	
morning max el	3131 Sep 24 01:48	14° Q 56'55	asc. node	3134 Apr 05 21:02	14° B 47'49	
	3131 Oct 08 21:55	0° M		3134 Apr 18 09:22	0° II	
asc. node	3131 Oct 20 01:53	12° M 05'03		3134 May 13 12:50	0° S	
	3131 Nov 04 21:55	0° A		3134 Jun 08 14:16	0° Q	
	3131 Nov 30 06:40	0° M		3134 Jul 06 12:18	0° M	
	3131 Dec 24 20:43	0° X	evening max el	3134 Jul 15 13:09	8° M 54'44	45°27'54
	3132 Jan 18 01:49	0° Z	desc. node	3134 Jul 26 10:49	18° M 50'39	
desc. node	3132 Feb 08 15:46	26° Z 54'52		3134 Aug 10 00:32	0° A	
	3132 Feb 11 03:02	0° \approx	greatest brilliancy	3134 Aug 21 02:02	5° A 57'11	-4.5m
	3132 Mar 06 03:08	0° H	retrograde	3134 Sep 02 03:02	8° A 30'54	
morning set	3132 Mar 28 12:53	27° H 58'33	evening set	3134 Sep 20 05:54	2° A 26'44	
	3132 Mar 30 03:51	0° Y	inferior conj	3134 Sep 23 10:53	0° A 28'30	-8°-40'-30
	3132 Apr 23 06:32	0° B	minimum elong	3134 Sep 23 11:46	0° A 27'08	8°40'30
			min. Earth dist.	3134 Sep 24 01:55	0° A 05'07	0.28579 AU
superior conj	3132 May 06 12:34	16° B 25'36		3134 Sep 24 05:12	30° R M	
minimum elong	3132 May 06 22:37	16° B 56'40	morning rise	3134 Sep 26 17:27	28° M 27'23	
max. Earth dist.	3132 May 09 16:59	20° B 22'03	direct	3134 Oct 14 21:13	22° M 15'55	
	3132 May 17 12:01	0° II	greatest brilliancy	3134 Oct 29 08:40	25° M 59'41	-4.6m
asc. node	3132 May 31 18:49	17° II 36'50		3134 Nov 05 09:27	0° A	
	3132 Jun 10 20:22	0° S	asc. node	3134 Nov 16 13:45	8° A 20'49	
evening rise	3132 Jun 13 08:47	3° S 05'39	morning max el	3134 Dec 04 02:48	24° A 38'52	46°37'47
	3132 Jul 05 07:18	0° Q		3134 Dec 09 07:58	0° M	
	3132 Jul 29 20:57	0° M		3135 Jan 05 10:56	0° X	
	3132 Aug 23 14:25	0° A		3135 Jan 30 21:02	0° Z	
	3132 Sep 17 13:46	0° M		3135 Feb 24 15:03	0° \approx	
desc. node	3132 Sep 20 08:27	3° M 18'46	desc. node	3135 Mar 08 03:34	14° \approx 06'07	
	3132 Oct 12 22:02	0° X		3135 Mar 21 02:18	0° H	

	3135 Apr 14 11:07	0°♄	evening set	3137 Nov 29 03:53	15°♂51'43	
	3135 May 08 19:52	0°♂	inferior conj	3137 Dec 05 00:36	12°♂26'36	-2°-18'-29
	3135 Jun 02 05:30	0°♂	minimum elong	3137 Dec 05 05:47	12°♂18'44	2°16'53
morning set	3135 Jun 08 16:51	7°♂57'10	min. Earth dist.	3137 Dec 05 13:11	12°♂07'30	0.26762 AU
	3135 Jun 26 15:43	0°♂	morning rise	3137 Dec 11 07:06	8°♂47'26	
asc. node	3135 Jun 29 06:43	3°♂13'25	asc. node	3137 Dec 14 01:36	7°♂25'03	
max. Earth dist.	3135 Jul 14 18:50	22°♂16'34	1.73547 AU	direct	3137 Dec 25 15:17	4°♂41'15
			greatest brilliancy	3138 Jan 07 17:27	7°♂52'15	-4.7m
superior conj	3135 Jul 15 13:59	23°♂15'25	0°37'35		3138 Feb 06 05:02	0°♂
minimum elong	3135 Jul 15 06:58	22°♂53'51	0°37'16	morning max el	3138 Feb 14 07:47	7°♂58'25 46°57'41
	3135 Jul 21 01:38	0°♂			3138 Mar 06 23:23	0°♂
	3135 Aug 14 10:39	0°♂			3138 Apr 02 06:00	0°♂
evening rise	3135 Aug 20 11:38	7°♂26'23	desc. node		3138 Apr 04 15:28	2°♂47'53
	3135 Sep 07 19:07	0°♂			3138 Apr 27 15:49	0°♄
	3135 Oct 02 04:03	0°♂			3138 May 22 16:46	0°♂
desc. node	3135 Oct 18 20:23	20°♂29'32			3138 Jun 16 13:26	0°♂
	3135 Oct 26 14:25	0°♂			3138 Jul 11 07:00	0°♂
	3135 Nov 20 03:00	0°♂		asc. node	3138 Jul 26 18:28	18°♂51'50
	3135 Dec 14 19:46	0°♂			3138 Aug 04 20:58	0°♂
	3136 Jan 08 22:32	0°♂		morning set	3138 Aug 15 15:29	13°♂12'37
	3136 Feb 04 02:42	0°♄			3138 Aug 29 06:49	0°♂
asc. node	3136 Feb 08 23:18	5°♄19'11	max. Earth dist.	3138 Sep 18 03:35	24°♂33'44	1.72798 AU
evening max el	3136 Feb 21 09:32	18°♄22'19	46°53'40			
	3136 Mar 04 11:04	0°♂		superior conj	3138 Sep 21 02:53	28°♂14'43 1°25'03
greatest brilliancy	3136 Mar 28 23:02	17°♂44'41	-4.6m	minimum elong	3138 Sep 21 03:11	28°♂15'39 1°25'02
retrograde	3136 Apr 11 21:02	21°♂16'54			3138 Sep 22 12:50	0°♂
evening set	3136 Apr 28 10:35	15°♂56'54			3138 Oct 16 16:16	0°♂
inferior conj	3136 May 03 02:03	13°♂05'32	6°02'33	evening rise	3138 Oct 28 15:11	14°♂53'06
minimum elong	3136 May 03 12:05	12°♂49'45	6°00'20		3138 Nov 09 18:23	0°♂
min. Earth dist.	3136 May 03 00:34	13°♂07'52	0.28272 AU	desc. node	3138 Nov 15 08:23	6°♂57'27
morning rise	3136 May 08 13:50	9°♂45'09			3138 Dec 03 20:04	0°♂
direct	3136 May 24 05:09	4°♂59'52			3138 Dec 27 22:07	0°♂
desc. node	3136 May 30 13:01	5°♂44'50			3139 Jan 21 02:15	0°♂
greatest brilliancy	3136 Jun 05 05:36	7°♂34'27	-4.5m		3139 Feb 14 12:15	0°♄
	3136 Jul 06 18:33	0°♂		asc. node	3139 Mar 08 11:06	26°♄26'50
morning max el	3136 Jul 12 01:19	4°♂56'18	45°45'38		3139 Mar 11 11:02	0°♂
	3136 Aug 05 13:58	0°♂			3139 Apr 06 11:35	0°♂
	3136 Sep 01 12:39	0°♂		evening max el	3139 May 03 14:02	28°♂36'58 45°50'59
asc. node	3136 Sep 20 16:09	22°♂17'11			3139 May 05 00:11	0°♂
	3136 Sep 27 04:19	0°♂		greatest brilliancy	3139 Jun 06 22:56	25°♂25'57 -4.5m
	3136 Oct 22 01:00	0°♂		retrograde	3139 Jun 21 16:21	29°♂13'00
	3136 Nov 15 09:35	0°♂		desc. node	3139 Jun 28 00:56	28°♂24'30
	3136 Dec 09 11:07	0°♂		evening set	3139 Jul 06 20:28	24°♂44'42
	3137 Jan 02 09:05	0°♂		inferior conj	3139 Jul 13 03:27	20°♂57'38 -3°-28'-38
morning set	3137 Jan 08 02:52	7°♂12'54		minimum elong	3139 Jul 12 20:19	21°♂08'48 3°26'43
desc. node	3137 Jan 10 05:55	9°♂53'24		min. Earth dist.	3139 Jul 12 21:13	21°♂07'24 0.28968 AU
	3137 Jan 26 05:38	0°♂		morning rise	3139 Jul 18 20:26	17°♂30'44
				direct	3139 Aug 03 18:20	12°♂41'31
superior conj	3137 Feb 18 18:28	29°♂35'29	-1°-17'-6	greatest brilliancy	3139 Aug 17 07:06	15°♂54'06 -4.5m
minimum elong	3137 Feb 18 08:39	29°♂04'40	1°16'53		3139 Sep 07 14:14	0°♂
	3137 Feb 19 02:16	0°♂		morning max el	3139 Sep 21 17:26	12°♂45'36 45°53'28
max. Earth dist.	3137 Feb 21 05:59	2°♂42'25	1.71292 AU		3139 Oct 08 15:34	0°♂
	3137 Mar 15 00:27	0°♄		asc. node	3139 Oct 19 04:04	11°♂27'08
evening rise	3137 Mar 31 09:11	20°♄25'48			3139 Nov 04 12:11	0°♂
	3137 Apr 08 01:49	0°♂			3139 Nov 29 19:32	0°♂
	3137 May 02 07:52	0°♂			3139 Dec 24 08:53	0°♂
asc. node	3137 May 03 09:03	1°♂17'28			3140 Jan 17 13:34	0°♂
	3137 May 26 19:51	0°♂		desc. node	3140 Feb 07 17:45	26°♂25'08
	3137 Jun 20 15:13	0°♂			3140 Feb 10 14:31	0°♂
	3137 Jul 15 20:50	0°♂			3140 Mar 05 14:23	0°♂
	3137 Aug 10 18:53	0°♂		morning set	3140 Mar 26 01:05	25°♂32'22
desc. node	3137 Aug 22 22:31	13°♂38'51			3140 Mar 29 14:55	0°♄
	3137 Sep 06 23:44	0°♂			3140 Apr 22 17:28	0°♂
evening max el	3137 Sep 25 21:27	19°♂15'25	46°13'27			
	3137 Oct 07 13:30	0°♂		superior conj	3140 May 04 03:23	14°♂09'05 0°-58'-18
greatest brilliancy	3137 Nov 03 13:06	17°♂57'54	-4.6m	minimum elong	3140 May 04 13:35	14°♂40'42 0°57'56
retrograde	3137 Nov 14 09:22	20°♂07'19		max. Earth dist.	3140 May 07 12:42	18°♂20'50 1.72735 AU

	3140 May 16 22:52	0°II		greatest brilliancy	3142 Oct 27 01:33	23°II47'34	-4.6m
asc. node	3140 May 30 20:56	17°II09'56			3142 Nov 06 08:14	0°II	
	3140 Jun 10 07:14	0°II		asc. node	3142 Nov 15 15:47	7°II18'14	
evening rise	3140 Jun 11 02:07	0°II58'03		morning max el	3142 Dec 01 17:16	22°II19'42	46°36'19
	3140 Jul 04 18:16	0°II			3142 Dec 09 03:41	0°II	
	3140 Jul 29 08:09	0°II			3143 Jan 05 02:07	0°II	
	3140 Aug 23 02:04	0°II			3143 Jan 30 10:25	0°II	
	3140 Sep 17 02:12	0°II			3143 Feb 24 03:29	0°II	
desc. node	3140 Sep 19 10:30	2°II47'35		desc. node	3143 Mar 07 05:37	13°II35'12	
	3140 Oct 12 11:47	0°II			3143 Mar 20 14:06	0°II	
	3140 Nov 07 13:36	0°II			3143 Apr 13 22:30	0°II	
	3140 Dec 05 05:31	0°II			3143 May 08 06:55	0°II	
evening max el	3140 Dec 08 00:23	2°II50'13 47°10'21			3143 Jun 01 16:17	0°II	
	3141 Jan 09 02:00	0°II		morning set	3143 Jun 06 09:49	5°II48'50	
asc. node	3141 Jan 10 13:29	0°II51'45			3143 Jun 26 02:21	0°II	
greatest brilliancy	3141 Jan 15 10:32	3°II18'47 -4.7m		asc. node	3143 Jun 28 08:38	2°II46'43	
retrograde	3141 Jan 27 18:07	6°II08'39		max. Earth dist.	3143 Jul 12 15:00	20°II18'32	1.73548 AU
evening set	3141 Feb 13 05:35	0°II47'52					
	3141 Feb 14 13:42	30°II		superior conj	3143 Jul 13 08:05	21°II11'03	0°34'42
min. Earth dist.	3141 Feb 16 14:59	28°II44'25 0.26999 AU		minimum elong	3143 Jul 13 01:28	20°II50'44	0°34'25
inferior conj	3141 Feb 17 10:00	28°II14'57 7°58'14			3143 Jul 20 12:12	0°II	
minimum elong	3141 Feb 17 01:11	28°II28'36 7°56'57			3143 Aug 13 21:17	0°II	
morning rise	3141 Feb 20 21:06	26°II08'21		evening rise	3143 Aug 18 06:13	5°II23'02	
direct	3141 Mar 09 22:51	20°II31'22			3143 Sep 07 05:55	0°II	
greatest brilliancy	3141 Mar 20 15:05	22°II39'09 -4.6m			3143 Oct 01 15:08	0°II	
	3141 Apr 02 22:46	0°II		desc. node	3143 Oct 17 22:32	20°II01'28	
morning max el	3141 Apr 28 17:03	22°II12'00 46°23'25			3143 Oct 26 01:53	0°II	
desc. node	3141 May 02 03:21	25°II36'22			3143 Nov 19 15:02	0°II	
	3141 May 06 11:14	0°II			3143 Dec 14 08:40	0°II	
	3141 Jun 03 06:16	0°II			3144 Jan 08 12:54	0°II	
	3141 Jun 29 13:09	0°II			3144 Feb 03 20:15	0°II	
	3141 Jul 25 03:05	0°II		asc. node	3144 Feb 08 01:16	4°II34'41	
	3141 Aug 19 05:28	0°II		evening max el	3144 Feb 18 23:39	16°II01'31	46°55'29
asc. node	3141 Aug 23 06:18	4°II52'16			3144 Mar 04 15:50	0°II	
	3141 Sep 12 22:07	0°II		greatest brilliancy	3144 Mar 26 14:55	15°II29'05	-4.6m
	3141 Oct 07 06:39	0°II		retrograde	3144 Apr 09 12:48	19°II01'38	
morning set	3141 Oct 23 18:51	20°II30'41		evening set	3144 Apr 26 04:49	13°II37'02	
	3141 Oct 31 09:26	0°II		inferior conj	3144 Apr 30 17:16	10°II50'20	6°17'55
	3141 Nov 24 08:50	0°II		minimum elong	3144 May 01 03:22	10°II34'29	6°15'46
max. Earth dist.	3141 Nov 29 06:46	6°II09'42 1.71452 AU		min. Earth dist.	3144 Apr 30 15:32	10°II53'04	0.28243 AU
				morning rise	3144 May 06 02:11	7°II34'25	
superior conj	3141 Dec 01 11:20	8°II54'34 0°26'52		direct	3144 May 21 19:41	2°II45'01	
minimum elong	3141 Dec 01 17:46	9°II14'43 0°26'33		desc. node	3144 May 29 14:59	3°II52'53	
desc. node	3141 Dec 12 20:11	23°II10'38		greatest brilliancy	3144 Jun 02 19:47	5°II19'41	-4.5m
	3141 Dec 18 06:34	0°II			3144 Jul 06 18:59	0°II	
evening rise	3142 Jan 11 06:46	0°II09'45		morning max el	3144 Jul 09 17:12	2°II45'47	45°46'21
	3142 Jan 11 03:40	0°II			3144 Aug 05 06:02	0°II	
	3142 Feb 04 01:16	0°II			3144 Sep 01 01:58	0°II	
	3142 Feb 28 01:22	0°II		asc. node	3144 Sep 19 18:14	21°II46'55	
	3142 Mar 24 06:52	0°II			3144 Sep 26 16:23	0°II	
asc. node	3142 Apr 04 23:12	14°II18'43			3144 Oct 21 12:27	0°II	
	3142 Apr 17 21:21	0°II			3144 Nov 14 20:42	0°II	
	3142 May 13 01:42	0°II			3144 Dec 08 22:03	0°II	
	3142 Jun 08 04:59	0°II			3145 Jan 01 19:55	0°II	
	3142 Jul 06 07:57	0°II		morning set	3145 Jan 05 13:36	4°II41'47	
evening max el	3142 Jul 13 03:08	6°II39'43 45°27'33		desc. node	3145 Jan 09 07:54	9°II25'34	
desc. node	3142 Jul 25 12:47	17°II52'57			3145 Jan 25 16:26	0°II	
	3142 Aug 11 04:35	0°II					
greatest brilliancy	3142 Aug 18 14:26	3°II42'35 -4.5m		superior conj	3145 Feb 16 04:56	27°II03'42	-1°-15'-12
retrograde	3142 Aug 30 17:56	6°II19'23		minimum elong	3145 Feb 15 18:30	26°II30'55	1°14'58
evening set	3142 Sep 17 20:34	0°II15'32		max. Earth dist.	3145 Feb 18 13:27	0°II01'16	1.71268 AU
	3142 Sep 18 06:55	30°II			3145 Feb 18 13:03	0°II	
inferior conj	3142 Sep 21 02:25	28°II16'09 -8°-40'-33			3145 Mar 14 11:14	0°II	
minimum elong	3142 Sep 21 02:29	28°II16'03 8°40'34		evening rise	3145 Mar 28 21:09	17°II59'59	
min. Earth dist.	3142 Sep 21 16:45	27°II53'50 0.28627 AU			3145 Apr 07 12:38	0°II	
morning rise	3142 Sep 24 08:11	26°II16'15			3145 May 01 18:47	0°II	
direct	3142 Oct 12 12:35	20°II02'46		asc. node	3145 May 02 11:05	0°II50'07	

	3145 May 26 06:59	0°☿		desc. node	3148 Feb 06 19:48	25°☿56'24	
	3145 Jun 20 02:49	0°♌			3148 Feb 10 01:43	0°♌	
	3145 Jul 15 09:18	0°♍			3148 Mar 05 01:22	0°♍	
	3145 Aug 10 09:02	0°♎		morning set	3148 Mar 23 13:24	23°♍07'15	
desc. node	3145 Aug 22 00:36	13°♎02'03			3148 Mar 29 01:43	0°♎	
	3145 Sep 06 17:37	0°♏			3148 Apr 22 04:09	0°♏	
evening max el	3145 Sep 23 12:01	16°♏58'45	46°11'15				
	3145 Oct 07 20:49	0°♐		superior conj	3148 May 01 18:20	11°♏53'46	-1°00'-50
greatest brilliancy	3145 Nov 01 01:26	15°♐33'44	-4.6m	minimum elong	3148 May 02 04:39	12°♏25'43	1°00'30
retrograde	3145 Nov 11 22:19	17°♐42'52		max. Earth dist.	3148 May 05 08:06	16°♏19'21	1.72683 AU
evening set	3145 Nov 26 18:41	13°♐24'28			3148 May 16 09:30	0°♐	
inferior conj	3145 Dec 02 13:17	10°♐01'46	-2°-41'-28	asc. node	3148 May 29 22:52	16°♐43'11	
minimum elong	3145 Dec 02 19:16	9°♐52'41	2°39'38	evening rise	3148 Jun 08 19:23	28°♐50'48	
min. Earth dist.	3145 Dec 03 02:45	9°♐41'19	0.26804 AU		3148 Jun 09 17:53	0°☿	
morning rise	3145 Dec 08 19:21	6°♐23'14			3148 Jul 04 05:04	0°♌	
asc. node	3145 Dec 13 03:33	4°♐20'23			3148 Jul 28 19:14	0°♍	
direct	3145 Dec 23 05:08	2°♐15'53			3148 Aug 22 13:39	0°♎	
greatest brilliancy	3146 Jan 05 07:49	5°♐27'53	-4.7m		3148 Sep 16 14:36	0°♏	
	3146 Feb 06 06:39	0°☿		desc. node	3148 Sep 18 12:36	2°♏16'45	
morning max el	3146 Feb 11 22:11	5°☿36'34	46°57'56		3148 Oct 12 01:31	0°♐	
	3146 Mar 06 16:23	0°♌			3148 Nov 07 05:49	0°☿	
	3146 Apr 01 20:06	0°♍			3148 Dec 05 03:51	0°♌	
desc. node	3146 Apr 03 17:37	2°♍13'22		evening max el	3148 Dec 05 13:26	0°♌24'10	47°09'12
	3146 Apr 27 04:28	0°♎		asc. node	3149 Jan 09 15:32	29°♌15'03	
	3146 May 22 04:34	0°♏			3149 Jan 11 02:55	0°♍	
	3146 Jun 16 00:41	0°♐		greatest brilliancy	3149 Jan 13 02:18	0°♍54'38	-4.7m
	3146 Jul 10 17:52	0°☿		retrograde	3149 Jan 25 06:45	3°♍41'28	
asc. node	3146 Jul 25 20:31	18°☿25'20			3149 Feb 07 19:28	30°♌	
	3146 Aug 04 07:38	0°♌		evening set	3149 Feb 10 14:28	28°♌27'32	
morning set	3146 Aug 13 09:11	11°♌07'05		min. Earth dist.	3149 Feb 14 04:21	26°♌17'41	0.26952 AU
	3146 Aug 28 17:22	0°♍		inferior conj	3149 Feb 14 22:56	25°♌48'54	7°47'02
max. Earth dist.	3146 Sep 15 20:40	22°♍25'17	1.72840 AU	minimum elong	3149 Feb 14 13:36	26°♌03'21	7°45'33
				morning rise	3149 Feb 18 13:00	23°♌37'50	
superior conj	3146 Sep 18 20:05	26°♍06'31	1°25'01	direct	3149 Mar 07 10:50	18°♌05'53	
minimum elong	3146 Sep 18 19:39	26°♍05'10	1°25'01	greatest brilliancy	3149 Mar 18 04:57	20°♌15'00	-4.6m
	3146 Sep 21 23:24	0°♎			3149 Apr 03 19:30	0°♍	
	3146 Oct 16 02:56	0°♏		morning max el	3149 Apr 26 05:11	19°♍47'11	46°25'11
evening rise	3146 Oct 26 05:40	12°♏35'12		desc. node	3149 May 01 05:15	24°♍47'03	
	3146 Nov 09 05:14	0°♐			3149 May 06 07:13	0°♎	
desc. node	3146 Nov 14 10:21	6°♐29'35			3149 Jun 02 21:22	0°♏	
	3146 Dec 03 07:10	0°☿			3149 Jun 29 02:11	0°♐	
	3146 Dec 27 09:29	0°♌			3149 Jul 24 15:03	0°☿	
	3147 Jan 20 13:58	0°♍			3149 Aug 18 16:50	0°♌	
	3147 Feb 14 00:30	0°♎		asc. node	3149 Aug 22 08:24	4°♌24'26	
asc. node	3147 Mar 07 13:16	25°♎54'21			3149 Sep 12 09:09	0°♍	
	3147 Mar 11 00:20	0°♏			3149 Oct 06 17:32	0°♎	
	3147 Apr 06 03:11	0°♐		morning set	3149 Oct 21 10:06	18°♎14'53	
evening max el	3147 May 01 06:14	26°♐26'21	45°52'40		3149 Oct 30 20:17	0°♏	
	3147 May 04 22:49	0°☿			3149 Nov 23 19:43	0°♐	
greatest brilliancy	3147 Jun 04 16:12	23°☿18'23	-4.5m	max. Earth dist.	3149 Nov 26 17:47	3°♐39'37	1.71491 AU
retrograde	3147 Jun 19 08:37	27°☿04'19					
desc. node	3147 Jun 27 02:55	25°☿52'15		superior conj	3149 Nov 28 23:33	6°♐28'13	0°30'26
evening set	3147 Jul 04 11:57	22°☿37'46		minimum elong	3149 Nov 29 06:41	6°♐50'34	0°30'05
inferior conj	3147 Jul 10 19:49	18°☿49'08	-3°-10'-18	desc. node	3149 Dec 11 22:09	22°♐42'31	
minimum elong	3147 Jul 10 13:13	18°☿59'30	3°08'30		3149 Dec 17 17:31	0°☿	
min. Earth dist.	3147 Jul 10 13:37	18°☿58'52	0.28950 AU	evening rise	3150 Jan 08 17:16	27°☿37'20	
morning rise	3147 Jul 16 14:46	15°☿19'12			3150 Jan 10 14:42	0°♌	
direct	3147 Aug 01 10:44	10°☿33'29			3150 Feb 03 12:26	0°♍	
greatest brilliancy	3147 Aug 14 20:55	13°☿42'59	-4.5m		3150 Feb 27 12:42	0°♎	
	3147 Sep 07 19:27	0°♌			3150 Mar 23 18:28	0°♏	
morning max el	3147 Sep 19 08:13	10°♌32'48	45°52'21	asc. node	3150 Apr 04 01:11	13°♏48'57	
	3147 Oct 08 08:36	0°♍			3150 Apr 17 09:25	0°♐	
asc. node	3147 Oct 18 06:08	10°♍49'53			3150 May 12 14:39	0°☿	
	3147 Nov 04 02:02	0°♎			3150 Jun 07 19:55	0°♌	
	3147 Nov 29 08:02	0°♏			3150 Jul 06 04:17	0°♍	
	3147 Dec 23 20:43	0°♐		evening max el	3150 Jul 10 17:29	4°♎25'36	45°27'13
	3148 Jan 17 01:02	0°☿		desc. node	3150 Jul 24 14:51	16°♎53'47	

	3150 Aug 12 21:33	0°♄		superior conj	3153 Feb 13 14:55	24°≈29'09	-1°-13'-9
greatest brilliancy	3150 Aug 16 01:24	1°♄25'57	-4.5m	minimum elong	3153 Feb 13 03:59	23°≈54'44	1°12'52
retrograde	3150 Aug 28 09:07	4°♄07'12		max. Earth dist.	3153 Feb 15 22:19	27°≈23'13	1.71239 AU
	3150 Sep 12 00:47	30°♄			3153 Feb 18 00:13	0°♄	
evening set	3150 Sep 15 10:40	28°♄04'02			3153 Mar 13 22:23	0°♄	
inferior conj	3150 Sep 18 17:46	26°♄02'53	-8°-39'-43	evening rise	3153 Mar 26 08:46	15°♄31'55	
minimum elong	3150 Sep 18 17:01	26°♄04'03	8°39'44		3153 Apr 06 23:47	0°♄	
min. Earth dist.	3150 Sep 19 07:09	25°♄42'05	0.28678 AU		3153 May 01 06:03	0°♄	
morning rise	3150 Sep 21 23:09	24°♄03'42		asc. node	3153 May 01 13:02	0°♄21'30	
direct	3150 Oct 10 04:14	17°♄48'40			3153 May 25 18:31	0°♄	
greatest brilliancy	3150 Oct 24 18:46	21°♄35'14	-4.6m		3153 Jun 19 14:50	0°♄	
	3150 Nov 07 01:28	0°♄			3153 Jul 14 22:14	0°♄	
asc. node	3150 Nov 14 17:43	6°♄16'06			3153 Aug 09 23:43	0°♄	
morning max el	3150 Nov 29 08:40	20°♄02'17	46°34'55	desc. node	3153 Aug 21 02:43	12°♄23'57	
	3150 Dec 08 23:07	0°♄			3153 Sep 06 12:21	0°♄	
	3151 Jan 04 17:18	0°♄		evening max el	3153 Sep 21 02:27	14°♄40'49	46°08'58
	3151 Jan 29 23:50	0°♄			3153 Oct 08 07:21	0°♄	
	3151 Feb 23 15:57	0°♄		greatest brilliancy	3153 Oct 29 14:22	13°♄09'21	-4.6m
desc. node	3151 Mar 06 07:44	13°≈04'15		retrograde	3153 Nov 09 10:39	15°♄17'13	
	3151 Mar 20 01:59	0°♄		evening set	3153 Nov 24 09:36	10°♄55'59	
	3151 Apr 13 09:58	0°♄		inferior conj	3153 Nov 30 01:59	7°♄35'54	-3°-3'-58
	3151 May 07 18:06	0°♄		minimum elong	3153 Nov 30 08:41	7°♄25'41	3°01'57
	3151 Jun 01 03:15	0°♄		min. Earth dist.	3153 Nov 30 16:31	7°♄13'44	0.26854 AU
morning set	3151 Jun 04 02:45	3°♄39'48		morning rise	3153 Dec 06 07:16	3°♄57'57	
	3151 Jun 25 13:08	0°♄		asc. node	3153 Dec 12 05:40	1°♄19'05	
asc. node	3151 Jun 27 10:44	2°♄20'02			3153 Dec 17 20:03	30°♄	
max. Earth dist.	3151 Jul 10 12:54	18°♄25'18	1.73546 AU	direct	3153 Dec 20 18:48	29°♄49'18	
					3153 Dec 23 18:23	0°♄	
superior conj	3151 Jul 11 02:10	19°♄06'04	0°31'47	greatest brilliancy	3154 Jan 02 22:08	3°♄01'54	-4.7m
minimum elong	3151 Jul 10 20:00	18°♄47'08	0°31'30		3154 Feb 06 07:40	0°♄	
	3151 Jul 19 22:56	0°♄		morning max el	3154 Feb 09 11:45	3°♄10'49	46°58'03
	3151 Aug 13 08:05	0°♄			3154 Mar 06 09:38	0°≈	
evening rise	3151 Aug 16 00:53	3°♄19'26			3154 Apr 01 10:34	0°♄	
	3151 Sep 06 16:56	0°♄		desc. node	3154 Apr 02 19:35	1°♄37'00	
	3151 Oct 01 02:29	0°♄			3154 Apr 26 17:30	0°♄	
desc. node	3151 Oct 17 00:28	19°♄31'47			3154 May 21 16:43	0°♄	
	3151 Oct 25 13:41	0°♄			3154 Jun 15 12:16	0°♄	
	3151 Nov 19 03:26	0°♄			3154 Jul 10 05:06	0°♄	
	3151 Dec 13 21:58	0°≈		asc. node	3154 Jul 24 22:36	17°♄57'48	
	3152 Jan 08 03:45	0°♄			3154 Aug 03 18:40	0°♄	
	3152 Feb 03 14:31	0°♄		morning set	3154 Aug 11 02:57	9°♄00'33	
asc. node	3152 Feb 07 03:24	3°♄49'11			3154 Aug 28 04:18	0°♄	
evening max el	3152 Feb 16 14:34	13°♄41'56	46°57'24	max. Earth dist.	3154 Sep 13 12:33	20°♄12'03	1.72880 AU
	3152 Mar 04 23:06	0°♄					
greatest brilliancy	3152 Mar 24 06:41	13°♄12'31	-4.6m	superior conj	3154 Sep 16 13:34	23°♄58'09	1°24'52
retrograde	3152 Apr 07 04:56	16°♄45'11		minimum elong	3154 Sep 16 12:26	23°♄54'38	1°24'53
evening set	3152 Apr 23 23:00	11°♄16'00			3154 Sep 21 10:21	0°♄	
inferior conj	3152 Apr 28 08:24	8°♄33'53	6°32'44		3154 Oct 15 13:58	0°♄	
minimum elong	3152 Apr 28 18:29	8°♄18'04	6°30'42	evening rise	3154 Oct 23 20:29	10°♄17'24	
min. Earth dist.	3152 Apr 28 06:03	8°♄37'33	0.28214 AU		3154 Nov 08 16:27	0°♄	
morning rise	3152 May 03 14:15	5°♄22'41		desc. node	3154 Nov 13 12:23	6°♄00'50	
direct	3152 May 19 10:34	0°♄29'02			3154 Dec 02 18:38	0°♄	
desc. node	3152 May 28 17:01	2°♄04'01			3154 Dec 26 21:17	0°≈	
greatest brilliancy	3152 May 31 08:56	3°♄02'38	-4.5m		3155 Jan 20 02:09	0°♄	
	3152 Jul 06 18:40	0°♄			3155 Feb 13 13:17	0°♄	
morning max el	3152 Jul 07 09:32	0°♄35'27	45°47'06	asc. node	3155 Mar 06 15:13	25°♄19'31	
	3152 Aug 04 22:08	0°♄			3155 Mar 10 14:14	0°♄	
	3152 Aug 31 15:28	0°♄		evening max el	3155 Apr 05 19:34	0°♄	
asc. node	3152 Sep 18 20:18	21°♄15'49			3155 Apr 28 21:29	24°♄11'56	45°54'35
	3152 Sep 26 04:41	0°♄			3155 May 04 23:04	0°♄	
	3152 Oct 21 00:10	0°♄		greatest brilliancy	3155 Jun 02 09:04	21°♄09'01	-4.5m
	3152 Nov 14 08:09	0°♄		retrograde	3155 Jun 17 00:35	24°♄54'35	
	3152 Dec 08 09:22	0°♄		desc. node	3155 Jun 26 05:01	23°♄14'07	
	3153 Jan 01 07:10	0°♄		evening set	3155 Jul 02 03:37	20°♄29'19	
morning set	3153 Jan 03 00:05	2°♄08'34		inferior conj	3155 Jul 08 12:14	16°♄39'37	-2°-51'-48
desc. node	3153 Jan 08 10:02	8°♄56'58		minimum elong	3155 Jul 08 06:12	16°♄49'06	2°50'08
	3153 Jan 25 03:38	0°≈		min. Earth dist.	3155 Jul 08 06:23	16°♄48'49	0.28931 AU

morning rise	3155 Jul 14 09:00	13°06'44			3158 Jan 10 01:51	0°≈	
direct	3155 Jul 30 02:38	8°02'415			3158 Feb 02 23:40	0°✕	
greatest brilliancy	3155 Aug 12 11:19	11°03'1'25	-4.5m		3158 Feb 27 00:05	0°Υ	
	3155 Sep 07 23:18	0°Ω			3158 Mar 23 06:07	0°8	
morning max el	3155 Sep 16 22:43	8°Ω18'15	45°51'23	asc. node	3158 Apr 03 03:09	13°8'18'52	
	3155 Oct 08 01:39	0°η			3158 Apr 16 21:34	0°Π	
asc. node	3155 Oct 17 08:01	10°η11'30			3158 May 12 03:48	0°☾	
	3155 Nov 03 16:04	0°♐			3158 Jun 07 11:12	0°Ω	
	3155 Nov 28 20:45	0°♌			3158 Jul 06 01:28	0°η	
	3155 Dec 23 08:48	0°♊		evening max el	3158 Jul 08 08:57	2°η13'55	45°27'05
	3156 Jan 16 12:45	0°♋		desc. node	3158 Jul 23 16:55	15°η52'57	
desc. node	3156 Feb 05 21:53	25°♋26'54		greatest brilliancy	3158 Aug 13 12:25	29°η09'34	-4.5m
	3156 Feb 09 13:13	0°≈			3158 Aug 15 16:43	0°♑	
	3156 Mar 04 12:41	0°✕		retrograde	3158 Aug 26 00:48	1°♑55'16	
morning set	3156 Mar 21 01:14	20°✕39'23			3158 Sep 04 21:29	30°Rη	
	3156 Mar 28 12:53	0°Υ		evening set	3158 Sep 13 00:36	25°η53'26	
	3156 Apr 21 15:12	0°8		inferior conj	3158 Sep 16 09:15	23°η49'58	-8°-38'-11
				minimum elong	3158 Sep 16 07:42	23°η52'23	8°38'10
superior conj	3156 Apr 29 08:50	9°8'35'48	-1°-3'-19	min. Earth dist.	3158 Sep 16 21:18	23°η31'16	0.28724 AU
minimum elong	3156 Apr 29 19:11	10°8'07'54	1°02'59	morning rise	3158 Sep 19 14:36	21°η50'58	
max. Earth dist.	3156 May 03 00:30	14°8'07'25	1.72628 AU	direct	3158 Oct 07 20:26	15°η35'11	
	3156 May 15 20:29	0°Π		greatest brilliancy	3158 Oct 22 11:15	19°η22'27	-4.6m
asc. node	3156 May 29 00:56	16°Π15'49			3158 Nov 07 14:13	0°♑	
evening rise	3156 Jun 06 12:10	26°Π41'06		asc. node	3158 Nov 13 19:53	5°♑16'02	
	3156 Jun 09 04:53	0°☾		morning max el	3158 Nov 27 00:52	17°♑47'14	46°33'22
	3156 Jul 03 16:11	0°Ω			3158 Dec 08 17:59	0°♌	
	3156 Jul 28 06:38	0°η			3159 Jan 04 08:15	0°♊	
	3156 Aug 22 01:34	0°♑			3159 Jan 29 13:07	0°♋	
	3156 Sep 16 03:22	0°♌			3159 Feb 23 04:18	0°≈	
desc. node	3156 Sep 17 14:32	1°♌44'24		desc. node	3159 Mar 05 09:40	12°≈33'00	
	3156 Oct 11 15:40	0°♊			3159 Mar 19 13:45	0°✕	
	3156 Nov 06 22:34	0°♋			3159 Apr 12 21:20	0°Υ	
evening max el	3156 Dec 03 02:08	27°♋56'53	47°08'04		3159 May 07 05:10	0°8	
	3156 Dec 05 03:21	0°≈			3159 May 31 14:05	0°Π	
asc. node	3157 Jan 08 17:35	27°≈34'16		morning set	3159 Jun 01 19:46	1°Π31'16	
greatest brilliancy	3157 Jan 10 17:11	28°≈28'58	-4.7m		3159 Jun 24 23:52	0°☾	
	3157 Jan 14 20:14	0°✕		asc. node	3159 Jun 26 12:49	1°☾53'31	
retrograde	3157 Jan 22 19:33	1°✕14'11					
	3157 Jan 30 13:11	30°R≈		superior conj	3159 Jul 08 20:08	17°☾00'53	0°28'49
evening set	3157 Feb 07 23:24	26°≈06'34		minimum elong	3159 Jul 08 14:27	16°☾43'27	0°28'32
min. Earth dist.	3157 Feb 11 17:44	23°≈50'35	0.26909 AU	max. Earth dist.	3159 Jul 08 11:43	16°☾35'01	1.73545 AU
inferior conj	3157 Feb 12 11:54	23°≈22'31	7°34'58		3159 Jul 19 09:37	0°Ω	
minimum elong	3157 Feb 12 02:08	23°≈37'38	7°33'17		3159 Aug 12 18:51	0°η	
morning rise	3157 Feb 16 05:06	21°≈06'59		evening rise	3159 Aug 13 19:28	1°η15'45	
direct	3157 Mar 04 22:48	15°≈39'49			3159 Sep 06 03:53	0°♑	
greatest brilliancy	3157 Mar 15 19:19	17°≈51'01	-4.6m		3159 Sep 30 13:44	0°♌	
	3157 Apr 04 11:11	0°✕		desc. node	3159 Oct 16 02:30	19°♌02'43	
morning max el	3157 Apr 23 18:16	17°✕23'51	46°26'49		3159 Oct 25 01:23	0°♊	
desc. node	3157 Apr 30 07:18	23°✕58'12			3159 Nov 18 15:47	0°♋	
	3157 May 06 02:53	0°Υ			3159 Dec 13 11:16	0°≈	
	3157 Jun 02 12:33	0°8			3160 Jan 07 18:40	0°✕	
	3157 Jun 28 15:25	0°Π			3160 Feb 03 09:04	0°Υ	
	3157 Jul 24 03:12	0°☾		asc. node	3160 Feb 06 05:24	3°Υ03'04	
	3157 Aug 18 04:21	0°Ω		evening max el	3160 Feb 14 06:34	11°Υ25'31	46°59'16
asc. node	3157 Aug 21 10:22	3°Ω55'45			3160 Mar 05 08:42	0°8	
	3157 Sep 11 20:18	0°η		greatest brilliancy	3160 Mar 21 23:20	10°8'57'54	-4.6m
	3157 Oct 06 04:32	0°♑		retrograde	3160 Apr 04 21:09	14°8'29'29	
morning set	3157 Oct 19 01:30	15°♑59'11		evening set	3160 Apr 21 17:21	8°8'56'04	
	3157 Oct 30 07:16	0°♌		inferior conj	3160 Apr 25 23:37	6°8'18'25	6°46'59
	3157 Nov 23 06:45	0°♊		minimum elong	3160 Apr 26 09:38	6°8'02'44	6°45'03
max. Earth dist.	3157 Nov 24 06:07	1°♊13'12	1.71529 AU	min. Earth dist.	3160 Apr 25 20:30	6°8'23'20	0.28180 AU
				morning rise	3160 May 01 02:16	3°8'12'02	
superior conj	3157 Nov 26 12:04	4°♊02'19	0°33'54		3160 May 07 17:45	30°RΥ	
minimum elong	3157 Nov 26 19:50	4°♊26'41	0°33'33	direct	3160 May 17 01:50	28°Υ14'21	
desc. node	3157 Dec 11 00:18	22°♊14'33			3160 May 26 20:29	0°8	
	3157 Dec 17 04:37	0°♋		desc. node	3160 May 27 19:07	0°8'20'17	
evening rise	3158 Jan 06 04:10	25°♋05'53		greatest brilliancy	3160 May 28 21:03	0°8'45'26	-4.5m

morning max el	3160 Jul 05 01:39	28° ♄ 25'26	45°47'43		3163 Jan 19 13:59	0° ♁	
	3160 Jul 06 16:58	0° ♁			3163 Feb 13 01:46	0° ♁	
	3160 Aug 04 13:42	0° ♁		asc. node	3163 Mar 05 17:12	24° ♁ 45'38	
	3160 Aug 31 04:38	0° ♁			3163 Mar 10 03:54	0° ♁	
asc. node	3160 Sep 17 22:14	20° ♁ 45'03			3163 Apr 05 11:53	0° ♁	
	3160 Sep 25 16:44	0° ♁		evening max el	3163 Apr 26 12:10	21° ♁ 57'02	45°56'33
	3160 Oct 20 11:38	0° ♁			3163 May 05 00:05	0° ♁	
	3160 Nov 13 19:19	0° ♁		greatest brilliancy	3163 May 31 01:10	18° ♁ 59'39	-4.5m
	3160 Dec 07 20:23	0° ♁		retrograde	3163 Jun 14 16:39	22° ♁ 46'15	
morning set	3160 Dec 31 10:42	29° ♁ 36'41		desc. node	3163 Jun 25 07:01	20° ♁ 32'58	
	3160 Dec 31 18:08	0° ♁		evening set	3163 Jun 29 19:25	18° ♁ 21'43	
desc. node	3161 Jan 07 12:01	8° ♁ 28'44		inferior conj	3163 Jul 06 04:41	14° ♁ 31'27	-2°-33'-1
	3161 Jan 24 14:35	0° ♁		minimum elong	3163 Jul 05 23:15	14° ♁ 39'59	2°31'29
				min. Earth dist.	3163 Jul 05 23:20	14° ♁ 39'50	0.28911 AU
superior conj	3161 Feb 11 00:56	21° ♁ 55'23	-1°-10'-56	morning rise	3163 Jul 12 03:12	10° ♁ 55'54	
minimum elong	3161 Feb 10 13:34	21° ♁ 19'38	1°10'37	direct	3163 Jul 27 18:14	6° ♁ 16'14	
max. Earth dist.	3161 Feb 13 06:32	24° ♁ 43'50	1.71213 AU	greatest brilliancy	3163 Aug 10 02:36	9° ♁ 22'20	-4.5m
	3161 Feb 17 11:09	0° ♁			3163 Sep 08 00:57	0° ♁	
	3161 Mar 13 09:17	0° ♁		morning max el	3163 Sep 14 13:25	6° ♁ 05'35	45°50'28
evening rise	3161 Mar 23 20:19	13° ♁ 04'15			3163 Oct 07 17:54	0° ♁	
	3161 Apr 06 10:41	0° ♁		asc. node	3163 Oct 16 10:12	9° ♁ 35'27	
asc. node	3161 Apr 30 15:10	29° ♁ 54'20			3163 Nov 03 05:34	0° ♁	
	3161 Apr 30 17:01	0° ♁			3163 Nov 28 09:06	0° ♁	
	3161 May 25 05:43	0° ♁			3163 Dec 22 20:33	0° ♁	
	3161 Jun 19 02:33	0° ♁			3164 Jan 16 00:09	0° ♁	
	3161 Jul 14 10:54	0° ♁		desc. node	3164 Feb 04 23:52	24° ♁ 58'07	
	3161 Aug 09 14:15	0° ♁			3164 Feb 09 00:23	0° ♁	
desc. node	3161 Aug 20 04:37	11° ♁ 45'44			3164 Mar 03 23:39	0° ♁	
	3161 Sep 06 07:16	0° ♁		morning set	3164 Mar 18 12:42	18° ♁ 11'17	
evening max el	3161 Sep 18 16:23	12° ♁ 22'37	46°06'37		3164 Mar 27 23:42	0° ♁	
	3161 Oct 08 20:55	0° ♁			3164 Apr 21 01:55	0° ♁	
greatest brilliancy	3161 Oct 27 04:07	10° ♁ 47'05	-4.6m				
retrograde	3161 Nov 06 22:29	12° ♁ 53'02		superior conj	3164 Apr 26 23:08	7° ♁ 18'11	-1°-5'-42
evening set	3161 Nov 22 00:47	8° ♁ 28'46		minimum elong	3164 Apr 27 09:28	7° ♁ 50'13	1°05'23
inferior conj	3161 Nov 27 14:50	5° ♁ 11'37	-3°-25'-54	max. Earth dist.	3164 Apr 30 14:41	11° ♁ 49'33	1.72575 AU
minimum elong	3161 Nov 27 22:12	5° ♁ 00'21	3°23'44		3164 May 15 07:10	0° ♁	
min. Earth dist.	3161 Nov 28 06:42	4° ♁ 47'23	0.26904 AU	asc. node	3164 May 28 03:01	15° ♁ 49'23	
morning rise	3161 Dec 03 19:04	1° ♁ 34'30		evening rise	3164 Jun 04 04:53	24° ♁ 32'01	
	3161 Dec 06 23:53	30° ♁			3164 Jun 08 15:35	0° ♁	
asc. node	3161 Dec 11 07:40	28° ♁ 24'40			3164 Jul 03 02:59	0° ♁	
direct	3161 Dec 18 08:08	27° ♁ 24'13			3164 Jul 27 17:43	0° ♁	
	3161 Dec 30 02:35	0° ♁			3164 Aug 21 13:10	0° ♁	
greatest brilliancy	3161 Dec 31 13:14	0° ♁ 38'12	-4.7m		3164 Sep 15 15:49	0° ♁	
	3162 Feb 06 07:06	0° ♁		desc. node	3164 Sep 16 16:37	1° ♁ 13'29	
morning max el	3162 Feb 07 00:27	0° ♁ 43'55	46°58'04		3164 Oct 11 05:37	0° ♁	
	3162 Mar 06 02:10	0° ♁			3164 Nov 06 15:20	0° ♁	
	3162 Apr 01 00:31	0° ♁		evening max el	3164 Nov 30 15:11	25° ♁ 31'19	47°06'47
desc. node	3162 Apr 01 21:35	1° ♁ 02'02			3164 Dec 05 03:41	0° ♁	
	3162 Apr 26 06:06	0° ♁		asc. node	3165 Jan 07 19:34	25° ♁ 49'39	
	3162 May 21 04:29	0° ♁		greatest brilliancy	3165 Jan 08 07:03	26° ♁ 02'12	-4.7m
	3162 Jun 14 23:28	0° ♁		retrograde	3165 Jan 20 08:36	28° ♁ 46'53	
	3162 Jul 09 15:56	0° ♁		evening set	3165 Feb 05 08:06	23° ♁ 45'13	
asc. node	3162 Jul 24 00:34	17° ♁ 31'09		min. Earth dist.	3165 Feb 09 06:45	21° ♁ 23'29	0.26867 AU
	3162 Aug 03 05:17	0° ♁		inferior conj	3165 Feb 10 00:38	20° ♁ 55'55	7°21'48
morning set	3162 Aug 08 20:52	6° ♁ 55'48		minimum elong	3165 Feb 09 14:31	21° ♁ 11'32	7°19'55
	3162 Aug 27 14:51	0° ♁		morning rise	3165 Feb 13 21:08	18° ♁ 35'53	
max. Earth dist.	3162 Sep 11 05:05	18° ♁ 02'02	1.72926 AU	direct	3165 Mar 02 10:53	13° ♁ 13'32	
				greatest brilliancy	3165 Mar 13 09:17	15° ♁ 26'49	-4.6m
superior conj	3162 Sep 14 07:13	21° ♁ 51'30	1°24'37		3165 Apr 04 22:40	0° ♁	
minimum elong	3162 Sep 14 05:24	21° ♁ 45'52	1°24'36	morning max el	3165 Apr 21 08:02	15° ♁ 02'54	46°28'28
	3162 Sep 20 20:56	0° ♁		desc. node	3165 Apr 29 09:29	23° ♁ 11'12	
	3162 Oct 15 00:41	0° ♁			3165 May 05 21:43	0° ♁	
evening rise	3162 Oct 21 11:26	8° ♁ 01'05			3165 Jun 02 03:14	0° ♁	
	3162 Nov 08 03:21	0° ♁			3165 Jun 28 04:16	0° ♁	
desc. node	3162 Nov 12 14:30	5° ♁ 33'24			3165 Jul 23 15:02	0° ♁	
	3162 Dec 02 05:47	0° ♁			3165 Aug 17 15:35	0° ♁	
	3162 Dec 26 08:43	0° ♁		asc. node	3165 Aug 20 12:24	3° ♁ 28'05	

morning set	3165 Sep 11 07:10	0°♍	evening set	3168 Apr 19 11:33	6°♌35'02		
	3165 Oct 05 15:15	0°♌	inferior conj	3168 Apr 23 14:39	4°♌01'50	7°00'42	
	3165 Oct 16 17:20	13°♌45'49	minimum elong	3168 Apr 24 00:31	3°♌46'21	6°58'52	
	3165 Oct 29 17:58	0°♍	min. Earth dist.	3168 Apr 23 10:55	4°♌07'42	0.28146 AU	
max. Earth dist.	3165 Nov 21 19:39	28°♍51'29	1.71571 AU	morning rise	3168 Apr 28 13:51	1°♌00'18	
	3165 Nov 22 17:31	0°♎			3168 Apr 30 09:26	30°♌°	
superior conj	3165 Nov 24 00:51	1°♎38'10	0°37'17	direct	3168 May 14 16:52	25°♌58'37	
	3165 Nov 24 09:11	2°♎04'18	0°36'55	greatest brilliancy	3168 May 26 08:47	28°♌26'42	-4.5m
minimum elong	3165 Dec 10 02:18	21°♎46'52		desc. node	3168 May 26 21:06	28°♌39'14	
	3165 Dec 16 15:28	0°♍			3168 May 29 20:12	0°♌	
evening rise	3166 Jan 03 14:59	22°♍34'48		morning max el	3168 Jul 02 16:48	26°♌12'26	45°48'23
	3166 Jan 09 12:49	0°♎			3168 Jul 06 14:37	0°♍	
	3166 Feb 02 10:45	0°♎			3168 Aug 04 05:09	0°♍	
	3166 Feb 26 11:21	0°♌		asc. node	3168 Aug 30 17:48	0°♍	
asc. node	3166 Mar 22 17:40	0°♌			3168 Sep 17 00:21	20°♍14'42	
	3166 Apr 02 05:17	12°♌49'41			3168 Sep 25 04:50	0°♍	
	3166 Apr 16 09:38	0°♍			3168 Oct 19 23:11	0°♌	
	3166 May 11 16:54	0°♍			3168 Nov 13 06:34	0°♍	
	3166 Jun 07 02:33	0°♍			3168 Dec 07 07:28	0°♎	
	3166 Jul 05 23:18	0°♍		morning set	3168 Dec 28 21:49	27°♎06'13	
evening max el	3166 Jul 06 01:02	0°♍04'10	45°26'58		3168 Dec 31 05:08	0°♍	
desc. node	3166 Jul 22 18:54	14°♍50'51		desc. node	3169 Jan 06 14:02	8°♍00'31	
greatest brilliancy	3166 Aug 11 00:28	26°♍54'54	-4.5m		3169 Jan 24 01:33	0°♎	
retrograde	3166 Aug 23 16:25	29°♍43'43		superior conj	3169 Feb 08 11:19	19°♎22'43	-1°-8'-35
evening set	3166 Sep 10 14:19	23°♍43'57		minimum elong	3169 Feb 07 23:37	18°♎45'58	1°08'14
inferior conj	3166 Sep 14 00:44	21°♍37'39	-8°-35'-57	max. Earth dist.	3169 Feb 10 14:17	22°♎02'55	1.71188 AU
minimum elong	3166 Sep 13 22:24	21°♍41'17	8°35'53		3169 Feb 16 22:06	0°♎	
min. Earth dist.	3166 Sep 14 11:20	21°♍21'10	0.28763 AU		3169 Mar 12 20:14	0°♌	
morning rise	3166 Sep 17 06:21	19°♍38'14		evening rise	3169 Mar 21 07:52	10°♌36'17	
direct	3166 Oct 05 12:55	13°♍22'34			3169 Apr 05 21:41	0°♌	
greatest brilliancy	3166 Oct 20 02:21	17°♍08'40	-4.6m	asc. node	3169 Apr 29 17:10	29°♌26'14	
	3166 Nov 07 23:21	0°♌			3169 Apr 30 04:09	0°♍	
asc. node	3166 Nov 12 21:53	4°♌17'40			3169 May 24 17:08	0°♍	
	3166 Nov 24 16:41	15°♌32'12	46°31'49		3169 Jun 18 14:31	0°♍	
morning max el	3166 Dec 08 12:07	0°♍			3169 Jul 13 23:52	0°♍	
	3167 Jan 03 22:49	0°♎			3169 Aug 09 05:13	0°♌	
	3167 Jan 29 02:09	0°♍		desc. node	3169 Aug 19 06:45	11°♌07'06	
	3167 Feb 22 16:31	0°♎			3169 Sep 06 02:59	0°♍	
	3167 Mar 04 11:45	12°♎02'32		evening max el	3169 Sep 16 05:15	10°♍01'12	46°04'18
	3167 Mar 19 01:27	0°♎			3169 Oct 09 15:29	0°♎	
desc. node	3167 Apr 12 08:39	0°♌		greatest brilliancy	3169 Oct 24 17:59	8°♎24'20	-4.6m
	3167 May 06 16:11	0°♌		retrograde	3169 Nov 04 10:11	10°♎28'33	
	3167 May 30 12:25	29°♌21'39		evening set	3169 Nov 19 16:03	6°♎00'40	
	3167 May 31 00:53	0°♍		inferior conj	3169 Nov 25 03:42	2°♎46'55	-3°-47'-30
asc. node	3167 Jun 24 10:31	0°♍		minimum elong	3169 Nov 25 11:41	2°♎34'41	3°45'12
	3167 Jun 25 14:43	1°♍26'39		min. Earth dist.	3169 Nov 25 21:06	2°♎20'18	0.26956 AU
					3169 Nov 29 19:20	30°♌°	
superior conj	3167 Jul 06 13:49	14°♍54'58	0°25'46	morning rise	3169 Dec 01 06:39	29°♍11'01	
minimum elong	3167 Jul 06 08:40	14°♍39'08	0°25'31	asc. node	3169 Dec 10 09:40	25°♍35'09	
max. Earth dist.	3167 Jul 06 10:58	14°♍46'15	1.73539 AU	direct	3169 Dec 15 21:03	24°♍58'24	
	3167 Jul 18 20:16	0°♍		greatest brilliancy	3169 Dec 29 05:16	28°♍15'12	-4.7m
evening rise	3167 Aug 11 13:58	29°♍11'56			3170 Jan 01 15:26	0°♎	
	3167 Aug 12 05:35	0°♍		morning max el	3170 Feb 04 13:03	28°♎16'14	46°58'21
	3167 Sep 05 14:50	0°♌			3170 Feb 06 05:42	0°♍	
	3167 Sep 30 00:59	0°♍			3170 Mar 05 18:30	0°♎	
desc. node	3167 Oct 15 04:39	18°♍34'05		desc. node	3170 Mar 31 23:45	0°♎27'31	
	3167 Oct 24 13:04	0°♎			3170 Mar 31 14:26	0°♎	
	3167 Nov 18 04:05	0°♍			3170 Apr 25 18:45	0°♌	
	3167 Dec 13 00:32	0°♎			3170 May 20 16:22	0°♌	
	3168 Jan 07 09:40	0°♎			3170 Jun 14 10:51	0°♍	
	3168 Feb 03 04:04	0°♌			3170 Jul 09 03:01	0°♍	
asc. node	3168 Feb 05 07:23	2°♌16'18		asc. node	3170 Jul 23 02:38	17°♍04'02	
evening max el	3168 Feb 11 22:21	9°♌08'22	47°00'48		3170 Aug 02 16:10	0°♍	
	3168 Mar 05 21:51	0°♌		morning set	3170 Aug 06 14:35	4°♍49'31	
greatest brilliancy	3168 Mar 19 16:48	8°♌43'34	-4.6m		3170 Aug 27 01:40	0°♍	
	3168 Apr 02 12:43	12°♌12'29		max. Earth dist.	3170 Sep 08 23:12	15°♍56'08	1.72971 AU

superior conj	3170 Sep 12 00:44	19° \mathbb{M} 43'38	1°24'13			3173 Apr 05 07:36	0° \mathbb{H}	
minimum elong	3170 Sep 11 22:13	19° \mathbb{M} 35'51	1°24'12	morning max el		3173 Apr 18 22:26	12° \mathbb{H} 42'29	46°30'15
	3170 Sep 20 07:47	0° \mathbb{L}		desc. node		3173 Apr 28 11:22	22° \mathbb{H} 23'19	
	3170 Oct 14 11:39	0° \mathbb{M}				3173 May 05 16:23	0° \mathbb{Y}	
evening rise	3170 Oct 19 02:26	5° \mathbb{M} 44'14				3173 Jun 01 18:00	0° \mathbb{B}	
	3170 Nov 07 14:33	0° \mathbb{J}				3173 Jun 27 17:15	0° \mathbb{I}	
desc. node	3170 Nov 11 16:27	5° \mathbb{J} 04'30				3173 Jul 23 03:03	0° \mathbb{S}	
	3170 Dec 01 17:15	0° \mathbb{Z}				3173 Aug 17 03:02	0° \mathbb{Q}	
	3170 Dec 25 20:29	0° \approx		asc. node		3173 Aug 19 14:30	2° \mathbb{Q} 59'53	
	3171 Jan 19 02:07	0° \mathbb{H}				3173 Sep 10 18:20	0° \mathbb{M}	
	3171 Feb 12 14:31	0° \mathbb{Y}				3173 Oct 05 02:19	0° \mathbb{L}	
asc. node	3171 Mar 04 19:23	24° \mathbb{Y} 11'41		morning set		3173 Oct 14 09:12	11° \mathbb{L} 31'39	
	3171 Mar 09 17:52	0° \mathbb{B}				3173 Oct 29 05:01	0° \mathbb{M}	
	3171 Apr 05 04:39	0° \mathbb{I}		max. Earth dist.		3173 Nov 19 07:36	26° \mathbb{M} 23'51	1.71610 AU
evening max el	3171 Apr 24 02:46	19° \mathbb{I} 41'28	45°58'31					
	3171 May 05 02:43	0° \mathbb{S}		superior conj		3173 Nov 21 13:40	29° \mathbb{M} 13'11	0°40'36
greatest brilliancy	3171 May 28 16:19	16° \mathbb{S} 48'28	-4.5m	minimum elong		3173 Nov 21 22:30	29° \mathbb{M} 40'50	0°40'12
retrograde	3171 Jun 12 09:06	20° \mathbb{S} 37'26				3173 Nov 22 04:37	0° \mathbb{J}	
desc. node	3171 Jun 24 09:02	17° \mathbb{S} 47'04		desc. node		3173 Dec 09 04:17	21° \mathbb{J} 18'10	
evening set	3171 Jun 27 11:26	16° \mathbb{S} 13'04				3173 Dec 16 02:38	0° \mathbb{Z}	
inferior conj	3171 Jul 03 21:10	12° \mathbb{S} 22'29	-2°-13'-53	evening rise		3174 Jan 01 01:43	20° \mathbb{Z} 02'30	
minimum elong	3171 Jul 03 16:22	12° \mathbb{S} 30'01	2°12'32			3174 Jan 09 00:05	0° \approx	
min. Earth dist.	3171 Jul 03 16:10	12° \mathbb{S} 30'20	0.28897 AU			3174 Feb 01 22:10	0° \mathbb{H}	
morning rise	3171 Jul 09 21:23	8° \mathbb{S} 44'38				3174 Feb 25 22:58	0° \mathbb{Y}	
direct	3171 Jul 25 09:58	4° \mathbb{S} 07'14				3174 Mar 22 05:34	0° \mathbb{B}	
greatest brilliancy	3171 Aug 07 19:03	7° \mathbb{S} 13'47	-4.5m	asc. node		3174 Apr 01 07:16	12° \mathbb{B} 18'55	
	3171 Sep 08 01:45	0° \mathbb{Q}				3174 Apr 15 22:03	0° \mathbb{I}	
morning max el	3171 Sep 12 05:02	3° \mathbb{Q} 54'10	45°49'35			3174 May 11 06:21	0° \mathbb{S}	
	3171 Oct 07 10:15	0° \mathbb{M}				3174 Jun 06 18:22	0° \mathbb{Q}	
asc. node	3171 Oct 15 12:14	8° \mathbb{M} 58'16		evening max el		3174 Jul 03 17:20	27° \mathbb{Q} 54'28	45°26'52
	3171 Nov 02 19:18	0° \mathbb{L}				3174 Jul 05 22:13	0° \mathbb{M}	
	3171 Nov 27 21:42	0° \mathbb{M}		desc. node		3174 Jul 21 20:59	13° \mathbb{M} 47'04	
	3171 Dec 22 08:34	0° \mathbb{J}		greatest brilliancy		3174 Aug 08 13:37	24° \mathbb{M} 41'25	-4.5m
	3172 Jan 15 11:52	0° \mathbb{Z}		retrograde		3174 Aug 21 07:49	27° \mathbb{M} 32'10	
desc. node	3172 Feb 04 01:55	24° \mathbb{Z} 28'38		evening set		3174 Sep 08 03:58	21° \mathbb{M} 35'08	
	3172 Feb 08 11:50	0° \approx		inferior conj		3174 Sep 11 16:27	19° \mathbb{M} 25'26	-8°-32'-53
	3172 Mar 03 10:55	0° \mathbb{H}		minimum elong		3174 Sep 11 13:22	19° \mathbb{M} 30'14	8°32'46
morning set	3172 Mar 16 00:15	15° \mathbb{H} 42'30		min. Earth dist.		3174 Sep 12 01:44	19° \mathbb{M} 11'00	0.28802 AU
	3172 Mar 27 10:48	0° \mathbb{Y}		morning rise		3174 Sep 14 22:39	17° \mathbb{M} 24'58	
	3172 Apr 20 12:53	0° \mathbb{B}		direct		3174 Oct 03 05:40	11° \mathbb{M} 10'09	
				greatest brilliancy		3174 Oct 17 17:02	14° \mathbb{M} 53'53	-4.6m
superior conj	3172 Apr 24 13:42	5° \mathbb{B} 00'32	-1°-7'-57			3174 Nov 08 06:18	0° \mathbb{L}	
minimum elong	3172 Apr 24 23:56	5° \mathbb{B} 32'18	1°07'39	asc. node		3174 Nov 11 23:50	3° \mathbb{L} 19'36	
max. Earth dist.	3172 Apr 28 04:57	9° \mathbb{B} 31'11	1.72520 AU	morning max el		3174 Nov 22 07:50	13° \mathbb{L} 14'36	46°30'07
	3172 May 14 18:05	0° \mathbb{I}				3174 Dec 08 06:11	0° \mathbb{M}	
asc. node	3172 May 27 04:58	15° \mathbb{I} 21'51				3175 Jan 03 13:34	0° \mathbb{J}	
evening rise	3172 Jun 01 21:53	22° \mathbb{I} 23'10				3175 Jan 28 15:25	0° \mathbb{Z}	
	3172 Jun 08 02:31	0° \mathbb{S}				3175 Feb 22 04:57	0° \approx	
	3172 Jul 02 14:04	0° \mathbb{Q}		desc. node		3175 Mar 03 13:51	11° \approx 31'25	
	3172 Jul 27 05:07	0° \mathbb{M}				3175 Mar 18 13:22	0° \mathbb{H}	
	3172 Aug 21 01:09	0° \mathbb{L}				3175 Apr 11 20:12	0° \mathbb{Y}	
	3172 Sep 15 04:44	0° \mathbb{M}				3175 May 06 03:26	0° \mathbb{B}	
desc. node	3172 Sep 15 18:42	0° \mathbb{M} 41'21		morning set		3175 May 28 05:12	27° \mathbb{B} 11'42	
	3172 Oct 10 20:04	0° \mathbb{J}				3175 May 30 11:54	0° \mathbb{I}	
	3172 Nov 06 08:50	0° \mathbb{Z}				3175 Jun 23 21:23	0° \mathbb{S}	
evening max el	3172 Nov 28 05:04	23° \mathbb{Z} 06'58	47°05'29	asc. node		3175 Jun 24 16:51	0° \mathbb{S} 59'49	
	3172 Dec 05 05:42	0° \approx						
greatest brilliancy	3173 Jan 05 20:04	23° \approx 33'19	-4.7m	superior conj		3175 Jul 04 07:49	12° \mathbb{S} 49'26	0°22'42
asc. node	3173 Jan 06 21:38	23° \approx 59'47		minimum elong		3175 Jul 04 03:13	12° \mathbb{S} 35'19	0°22'30
retrograde	3173 Jan 17 22:00	26° \approx 18'14		max. Earth dist.		3175 Jul 04 09:30	12° \mathbb{S} 54'40	1.73525 AU
evening set	3173 Feb 02 16:49	21° \approx 22'20				3175 Jul 18 07:05	0° \mathbb{Q}	
min. Earth dist.	3173 Feb 06 19:24	18° \approx 55'17	0.26825 AU	evening rise		3175 Aug 09 08:50	27° \mathbb{Q} 08'51	
inferior conj	3173 Feb 07 13:15	18° \approx 27'51	7°07'37			3175 Aug 11 16:29	0° \mathbb{M}	
minimum elong	3173 Feb 07 02:51	18° \approx 43'50	7°05'35			3175 Sep 05 01:56	0° \mathbb{L}	
morning rise	3173 Feb 11 13:09	16° \approx 03'18				3175 Sep 29 12:26	0° \mathbb{M}	
direct	3173 Feb 27 23:32	10° \approx 45'53		desc. node		3175 Oct 14 06:35	18° \mathbb{M} 04'09	
greatest brilliancy	3173 Mar 10 22:34	13° \approx 00'32	-4.6m			3175 Oct 24 01:00	0° \mathbb{J}	

	3175 Nov 17 16:43	0°☾		3178 Apr 25 07:23	0°♊	
	3175 Dec 12 14:12	0°♊		3178 May 20 04:13	0°♋	
	3176 Jan 07 01:11	0°♋		3178 Jun 13 22:13	0°♌	
	3176 Feb 02 23:57	0°♌		3178 Jul 08 14:02	0°♍	
asc. node	3176 Feb 04 09:31	1°♊28'23		asc. node	3178 Jul 22 04:43	16°♍37'08
evening max el	3176 Feb 09 13:10	6°♊47'39 47°02'19			3178 Aug 02 03:00	0°♎
	3176 Mar 06 15:56	0°♋		morning set	3178 Aug 04 08:19	2°♎43'31
greatest brilliancy	3176 Mar 17 10:51	6°♋28'58 -4.6m			3178 Aug 26 12:23	0°♏
retrograde	3176 Mar 31 03:45	9°♋54'31		max. Earth dist.	3178 Sep 06 19:04	13°♏55'57 1.73010 AU
evening set	3176 Apr 17 05:41	4°♋13'10				
inferior conj	3176 Apr 21 05:38	1°♋44'29 7°13'45		superior conj	3178 Sep 09 18:30	17°♏36'55 1°23'42
minimum elong	3176 Apr 21 15:17	1°♋29'19 7°12'03		minimum elong	3178 Sep 09 15:19	17°♏27'06 1°23'41
min. Earth dist.	3176 Apr 21 01:35	1°♋50'52 0.28110 AU			3178 Sep 19 18:30	0°♐
	3176 Apr 24 00:46	30°♌♊			3178 Oct 13 22:29	0°♑
morning rise	3176 Apr 26 01:14	28°♊47'53		evening rise	3178 Oct 16 17:58	3°♑29'38
direct	3176 May 12 07:29	23°♊42'03			3178 Nov 07 01:34	0°♒
greatest brilliancy	3176 May 23 21:10	26°♊07'47 -4.5m		desc. node	3178 Nov 10 18:30	4°♒36'33
desc. node	3176 May 25 23:08	27°♊01'09			3178 Dec 01 04:32	0°♓
	3176 May 31 15:29	0°♋			3178 Dec 25 08:05	0°♊
morning max el	3176 Jun 30 07:06	23°♋56'47 45°49'16			3179 Jan 18 14:10	0°♋
	3176 Jul 06 11:40	0°♌			3179 Feb 12 03:18	0°♌
	3176 Aug 03 20:29	0°♍		asc. node	3179 Mar 03 21:18	23°♊36'42
	3176 Aug 30 06:57	0°♎			3179 Mar 09 07:59	0°♋
asc. node	3176 Sep 16 02:22	19°♎44'02			3179 Apr 04 21:51	0°♌
	3176 Sep 24 16:55	0°♏		evening max el	3179 Apr 21 17:39	17°♌26'25 46°00'41
	3176 Oct 19 10:44	0°♐			3179 May 05 07:09	0°♍
	3176 Nov 12 17:51	0°♑		greatest brilliancy	3179 May 26 07:16	14°♍36'41 -4.5m
	3176 Dec 06 18:40	0°♒		retrograde	3179 Jun 10 01:50	18°♍28'01
morning set	3176 Dec 26 08:44	24°♒34'37		desc. node	3179 Jun 23 11:07	14°♍56'31
	3176 Dec 30 16:18	0°♓		evening set	3179 Jun 25 03:23	14°♍03'36
desc. node	3177 Jan 05 16:10	7°♓32'13		inferior conj	3179 Jul 01 13:23	10°♍12'51 -1°-54'-30
	3177 Jan 23 12:42	0°♊		minimum elong	3179 Jul 01 09:14	10°♍19'21 1°53'19
				min. Earth dist.	3179 Jul 01 08:24	10°♍20'39 0.28878 AU
superior conj	3177 Feb 05 21:14	16°♊48'03 -1°-6'-3		morning rise	3179 Jul 07 15:13	6°♍33'04
minimum elong	3177 Feb 05 09:20	16°♊10'39 1°05'41		direct	3179 Jul 23 01:46	1°♍57'41
max. Earth dist.	3177 Feb 07 17:29	19°♊07'10 1.71165 AU		greatest brilliancy	3179 Aug 05 11:05	5°♍04'45 -4.5m
	3177 Feb 16 09:14	0°♋			3179 Sep 08 01:13	0°♎
	3177 Mar 12 07:20	0°♌		morning max el	3179 Sep 09 21:19	1°♎44'55 45°48'52
evening rise	3177 Mar 18 18:53	8°♊06'08			3179 Oct 07 02:05	0°♏
	3177 Apr 05 08:48	0°♋		asc. node	3179 Oct 14 14:08	8°♏21'41
asc. node	3177 Apr 28 19:09	28°♋57'46			3179 Nov 02 08:40	0°♐
	3177 Apr 29 15:24	0°♌			3179 Nov 27 09:56	0°♑
	3177 May 24 04:41	0°♍			3179 Dec 21 20:15	0°♒
	3177 Jun 18 02:36	0°♎			3180 Jan 14 23:13	0°♓
	3177 Jul 13 12:57	0°♏		desc. node	3180 Feb 03 04:00	24°♓00'12
	3177 Aug 08 20:18	0°♐			3180 Feb 07 22:59	0°♊
desc. node	3177 Aug 18 08:50	10°♐28'13			3180 Mar 02 21:54	0°♋
	3177 Sep 05 23:09	0°♑		morning set	3180 Mar 13 11:29	13°♋13'17
evening max el	3177 Sep 13 17:36	7°♑39'18 46°02'12			3180 Mar 26 21:41	0°♌
	3177 Oct 10 16:00	0°♒			3180 Apr 19 23:42	0°♍
greatest brilliancy	3177 Oct 22 07:07	6°♒02'02 -4.6m				
retrograde	3177 Nov 01 22:25	8°♒05'48		superior conj	3180 Apr 22 03:36	2°♋41'13 -1°-10'-7
evening set	3177 Nov 17 07:41	3°♒33'40		minimum elong	3180 Apr 22 13:41	3°♋12'31 1°09'51
inferior conj	3177 Nov 22 16:52	0°♒23'33 -4°-8'-14		max. Earth dist.	3180 Apr 25 18:48	7°♋11'49 1.72470 AU
minimum elong	3177 Nov 23 01:25	0°♒10'29 4°05'50			3180 May 14 04:50	0°♌
	3177 Nov 23 08:16	30°♒♑		asc. node	3180 May 26 07:04	14°♌55'14
min. Earth dist.	3177 Nov 23 11:36	29°♑54'54 0.27017 AU		evening rise	3180 May 30 14:13	20°♌12'42
morning rise	3177 Nov 28 18:23	26°♑49'24			3180 Jun 07 13:17	0°♍
asc. node	3177 Dec 09 11:46	22°♑52'45			3180 Jul 02 00:59	0°♎
direct	3177 Dec 13 10:18	22°♑33'42			3180 Jul 26 16:21	0°♏
greatest brilliancy	3177 Dec 26 22:25	25°♑54'31 -4.7m			3180 Aug 20 12:57	0°♐
	3178 Jan 03 05:35	0°♒		desc. node	3180 Sep 14 20:38	0°♑09'20
morning max el	3178 Feb 02 02:29	25°♒50'36 46°58'17			3180 Sep 14 17:28	0°♒
	3178 Feb 06 03:29	0°♓			3180 Oct 10 10:23	0°♓
	3178 Mar 05 10:40	0°♊			3180 Nov 06 02:17	0°♋
desc. node	3178 Mar 31 01:40	29°♊52'08		evening max el	3180 Nov 25 19:50	20°♓46'21 47°04'15
	3178 Mar 31 04:19	0°♋			3180 Dec 05 08:35	0°♌

greatest brilliancy	3181 Jan 03 09:14	21° \approx 06'31	-4.7m	superior conj	3183 Jul 02 01:36	10° \approx 44'16	0°19'37
asc. node	3181 Jan 05 23:41	22° \approx 07'21		minimum elong	3183 Jul 01 21:35	10° \approx 31'57	0°19'24
retrograde	3181 Jan 15 11:40	23° \approx 51'21		max. Earth dist.	3183 Jul 02 05:58	10° \approx 57'44	1.73517 AU
evening set	3181 Jan 31 01:53	19° \approx 01'13			3183 Jul 17 17:37	0° Ω	
min. Earth dist.	3181 Feb 04 07:59	16° \approx 29'12	0.26786 AU	evening rise	3183 Aug 07 03:21	25° Ω 05'30	
inferior conj	3181 Feb 05 02:01	16° \approx 01'32	6°52'42		3183 Aug 11 03:07	0° \cap	
minimum elong	3181 Feb 04 15:25	16° \approx 17'47	6°50'30		3183 Sep 04 12:46	0° Δ	
morning rise	3181 Feb 09 05:18	13° \approx 32'24			3183 Sep 28 23:36	0° \cap	
direct	3181 Feb 25 12:43	8° \approx 20'18		desc. node	3183 Oct 13 08:38	17° \cap 35'21	
greatest brilliancy	3181 Mar 08 11:05	10° \approx 34'58	-4.6m		3183 Oct 23 12:40	0° \nearrow	
	3181 Apr 05 13:31	0° \nearrow			3183 Nov 17 05:06	0° \searrow	
morning max el	3181 Apr 16 12:43	10° \nearrow 22'51	46°31'36		3183 Dec 12 03:41	0° \approx	
desc. node	3181 Apr 27 13:28	21° \nearrow 37'42			3184 Jan 06 16:35	0° \nearrow	
	3181 May 05 10:15	0° \cap			3184 Feb 02 20:01	0° \cap	
	3181 Jun 01 08:22	0° \searrow		asc. node	3184 Feb 03 11:31	0° \cap 40'22	
	3181 Jun 27 05:56	0° \cap		evening max el	3184 Feb 07 03:06	4° \cap 25'43	47°03'52
	3181 Jul 22 14:47	0° \approx			3184 Mar 07 15:42	0° \searrow	
	3181 Aug 16 14:12	0° Ω		greatest brilliancy	3184 Mar 15 04:45	4° \searrow 15'15	-4.6m
asc. node	3181 Aug 18 16:29	2° Ω 32'10		retrograde	3184 Mar 28 18:36	7° \searrow 37'58	
	3181 Sep 10 05:12	0° \cap		evening set	3184 Apr 14 23:48	1° \searrow 52'43	
	3181 Oct 04 13:03	0° Δ			3184 Apr 18 00:45	30° \cap \cap	
morning set	3181 Oct 12 00:56	9° Δ 18'08		inferior conj	3184 Apr 18 20:43	29° \cap 28'35	7°26'04
	3181 Oct 28 15:45	0° \cap		minimum elong	3184 Apr 19 06:04	29° \cap 13'52	7°24'32
max. Earth dist.	3181 Nov 16 17:04	23° \cap 49'32	1.71648 AU	min. Earth dist.	3184 Apr 18 16:28	29° \cap 35'16	0.28072 AU
				morning rise	3184 Apr 23 12:37	26° \cap 37'07	
superior conj	3181 Nov 19 02:41	26° \cap 49'56	0°43'49	direct	3184 May 09 21:39	21° \cap 26'50	
minimum elong	3181 Nov 19 11:56	27° \cap 18'52	0°43'25	greatest brilliancy	3184 May 21 10:25	23° \cap 51'13	-4.5m
	3181 Nov 21 15:23	0° \nearrow		desc. node	3184 May 25 01:15	25° \cap 28'02	
desc. node	3181 Dec 08 06:26	20° \nearrow 51'00			3184 Jun 01 20:24	0° \searrow	
	3181 Dec 15 13:28	0° \searrow		morning max el	3184 Jun 27 20:58	21° \searrow 41'06	45°50'05
evening rise	3181 Dec 29 12:41	17° \searrow 32'03			3184 Jul 06 07:33	0° \cap	
	3182 Jan 08 10:59	0° \approx			3184 Aug 03 11:16	0° \approx	
	3182 Feb 01 09:11	0° \nearrow			3184 Aug 29 19:45	0° Ω	
	3182 Feb 25 10:09	0° \cap		asc. node	3184 Sep 15 04:21	19° Ω 13'59	
asc. node	3182 Mar 21 17:03	0° \searrow			3184 Sep 24 04:45	0° \cap	
	3182 Mar 31 09:15	11° \searrow 49'24			3184 Oct 18 22:03	0° Δ	
	3182 Apr 15 10:07	0° \cap			3184 Nov 12 04:55	0° \cap	
	3182 May 10 19:35	0° \approx			3184 Dec 06 05:36	0° \nearrow	
	3182 Jun 06 10:10	0° Ω		morning set	3184 Dec 23 19:36	22° \nearrow 03'41	
evening max el	3182 Jul 01 09:00	25° Ω 43'42	45°26'45		3184 Dec 30 03:12	0° \searrow	
	3182 Jul 05 21:57	0° \cap		desc. node	3185 Jan 04 18:08	7° \searrow 04'08	
desc. node	3182 Jul 20 23:03	12° \cap 42'04			3185 Jan 22 23:36	0° \approx	
greatest brilliancy	3182 Aug 06 03:45	22° \cap 29'24	-4.5m	superior conj	3185 Feb 03 07:06	14° \approx 14'01	-1°-3'-23
retrograde	3182 Aug 18 22:45	25° \cap 20'59		minimum elong	3185 Feb 02 19:05	13° \approx 36'13	1°02'59
evening set	3182 Sep 05 17:13	19° \cap 27'19		max. Earth dist.	3185 Feb 04 18:42	16° \approx 05'55	1.71146 AU
inferior conj	3182 Sep 09 08:03	17° \cap 13'49	-8°-29'-5		3185 Feb 15 20:06	0° \nearrow	
minimum elong	3182 Sep 09 04:13	17° \cap 19'49	8°28'54		3185 Mar 11 18:12	0° \cap	
min. Earth dist.	3182 Sep 09 16:18	17° \cap 00'57	0.28836 AU	evening rise	3185 Mar 16 05:57	5° \cap 36'49	
morning rise	3182 Sep 12 15:06	15° \cap 11'49			3185 Apr 04 19:40	0° \searrow	
direct	3182 Sep 30 21:43	8° \cap 58'22		asc. node	3185 Apr 27 21:17	28° \searrow 30'33	
greatest brilliancy	3182 Oct 15 07:20	12° \cap 39'21	-4.6m		3185 Apr 29 02:23	0° \cap	
	3182 Nov 08 10:45	0° Δ			3185 May 23 15:57	0° \approx	
asc. node	3182 Nov 11 02:02	2° Δ 24'13			3185 Jun 17 14:26	0° Ω	
morning max el	3182 Nov 19 21:52	10° Δ 55'18	46°28'28		3185 Jul 13 01:52	0° \cap	
	3182 Dec 07 23:28	0° \cap			3185 Aug 08 11:27	0° Δ	
	3183 Jan 03 03:45	0° \nearrow		desc. node	3185 Aug 17 10:44	9° Δ 48'50	
	3183 Jan 28 04:12	0° \searrow			3185 Sep 05 19:56	0° \cap	
	3183 Feb 21 16:56	0° \approx		evening max el	3185 Sep 11 06:14	5° \cap 18'25	46°00'03
desc. node	3183 Mar 02 15:47	11° \approx 01'08			3185 Oct 12 02:26	0° \nearrow	
	3183 Mar 18 00:49	0° \nearrow		greatest brilliancy	3185 Oct 19 19:16	3° \nearrow 38'35	-4.6m
	3183 Apr 11 07:17	0° \cap		retrograde	3185 Oct 30 10:59	5° \nearrow 42'55	
	3183 May 05 14:14	0° \searrow		evening set	3185 Nov 14 23:14	1° \searrow 06'12	
morning set	3183 May 25 21:56	25° \searrow 02'48			3185 Nov 16 21:50	30° \cap \cap	
	3183 May 29 22:31	0° \cap		inferior conj	3185 Nov 20 05:49	27° \cap 59'51	-4°-28'-28
	3183 Jun 23 07:55	0° \approx		minimum elong	3185 Nov 20 14:52	27° \cap 46'03	4°26'01
asc. node	3183 Jun 23 18:55	0° \approx 33'49		min. Earth dist.	3185 Nov 21 01:36	27° \cap 29'40	0.27079 AU

morning rise	3185 Nov 26 05:44	24° \mathbb{M} 28'01		asc. node	3188 May 25 09:07	14° \mathbb{I} 28'03	
asc. node	3185 Dec 08 13:47	20° \mathbb{M} 15'53		evening rise	3188 May 28 06:36	18° \mathbb{I} 01'59	
direct	3185 Dec 10 23:46	20° \mathbb{M} 08'43			3188 Jun 07 00:11	0° \mathfrak{S}	
greatest brilliancy	3185 Dec 24 15:16	23° \mathbb{M} 33'40	-4.7m		3188 Jul 01 12:01	0° Ω	
	3186 Jan 04 08:22	0° \mathfrak{A}			3188 Jul 26 03:43	0° \mathfrak{M}	
morning max el	3186 Jan 30 16:40	23° \mathfrak{A} 27'18	46°58'17		3188 Aug 20 00:53	0° \mathfrak{L}	
	3186 Feb 06 00:21	0° \mathfrak{Z}		desc. node	3188 Sep 13 22:45	29° \mathfrak{L} 37'28	
	3186 Mar 05 02:24	0° \approx			3188 Sep 14 06:23	0° \mathbb{M}	
desc. node	3186 Mar 30 03:44	29° \approx 17'55			3188 Oct 10 01:02	0° \mathfrak{A}	
	3186 Mar 30 17:55	0° \mathfrak{H}			3188 Nov 05 20:26	0° \mathfrak{Z}	
	3186 Apr 24 19:49	0° \mathbb{Y}		evening max el	3188 Nov 23 10:36	18° \mathfrak{Z} 24'43	47°02'32
	3186 May 19 15:54	0° \mathfrak{B}			3188 Dec 05 13:44	0° \approx	
	3186 Jun 13 09:24	0° \mathbb{I}		greatest brilliancy	3188 Dec 31 23:15	18° \approx 38'55	-4.7m
	3186 Jul 08 00:54	0° \mathfrak{S}		asc. node	3189 Jan 05 01:40	20° \approx 08'16	
asc. node	3186 Jul 21 06:40	16° \mathfrak{S} 10'20		retrograde	3189 Jan 13 00:47	21° \approx 21'53	
	3186 Aug 01 13:40	0° Ω		evening set	3189 Jan 28 10:46	16° \approx 37'46	
morning set	3186 Aug 02 02:17	0° Ω 38'43		min. Earth dist.	3189 Feb 01 20:39	14° \approx 00'13	0.26746 AU
	3186 Aug 25 23:00	0° \mathfrak{M}		inferior conj	3189 Feb 02 14:25	13° \approx 32'56	6°36'47
max. Earth dist.	3186 Sep 04 16:33	12° \mathfrak{M} 01'04	1.73053 AU	minimum elong	3189 Feb 02 03:44	13° \approx 49'20	6°34'26
				morning rise	3189 Feb 06 21:06	10° \approx 59'00	
superior conj	3186 Sep 07 12:19	15° \mathfrak{M} 30'36	1°23'04	direct	3189 Feb 23 01:28	5° \approx 52'33	
minimum elong	3186 Sep 07 08:31	15° \mathfrak{M} 18'51	1°23'02	greatest brilliancy	3189 Mar 05 23:19	8° \approx 06'58	-4.6m
	3186 Sep 19 05:11	0° \mathfrak{L}			3189 Apr 05 18:03	0° \mathfrak{H}	
	3186 Oct 13 09:20	0° \mathbb{M}		morning max el	3189 Apr 14 01:51	7° \mathfrak{H} 59'02	46°33'08
evening rise	3186 Oct 14 09:26	1° \mathbb{M} 14'52		desc. node	3189 Apr 26 15:36	20° \mathfrak{H} 51'52	
	3186 Nov 06 12:40	0° \mathfrak{A}			3189 May 05 04:03	0° \mathbb{Y}	
desc. node	3186 Nov 09 20:37	4° \mathfrak{A} 08'34			3189 May 31 22:49	0° \mathfrak{B}	
	3186 Nov 30 15:53	0° \mathfrak{Z}			3189 Jun 26 18:46	0° \mathbb{I}	
	3186 Dec 24 19:45	0° \approx			3189 Jul 22 02:42	0° \mathfrak{S}	
	3187 Jan 18 02:17	0° \mathfrak{H}			3189 Aug 16 01:34	0° Ω	
	3187 Feb 11 16:09	0° \mathbb{Y}		asc. node	3189 Aug 17 18:30	2° Ω 03'56	
asc. node	3187 Mar 02 23:19	23° \mathbb{Y} 01'50			3189 Sep 09 16:16	0° \mathfrak{M}	
	3187 Mar 08 22:14	0° \mathfrak{B}			3189 Oct 04 00:00	0° \mathfrak{L}	
	3187 Apr 04 15:21	0° \mathbb{I}		morning set	3189 Oct 09 17:10	7° \mathfrak{L} 05'34	
evening max el	3187 Apr 19 09:34	15° \mathbb{I} 14'00	46°02'56		3189 Oct 28 02:41	0° \mathbb{M}	
	3187 May 05 13:31	0° \mathfrak{S}		max. Earth dist.	3189 Nov 14 02:43	21° \mathbb{M} 15'13	1.71694 AU
greatest brilliancy	3187 May 23 23:05	12° \mathfrak{S} 26'26	-4.5m				
retrograde	3187 Jun 07 19:00	16° \mathfrak{S} 19'01		superior conj	3189 Nov 16 16:14	24° \mathbb{M} 27'40	0°46'54
evening set	3187 Jun 22 19:42	11° \mathfrak{S} 54'34		minimum elong	3189 Nov 17 01:48	24° \mathbb{M} 57'40	0°46'30
desc. node	3187 Jun 22 13:07	12° \mathfrak{S} 03'31			3189 Nov 21 02:23	0° \mathfrak{A}	
inferior conj	3187 Jun 29 05:44	8° \mathfrak{S} 03'40	-1°-35'00	desc. node	3189 Dec 07 08:25	20° \mathfrak{A} 22'26	
minimum elong	3187 Jun 29 02:15	8° \mathfrak{S} 09'05	1°34'00		3189 Dec 15 00:35	0° \mathfrak{Z}	
min. Earth dist.	3187 Jun 29 00:31	8° \mathfrak{S} 11'48	0.28855 AU	evening rise	3189 Dec 26 23:43	15° \mathfrak{Z} 00'49	
morning rise	3187 Jul 05 09:04	4° \mathfrak{S} 22'12			3190 Jan 07 22:16	0° \approx	
	3187 Jul 17 16:25	30° \mathfrak{R} \mathbb{I}			3190 Jan 31 20:37	0° \mathfrak{H}	
direct	3187 Jul 20 18:13	29° \mathbb{I} 48'49			3190 Feb 24 21:46	0° \mathbb{Y}	
	3187 Jul 23 21:16	0° \mathfrak{S}			3190 Mar 21 04:59	0° \mathfrak{B}	
greatest brilliancy	3187 Aug 03 02:15	2° \mathfrak{S} 55'14	-4.5m	asc. node	3190 Mar 30 11:23	11° \mathfrak{B} 18'58	
morning max el	3187 Sep 07 13:55	29° \mathfrak{S} 36'48	45°48'01		3190 Apr 14 22:38	0° \mathbb{I}	
	3187 Sep 07 23:35	0° Ω			3190 May 10 09:18	0° \mathfrak{S}	
	3187 Oct 06 17:39	0° \mathfrak{M}			3190 Jun 06 02:36	0° Ω	
asc. node	3187 Oct 13 16:20	7° \mathfrak{M} 46'12		evening max el	3190 Jun 28 23:57	23° Ω 30'22	45°26'49
	3187 Nov 01 21:59	0° \mathfrak{L}			3190 Jul 05 23:15	0° \mathfrak{M}	
	3187 Nov 26 22:17	0° \mathbb{M}		desc. node	3190 Jul 20 01:01	11° \mathfrak{M} 34'30	
	3187 Dec 21 08:06	0° \mathfrak{A}		greatest brilliancy	3190 Aug 03 17:57	20° \mathfrak{M} 16'58	-4.5m
	3188 Jan 14 10:46	0° \mathfrak{Z}		retrograde	3190 Aug 16 13:44	23° \mathfrak{M} 09'53	
desc. node	3188 Feb 02 05:58	23° \mathfrak{Z} 30'51		evening set	3190 Sep 03 06:31	17° \mathfrak{M} 19'46	
	3188 Feb 07 10:17	0° \approx		inferior conj	3190 Sep 06 23:56	15° \mathfrak{M} 02'20	-8°-24'-39
	3188 Mar 02 09:02	0° \mathfrak{H}		minimum elong	3190 Sep 06 19:22	15° \mathfrak{M} 09'29	8°24'21
morning set	3188 Mar 10 22:29	10° \mathfrak{H} 42'51		min. Earth dist.	3190 Sep 07 07:31	14° \mathfrak{M} 50'29	0.28865 AU
	3188 Mar 26 08:41	0° \mathbb{Y}		morning rise	3190 Sep 10 08:05	12° \mathfrak{M} 58'25	
	3188 Apr 19 10:37	0° \mathfrak{B}		direct	3190 Sep 28 13:26	6° \mathfrak{M} 46'31	
				greatest brilliancy	3190 Oct 12 22:22	10° \mathfrak{M} 25'33	-4.6m
superior conj	3188 Apr 19 17:23	0° \mathfrak{B} 21'02	-1°-12'-12		3190 Nov 08 13:43	0° \mathfrak{L}	
minimum elong	3188 Apr 20 03:14	0° \mathfrak{B} 51'38	1°11'56	asc. node	3190 Nov 10 03:58	1° \mathfrak{L} 28'56	
max. Earth dist.	3188 Apr 23 10:49	4° \mathfrak{B} 58'46	1.72418 AU	morning max el	3190 Nov 17 11:37	8° \mathfrak{L} 34'46	46°26'55
	3188 May 13 15:43	0° \mathbb{I}			3190 Dec 07 16:37	0° \mathbb{M}	

	3191 Jan 02 18:03	0°♊			3193 Aug 08 03:10	0°♎	
	3191 Jan 27 17:13	0°♋		desc. node	3193 Aug 16 12:52	9°♎08'43	
	3191 Feb 21 05:16	0°♌			3193 Sep 05 17:49	0°♏	
desc. node	3191 Mar 01 17:52	10°♌30'10		evening max el	3193 Sep 08 19:47	2°♏59'15	45°58'05
	3191 Mar 17 12:42	0°♍			3193 Oct 14 06:46	0°♐	
	3191 Apr 10 18:49	0°♎		greatest brilliancy	3193 Oct 17 06:45	1°♐14'22	-4.6m
	3191 May 05 01:29	0°♏		retrograde	3193 Oct 28 00:12	3°♐19'56	
morning set	3191 May 23 14:14	22°♏51'09			3193 Nov 10 00:43	30°♑♏	
	3191 May 29 09:33	0°♐		evening set	3193 Nov 12 15:04	28°♏38'33	
asc. node	3191 Jun 22 20:50	0°♑06'12		inferior conj	3193 Nov 17 18:55	25°♏35'55	-4°-48'-12
	3191 Jun 22 18:49	0°♒		minimum elong	3193 Nov 18 04:23	25°♏21'29	4°45'41
				min. Earth dist.	3193 Nov 18 15:20	25°♏04'48	0.27142 AU
superior conj	3191 Jun 29 19:11	8°♒37'25	0°16'28	morning rise	3193 Nov 23 17:00	22°♏06'48	
minimum elong	3191 Jun 29 15:47	8°♒26'58	0°16'17	asc. node	3193 Dec 07 15:45	17°♏44'43	
max. Earth dist.	3191 Jun 30 01:19	8°♒56'14	1.73502 AU	direct	3193 Dec 08 13:52	17°♏43'41	
	3191 Jul 17 04:31	0°♓		greatest brilliancy	3193 Dec 22 07:22	21°♏11'37	-4.7m
evening rise	3191 Aug 04 21:57	23°♓01'23			3194 Jan 05 04:12	0°♐	
	3191 Aug 10 14:07	0°♑		morning max el	3194 Jan 28 07:51	21°♐06'10	46°58'17
	3191 Sep 03 23:59	0°♒			3194 Feb 05 20:43	0°♋	
	3191 Sep 28 11:08	0°♓			3194 Mar 04 18:03	0°♌	
desc. node	3191 Oct 12 10:45	17°♓05'44		desc. node	3194 Mar 29 05:51	28°♌43'40	
	3191 Oct 23 00:41	0°♐			3194 Mar 30 07:32	0°♍	
	3191 Nov 16 17:50	0°♋			3194 Apr 24 08:20	0°♎	
	3191 Dec 11 17:32	0°♌			3194 May 19 03:45	0°♏	
	3192 Jan 06 08:30	0°♍			3194 Jun 12 20:48	0°♐	
asc. node	3192 Feb 02 13:29	29°♍50'28			3194 Jul 07 12:00	0°♑	
	3192 Feb 02 17:11	0°♎		asc. node	3194 Jul 20 08:45	15°♑43'09	
evening max el	3192 Feb 04 16:16	2°♎00'32	47°05'06	morning set	3194 Jul 30 20:05	28°♑32'38	
	3192 Mar 09 02:19	0°♏			3194 Aug 01 00:35	0°♓	
greatest brilliancy	3192 Mar 12 21:42	1°♏58'20	-4.6m		3194 Aug 25 09:50	0°♑	
retrograde	3192 Mar 26 09:19	5°♏19'21		max. Earth dist.	3194 Sep 02 13:27	10°♑03'51	1.73089 AU
	3192 Apr 11 21:25	30°♑♏					
evening set	3192 Apr 12 17:40	29°♑29'54		superior conj	3194 Sep 05 05:58	13°♑23'14	1°22'20
inferior conj	3192 Apr 16 11:35	27°♑10'27	7°37'46	minimum elong	3194 Sep 05 01:33	13°♑09'36	1°22'16
minimum elong	3192 Apr 16 20:35	26°♑56'18	7°36'22		3194 Sep 18 16:03	0°♒	
min. Earth dist.	3192 Apr 16 07:13	27°♑17'19	0.28039 AU	evening rise	3194 Oct 12 00:58	28°♒59'48	
morning rise	3192 Apr 20 23:44	24°♑24'25			3194 Oct 12 20:21	0°♓	
direct	3192 May 07 11:19	19°♑09'07			3194 Nov 05 23:54	0°♐	
greatest brilliancy	3192 May 19 00:23	21°♑33'25	-4.5m	desc. node	3194 Nov 08 22:33	3°♐39'31	
desc. node	3192 May 24 03:12	23°♑56'05			3194 Nov 30 03:24	0°♋	
	3192 Jun 02 18:20	0°♏			3194 Dec 24 07:35	0°♌	
morning max el	3192 Jun 25 11:16	19°♏24'48	45°51'08		3195 Jan 17 14:34	0°♍	
	3192 Jul 06 03:25	0°♐			3195 Feb 11 05:09	0°♎	
	3192 Aug 03 02:18	0°♑		asc. node	3195 Mar 02 01:28	22°♑27'03	
	3192 Aug 29 08:49	0°♓			3195 Mar 08 12:41	0°♏	
asc. node	3192 Sep 14 06:28	18°♓43'32			3195 Apr 04 09:18	0°♐	
	3192 Sep 23 16:52	0°♑		evening max el	3195 Apr 17 02:03	13°♐02'48	46°05'02
	3192 Oct 18 09:39	0°♒			3195 May 05 22:30	0°♑	
	3192 Nov 11 16:15	0°♓		greatest brilliancy	3195 May 21 15:45	10°♑16'54	-4.5m
	3192 Dec 05 16:48	0°♐		retrograde	3195 Jun 05 12:00	14°♑09'15	
morning set	3192 Dec 21 07:11	19°♐34'10		evening set	3195 Jun 20 12:09	9°♑44'52	
	3192 Dec 29 14:21	0°♋		desc. node	3195 Jun 21 15:07	9°♑07'00	
desc. node	3193 Jan 03 20:09	6°♋35'29		inferior conj	3195 Jun 26 22:00	5°♑53'49	-1°-15'-12
	3193 Jan 22 10:44	0°♌		minimum elong	3195 Jun 26 19:14	5°♑58'09	1°14'24
				min. Earth dist.	3195 Jun 26 16:35	6°♑02'18	0.28836 AU
superior conj	3193 Jan 31 17:25	11°♌40'32	-1°00'-36	morning rise	3195 Jul 03 02:41	2°♑10'42	
minimum elong	3193 Jan 31 05:22	11°♌02'39	1°00'11		3195 Jul 07 13:18	30°♑♐	
max. Earth dist.	3193 Feb 01 23:02	13°♌13'41	1.71134 AU	direct	3195 Jul 18 10:49	27°♐39'27	
	3193 Feb 15 07:13	0°♍			3195 Jul 29 21:49	0°♑	
	3193 Mar 11 05:19	0°♎		greatest brilliancy	3195 Jul 31 16:32	0°♑43'58	-4.5m
evening rise	3193 Mar 13 17:15	3°♎07'20		morning max el	3195 Sep 05 06:15	27°♑27'34	45°47'11
	3193 Apr 04 06:52	0°♏			3195 Sep 07 21:19	0°♓	
asc. node	3193 Apr 26 23:15	28°♏01'41			3195 Oct 06 09:07	0°♑	
	3193 Apr 28 13:45	0°♐		asc. node	3195 Oct 12 18:19	7°♑10'05	
	3193 May 23 03:38	0°♑			3195 Nov 01 11:18	0°♒	
	3193 Jun 17 02:42	0°♓			3195 Nov 26 10:36	0°♓	
	3193 Jul 12 15:15	0°♑			3195 Dec 20 19:55	0°♐	

	3196 Jan 13 22:16	0°☾		retrograde	3198 Aug 14 04:46	20°☾59'50	
desc. node	3196 Feb 01 08:02	23°☾01'51		evening set	3198 Aug 31 19:33	15°☾13'13	
	3196 Feb 06 21:35	0°≈		inferior conj	3198 Sep 04 15:49	12°☾51'40	-8°-19'-22
	3196 Mar 01 20:10	0°☿		minimum elong	3198 Sep 04 10:33	12°☾59'53	8°18'58
morning set	3196 Mar 08 09:31	8°☿12'34		min. Earth dist.	3198 Sep 04 22:49	12°☾40'44	0.28899 AU
	3196 Mar 25 19:41	0°♀		morning rise	3198 Sep 08 01:23	10°☾45'31	
				direct	3198 Sep 26 05:01	4°☾35'16	
superior conj	3196 Apr 17 07:13	28°♀01'01	-1°-14'-8	greatest brilliancy	3198 Oct 10 14:37	8°☾14'05	-4.5m
minimum elong	3196 Apr 17 16:44	28°♀30'37	1°13'54		3198 Nov 08 15:01	0°♁	
	3196 Apr 18 21:30	0°♁		asc. node	3198 Nov 09 05:58	0°♁35'23	
max. Earth dist.	3196 Apr 21 04:24	2°♁50'35	1.72363 AU	morning max el	3198 Nov 15 01:51	6°♁16'01	46°25'22
	3196 May 13 02:32	0°♂			3198 Dec 07 09:17	0°♂	
asc. node	3196 May 24 11:04	14°♂00'42			3199 Jan 02 08:02	0°♂	
evening rise	3196 May 25 22:58	15°♂51'17			3199 Jan 27 05:57	0°☾	
	3196 Jun 06 11:02	0°☾			3199 Feb 20 17:17	0°≈	
	3196 Jun 30 23:03	0°♂		desc. node	3199 Feb 28 19:58	10°≈00'13	
	3196 Jul 25 15:07	0°☾			3199 Mar 17 00:14	0°☿	
	3196 Aug 19 12:55	0°♁			3199 Apr 10 06:00	0°♀	
desc. node	3196 Sep 13 00:47	29°♁05'11			3199 May 04 12:24	0°♁	
	3196 Sep 13 19:25	0°♂		morning set	3199 May 21 06:28	20°♁40'04	
	3196 Oct 09 15:50	0°♂			3199 May 28 20:16	0°♂	
	3196 Nov 05 14:57	0°☾		asc. node	3199 Jun 21 22:58	29°♂40'07	
evening max el	3196 Nov 21 00:51	16°☾02'03	47°00'52		3199 Jun 22 05:26	0°☾	
	3196 Dec 05 20:51	0°≈					
greatest brilliancy	3196 Dec 29 14:06	16°≈12'45	-4.7m	superior conj	3199 Jun 27 12:54	6°☾31'47	0°13'17
asc. node	3197 Jan 04 03:44	18°≈04'53		minimum elong	3199 Jun 27 10:07	6°☾23'15	0°13'09
retrograde	3197 Jan 10 13:27	18°≈52'50		behind sun begin	3199 Jun 26 21:16	5°☾43'44	
evening set	3197 Jan 25 19:53	14°≈14'38		behind sun end	3199 Jun 27 22:59	7°☾02'46	
min. Earth dist.	3197 Jan 30 09:48	11°≈31'15	0.26707 AU	max. Earth dist.	3199 Jun 27 20:07	6°☾54'00	1.73487 AU
inferior conj	3197 Jan 31 02:53	11°≈04'59	6°20'01		3199 Jul 16 15:06	0°♂	
minimum elong	3197 Jan 30 16:13	11°≈21'23	6°17'34	evening rise	3199 Aug 02 16:46	20°♂59'03	
morning rise	3197 Feb 04 12:55	8°≈26'07			3199 Aug 10 00:47	0°☾	
direct	3197 Feb 20 13:48	3°≈25'19			3199 Sep 03 10:52	0°♁	
greatest brilliancy	3197 Mar 03 12:22	5°≈40'06	-4.6m		3199 Sep 27 22:23	0°♂	
	3197 Apr 05 20:43	0°☿		desc. node	3199 Oct 11 12:41	16°♂36'24	
morning max el	3197 Apr 11 14:14	5°☿33'36	46°34'42		3199 Oct 22 12:29	0°♂	
desc. node	3197 Apr 25 17:30	20°☿06'34			3199 Nov 16 06:25	0°☾	
	3197 May 04 21:18	0°♀			3199 Dec 11 07:18	0°≈	
	3197 May 31 12:54	0°♁			3200 Jan 06 00:27	0°☿	
	3197 Jun 26 07:20	0°♂		asc. node	3200 Feb 01 15:38	29°☿01'00	
	3197 Jul 21 14:23	0°☾		evening max el	3200 Feb 02 05:44	29°☿36'57	47°06'36
	3197 Aug 15 12:46	0°♂			3200 Feb 02 14:48	0°♀	
asc. node	3197 Aug 16 20:37	1°♂36'29		greatest brilliancy	3200 Mar 10 13:33	29°♀40'51	-4.6m
	3197 Sep 09 03:13	0°☾			3200 Mar 11 06:17	0°♁	
	3197 Oct 03 10:50	0°♁		retrograde	3200 Mar 24 00:25	3°♁01'44	
morning set	3197 Oct 07 09:12	4°♁52'43			3200 Apr 05 05:35	30°♁♀	
	3197 Oct 27 13:31	0°♂		evening set	3200 Apr 10 11:24	27°♀07'53	
max. Earth dist.	3197 Nov 11 12:12	18°♂40'47	1.71738 AU	inferior conj	3200 Apr 14 02:25	24°♀53'06	7°48'41
				minimum elong	3200 Apr 14 11:01	24°♀39'36	7°47'27
superior conj	3197 Nov 14 05:41	22°♂05'38	0°49'55	min. Earth dist.	3200 Apr 13 21:40	25°♀00'34	0.28005 AU
minimum elong	3197 Nov 14 15:32	22°♂36'28	0°49'30	morning rise	3200 Apr 18 10:49	22°♀12'45	
	3197 Nov 20 13:15	0°♂		direct	3200 May 05 01:08	16°♀52'07	
desc. node	3197 Dec 06 10:25	19°♂54'28		greatest brilliancy	3200 May 16 14:17	19°♀16'35	-4.5m
	3197 Dec 14 11:32	0°☾		desc. node	3200 May 23 05:17	22°♀28'33	
evening rise	3197 Dec 24 10:40	12°☾30'01			3200 Jun 03 10:07	0°♁	
	3198 Jan 07 09:20	0°≈		morning max el	3200 Jun 23 02:32	17°♁11'49	45°52'13
	3198 Jan 31 07:50	0°☿			3200 Jul 05 22:18	0°♂	
	3198 Feb 24 09:12	0°♀			3200 Aug 02 16:46	0°☾	
	3198 Mar 20 16:44	0°♁			3200 Aug 28 21:26	0°♂	
asc. node	3198 Mar 29 13:20	10°♁48'34		asc. node	3200 Sep 13 08:27	18°♂13'55	
	3198 Apr 14 10:59	0°♂			3200 Sep 23 04:33	0°☾	
	3198 May 09 22:53	0°☾			3200 Oct 17 20:52	0°♁	
	3198 Jun 05 19:03	0°♂			3200 Nov 11 03:14	0°♂	
evening max el	3198 Jun 26 14:20	21°♂16'30	45°26'58		3200 Dec 05 03:43	0°♂	
	3198 Jul 06 01:35	0°☾		morning set	3200 Dec 18 18:38	17°♂05'10	
desc. node	3198 Jul 19 03:07	10°☾26'17			3200 Dec 29 01:16	0°☾	
greatest brilliancy	3198 Aug 01 06:47	18°☾03'46	-4.5m	desc. node	3201 Jan 02 22:18	6°☾07'57	

	3201 Jan 21 21:37	0°♊		minimum elong	3203 Jun 24 12:15	3°♊47'50	0°54'44
				min. Earth dist.	3203 Jun 24 08:55	3°♊53'05	0.28811 AU
superior conj	3201 Jan 29 03:09	9°♊05'57	0°-57'-39	morning rise	3203 Jun 30 20:07	29°♊59'49	
minimum elong	3201 Jan 28 15:12	8°♊28'20	0°57'13		3203 Jun 30 19:59	30°♊	
max. Earth dist.	3201 Jan 30 04:51	10°♊26'47	1.71122 AU	direct	3203 Jul 16 03:15	25°♊30'49	
	3201 Feb 14 18:05	0°♋		greatest brilliancy	3203 Jul 29 05:51	28°♊32'08	-4.5m
	3201 Mar 10 16:10	0°♌			3203 Aug 01 08:13	0°♋	
evening rise	3201 Mar 11 04:03	0°♌37'09		morning max el	3203 Sep 02 21:51	25°♋17'21	45°46'23
	3201 Apr 03 17:46	0°♍			3203 Sep 07 17:58	0°♌	
asc. node	3201 Apr 26 01:15	27°♍33'52			3203 Oct 06 00:08	0°♍	
	3201 Apr 28 00:48	0°♎		asc. node	3203 Oct 11 20:15	6°♍34'48	
	3201 May 22 15:01	0°♏			3203 Nov 01 00:17	0°♎	
	3201 Jun 16 14:41	0°♐			3203 Nov 25 22:39	0°♏	
	3201 Jul 12 04:24	0°♑			3203 Dec 20 07:28	0°♐	
	3201 Aug 07 18:45	0°♒			3204 Jan 13 09:31	0°♑	
desc. node	3201 Aug 15 14:57	8°♒29'12		desc. node	3204 Jan 31 10:06	22°♒33'31	
	3201 Sep 05 16:05	0°♓			3204 Feb 06 08:39	0°♒	
evening max el	3201 Sep 06 10:19	0°♓43'48	45°56'09		3204 Mar 01 07:07	0°♓	
greatest brilliancy	3201 Oct 14 18:07	28°♓51'46	-4.6m	morning set	3204 Mar 05 20:26	5°♓42'20	
	3201 Oct 18 08:03	0°♈			3204 Mar 25 06:32	0°♑	
retrograde	3201 Oct 25 13:29	0°♈58'25					
	3201 Nov 01 12:41	30°♈		superior conj	3204 Apr 14 20:44	25°♑40'16	-1°-15'-57
evening set	3201 Nov 10 07:06	26°♈12'34		minimum elong	3204 Apr 15 05:51	26°♑08'38	1°15'45
inferior conj	3201 Nov 15 08:06	23°♈13'33	-5°-7'-10		3204 Apr 18 08:16	0°♈	
minimum elong	3201 Nov 15 17:56	22°♈58'34	5°04'38	max. Earth dist.	3204 Apr 18 21:04	0°♈39'47	1.72308 AU
min. Earth dist.	3201 Nov 16 04:52	22°♈41'53	0.27207 AU		3204 May 12 13:15	0°♉	
morning rise	3201 Nov 21 04:08	19°♈47'17		evening rise	3204 May 23 14:51	13°♉39'16	
direct	3201 Dec 06 04:25	15°♈20'24		asc. node	3204 May 23 13:11	13°♉34'08	
asc. node	3201 Dec 06 17:52	15°♈20'47			3204 Jun 05 21:48	0°♋	
greatest brilliancy	3201 Dec 19 22:33	18°♈49'42	-4.6m		3204 Jun 30 09:59	0°♌	
	3202 Jan 05 18:32	0°♈			3204 Jul 25 02:25	0°♍	
morning max el	3202 Jan 25 23:01	18°♈45'47	46°57'56		3204 Aug 19 00:51	0°♎	
	3202 Feb 05 16:13	0°♉		desc. node	3204 Sep 12 02:44	28°♎32'51	
	3202 Mar 04 09:16	0°♊			3204 Sep 13 08:26	0°♏	
desc. node	3202 Mar 28 07:46	28°♊09'34			3204 Oct 09 06:42	0°♐	
	3202 Mar 29 20:51	0°♋			3204 Nov 05 09:48	0°♑	
	3202 Apr 23 20:34	0°♌		evening max el	3204 Nov 18 14:26	13°♑38'19	46°59'10
	3202 May 18 15:18	0°♍			3204 Dec 06 06:15	0°♒	
	3202 Jun 12 07:53	0°♎		greatest brilliancy	3204 Dec 27 05:29	13°♒48'02	-4.7m
	3202 Jul 06 22:47	0°♏		asc. node	3205 Jan 03 05:47	15°♒57'25	
asc. node	3202 Jul 19 10:48	15°♏16'47		retrograde	3205 Jan 08 01:49	16°♒25'00	
morning set	3202 Jul 28 13:57	26°♏27'46		evening set	3205 Jan 23 05:22	11°♒52'14	
	3202 Jul 31 11:11	0°♐		min. Earth dist.	3205 Jan 27 23:31	9°♒02'59	0.26671 AU
	3202 Aug 24 20:22	0°♑		inferior conj	3205 Jan 28 15:34	8°♒38'18	6°02'33
max. Earth dist.	3202 Aug 31 08:45	8°♑02'34	1.73123 AU	minimum elong	3205 Jan 28 04:58	8°♒54'36	6°00'01
				morning rise	3205 Feb 02 04:53	5°♒54'34	
superior conj	3202 Sep 02 23:53	11°♑17'34	1°21'28	direct	3205 Feb 18 01:51	0°♒59'03	
minimum elong	3202 Sep 02 18:53	11°♑02'09	1°21'24	greatest brilliancy	3205 Mar 01 02:32	3°♒15'21	-4.6m
	3202 Sep 18 02:38	0°♒			3205 Apr 05 21:46	0°♓	
evening rise	3202 Oct 09 16:50	26°♒46'47		morning max el	3205 Apr 09 02:21	3°♓07'44	46°36'09
	3202 Oct 12 07:05	0°♓		desc. node	3205 Apr 24 19:37	19°♓22'51	
	3202 Nov 05 10:50	0°♈			3205 May 04 14:06	0°♑	
desc. node	3202 Nov 08 00:37	3°♈11'53			3205 May 31 02:51	0°♒	
	3202 Nov 29 14:36	0°♉			3205 Jun 25 19:49	0°♓	
	3202 Dec 23 19:09	0°♊			3205 Jul 21 02:02	0°♋	
	3203 Jan 17 02:38	0°♋			3205 Aug 14 23:55	0°♌	
	3203 Feb 10 18:03	0°♌		asc. node	3205 Aug 15 22:35	1°♌08'41	
asc. node	3203 Mar 01 03:23	21°♌51'51			3205 Sep 08 14:07	0°♍	
	3203 Mar 08 03:08	0°♍			3205 Oct 02 21:38	0°♎	
	3203 Apr 04 03:32	0°♎		morning set	3205 Oct 05 01:19	2°♎40'17	
evening max el	3203 Apr 14 18:30	10°♎51'45	46°07'14		3205 Oct 27 00:19	0°♏	
	3203 May 06 10:26	0°♏		max. Earth dist.	3205 Nov 08 23:49	16°♏13'06	1.71787 AU
greatest brilliancy	3203 May 19 09:28	8°♏09'10	-4.5m				
retrograde	3203 Jun 03 04:39	11°♏59'52		superior conj	3205 Nov 11 19:24	19°♏44'28	0°52'49
evening set	3203 Jun 18 04:50	7°♏35'36		minimum elong	3205 Nov 12 05:27	20°♏15'53	0°52'25
desc. node	3203 Jun 20 17:14	6°♏08'32			3205 Nov 20 00:08	0°♐	
inferior conj	3203 Jun 24 14:18	3°♏44'38	0°-55'-19	desc. node	3205 Dec 05 12:34	19°♐26'48	

	3205 Dec 13 22:31	0°☾		desc. node	3208 May 22 07:21	21°☿03'26	
evening rise	3205 Dec 21 21:57	10°☾00'19			3208 Jun 03 22:07	0°♄	
	3206 Jan 06 20:26	0°♊		morning max el	3208 Jun 20 18:29	14°♄59'59	45°53'18
	3206 Jan 30 19:04	0°♋			3208 Jul 05 16:53	0°♊	
	3206 Feb 23 20:36	0°♌			3208 Aug 02 07:17	0°♍	
	3206 Mar 20 04:29	0°♍			3208 Aug 28 10:15	0°♎	
asc. node	3206 Mar 28 15:22	10°♍18'25		asc. node	3208 Sep 12 10:27	17°♎43'32	
	3206 Apr 13 23:24	0°♊			3208 Sep 22 16:29	0°♏	
	3206 May 09 12:39	0°♍			3208 Oct 17 08:21	0°♐	
	3206 Jun 05 11:56	0°♎			3208 Nov 10 14:29	0°♑	
evening max el	3206 Jun 24 04:59	19°♎03'01	45°27'14		3208 Dec 04 14:53	0°♒	
	3206 Jul 06 05:43	0°♏		morning set	3208 Dec 16 06:18	14°♒36'08	
desc. node	3206 Jul 18 05:10	9°♏15'45			3208 Dec 28 12:25	0°☾	
greatest brilliancy	3206 Jul 29 18:55	15°♏49'32	-4.5m	desc. node	3209 Jan 02 00:15	5°☾39'04	
retrograde	3206 Aug 11 20:24	18°♏49'54			3209 Jan 21 08:47	0°♊	
evening set	3206 Aug 29 08:29	13°♏06'48					
inferior conj	3206 Sep 02 07:47	10°♏40'58	-8°-13'-17	superior conj	3209 Jan 26 12:53	6°♊30'25	0°-54'-34
minimum elong	3206 Sep 02 01:52	10°♏50'12	8°12'47	minimum elong	3209 Jan 26 01:08	5°♊53'30	0°54'08
min. Earth dist.	3206 Sep 02 13:59	10°♏31'18	0.28929 AU	max. Earth dist.	3209 Jan 27 13:36	7°♊48'12	1.71116 AU
morning rise	3206 Sep 05 19:04	8°♏32'22			3209 Feb 14 05:15	0°♋	
direct	3206 Sep 23 20:48	2°♏24'01		evening rise	3209 Mar 08 14:50	28°♋05'49	
greatest brilliancy	3206 Oct 08 07:30	6°♏03'37	-4.5m		3209 Mar 10 03:21	0°♌	
asc. node	3206 Nov 08 08:09	29°♏43'12			3209 Apr 03 05:01	0°♍	
	3206 Nov 08 15:08	0°♐		asc. node	3209 Apr 25 03:23	27°♍05'32	
morning max el	3206 Nov 12 16:59	3°♐59'37	46°23'46		3209 Apr 27 12:11	0°♊	
	3206 Dec 07 01:42	0°♑			3209 May 22 02:42	0°♍	
	3207 Jan 01 21:58	0°♒			3209 Jun 16 02:59	0°♎	
	3207 Jan 26 18:43	0°☾			3209 Jul 11 17:56	0°♏	
	3207 Feb 20 05:22	0°♊			3209 Aug 07 10:55	0°♐	
desc. node	3207 Feb 27 21:53	9°♊29'21		desc. node	3209 Aug 14 16:51	7°♐47'51	
	3207 Mar 16 11:52	0°♋		evening max el	3209 Sep 04 01:22	28°♐28'43	45°54'06
	3207 Apr 09 17:16	0°♌			3209 Sep 05 15:44	0°♑	
	3207 May 03 23:24	0°♍		greatest brilliancy	3209 Oct 12 06:22	26°♑29'26	-4.6m
morning set	3207 May 18 22:49	18°♍28'57		retrograde	3209 Oct 23 02:30	28°♑36'09	
	3207 May 28 07:06	0°♊		evening set	3209 Nov 07 23:23	23°♑46'04	
asc. node	3207 Jun 21 01:01	29°♊13'23		inferior conj	3209 Nov 12 21:27	20°♑50'42	-5°-25'-22
	3207 Jun 21 16:11	0°♍		minimum elong	3209 Nov 13 07:33	20°♑35'16	5°22'52
				min. Earth dist.	3209 Nov 13 18:33	20°♑18'27	0.27271 AU
superior conj	3207 Jun 25 06:37	4°♍25'44	0°10'07	morning rise	3209 Nov 18 15:10	17°♑27'20	
minimum elong	3207 Jun 25 04:30	4°♍19'12	0°10'00	direct	3209 Dec 03 19:03	12°♑56'47	
behind sun begin	3207 Jun 24 10:34	3°♍24'06		asc. node	3209 Dec 05 19:52	13°♑01'47	
behind sun end	3207 Jun 25 22:25	5°♍14'17		greatest brilliancy	3209 Dec 17 13:10	16°♑26'15	-4.6m
max. Earth dist.	3207 Jun 25 16:10	4°♍55'06	1.73475 AU		3210 Jan 06 05:37	0°♒	
	3207 Jul 16 01:52	0°♎		morning max el	3210 Jan 23 13:22	16°♒22'30	46°57'28
evening rise	3207 Jul 31 11:37	18°♎56'17			3210 Feb 05 11:29	0°☾	
	3207 Aug 09 11:39	0°♏			3210 Mar 04 00:35	0°♊	
	3207 Sep 02 21:57	0°♐		desc. node	3210 Mar 27 09:52	27°♊35'16	
	3207 Sep 27 09:51	0°♑			3210 Mar 29 10:23	0°♋	
desc. node	3207 Oct 10 14:45	16°♑06'52			3210 Apr 23 09:06	0°♌	
	3207 Oct 22 00:31	0°♒			3210 May 18 03:11	0°♍	
	3207 Nov 15 19:16	0°☾			3210 Jun 11 19:19	0°♊	
	3207 Dec 10 21:24	0°♋			3210 Jul 06 09:53	0°♍	
	3208 Jan 05 16:54	0°♌		asc. node	3210 Jul 18 12:47	14°♍49'14	
evening max el	3208 Jan 30 20:24	27°♌15'39	47°07'58	morning set	3210 Jul 26 08:03	24°♍22'40	
asc. node	3208 Jan 31 17:36	28°♌09'27			3210 Jul 30 22:05	0°♎	
	3208 Feb 02 13:35	0°♌			3210 Aug 24 07:14	0°♏	
greatest brilliancy	3208 Mar 08 04:51	27°♌21'50	-4.6m	max. Earth dist.	3210 Aug 29 03:17	5°♏58'01	1.73158 AU
	3208 Mar 15 14:58	0°♍					
retrograde	3208 Mar 21 16:00	0°♍43'12		superior conj	3210 Aug 31 18:01	9°♏11'43	1°20'29
	3208 Mar 27 13:15	30°♏♌		minimum elong	3210 Aug 31 12:30	8°♏54'41	1°20'25
evening set	3208 Apr 08 05:00	24°♏45'04			3210 Sep 17 13:34	0°♐	
inferior conj	3208 Apr 11 17:11	22°♏34'46	7°58'49	evening rise	3210 Oct 07 08:51	24°♐33'07	
minimum elong	3208 Apr 12 01:19	22°♏22'02	7°57'45		3210 Oct 11 18:12	0°♑	
min. Earth dist.	3208 Apr 11 11:41	22°♏43'23	0.27968 AU		3210 Nov 04 22:11	0°♒	
morning rise	3208 Apr 15 21:50	20°♏00'18		desc. node	3210 Nov 07 02:44	2°♒43'08	
direct	3208 May 02 15:21	14°♏34'19			3210 Nov 29 02:13	0°☾	
greatest brilliancy	3208 May 14 03:18	16°♏58'10	-4.5m		3210 Dec 23 07:07	0°♊	

	3211 Jan 16 15:08	0° X			3213 Jun 25 08:29	0° II		
	3211 Feb 10 07:25	0° Y			3213 Jul 20 13:54	0° S		
asc. node	3211 Feb 28 05:25	21° Y 15'38			3213 Aug 14 11:17	0° Q		
	3211 Mar 07 18:10	0° X		asc. node	3213 Aug 15 00:38	0° Q 40'28		
	3211 Apr 03 22:44	0° II			3213 Sep 08 01:12	0° M		
evening max el	3211 Apr 12 10:12	8° II 37'21	46°09'19		3213 Oct 02 08:35	0° A		
	3211 May 07 03:20	0° S		morning set	3213 Oct 02 17:42	0° A 28'15		
greatest brilliancy	3211 May 17 03:27	6° S 00'08	-4.5m		3213 Oct 26 11:15	0° M		
retrograde	3211 May 31 20:39	9° S 48'53		max. Earth dist.	3213 Nov 06 14:49	13° M 55'36	1.71834 AU	
evening set	3211 Jun 15 21:32	5° S 24'32						
desc. node	3211 Jun 19 19:14	3° S 06'41		superior conj	3213 Nov 09 09:26	17° M 23'55	0°55'35	
inferior conj	3211 Jun 22 06:30	1° S 34'05	0°-35'-19	minimum elong	3213 Nov 09 19:37	17° M 55'44	0°55'12	
minimum elong	3211 Jun 22 05:11	1° S 36'08	0°34'56		3213 Nov 19 11:07	0° X		
min. Earth dist.	3211 Jun 22 01:32	1° S 41'53	0.28784 AU	desc. node	3213 Dec 04 14:31	18° X 58'12		
	3211 Jun 24 18:49	30° R II			3213 Dec 13 09:38	0° Z		
morning rise	3211 Jun 28 13:16	27° II 47'35		evening rise	3213 Dec 19 09:27	7° Z 30'52		
direct	3211 Jul 13 19:10	23° II 20'47			3214 Jan 06 07:42	0° \approx		
greatest brilliancy	3211 Jul 26 19:19	26° II 19'10	-4.5m		3214 Jan 30 06:30	0° X		
	3211 Aug 02 22:02	0° S			3214 Feb 23 08:16	0° Y		
morning max el	3211 Aug 31 12:31	23° S 03'53	45°45'46		3214 Mar 19 16:29	0° X		
	3211 Sep 07 14:18	0° Q		asc. node	3214 Mar 27 17:29	9° X 47'48		
	3211 Oct 05 15:14	0° M			3214 Apr 13 12:06	0° II		
asc. node	3211 Oct 10 22:28	5° M 59'42			3214 May 09 02:46	0° S		
	3211 Oct 31 13:29	0° A			3214 Jun 05 05:24	0° Q		
	3211 Nov 25 11:00	0° M		evening max el	3214 Jun 21 20:04	16° Q 50'07	45°27'40	
	3211 Dec 19 19:21	0° X			3214 Jul 06 12:08	0° M		
	3212 Jan 12 21:08	0° Z		desc. node	3214 Jul 17 07:08	8° M 02'30		
desc. node	3212 Jan 30 12:06	22° Z 03'51		greatest brilliancy	3214 Jul 27 06:35	13° M 34'13	-4.5m	
	3212 Feb 05 20:04	0° \approx		retrograde	3214 Aug 09 12:26	16° M 39'17		
	3212 Feb 29 18:23	0° X		evening set	3214 Aug 26 21:11	10° M 59'52		
morning set	3212 Mar 03 06:57	3° X 09'45		inferior conj	3214 Aug 30 23:37	8° M 29'33	-8°-6'-35	
	3212 Mar 24 17:41	0° Y		minimum elong	3214 Aug 30 17:04	8° M 39'44	8°05'57	
				min. Earth dist.	3214 Aug 31 04:42	8° M 21'36	0.28954 AU	
superior conj	3212 Apr 12 10:00	23° Y 17'48	-1°-17'-39	morning rise	3214 Sep 03 12:47	6° M 18'18		
minimum elong	3212 Apr 12 18:39	23° Y 44'42	1°17'29	direct	3214 Sep 21 12:52	0° M 12'13		
max. Earth dist.	3212 Apr 16 12:32	28° Y 24'14	1.72252 AU	greatest brilliancy	3214 Oct 06 00:07	3° M 52'37	-4.5m	
	3212 Apr 17 19:21	0° X		asc. node	3214 Nov 07 10:05	28° M 51'24		
	3212 May 12 00:18	0° II			3214 Nov 08 14:13	0° A		
evening rise	3212 May 21 06:30	11° II 25'30		morning max el	3214 Nov 10 08:47	1° A 45'03	46°22'21	
asc. node	3212 May 22 15:13	13° II 06'16			3214 Dec 06 17:48	0° M		
	3212 Jun 05 08:54	0° S			3215 Jan 01 11:44	0° X		
	3212 Jun 29 21:16	0° Q			3215 Jan 26 07:23	0° Z		
	3212 Jul 24 14:03	0° M			3215 Feb 19 17:25	0° \approx		
	3212 Aug 18 13:07	0° A		desc. node	3215 Feb 27 00:00	8° \approx 59'08		
desc. node	3212 Sep 11 04:51	28° A 00'13			3215 Mar 15 23:30	0° X		
	3212 Sep 12 21:45	0° M			3215 Apr 09 04:35	0° Y		
	3212 Oct 08 22:01	0° X			3215 May 03 10:27	0° X		
	3212 Nov 05 05:29	0° Z		morning set	3215 May 16 14:39	16° X 15'58		
evening max el	3212 Nov 16 02:59	11° Z 11'10	46°57'15		3215 May 27 17:58	0° II		
	3212 Dec 06 19:29	0° \approx		asc. node	3215 Jun 20 02:57	28° II 46'09		
greatest brilliancy	3212 Dec 24 20:11	11° \approx 20'50	-4.7m		3215 Jun 21 02:58	0° S		
asc. node	3213 Jan 02 07:46	13° \approx 42'47						
retrograde	3213 Jan 05 13:44	13° \approx 55'24		superior conj	3215 Jun 22 23:51	2° S 18'01	0°06'53	
evening set	3213 Jan 20 14:39	9° \approx 27'23		minimum elong	3215 Jun 22 22:24	2° S 13'33	0°06'48	
min. Earth dist.	3213 Jan 25 13:10	6° \approx 32'24	0.26642 AU	behind sun begin	3215 Jun 22 01:31	1° S 09'21		
inferior conj	3213 Jan 26 03:58	6° \approx 09'40	5°44'09	behind sun end	3215 Jun 23 19:16	3° S 17'45		
minimum elong	3213 Jan 25 17:31	6° \approx 25'44	5°41'31	max. Earth dist.	3215 Jun 23 13:37	3° S 00'22	1.73460 AU	
morning rise	3213 Jan 30 20:35	3° \approx 21'13			3215 Jul 15 12:38	0° Q		
	3213 Feb 07 00:38	30° R Z		evening rise	3215 Jul 29 06:13	16° Q 52'44		
direct	3213 Feb 15 13:29	28° Z 30'31			3215 Aug 08 22:32	0° M		
	3213 Feb 24 10:18	0° \approx			3215 Sep 02 09:04	0° A		
greatest brilliancy	3213 Feb 26 17:35	0° \approx 49'51	-4.7m		3215 Sep 26 21:20	0° M		
	3213 Apr 05 22:05	0° X		desc. node	3215 Oct 09 16:51	15° M 37'29		
morning max el	3213 Apr 06 14:32	0° X 40'43	46°37'43		3215 Oct 21 12:32	0° X		
desc. node	3213 Apr 23 21:45	18° X 38'46			3215 Nov 15 08:04	0° Z		
	3213 May 04 06:55	0° Y			3215 Dec 10 11:28	0° \approx		
	3213 May 30 16:54	0° X			3216 Jan 05 09:26	0° X		

evening max el	3216 Jan 28 11:43	24° Υ 56'31	47°09'06			3218 Aug 23 17:46	0° \mathfrak{M}	
asc. node	3216 Jan 30 19:38	27° Υ 17'41		max. Earth dist.		3218 Aug 26 20:21	3° \mathfrak{M} 50'04	1.73192 AU
	3216 Feb 02 13:08	0° Υ						
greatest brilliancy	3216 Mar 05 20:07	25° Υ 02'52	-4.6m	superior conj		3218 Aug 29 11:57	7° \mathfrak{M} 06'20	1°19'24
retrograde	3216 Mar 19 07:34	28° Υ 24'09		minimum elong		3218 Aug 29 05:55	6° \mathfrak{M} 47'45	1°19'18
evening set	3216 Apr 05 22:19	22° Υ 22'03				3218 Sep 17 00:11	0° \mathfrak{L}	
inferior conj	3216 Apr 09 07:46	20° Υ 15'56	8°08'17	evening rise		3218 Oct 05 00:44	22° \mathfrak{L} 20'17	
minimum elong	3216 Apr 09 15:22	20° Υ 04'02	8°07'22			3218 Oct 11 04:58	0° \mathfrak{M}	
min. Earth dist.	3216 Apr 09 01:15	20° Υ 26'07	0.27934 AU			3218 Nov 04 09:11	0° \mathfrak{J}	
morning rise	3216 Apr 13 08:38	17° Υ 47'18		desc. node		3218 Nov 06 04:39	2° \mathfrak{J} 14'52	
direct	3216 Apr 30 05:52	12° Υ 16'11				3218 Nov 28 13:32	0° \mathfrak{C}	
greatest brilliancy	3216 May 11 15:28	14° Υ 38'26	-4.5m			3218 Dec 22 18:48	0° \approx	
desc. node	3216 May 21 09:19	19° Υ 40'50				3219 Jan 16 03:20	0° Υ	
	3216 Jun 04 07:02	0° \mathfrak{X}				3219 Feb 09 20:27	0° Υ	
morning max el	3216 Jun 18 10:23	12° \mathfrak{X} 47'59	45°54'20	asc. node		3219 Feb 27 07:35	20° Υ 40'58	
	3216 Jul 05 10:59	0° \mathfrak{H}				3219 Mar 07 08:52	0° \mathfrak{X}	
	3216 Aug 01 21:34	0° \mathfrak{C}				3219 Apr 03 17:49	0° \mathfrak{H}	
	3216 Aug 27 22:51	0° \mathfrak{L}		evening max el		3219 Apr 10 00:58	6° \mathfrak{H} 22'14	46°11'29
asc. node	3216 Sep 11 12:35	17° \mathfrak{L} 14'04				3219 May 08 01:00	0° \mathfrak{C}	
	3216 Sep 22 04:14	0° \mathfrak{M}		greatest brilliancy		3219 May 14 20:45	3° \mathfrak{C} 52'00	-4.5m
	3216 Oct 16 19:38	0° \mathfrak{L}		retrograde		3219 May 29 12:34	7° \mathfrak{C} 40'02	
	3216 Nov 10 01:34	0° \mathfrak{M}		evening set		3219 Jun 13 14:31	3° \mathfrak{C} 15'02	
	3216 Dec 04 01:52	0° \mathfrak{J}		desc. node		3219 Jun 18 21:13	0° \mathfrak{C} 05'47	
morning set	3216 Dec 13 18:18	12° \mathfrak{J} 08'50				3219 Jun 19 00:55	30° \mathfrak{R} \mathfrak{H}	
	3216 Dec 27 23:20	0° \mathfrak{C}		inferior conj		3219 Jun 19 22:53	29° \mathfrak{H} 25'28	0°-15'-17
desc. node	3217 Jan 01 02:17	5° \mathfrak{C} 11'08		minimum elong		3219 Jun 19 22:19	29° \mathfrak{H} 26'21	0°15'08
	3217 Jan 20 19:39	0° \approx		transit middle		3219 Jun 19 22:19	29° \mathfrak{H} 26'21	0°15'08
				transit begin		3219 Jun 19 20:50	29° \mathfrak{H} 28'41	
superior conj	3217 Jan 23 23:00	3° \approx 57'01	0°-51'-25	transit end		3219 Jun 19 23:48	29° \mathfrak{H} 24'01	
minimum elong	3217 Jan 23 11:35	3° \approx 21'05	0°50'57	min. Earth dist.		3219 Jun 19 18:29	29° \mathfrak{H} 32'22	0.28762 AU
max. Earth dist.	3217 Jan 24 22:52	5° \approx 12'05	1.71104 AU	morning rise		3219 Jun 26 06:27	25° \mathfrak{H} 37'31	
	3217 Feb 13 16:06	0° Υ		direct		3219 Jul 11 10:54	21° \mathfrak{H} 12'27	
evening rise	3217 Mar 06 01:53	25° Υ 36'09		greatest brilliancy		3219 Jul 24 10:12	24° \mathfrak{H} 09'20	-4.5m
	3217 Mar 09 14:13	0° Υ				3219 Aug 03 23:43	0° \mathfrak{C}	
	3217 Apr 02 15:59	0° \mathfrak{X}		morning max el		3219 Aug 29 03:11	20° \mathfrak{C} 51'35	45°45'07
asc. node	3217 Apr 24 05:21	26° \mathfrak{X} 37'26				3219 Sep 07 09:35	0° \mathfrak{L}	
	3217 Apr 26 23:20	0° \mathfrak{H}				3219 Oct 05 05:47	0° \mathfrak{M}	
	3217 May 21 14:11	0° \mathfrak{C}		asc. node		3219 Oct 10 00:24	5° \mathfrak{M} 25'10	
	3217 Jun 15 15:08	0° \mathfrak{L}				3219 Oct 31 02:14	0° \mathfrak{L}	
	3217 Jul 11 07:23	0° \mathfrak{M}				3219 Nov 24 22:54	0° \mathfrak{M}	
	3217 Aug 07 03:10	0° \mathfrak{L}				3219 Dec 19 06:49	0° \mathfrak{J}	
desc. node	3217 Aug 13 19:01	7° \mathfrak{L} 07'21				3220 Jan 12 08:19	0° \mathfrak{C}	
evening max el	3217 Sep 01 15:38	26° \mathfrak{L} 12'23	45°52'05	desc. node		3220 Jan 29 14:09	21° \mathfrak{C} 35'36	
	3217 Sep 05 16:17	0° \mathfrak{M}				3220 Feb 05 07:05	0° \approx	
greatest brilliancy	3217 Oct 09 19:25	24° \mathfrak{M} 08'48	-4.6m			3220 Feb 29 05:16	0° Υ	
retrograde	3217 Oct 20 14:56	26° \mathfrak{M} 14'39		morning set		3220 Feb 29 17:23	0° Υ 37'56	
evening set	3217 Nov 05 15:40	21° \mathfrak{M} 20'18				3220 Mar 24 04:27	0° Υ	
inferior conj	3217 Nov 10 10:46	18° \mathfrak{M} 28'43	-5°-42'-59					
minimum elong	3217 Nov 10 21:03	18° \mathfrak{M} 12'58	5°40'32	superior conj		3220 Apr 09 23:27	20° Υ 57'07	-1°-19'-12
min. Earth dist.	3217 Nov 11 08:26	17° \mathfrak{M} 55'32	0.27334 AU	minimum elong		3220 Apr 10 07:33	21° Υ 22'19	1°19'03
morning rise	3217 Nov 16 01:53	15° \mathfrak{M} 08'24		max. Earth dist.		3220 Apr 14 01:56	26° Υ 03'33	1.72190 AU
direct	3217 Dec 01 09:13	10° \mathfrak{M} 33'55				3220 Apr 17 05:59	0° \mathfrak{X}	
asc. node	3217 Dec 04 21:52	10° \mathfrak{M} 48'45				3220 May 11 10:52	0° \mathfrak{H}	
greatest brilliancy	3217 Dec 15 03:57	14° \mathfrak{M} 03'40	-4.6m	evening rise		3220 May 18 22:22	9° \mathfrak{H} 13'47	
	3218 Jan 06 13:27	0° \mathfrak{J}		asc. node		3220 May 21 17:11	12° \mathfrak{H} 39'43	
morning max el	3218 Jan 21 02:45	13° \mathfrak{J} 57'33	46°57'11			3220 Jun 04 19:32	0° \mathfrak{C}	
	3218 Feb 05 05:52	0° \mathfrak{C}				3220 Jun 29 08:06	0° \mathfrak{L}	
	3218 Mar 03 15:16	0° \approx				3220 Jul 24 01:17	0° \mathfrak{M}	
desc. node	3218 Mar 26 11:57	27° \approx 02'21				3220 Aug 18 01:02	0° \mathfrak{L}	
	3218 Mar 28 23:22	0° Υ		desc. node		3220 Sep 10 06:53	27° \mathfrak{L} 28'13	
	3218 Apr 22 21:07	0° Υ				3220 Sep 12 10:49	0° \mathfrak{M}	
	3218 May 17 14:36	0° \mathfrak{X}				3220 Oct 08 13:10	0° \mathfrak{J}	
	3218 Jun 11 06:20	0° \mathfrak{H}				3220 Nov 05 01:23	0° \mathfrak{C}	
	3218 Jul 05 20:38	0° \mathfrak{C}		evening max el		3220 Nov 13 15:26	8° \mathfrak{C} 45'02	46°55'26
asc. node	3218 Jul 17 14:52	14° \mathfrak{C} 22'59				3220 Dec 07 12:30	0° \approx	
morning set	3218 Jul 24 01:55	22° \mathfrak{C} 17'49		greatest brilliancy		3220 Dec 22 09:50	8° \approx 53'30	-4.7m
	3218 Jul 30 08:40	0° \mathfrak{L}		asc. node		3221 Jan 01 09:50	11° \approx 23'41	

retrograde	3221 Jan 03 01:57	11° \approx 27'04		superior conj	3223 Jun 20 17:11	0° \approx 11'00	0°03'37
evening set	3221 Jan 18 00:07	7° \approx 03'00		minimum elong	3223 Jun 20 16:24	0° \approx 08'35	0°03'35
min. Earth dist.	3221 Jan 23 02:34	4° \approx 02'59	0.26617 AU	behind sun begin	3223 Jun 19 17:57	28° \approx 59'33	
inferior conj	3221 Jan 23 16:19	3° \approx 41'55	5°24'58	behind sun end	3223 Jun 21 14:51	1° \approx 17'38	
minimum elong	3221 Jan 23 06:06	3° \approx 57'34	5°22'18		3223 Jun 20 13:37	0° \approx	
morning rise	3221 Jan 28 12:14	0° \approx 49'06		max. Earth dist.	3223 Jun 21 11:59	1° \approx 08'50	1.73437 AU
	3221 Jan 30 00:07	30° \approx 00'07			3223 Jul 14 23:16	0° \approx	
direct	3221 Feb 13 01:19	26° \approx 02'40		evening rise	3223 Jul 27 01:04	14° \approx 50'29	
greatest brilliancy	3221 Feb 24 08:42	28° \approx 25'25	-4.7m		3223 Aug 08 09:14	0° \approx	
	3221 Feb 27 20:48	0° \approx			3223 Sep 01 20:00	0° \approx	
morning max el	3221 Apr 04 03:46	28° \approx 17'12	46°39'23		3223 Sep 26 08:41	0° \approx	
	3221 Apr 05 20:57	0° \approx		desc. node	3223 Oct 08 18:47	15° \approx 07'57	
desc. node	3221 Apr 22 23:37	17° \approx 55'37			3223 Oct 21 00:31	0° \approx	
	3221 May 03 23:02	0° \approx			3223 Nov 14 20:56	0° \approx	
	3221 May 30 06:25	0° \approx			3223 Dec 10 01:42	0° \approx	
	3221 Jun 24 20:39	0° \approx			3224 Jan 05 02:22	0° \approx	
	3221 Jul 20 01:17	0° \approx		evening max el	3224 Jan 26 03:19	22° \approx 37'40	47°10'09
	3221 Aug 13 22:14	0° \approx		asc. node	3224 Jan 29 21:44	26° \approx 24'49	
asc. node	3221 Aug 14 02:44	0° \approx 13'38			3224 Feb 02 13:57	0° \approx	
	3221 Sep 07 11:56	0° \approx		greatest brilliancy	3224 Mar 03 12:21	22° \approx 44'38	-4.6m
morning set	3221 Sep 30 10:10	28° \approx 17'28		retrograde	3224 Mar 16 22:49	26° \approx 04'14	
	3221 Oct 01 19:15	0° \approx		evening set	3224 Apr 03 15:25	19° \approx 58'39	
	3221 Oct 25 21:55	0° \approx		inferior conj	3224 Apr 06 22:12	17° \approx 56'28	8°17'03
max. Earth dist.	3221 Nov 04 06:00	11° \approx 39'35	1.71882 AU	minimum elong	3224 Apr 07 05:14	17° \approx 45'28	8°16'16
				min. Earth dist.	3224 Apr 06 14:40	18° \approx 08'15	0.27894 AU
superior conj	3221 Nov 06 23:26	15° \approx 04'06	0°58'16	morning rise	3224 Apr 10 19:17	15° \approx 33'31	
minimum elong	3221 Nov 07 09:41	15° \approx 36'06	0°57'53	direct	3224 Apr 27 20:27	9° \approx 57'38	
	3221 Nov 18 21:52	0° \approx		greatest brilliancy	3224 May 09 02:53	12° \approx 17'21	-4.5m
desc. node	3221 Dec 03 16:34	18° \approx 30'39		desc. node	3224 May 20 11:25	18° \approx 20'50	
	3221 Dec 12 20:30	0° \approx			3224 Jun 04 13:32	0° \approx	
evening rise	3221 Dec 16 20:52	5° \approx 02'02		morning max el	3224 Jun 16 01:29	10° \approx 33'53	45°55'26
	3222 Jan 05 18:43	0° \approx			3224 Jul 05 04:40	0° \approx	
	3222 Jan 29 17:41	0° \approx			3224 Aug 01 11:41	0° \approx	
	3222 Feb 22 19:41	0° \approx			3224 Aug 27 11:21	0° \approx	
	3222 Mar 19 04:17	0° \approx		asc. node	3224 Sep 10 14:32	16° \approx 44'15	
asc. node	3222 Mar 26 19:25	9° \approx 17'19			3224 Sep 21 15:53	0° \approx	
	3222 Apr 13 00:37	0° \approx			3224 Oct 16 06:52	0° \approx	
	3222 May 08 16:43	0° \approx			3224 Nov 09 12:37	0° \approx	
	3222 Jun 04 22:51	0° \approx			3224 Dec 03 12:53	0° \approx	
evening max el	3222 Jun 19 12:11	14° \approx 40'56	45°28'17	morning set	3224 Dec 11 06:25	9° \approx 41'46	
	3222 Jul 06 20:19	0° \approx			3224 Dec 27 10:22	0° \approx	
desc. node	3222 Jul 16 09:15	6° \approx 48'47		desc. node	3224 Dec 31 04:25	4° \approx 43'08	
greatest brilliancy	3222 Jul 24 18:59	11° \approx 21'30	-4.5m		3225 Jan 20 06:41	0° \approx	
retrograde	3222 Aug 07 04:52	14° \approx 30'29					
evening set	3222 Aug 24 10:09	8° \approx 54'58		superior conj	3225 Jan 21 08:51	1° \approx 22'17	0°-48'-6
inferior conj	3222 Aug 28 15:42	6° \approx 19'57	-7°-59'-15	minimum elong	3225 Jan 20 21:51	0° \approx 47'41	0°47'39
minimum elong	3222 Aug 28 08:37	6° \approx 30'59	7°58'29	max. Earth dist.	3225 Jan 22 03:55	2° \approx 22'16	1.71098 AU
min. Earth dist.	3222 Aug 28 19:22	6° \approx 14'14	0.28979 AU		3225 Feb 13 03:09	0° \approx	
morning rise	3222 Sep 01 06:58	4° \approx 05'42		evening rise	3225 Mar 03 12:19	23° \approx 03'48	
	3222 Sep 09 07:53	30° \approx 00'07			3225 Mar 09 01:18	0° \approx	
direct	3222 Sep 19 05:43	28° \approx 02'25			3225 Apr 02 03:08	0° \approx	
	3222 Sep 29 14:24	0° \approx		asc. node	3225 Apr 23 07:21	26° \approx 08'51	
greatest brilliancy	3222 Oct 03 16:14	1° \approx 42'30	-4.5m		3225 Apr 26 10:40	0° \approx	
asc. node	3222 Nov 06 12:06	28° \approx 01'25			3225 May 21 01:52	0° \approx	
morning max el	3222 Nov 08 01:03	29° \approx 32'35	46°20'36		3225 Jun 15 03:31	0° \approx	
	3222 Nov 08 12:05	0° \approx			3225 Jul 10 21:07	0° \approx	
	3222 Dec 06 09:30	0° \approx			3225 Aug 06 19:51	0° \approx	
	3223 Jan 01 01:17	0° \approx		desc. node	3225 Aug 12 21:03	6° \approx 25'46	
	3223 Jan 25 19:54	0° \approx		evening max el	3225 Aug 30 05:12	23° \approx 54'19	45°50'15
	3223 Feb 19 05:19	0° \approx			3225 Sep 05 18:09	0° \approx	
desc. node	3223 Feb 26 02:05	8° \approx 29'15		greatest brilliancy	3225 Oct 07 09:05	21° \approx 49'28	-4.5m
	3223 Mar 15 10:58	0° \approx		retrograde	3225 Oct 18 03:25	23° \approx 54'22	
	3223 Apr 08 15:44	0° \approx		evening set	3225 Nov 03 08:17	18° \approx 55'29	
	3223 May 02 21:22	0° \approx		inferior conj	3225 Nov 08 00:28	16° \approx 07'53	-5°-59'-41
morning set	3223 May 14 06:28	14° \approx 03'13		minimum elong	3225 Nov 08 10:51	15° \approx 51'56	5°57'18
	3223 May 27 04:43	0° \approx		min. Earth dist.	3225 Nov 08 22:49	15° \approx 33'34	0.27401 AU
asc. node	3223 Jun 19 05:05	28° \approx 19'58		morning rise	3225 Nov 13 12:50	12° \approx 50'50	

direct	3225 Nov 28 23:13	8° ℓ 12'00			3228 Apr 16 17:02	0° ℔	
asc. node	3225 Dec 03 23:58	8° ℓ 41'43			3228 May 10 21:55	0° ℓ	
greatest brilliancy	3225 Dec 12 19:45	11° ℓ 42'56	-4.6m	evening rise	3228 May 16 13:38	6° ℓ 58'49	
	3226 Jan 06 19:04	0° ♊		asc. node	3228 May 20 19:17	12° ℓ 12'05	
morning max el	3226 Jan 18 15:35	11° ♊ 30'45	46°56'35		3228 Jun 04 06:38	0° ♊	
	3226 Feb 05 00:02	0° ♋			3228 Jun 28 19:25	0° ♌	
	3226 Mar 03 06:07	0° ♍			3228 Jul 23 13:01	0° ♍	
desc. node	3226 Mar 25 13:52	26° ♍ 27'59			3228 Aug 17 13:27	0° ♎	
	3226 Mar 28 12:39	0° ♏		desc. node	3228 Sep 09 08:49	26° ♎ 54'31	
	3226 Apr 22 09:29	0° ♐			3228 Sep 12 00:27	0° ♏	
	3226 May 17 02:21	0° ♑			3228 Oct 08 05:01	0° ♐	
	3226 Jun 10 17:39	0° ♒			3228 Nov 04 22:22	0° ♑	
	3226 Jul 05 07:39	0° ♓		evening max el	3228 Nov 11 04:41	6° ♑ 20'07	46°53'45
asc. node	3226 Jul 16 16:54	13° ♓ 55'42			3228 Dec 08 11:53	0° ♒	
morning set	3226 Jul 21 19:38	20° ♓ 11'38		greatest brilliancy	3228 Dec 19 22:52	6° ♒ 24'56	-4.7m
	3226 Jul 29 19:32	0° ♐		asc. node	3228 Dec 31 11:53	8° ♒ 58'23	
	3226 Aug 23 04:35	0° ♑		retrograde	3228 Dec 31 14:56	8° ♒ 58'24	
max. Earth dist.	3226 Aug 24 14:03	1° ♑ 43'13	1.73225 AU	evening set	3229 Jan 15 09:58	4° ♒ 37'52	
				min. Earth dist.	3229 Jan 20 15:44	1° ♒ 33'36	0.26591 AU
superior conj	3226 Aug 27 06:02	5° ♑ 00'38	1°18'13	inferior conj	3229 Jan 21 04:46	1° ♒ 13'41	5°05'06
minimum elong	3226 Aug 26 23:32	4° ♑ 40'33	1°18'05	minimum elong	3229 Jan 20 18:52	1° ♒ 28'48	5°02'26
	3226 Sep 16 11:04	0° ♒			3229 Jan 23 05:13	30° ♒	
evening rise	3226 Oct 02 17:05	20° ♒ 08'09		morning rise	3229 Jan 26 03:56	28° ♒ 16'46	
	3226 Oct 10 15:59	0° ♓		direct	3229 Feb 10 13:44	23° ♒ 34'31	
	3226 Nov 03 20:25	0° ♊		greatest brilliancy	3229 Feb 21 22:57	25° ♒ 59'41	-4.7m
desc. node	3226 Nov 05 06:44	1° ♊ 46'25			3229 Mar 01 19:53	0° ♓	
	3226 Nov 28 01:03	0° ♋		morning max el	3229 Apr 01 17:48	25° ♓ 55'01	46°40'47
	3226 Dec 22 06:44	0° ♌			3229 Apr 05 19:08	0° ♏	
	3227 Jan 15 15:51	0° ♍		desc. node	3229 Apr 22 01:47	17° ♏ 12'58	
	3227 Feb 09 09:55	0° ♎			3229 May 03 15:11	0° ♐	
asc. node	3227 Feb 26 09:28	20° ♎ 04'04			3229 May 29 20:12	0° ♑	
	3227 Mar 07 00:13	0° ♏			3229 Jun 24 09:11	0° ♒	
	3227 Apr 03 14:06	0° ♐			3229 Jul 19 13:05	0° ♓	
evening max el	3227 Apr 07 14:58	4° ♐ 03'27	46°13'40	asc. node	3229 Aug 13 04:41	29° ♓ 45'02	
	3227 May 09 08:38	0° ♑			3229 Aug 13 09:36	0° ♐	
greatest brilliancy	3227 May 12 13:13	1° ♑ 40'39	-4.5m		3229 Sep 06 23:03	0° ♑	
retrograde	3227 May 27 04:34	5° ♑ 29'06		morning set	3229 Sep 28 02:30	26° ♑ 05'15	
evening set	3227 Jun 11 07:24	1° ♑ 02'55			3229 Oct 01 06:16	0° ♒	
	3227 Jun 13 03:32	30° ♒			3229 Oct 25 08:57	0° ♓	
inferior conj	3227 Jun 17 15:02	27° ♒ 14'40	0°04'57	max. Earth dist.	3229 Nov 01 20:25	9° ♓ 20'07	1.71928 AU
minimum elong	3227 Jun 17 15:13	27° ♒ 14'23	0°04'53				
transit middle	3227 Jun 17 15:13	27° ♒ 14'23	0°04'53	superior conj	3229 Nov 04 13:30	12° ♓ 43'24	1°00'50
transit begin	3227 Jun 17 11:21	27° ♒ 20'27		minimum elong	3229 Nov 04 23:42	13° ♓ 15'17	1°00'28
transit end	3227 Jun 17 19:05	27° ♒ 08'18			3229 Nov 18 08:59	0° ♊	
min. Earth dist.	3227 Jun 17 11:15	27° ♒ 20'38	0.28739 AU	desc. node	3229 Dec 02 18:40	18° ♊ 02'11	
desc. node	3227 Jun 17 23:20	27° ♒ 01'38			3229 Dec 12 07:44	0° ♋	
morning rise	3227 Jun 23 23:18	23° ♒ 25'39		evening rise	3229 Dec 14 08:24	2° ♋ 32'31	
direct	3227 Jul 09 02:06	19° ♒ 01'49			3230 Jan 05 06:04	0° ♌	
greatest brilliancy	3227 Jul 22 01:47	21° ♒ 58'35	-4.5m		3230 Jan 29 05:10	0° ♍	
	3227 Aug 04 19:22	0° ♓			3230 Feb 22 07:21	0° ♎	
morning max el	3227 Aug 26 18:09	18° ♓ 38'40	45°44'40		3230 Mar 18 16:21	0° ♏	
	3227 Sep 07 04:47	0° ♐		asc. node	3230 Mar 25 21:28	8° ♏ 46'23	
	3227 Oct 04 20:32	0° ♑			3230 Apr 12 13:27	0° ♒	
asc. node	3227 Oct 09 02:23	4° ♑ 49'50			3230 May 08 07:09	0° ♓	
	3227 Oct 30 15:16	0° ♒			3230 Jun 04 17:10	0° ♐	
	3227 Nov 24 11:05	0° ♓		evening max el	3230 Jun 17 04:42	12° ♐ 31'23	45°28'43
	3227 Dec 18 18:32	0° ♊			3230 Jul 07 08:23	0° ♑	
	3228 Jan 11 19:46	0° ♋		desc. node	3230 Jul 15 11:16	5° ♑ 31'01	
desc. node	3228 Jan 28 16:12	21° ♋ 06'27		greatest brilliancy	3230 Jul 22 08:39	9° ♑ 08'39	-4.5m
	3228 Feb 04 18:23	0° ♌		retrograde	3230 Aug 04 20:58	12° ♑ 19'39	
morning set	3228 Feb 27 03:49	28° ♌ 05'10		evening set	3230 Aug 21 22:53	6° ♑ 48'37	
	3228 Feb 28 16:27	0° ♍		inferior conj	3230 Aug 26 07:36	4° ♑ 08'36	-7°-51'-6
	3228 Mar 23 15:33	0° ♎		minimum elong	3230 Aug 26 00:01	4° ♑ 20'25	7°50'13
				min. Earth dist.	3230 Aug 26 09:57	4° ♑ 04'57	0.28999 AU
superior conj	3228 Apr 07 12:34	18° ♎ 34'02	-1°-20'-37	morning rise	3230 Aug 30 01:05	1° ♑ 51'01	
minimum elong	3228 Apr 07 20:02	18° ♎ 57'19	1°20'30		3230 Sep 02 07:14	30° ♒	
max. Earth dist.	3228 Apr 11 12:48	23° ♎ 33'40	1.72138 AU	direct	3230 Sep 16 22:28	25° ♒ 51'07	

greatest brilliancy	3230 Oct 01 06:57	29°Ω29'12	-4.5m		3233 Apr 01 14:20	0°⋈	
	3230 Oct 02 08:17	0°♊		asc. node	3233 Apr 22 09:29	25°⋈40'43	
morning max el	3230 Nov 05 16:37	27°♊17'26	46°18'54		3233 Apr 25 22:00	0°♊	
asc. node	3230 Nov 05 14:16	27°♊11'37			3233 May 20 13:33	0°♊	
	3230 Nov 08 09:35	0°♊			3233 Jun 14 15:54	0°♊	
	3230 Dec 06 01:16	0°♊			3233 Jul 10 10:56	0°♊	
	3230 Dec 31 15:01	0°♊			3233 Aug 06 12:52	0°♊	
	3231 Jan 25 08:37	0°♊		desc. node	3233 Aug 11 22:59	5°♊43'24	
	3231 Feb 18 17:25	0°♊		evening max el	3233 Aug 27 17:59	21°♊34'20	45°48'15
desc. node	3231 Feb 25 03:59	7°♊58'10			3233 Sep 05 21:39	0°♊	
	3231 Mar 14 22:37	0°♊		greatest brilliancy	3233 Oct 04 22:18	19°♊29'13	-4.5m
	3231 Apr 08 03:02	0°♊		retrograde	3233 Oct 15 15:54	21°♊33'48	
	3231 May 02 08:26	0°♊		evening set	3233 Nov 01 00:47	16°♊30'01	
morning set	3231 May 11 22:29	11°♊50'36		inferior conj	3233 Nov 05 14:04	13°♊46'37	-6°-15'-37
	3231 May 26 15:38	0°♊		minimum elong	3233 Nov 06 00:29	13°♊30'36	6°13'20
				min. Earth dist.	3233 Nov 06 13:13	13°♊11'03	0.27471 AU
superior conj	3231 Jun 18 10:31	28°♊03'19	0°00'21	morning rise	3233 Nov 10 23:33	10°♊33'17	
minimum elong	3231 Jun 18 10:27	28°♊03'08	0°00'21	direct	3233 Nov 26 12:49	5°♊49'25	
behind sun begin	3231 Jun 17 11:36	26°♊52'50		asc. node	3233 Dec 03 01:57	6°♊39'01	
behind sun end	3231 Jun 19 09:18	29°♊13'26		greatest brilliancy	3233 Dec 10 12:25	9°♊23'03	-4.6m
asc. node	3231 Jun 18 07:05	27°♊52'44			3234 Jan 06 22:54	0°♊	
max. Earth dist.	3231 Jun 19 10:56	29°♊18'27	1.73419 AU	morning max el	3234 Jan 16 04:46	9°♊04'42	46°56'09
	3231 Jun 20 00:27	0°♊			3234 Feb 04 17:47	0°♊	
	3231 Jul 14 10:08	0°♊			3234 Mar 02 20:43	0°♊	
evening rise	3231 Jul 24 19:48	12°♊47'03		desc. node	3234 Mar 24 16:00	25°♊54'43	
	3231 Aug 07 20:14	0°♊			3234 Mar 28 01:44	0°♊	
	3231 Sep 01 07:15	0°♊			3234 Apr 21 21:40	0°♊	
	3231 Sep 25 20:21	0°♊			3234 May 16 13:56	0°♊	
desc. node	3231 Oct 07 20:52	14°♊38'02			3234 Jun 10 04:48	0°♊	
	3231 Oct 20 12:47	0°♊			3234 Jul 04 18:29	0°♊	
	3231 Nov 14 10:06	0°♊		asc. node	3234 Jul 15 18:53	13°♊28'49	
	3231 Dec 09 16:18	0°♊		morning set	3234 Jul 19 13:42	18°♊07'01	
	3232 Jan 04 19:50	0°♊			3234 Jul 29 06:12	0°♊	
evening max el	3232 Jan 23 18:35	20°♊17'16	47°11'07	max. Earth dist.	3234 Aug 22 10:30	29°♊45'24	1.73261 AU
asc. node	3232 Jan 28 23:42	25°♊30'02			3234 Aug 22 15:14	0°♊	
	3232 Feb 02 16:18	0°♊					
greatest brilliancy	3232 Mar 01 05:48	20°♊27'29	-4.6m	superior conj	3234 Aug 25 00:25	2°♊56'23	1°16'55
retrograde	3232 Mar 14 13:48	23°♊43'59		minimum elong	3234 Aug 24 17:28	2°♊34'57	1°16'47
evening set	3232 Apr 01 08:27	17°♊35'33			3234 Sep 15 21:48	0°♊	
min. Earth dist.	3232 Apr 04 04:24	15°♊50'04	0.27848 AU	evening rise	3234 Sep 30 09:42	17°♊57'22	
inferior conj	3232 Apr 04 12:45	15°♊36'57	8°24'55		3234 Oct 10 02:54	0°♊	
minimum elong	3232 Apr 04 19:08	15°♊26'57	8°24'18		3234 Nov 03 07:35	0°♊	
morning rise	3232 Apr 08 06:05	13°♊19'29		desc. node	3234 Nov 04 08:51	1°♊18'17	
direct	3232 Apr 25 10:52	7°♊39'14			3234 Nov 27 12:32	0°♊	
greatest brilliancy	3232 May 06 14:24	9°♊56'16	-4.5m		3234 Dec 21 18:37	0°♊	
desc. node	3232 May 19 13:29	17°♊03'21			3235 Jan 15 04:19	0°♊	
	3232 Jun 04 17:58	0°♊			3235 Feb 08 23:21	0°♊	
morning max el	3232 Jun 13 15:39	8°♊17'22	45°56'32	asc. node	3235 Feb 25 11:32	19°♊27'58	
	3232 Jul 04 21:58	0°♊			3235 Mar 06 15:35	0°♊	
	3232 Aug 01 01:42	0°♊			3235 Apr 03 10:46	0°♊	
	3232 Aug 26 23:53	0°♊		evening max el	3235 Apr 05 05:17	1°♊46'09	46°16'02
asc. node	3232 Sep 09 16:33	16°♊14'15		greatest brilliancy	3235 May 10 05:05	29°♊29'26	-4.5m
	3232 Sep 21 03:40	0°♊			3235 May 11 06:56	0°♊	
	3232 Oct 15 18:15	0°♊		retrograde	3235 May 24 21:08	3°♊19'22	
	3232 Nov 08 23:49	0°♊			3235 Jun 06 20:11	30°♊	
	3232 Dec 03 00:00	0°♊		evening set	3235 Jun 09 00:33	28°♊51'36	
morning set	3232 Dec 08 18:30	7°♊14'17		inferior conj	3235 Jun 15 07:18	25°♊04'55	0°25'07
	3232 Dec 26 21:27	0°♊		minimum elong	3235 Jun 15 08:14	25°♊03'28	0°24'51
desc. node	3232 Dec 30 06:22	4°♊14'24		min. Earth dist.	3235 Jun 15 03:52	25°♊10'19	0.28715 AU
				desc. node	3235 Jun 17 01:20	23°♊59'11	
superior conj	3233 Jan 18 18:43	28°♊47'28	0°-44'-42	morning rise	3235 Jun 21 16:09	21°♊15'17	
minimum elong	3233 Jan 18 08:14	28°♊14'29	0°44'16	direct	3235 Jul 06 17:32	16°♊52'13	
max. Earth dist.	3233 Jan 19 06:48	29°♊25'30	1.71095 AU	greatest brilliancy	3235 Jul 19 17:46	19°♊49'33	-4.5m
	3233 Jan 19 17:46	0°♊			3235 Aug 05 09:25	0°♊	
	3233 Feb 12 14:15	0°♊		morning max el	3235 Aug 24 10:06	16°♊29'20	45°44'20
evening rise	3233 Feb 28 22:44	20°♊31'14			3235 Sep 06 23:04	0°♊	
	3233 Mar 08 12:26	0°♊			3235 Oct 04 10:46	0°♊	

asc. node	3235 Oct 08 04:33	4° \cap 16'19		3238 May 07 21:27	0° \ominus	
	3235 Oct 30 03:55	0° $\underline{\cap}$		3238 Jun 04 11:35	0° Ω	
	3235 Nov 23 22:59	0° \cap	evening max el	3238 Jun 14 21:07	10° Ω 22'33	45°29'19
	3235 Dec 18 06:03	0° z		3238 Jul 07 23:47	0° \cap	
	3236 Jan 11 07:03	0° $\overline{\cap}$	desc. node	3238 Jul 14 13:15	4° \cap 12'04	
desc. node	3236 Jan 27 18:13	20° $\overline{\cap}$ 37'41	greatest brilliancy	3238 Jul 19 23:25	6° \cap 58'32	-4.5m
	3236 Feb 04 05:30	0° \approx	retrograde	3238 Aug 02 12:53	10° \cap 10'31	
morning set	3236 Feb 24 13:50	25° \approx 31'32	evening set	3238 Aug 19 11:51	4° \cap 44'13	
	3236 Feb 28 03:27	0° X	inferior conj	3238 Aug 23 23:44	1° \cap 59'11	-7°-42'-26
	3236 Mar 23 02:25	0° Υ	minimum elong	3238 Aug 23 15:41	2° \cap 11'46	7°41'25
			min. Earth dist.	3238 Aug 24 01:05	1° \cap 57'05	0.29012 AU
superior conj	3236 Apr 05 01:21	16° Υ 10'37		3238 Aug 27 04:49	30° $\text{R}\Omega$	
minimum elong	3236 Apr 05 08:09	16° Υ 31'49	morning rise	3238 Aug 27 19:28	29° Ω 37'59	
max. Earth dist.	3236 Apr 08 23:48	21° Υ 04'53	direct	3238 Sep 14 15:08	23° Ω 41'49	
	3236 Apr 16 03:48	0° X	greatest brilliancy	3238 Sep 28 20:59	27° Ω 16'38	-4.5m
	3236 May 10 08:40	0° \cap		3238 Oct 03 23:39	0° \cap	
evening rise	3236 May 14 04:53	4° \cap 44'38	morning max el	3238 Nov 03 07:33	25° \cap 02'16	46°17'19
asc. node	3236 May 19 21:19	11° \cap 45'08	asc. node	3238 Nov 04 16:11	26° \cap 23'27	
	3236 Jun 03 17:28	0° \ominus		3238 Nov 08 05:46	0° $\underline{\cap}$	
	3236 Jun 28 06:27	0° Ω		3238 Dec 05 16:19	0° \cap	
	3236 Jul 23 00:26	0° \cap		3238 Dec 31 04:11	0° z	
	3236 Aug 17 01:33	0° $\underline{\cap}$		3239 Jan 24 20:52	0° $\overline{\cap}$	
desc. node	3236 Sep 08 10:59	26° $\underline{\cap}$ 22'33		3239 Feb 18 05:07	0° \approx	
	3236 Sep 11 13:45	0° \cap	desc. node	3239 Feb 24 06:08	7° \approx 28'53	
	3236 Oct 07 20:39	0° z		3239 Mar 14 09:57	0° X	
	3236 Nov 04 19:40	0° $\overline{\cap}$		3239 Apr 07 14:05	0° Υ	
evening max el	3236 Nov 08 18:42	3° $\overline{\cap}$ 58'22		3239 May 01 19:16	0° X	
	3236 Dec 09 19:48	0° \approx	morning set	3239 May 09 14:00	9° X 37'05	
greatest brilliancy	3236 Dec 17 11:27	3° \approx 56'21		3239 May 26 02:19	0° \cap	
retrograde	3236 Dec 29 03:56	6° \approx 29'39				
asc. node	3236 Dec 30 13:51	6° \approx 27'12	superior conj	3239 Jun 16 03:34	25° \cap 55'35	0°-2'-57
evening set	3237 Jan 12 19:50	2° \approx 12'31	minimum elong	3239 Jun 16 04:11	25° \cap 57'30	0°02'57
	3237 Jan 16 15:46	30° $\text{R}\overline{\cap}$	behind sun begin	3239 Jun 15 05:30	24° \cap 47'41	
min. Earth dist.	3237 Jan 18 04:35	29° $\overline{\cap}$ 04'11	behind sun end	3239 Jun 17 02:52	27° \cap 07'17	
inferior conj	3237 Jan 18 16:58	28° $\overline{\cap}$ 45'18	asc. node	3239 Jun 17 09:03	27° \cap 26'19	
minimum elong	3237 Jan 18 07:28	28° $\overline{\cap}$ 59'46	max. Earth dist.	3239 Jun 17 08:41	27° \cap 25'10	1.73391 AU
morning rise	3237 Jan 23 19:20	25° $\overline{\cap}$ 44'21		3239 Jun 19 11:01	0° \ominus	
direct	3237 Feb 08 02:29	21° $\overline{\cap}$ 06'20		3239 Jul 13 20:41	0° Ω	
greatest brilliancy	3237 Feb 19 12:28	23° $\overline{\cap}$ 33'01	evening rise	3239 Jul 22 14:23	10° Ω 44'06	
	3237 Mar 03 03:39	0° \approx		3239 Aug 07 06:55	0° \cap	
morning max el	3237 Mar 30 07:57	23° \approx 33'30		3239 Aug 31 18:12	0° $\underline{\cap}$	
	3237 Apr 05 16:20	0° X		3239 Sep 25 07:44	0° \cap	
desc. node	3237 Apr 21 03:51	16° X 31'11	desc. node	3239 Oct 06 22:57	14° \cap 09'05	
	3237 May 03 06:49	0° Υ		3239 Oct 20 00:46	0° z	
	3237 May 29 09:33	0° X		3239 Nov 13 22:57	0° $\overline{\cap}$	
	3237 Jun 23 21:19	0° \cap		3239 Dec 09 06:37	0° \approx	
	3237 Jul 19 00:30	0° \ominus		3240 Jan 04 13:12	0° X	
asc. node	3237 Aug 12 06:45	29° \ominus 17'57	evening max el	3240 Jan 21 08:45	17° X 55'11	47°11'47
	3237 Aug 12 20:35	0° Ω	asc. node	3240 Jan 28 01:45	24° X 35'31	
	3237 Sep 06 09:47	0° \cap		3240 Feb 02 19:43	0° Υ	
morning set	3237 Sep 25 19:27	23° \cap 56'14	greatest brilliancy	3240 Feb 27 23:21	18° Υ 11'01	-4.6m
	3237 Sep 30 16:53	0° $\underline{\cap}$	retrograde	3240 Mar 12 04:13	21° Υ 24'06	
	3237 Oct 24 19:34	0° \cap	evening set	3240 Mar 30 01:06	15° Υ 13'13	
max. Earth dist.	3237 Oct 30 10:17	7° \cap 00'16	inferior conj	3240 Apr 02 03:13	13° Υ 17'50	8°31'58
			minimum elong	3240 Apr 02 08:53	13° Υ 08'56	8°31'29
superior conj	3237 Nov 02 04:17	10° \cap 26'21	min. Earth dist.	3240 Apr 01 18:23	13° Υ 31'43	0.27809 AU
minimum elong	3237 Nov 02 14:22	10° \cap 57'52	morning rise	3240 Apr 05 16:53	11° Υ 05'37	
	3237 Nov 17 19:42	0° z	direct	3240 Apr 23 00:37	5° Υ 20'55	
desc. node	3237 Dec 01 20:39	17° z 34'35	greatest brilliancy	3240 May 04 03:01	7° Υ 36'23	-4.6m
evening rise	3237 Dec 11 20:21	0° $\overline{\cap}$ 05'29	desc. node	3240 May 18 15:27	15° Υ 48'14	
	3237 Dec 11 18:36	0° $\overline{\cap}$		3240 Jun 04 20:35	0° X	
	3238 Jan 04 17:06	0° \approx	morning max el	3240 Jun 11 05:12	5° X 59'22	45°57'45
	3238 Jan 28 16:22	0° X		3240 Jul 04 14:46	0° \cap	
	3238 Feb 21 18:48	0° Υ		3240 Jul 31 15:24	0° \ominus	
	3238 Mar 18 04:14	0° X		3240 Aug 26 12:07	0° Ω	
asc. node	3238 Mar 24 23:35	8° X 16'17	asc. node	3240 Sep 08 18:41	15° Ω 45'25	
	3238 Apr 12 02:08	0° \cap		3240 Sep 20 15:09	0° \cap	

	3240 Oct 15 05:21	0°♊		retrograde	3243 May 22 13:59	1°♊09'16	
	3240 Nov 08 10:45	0°♋			3243 May 30 03:05	30°♋II	
	3240 Dec 02 10:52	0°♌		evening set	3243 Jun 06 17:47	26°♌II39'43	
morning set	3240 Dec 06 06:59	4°♌48'50		inferior conj	3243 Jun 12 23:27	22°♌II54'37	0°45'20
	3240 Dec 26 08:17	0°♍		minimum elong	3243 Jun 13 01:07	22°♌II52'00	0°44'50
desc. node	3240 Dec 29 08:25	3°♍46'47		min. Earth dist.	3243 Jun 12 20:05	22°♌II59'54	0.28695 AU
				desc. node	3243 Jun 16 03:21	20°♌II56'58	
superior conj	3241 Jan 16 05:03	26°♍15'01	0°-41'-15	morning rise	3243 Jun 19 08:46	19°♌II04'43	
minimum elong	3241 Jan 15 19:09	25°♍43'52	0°40'49	direct	3243 Jul 04 09:23	14°♌II42'04	
max. Earth dist.	3241 Jan 16 09:34	26°♍29'14	1.71094 AU	greatest brilliancy	3243 Jul 17 09:12	17°♌II39'27	-4.5m
	3241 Jan 19 04:35	0°♎			3243 Aug 05 20:05	0°♏	
	3241 Feb 12 01:04	0°♏		morning max el	3243 Aug 22 02:52	14°♏21'31	45°43'56
evening rise	3241 Feb 26 09:30	18°♏00'34			3243 Sep 06 17:07	0°♐	
	3241 Mar 07 23:18	0°♑			3243 Oct 04 01:02	0°♑	
	3241 Apr 01 01:18	0°♒		asc. node	3243 Oct 07 06:30	3°♑41'48	
asc. node	3241 Apr 21 11:26	25°♒12'31			3243 Oct 29 16:38	0°♓	
	3241 Apr 25 09:11	0°♓			3243 Nov 23 10:56	0°♋	
	3241 May 20 01:08	0°♏			3243 Dec 17 17:36	0°♌	
	3241 Jun 14 04:14	0°♐			3244 Jan 10 18:23	0°♍	
	3241 Jul 10 00:46	0°♑		desc. node	3244 Jan 26 20:17	20°♍08'54	
	3241 Aug 06 06:06	0°♒			3244 Feb 03 16:43	0°♎	
desc. node	3241 Aug 11 01:09	5°♒01'29		morning set	3244 Feb 21 23:53	22°♎57'41	
evening max el	3241 Aug 25 06:46	19°♒15'02	45°46'35		3244 Feb 27 14:33	0°♏	
	3241 Sep 06 02:43	0°♓			3244 Mar 22 13:24	0°♑	
greatest brilliancy	3241 Oct 02 10:36	17°♓09'05	-4.5m				
retrograde	3241 Oct 13 04:57	19°♓14'41		superior conj	3244 Apr 02 14:07	13°♑46'40	-1°-23'-2
evening set	3241 Oct 29 17:26	14°♓05'36		minimum elong	3244 Apr 02 20:11	14°♑05'35	1°22'58
inferior conj	3241 Nov 03 03:50	11°♓26'31	-6°-30'-44	max. Earth dist.	3244 Apr 06 11:52	18°♑38'57	1.72028 AU
minimum elong	3241 Nov 03 14:13	11°♓10'34	6°28'35		3244 Apr 15 14:42	0°♒	
min. Earth dist.	3241 Nov 04 03:31	10°♓50'09	0.27541 AU		3244 May 09 19:32	0°♓	
morning rise	3241 Nov 08 10:21	8°♓17'19		evening rise	3244 May 11 20:11	2°♓30'13	
direct	3241 Nov 24 02:51	3°♓27'53		asc. node	3244 May 18 23:18	11°♓17'45	
asc. node	3241 Dec 02 04:00	4°♓42'03			3244 Jun 03 04:25	0°♏	
greatest brilliancy	3241 Dec 08 05:37	7°♓04'59	-4.6m		3244 Jun 27 17:38	0°♐	
	3242 Jan 07 00:53	0°♌			3244 Jul 22 12:04	0°♑	
morning max el	3242 Jan 13 19:12	6°♌42'32	46°55'44		3244 Aug 16 13:56	0°♒	
	3242 Feb 04 10:55	0°♍		desc. node	3244 Sep 07 12:59	25°♒49'06	
	3242 Mar 02 10:56	0°♎			3244 Sep 11 03:27	0°♓	
desc. node	3242 Mar 23 18:03	25°♎22'00			3244 Oct 07 12:52	0°♌	
	3242 Mar 27 14:32	0°♏			3244 Nov 04 18:06	0°♍	
	3242 Apr 21 09:38	0°♑		evening max el	3244 Nov 06 09:25	1°♍37'45	46°49'49
	3242 May 16 01:21	0°♒			3244 Dec 11 19:22	0°♎	
	3242 Jun 09 15:51	0°♓		greatest brilliancy	3244 Dec 15 00:34	1°♎28'03	-4.7m
	3242 Jul 04 05:18	0°♏		retrograde	3244 Dec 26 16:51	4°♎00'15	
asc. node	3242 Jul 14 20:59	13°♏02'19		asc. node	3244 Dec 29 15:57	3°♎49'25	
morning set	3242 Jul 17 07:30	16°♏01'34			3245 Jan 09 20:00	30°♒♍	
	3242 Jul 28 16:52	0°♐		evening set	3245 Jan 10 06:04	29°♒46'31	
max. Earth dist.	3242 Aug 20 07:41	27°♐49'52	1.73291 AU	min. Earth dist.	3245 Jan 15 17:33	26°♒34'09	0.26551 AU
	3242 Aug 22 01:53	0°♑		inferior conj	3245 Jan 16 05:11	26°♒16'23	4°23'16
				minimum elong	3245 Jan 15 20:12	26°♒30'06	4°20'41
superior conj	3242 Aug 22 18:29	0°♑51'12	1°15'30	morning rise	3245 Jan 21 10:36	23°♒11'25	
minimum elong	3242 Aug 22 11:09	0°♑28'35	1°15'20	direct	3245 Feb 05 15:21	18°♒37'50	
	3242 Sep 15 08:31	0°♒		greatest brilliancy	3245 Feb 17 01:21	21°♒04'56	-4.7m
evening rise	3242 Sep 28 02:13	15°♒46'27			3245 Mar 04 02:51	0°♓	
	3242 Oct 09 13:47	0°♓		morning max el	3245 Mar 27 21:44	21°♓10'18	46°43'29
	3242 Nov 02 18:43	0°♌			3245 Apr 05 13:03	0°♏	
desc. node	3242 Nov 03 10:46	0°♌49'40		desc. node	3245 Apr 20 05:46	15°♏48'43	
	3242 Nov 27 00:00	0°♍			3245 May 02 22:27	0°♑	
	3242 Dec 21 06:32	0°♎			3245 May 28 23:01	0°♒	
	3243 Jan 14 16:50	0°♏			3245 Jun 23 09:38	0°♓	
	3243 Feb 08 12:51	0°♑			3245 Jul 18 12:07	0°♏	
asc. node	3243 Feb 24 13:41	18°♑51'54		asc. node	3245 Aug 11 08:50	28°♏50'12	
	3243 Mar 06 07:07	0°♒			3245 Aug 12 07:48	0°♐	
evening max el	3243 Apr 02 20:23	29°♒30'55	46°18'23		3245 Sep 05 20:48	0°♑	
	3243 Apr 03 08:07	0°♓		morning set	3245 Sep 23 12:09	21°♑45'32	
greatest brilliancy	3243 May 07 20:34	27°♓17'41	-4.5m		3245 Sep 30 03:50	0°♒	
	3243 May 14 18:32	0°♏			3245 Oct 24 06:32	0°♓	

max. Earth dist.	3245 Oct 27 21:03	4° \mathbb{M} 29'47	1.72020 AU	inferior conj	3248 Mar 30 17:33	10° Υ 56'59	8°38'13
				minimum elong	3248 Mar 30 22:28	10° Υ 49'16	8°37'51
superior conj	3245 Oct 30 18:52	8° \mathbb{M} 07'40	1°05'33	min. Earth dist.	3248 Mar 30 08:25	11° Υ 11'20	0.27766 AU
minimum elong	3245 Oct 31 04:47	8° \mathbb{M} 38'38	1°05'15	morning rise	3248 Apr 03 03:44	8° Υ 49'53	
	3245 Nov 17 06:46	0° \mathcal{Z}		direct	3248 Apr 20 13:45	3° Υ 00'42	
desc. node	3245 Nov 30 22:42	17° \mathcal{Z} 06'09		greatest brilliancy	3248 May 01 16:15	5° Υ 15'45	-4.6m
evening rise	3245 Dec 09 07:57	27° \mathcal{Z} 36'23		desc. node	3248 May 17 17:34	14° Υ 34'20	
	3245 Dec 11 05:48	0° \mathcal{Z}			3248 Jun 04 22:16	0° \mathcal{B}	
	3246 Jan 04 04:26	0° \approx		morning max el	3248 Jun 08 18:44	3° \mathcal{B} 40'06	45°59'03
	3246 Jan 28 03:53	0° \mathcal{H}			3248 Jul 04 07:38	0° \mathbb{I}	
	3246 Feb 21 06:36	0° Υ			3248 Jul 31 05:19	0° \mathcal{E}	
	3246 Mar 17 16:29	0° \mathcal{B}			3248 Aug 26 00:39	0° \mathcal{Q}	
asc. node	3246 Mar 24 01:30	7° \mathcal{B} 44'34		asc. node	3248 Sep 07 20:37	15° \mathcal{Q} 15'02	
	3246 Apr 11 15:13	0° \mathbb{I}			3248 Sep 20 02:56	0° \mathbb{M}	
	3246 May 07 12:16	0° \mathcal{E}			3248 Oct 14 16:46	0° \mathcal{A}	
	3246 Jun 04 06:53	0° \mathcal{Q}			3248 Nov 07 21:59	0° \mathbb{M}	
evening max el	3246 Jun 12 12:55	8° \mathcal{Q} 11'12	45°29'59		3248 Dec 01 22:04	0° \mathcal{Z}	
	3246 Jul 08 21:13	0° \mathbb{M}		morning set	3248 Dec 03 19:32	2° \mathcal{Z} 22'31	
desc. node	3246 Jul 13 15:23	2° \mathbb{M} 49'51			3248 Dec 25 19:29	0° \mathcal{Z}	
greatest brilliancy	3246 Jul 17 14:14	4° \mathbb{M} 47'29	-4.5m	desc. node	3248 Dec 28 10:33	3° \mathcal{Z} 18'16	
retrograde	3246 Jul 31 04:20	8° \mathbb{M} 00'34					
evening set	3246 Aug 17 00:48	2° \mathbb{M} 38'58		superior conj	3249 Jan 13 15:01	23° \mathcal{Z} 40'03	0°-37'-40
	3246 Aug 21 08:55	30° \mathcal{R} \mathcal{Q}		minimum elong	3249 Jan 13 05:46	23° \mathcal{Z} 11'00	0°37'15
inferior conj	3246 Aug 21 15:54	29° \mathcal{Q} 49'03	-7°-33'-10	max. Earth dist.	3249 Jan 13 13:25	23° \mathcal{Z} 35'03	1.71101 AU
minimum elong	3246 Aug 21 07:26	0° \mathbb{M} 02'19	7°31'59		3249 Jan 18 15:48	0° \approx	
min. Earth dist.	3246 Aug 21 16:36	29° \mathcal{Q} 47'58	0.29026 AU		3249 Feb 11 12:19	0° \mathcal{H}	
morning rise	3246 Aug 25 13:59	27° \mathcal{Q} 24'03		evening rise	3249 Feb 23 19:45	15° \mathcal{H} 26'59	
direct	3246 Sep 12 07:20	21° \mathcal{Q} 31'41			3249 Mar 07 10:35	0° Υ	
greatest brilliancy	3246 Sep 26 11:13	25° \mathcal{Q} 03'22	-4.5m		3249 Mar 31 12:39	0° \mathcal{B}	
	3246 Oct 05 03:31	0° \mathbb{M}		asc. node	3249 Apr 20 13:28	24° \mathcal{B} 43'30	
morning max el	3246 Oct 31 21:43	22° \mathbb{M} 44'00	46°15'36		3249 Apr 24 20:43	0° \mathbb{I}	
asc. node	3246 Nov 03 18:15	25° \mathbb{M} 35'07			3249 May 19 13:04	0° \mathcal{E}	
	3246 Nov 08 01:50	0° \mathcal{A}			3249 Jun 13 16:59	0° \mathcal{Q}	
	3246 Dec 05 07:40	0° \mathbb{M}			3249 Jul 09 15:07	0° \mathbb{M}	
	3246 Dec 30 17:44	0° \mathcal{Z}			3249 Aug 06 00:05	0° \mathcal{A}	
	3247 Jan 24 09:30	0° \mathcal{Z}		desc. node	3249 Aug 10 03:10	4° \mathcal{A} 17'39	
	3247 Feb 17 17:11	0° \approx		evening max el	3249 Aug 22 20:29	16° \mathcal{A} 57'23	45°45'03
desc. node	3247 Feb 23 08:11	6° \approx 58'13			3249 Sep 06 10:20	0° \mathbb{M}	
	3247 Mar 13 21:36	0° \mathcal{H}		greatest brilliancy	3249 Sep 29 21:49	14° \mathbb{M} 47'34	-4.5m
	3247 Apr 07 01:27	0° Υ		retrograde	3249 Oct 10 18:37	16° \mathbb{M} 55'28	
	3247 May 01 06:26	0° \mathcal{B}		evening set	3249 Oct 27 10:11	11° \mathbb{M} 41'03	
morning set	3247 May 07 05:22	7° \mathcal{B} 21'57		inferior conj	3249 Oct 31 17:42	9° \mathbb{M} 06'10	-6°-45'-3
	3247 May 25 13:20	0° \mathbb{I}		minimum elong	3249 Nov 01 03:59	8° \mathbb{M} 50'24	6°43'02
				min. Earth dist.	3249 Nov 01 17:30	8° \mathbb{M} 29'41	0.27613 AU
superior conj	3247 Jun 13 20:35	23° \mathbb{I} 46'37	0°-6'-14	morning rise	3249 Nov 05 21:11	6° \mathbb{M} 01'27	
minimum elong	3247 Jun 13 21:55	23° \mathbb{I} 50'45	0°06'12	direct	3249 Nov 21 17:34	1° \mathbb{M} 06'18	
behind sun begin	3247 Jun 13 00:29	22° \mathbb{I} 44'48		asc. node	3249 Dec 01 06:05	2° \mathbb{M} 49'18	
behind sun end	3247 Jun 14 19:21	24° \mathbb{I} 56'42		greatest brilliancy	3249 Dec 05 22:28	4° \mathbb{M} 46'23	-4.6m
max. Earth dist.	3247 Jun 15 04:27	25° \mathbb{I} 24'41	1.73362 AU		3250 Jan 07 01:48	0° \mathcal{Z}	
asc. node	3247 Jun 16 11:12	26° \mathbb{I} 59'16		morning max el	3250 Jan 11 10:27	4° \mathcal{Z} 21'56	46°55'02
	3247 Jun 18 21:58	0° \mathcal{E}			3250 Feb 04 04:00	0° \mathcal{Z}	
	3247 Jul 13 07:37	0° \mathcal{Q}			3250 Mar 02 01:21	0° \approx	
evening rise	3247 Jul 20 09:00	8° \mathcal{Q} 40'10		desc. node	3250 Mar 22 19:58	24° \approx 47'54	
	3247 Aug 06 17:57	0° \mathbb{M}			3250 Mar 27 03:37	0° \mathcal{H}	
	3247 Aug 31 05:31	0° \mathcal{A}			3250 Apr 20 21:53	0° Υ	
	3247 Sep 24 19:30	0° \mathbb{M}			3250 May 15 13:02	0° \mathcal{B}	
desc. node	3247 Oct 06 00:55	13° \mathbb{M} 38'32			3250 Jun 09 03:07	0° \mathbb{I}	
	3247 Oct 19 13:11	0° \mathcal{Z}			3250 Jul 03 16:18	0° \mathcal{E}	
	3247 Nov 13 12:21	0° \mathcal{Z}		asc. node	3250 Jul 13 23:01	12° \mathcal{E} 35'02	
	3247 Dec 08 21:38	0° \approx		morning set	3250 Jul 15 01:15	13° \mathcal{E} 55'23	
	3248 Jan 04 07:35	0° \mathcal{H}			3250 Jul 28 03:45	0° \mathcal{Q}	
evening max el	3248 Jan 18 22:08	15° \mathcal{H} 29'20	47°12'31	max. Earth dist.	3250 Aug 18 05:38	25° \mathcal{Q} 56'08	1.73320 AU
asc. node	3248 Jan 27 03:52	23° \mathcal{H} 38'16					
	3248 Feb 03 01:44	0° Υ		superior conj	3250 Aug 20 12:35	28° \mathcal{Q} 45'34	1°13'59
greatest brilliancy	3248 Feb 25 16:20	15° Υ 51'54	-4.7m	minimum elong	3250 Aug 20 04:54	28° \mathcal{Q} 21'49	1°13'48
retrograde	3248 Mar 09 18:21	19° Υ 02'28			3250 Aug 21 12:44	0° \mathbb{M}	
evening set	3248 Mar 27 17:23	12° Υ 49'19			3250 Sep 14 19:27	0° \mathcal{A}	

evening rise	3250 Sep 25 19:00	13° Ω 35'45			3253 Apr 05 08:49	0° Υ		
	3250 Oct 09 00:52	0° \mathbb{M}		desc. node	3253 Apr 19 07:55	15° Υ 08'06		
	3250 Nov 02 06:02	0° \mathcal{Z}			3253 May 02 13:38	0° Υ		
desc. node	3250 Nov 02 12:52	0° \mathcal{Z} 21'12			3253 May 28 12:12	0° \mathcal{B}		
	3250 Nov 26 11:38	0° \mathcal{Z}			3253 Jun 22 21:44	0° \mathbb{I}		
	3250 Dec 20 18:36	0° \approx			3253 Jul 17 23:35	0° \mathcal{G}		
	3251 Jan 14 05:33	0° Υ		asc. node	3253 Aug 10 10:48	28° \mathcal{G} 22'33		
	3251 Feb 08 02:38	0° Υ			3253 Aug 11 18:51	0° \mathcal{Q}		
asc. node	3251 Feb 23 15:34	18° Υ 14'06			3253 Sep 05 07:36	0° \mathbb{P}		
	3251 Mar 05 23:09	0° \mathcal{B}		morning set	3253 Sep 21 04:49	19° \mathbb{P} 35'27		
evening max el	3251 Mar 31 12:26	27° \mathcal{B} 17'09	46°20'42		3253 Sep 29 14:32	0° \mathcal{B}		
	3251 Apr 03 06:39	0° \mathbb{I}			3253 Oct 23 17:17	0° \mathbb{M}		
greatest brilliancy	3251 May 05 13:01	25° \mathbb{I} 06'17	-4.5m	max. Earth dist.	3253 Oct 25 08:11	2° \mathbb{M} 01'17	1.72071 AU	
retrograde	3251 May 20 06:55	28° \mathbb{I} 57'57						
evening set	3251 Jun 04 11:06	24° \mathbb{I} 26'46		superior conj	3253 Oct 28 09:39	5° \mathbb{M} 50'26	1°07'45	
inferior conj	3251 Jun 10 15:28	20° \mathbb{I} 43'17	1°05'39	minimum elong	3253 Oct 28 19:20	6° \mathbb{M} 20'39	1°07'28	
minimum elong	3251 Jun 10 17:53	20° \mathbb{I} 39'30	1°04'56		3253 Nov 16 17:38	0° \mathcal{Z}		
min. Earth dist.	3251 Jun 10 11:59	20° \mathbb{I} 48'44	0.28669 AU	desc. node	3253 Nov 30 00:47	16° \mathcal{Z} 38'30		
desc. node	3251 Jun 15 05:26	17° \mathbb{I} 55'04		evening rise	3253 Dec 06 19:48	25° \mathcal{Z} 08'46		
morning rise	3251 Jun 17 01:04	16° \mathbb{I} 53'21			3253 Dec 10 16:48	0° \mathcal{Z}		
direct	3251 Jul 02 01:28	12° \mathbb{I} 31'12			3254 Jan 03 15:34	0° \approx		
greatest brilliancy	3251 Jul 14 23:19	15° \mathbb{I} 27'13	-4.5m		3254 Jan 27 15:10	0° Υ		
	3251 Aug 06 04:04	0° \mathcal{G}			3254 Feb 20 18:07	0° Υ		
morning max el	3251 Aug 19 19:32	12° \mathcal{G} 13'19	45°43'30		3254 Mar 17 04:27	0° \mathcal{B}		
	3251 Sep 06 10:48	0° \mathcal{Q}		asc. node	3254 Mar 23 03:35	7° \mathcal{B} 14'11		
	3251 Oct 03 15:11	0° \mathbb{P}			3254 Apr 11 04:03	0° \mathbb{I}		
asc. node	3251 Oct 06 08:30	3° \mathbb{P} 07'32			3254 May 07 02:55	0° \mathcal{G}		
	3251 Oct 29 05:18	0° \mathcal{B}			3254 Jun 04 02:23	0° \mathcal{Q}		
	3251 Nov 22 22:53	0° \mathbb{M}		evening max el	3254 Jun 10 04:03	5° \mathcal{Q} 59'02	45°30'36	
	3251 Dec 17 05:08	0° \mathcal{Z}			3254 Jul 10 02:13	0° \mathbb{P}		
	3252 Jan 10 05:41	0° \mathcal{Z}		desc. node	3254 Jul 12 17:22	1° \mathbb{P} 25'33		
desc. node	3252 Jan 25 22:19	19° \mathcal{Z} 40'10		greatest brilliancy	3254 Jul 15 04:40	2° \mathbb{P} 36'47	-4.5m	
	3252 Feb 03 03:52	0° \approx		retrograde	3254 Jul 28 19:48	5° \mathbb{P} 51'52		
morning set	3252 Feb 19 10:12	20° \approx 24'46		evening set	3254 Aug 14 13:51	0° \mathbb{P} 34'40		
	3252 Feb 27 01:35	0° Υ			3254 Aug 15 13:26	30° \mathcal{R} \mathcal{Q}		
	3252 Mar 22 00:21	0° Υ		inferior conj	3254 Aug 19 08:12	27° \mathcal{Q} 40'08	-7°-23'-10	
superior conj	3252 Mar 31 02:45	11° Υ 22'10	-1°-24'-1	minimum elong	3254 Aug 18 23:22	27° \mathcal{Q} 53'58	7°21'51	
minimum elong	3252 Mar 31 07:59	11° Υ 38'31	1°23'58	min. Earth dist.	3254 Aug 19 08:32	27° \mathcal{Q} 39'36	0.29038 AU	
max. Earth dist.	3252 Apr 04 01:29	16° Υ 17'41	1.71979 AU	morning rise	3254 Aug 23 08:44	25° \mathcal{Q} 11'15		
	3252 Apr 15 01:35	0° \mathcal{B}		direct	3254 Sep 09 23:14	19° \mathcal{Q} 22'36		
evening rise	3252 May 09 11:06	0° \mathbb{I} 14'25		greatest brilliancy	3254 Sep 24 02:30	22° \mathcal{Q} 52'33	-4.5m	
	3252 May 09 06:25	0° \mathbb{I}			3254 Oct 05 23:16	0° \mathbb{P}		
asc. node	3252 May 18 01:25	10° \mathbb{I} 50'41		morning max el	3254 Oct 29 11:47	20° \mathbb{P} 26'41	46°13'59	
	3252 Jun 02 15:24	0° \mathcal{G}		asc. node	3254 Nov 02 20:24	24° \mathbb{P} 48'49		
	3252 Jun 27 04:50	0° \mathcal{Q}			3254 Nov 07 20:55	0° \mathcal{B}		
	3252 Jul 21 23:41	0° \mathbb{P}			3254 Dec 04 22:26	0° \mathbb{M}		
	3252 Aug 16 02:19	0° \mathcal{B}			3254 Dec 30 06:49	0° \mathcal{Z}		
desc. node	3252 Sep 06 14:56	25° \mathcal{B} 15'32			3255 Jan 23 21:43	0° \mathcal{Z}		
	3252 Sep 10 17:13	0° \mathbb{M}		desc. node	3255 Feb 17 04:52	0° \approx		
	3252 Oct 07 05:18	0° \mathcal{Z}			3255 Feb 22 10:06	6° \approx 28'11		
evening max el	3252 Nov 04 00:06	29° \mathcal{Z} 17'24	46°47'45		3255 Mar 13 08:54	0° Υ		
	3252 Nov 04 17:23	0° \mathcal{Z}			3255 Apr 06 12:27	0° Υ		
greatest brilliancy	3252 Dec 12 14:45	29° \mathcal{Z} 01'38	-4.7m	morning set	3255 Apr 30 17:12	0° \mathcal{B}		
	3252 Dec 15 06:09	0° \approx			3255 May 04 20:54	5° \mathcal{B} 08'25		
retrograde	3252 Dec 24 05:28	1° \approx 31'26			3255 May 24 23:57	0° \mathbb{I}		
asc. node	3252 Dec 28 17:58	1° \approx 06'14		superior conj	3255 Jun 11 13:48	21° \mathbb{I} 39'31	0°-9'-30	
	3253 Jan 01 20:02	30° \mathcal{R} \mathcal{Z}		minimum elong	3255 Jun 11 15:50	21° \mathbb{I} 45'48	0°09'24	
evening set	3253 Jan 07 16:40	27° \mathcal{Z} 21'04		behind sun begin	3255 Jun 10 21:00	20° \mathbb{I} 47'49		
inferior conj	3253 Jan 13 17:31	23° \mathcal{Z} 48'26	4°01'32	behind sun end	3255 Jun 12 10:41	22° \mathbb{I} 43'48		
minimum elong	3253 Jan 13 09:05	24° \mathcal{Z} 01'18	3°59'04	max. Earth dist.	3255 Jun 12 23:36	23° \mathbb{I} 23'32	1.73336 AU	
min. Earth dist.	3253 Jan 13 07:00	24° \mathcal{Z} 04'29	0.26530 AU	asc. node	3255 Jun 15 13:13	26° \mathbb{I} 33'05		
morning rise	3253 Jan 19 01:47	20° \mathcal{Z} 39'23			3255 Jun 18 08:29	0° \mathcal{G}		
direct	3253 Feb 03 03:58	16° \mathcal{Z} 10'19			3255 Jul 12 18:10	0° \mathcal{Q}		
greatest brilliancy	3253 Feb 14 14:40	18° \mathcal{Z} 38'00	-4.7m	evening rise	3255 Jul 18 03:45	6° \mathcal{Q} 37'49		
	3253 Mar 04 19:39	0° \approx			3255 Aug 06 04:39	0° \mathbb{P}		
morning max el	3253 Mar 25 10:32	18° \approx 45'18	46°44'42		3255 Aug 30 16:30	0° \mathcal{B}		

	3255 Sep 24 06:56	0°♌			3258 Mar 26 16:16	0°♎		
desc. node	3255 Oct 05 03:00	13°♌09'27			3258 Apr 20 09:46	0°♍		
	3255 Oct 19 01:17	0°♏			3258 May 15 00:23	0°♌		
	3255 Nov 13 01:26	0°♎			3258 Jun 08 14:04	0°♍		
	3255 Dec 08 12:26	0°♏			3258 Jul 03 02:59	0°♎		
	3256 Jan 04 01:59	0°♎		morning set	3258 Jul 12 19:12	11°♎50'51		
evening max el	3256 Jan 16 11:22	13°♎04'15	47°13'09	asc. node	3258 Jul 13 00:59	12°♎08'34		
asc. node	3256 Jan 26 05:48	22°♎40'26			3258 Jul 27 14:16	0°♏		
	3256 Feb 03 09:34	0°♍		max. Earth dist.	3258 Aug 16 03:53	24°♏04'23	1.73345 AU	
greatest brilliancy	3256 Feb 23 08:20	13°♍32'22	-4.7m					
retrograde	3256 Mar 07 08:38	16°♍41'51		superior conj	3258 Aug 18 06:54	26°♏41'39	1°12'22	
evening set	3256 Mar 25 09:13	10°♍26'41		minimum elong	3258 Aug 17 22:54	26°♏16'58	1°12'10	
inferior conj	3256 Mar 28 07:48	8°♍37'01	8°43'30		3258 Aug 20 23:14	0°♎		
minimum elong	3256 Mar 28 11:56	8°♍30'33	8°43'15		3258 Sep 14 06:02	0°♎		
min. Earth dist.	3256 Mar 27 22:19	8°♍51'54	0.27723 AU	evening rise	3258 Sep 23 12:00	11°♎26'48		
morning rise	3256 Mar 31 14:48	6°♍34'50			3258 Oct 08 11:39	0°♌		
direct	3256 Apr 18 02:48	0°♍41'13		desc. node	3258 Nov 01 14:57	29°♌53'22		
greatest brilliancy	3256 Apr 29 05:48	2°♍56'38	-4.6m		3258 Nov 01 17:06	0°♏		
desc. node	3256 May 16 19:35	13°♍23'39			3258 Nov 25 23:04	0°♎		
	3256 Jun 04 22:05	0°♌			3258 Dec 20 06:30	0°♏		
morning max el	3256 Jun 06 09:02	1°♌23'59	46°00'33		3259 Jan 13 18:05	0°♎		
	3256 Jul 03 23:38	0°♍			3259 Feb 07 16:17	0°♍		
	3256 Jul 30 18:37	0°♎		asc. node	3259 Feb 22 17:39	17°♍37'21		
	3256 Aug 25 12:39	0°♏			3259 Mar 05 15:09	0°♌		
asc. node	3256 Sep 06 22:40	14°♏46'18		evening max el	3259 Mar 29 04:46	25°♌04'41	46°22'58	
	3256 Sep 19 14:17	0°♎			3259 Apr 03 05:51	0°♍		
	3256 Oct 14 03:47	0°♎		greatest brilliancy	3259 May 03 06:30	22°♍56'43	-4.5m	
	3256 Nov 07 08:51	0°♌		retrograde	3259 May 17 23:31	26°♍46'48		
morning set	3256 Dec 01 08:15	29°♌58'07		evening set	3259 Jun 02 04:31	22°♍14'05		
	3256 Dec 01 08:52	0°♏		inferior conj	3259 Jun 08 07:24	18°♍32'17	1°25'59	
	3256 Dec 25 06:16	0°♎		minimum elong	3259 Jun 08 10:33	18°♍27'21	1°25'02	
desc. node	3256 Dec 27 12:29	2°♎50'25		min. Earth dist.	3259 Jun 08 03:53	18°♍37'48	0.28642 AU	
				desc. node	3259 Jun 14 07:26	14°♍55'36		
superior conj	3257 Jan 11 00:59	21°♎06'26	0°-34'00	morning rise	3259 Jun 14 17:05	14°♍42'21		
minimum elong	3257 Jan 10 16:30	20°♎39'42	0°33'38	direct	3259 Jun 29 17:38	10°♍20'46		
max. Earth dist.	3257 Jan 10 21:02	20°♎54'01	1.71111 AU	greatest brilliancy	3259 Jul 12 12:32	13°♍14'16	-4.5m	
	3257 Jan 18 02:37	0°♏			3259 Aug 06 09:27	0°♎		
	3257 Feb 10 23:10	0°♎		morning max el	3259 Aug 17 11:33	10°♎04'14	45°43'15	
evening rise	3257 Feb 21 06:06	12°♎54'53			3259 Sep 06 03:50	0°♏		
	3257 Mar 06 21:30	0°♍			3259 Oct 03 04:56	0°♎		
	3257 Mar 30 23:40	0°♌		asc. node	3259 Oct 05 10:40	2°♎34'39		
asc. node	3257 Apr 19 15:35	24°♌15'48			3259 Oct 28 17:40	0°♎		
	3257 Apr 24 07:54	0°♍			3259 Nov 22 10:35	0°♌		
	3257 May 19 00:39	0°♎			3259 Dec 16 16:30	0°♏		
	3257 Jun 13 05:22	0°♏			3260 Jan 09 16:54	0°♎		
	3257 Jul 09 05:08	0°♎		desc. node	3260 Jan 25 00:19	19°♎11'35		
	3257 Aug 05 18:01	0°♎			3260 Feb 02 14:57	0°♏		
desc. node	3257 Aug 09 05:07	3°♎34'22		morning set	3260 Feb 16 20:03	17°♏50'38		
evening max el	3257 Aug 20 11:01	14°♎43'07	45°43'26		3260 Feb 26 12:33	0°♎		
	3257 Sep 06 20:06	0°♌			3260 Mar 21 11:12	0°♍		
greatest brilliancy	3257 Sep 27 08:33	12°♌26'54	-4.5m					
retrograde	3257 Oct 08 08:31	14°♌37'15		superior conj	3260 Mar 28 14:56	8°♍56'31	-1°-24'-50	
evening set	3257 Oct 25 02:58	9°♌17'42		minimum elong	3260 Mar 28 19:18	9°♍10'10	1°24'49	
inferior conj	3257 Oct 29 07:34	6°♌46'48	-6°-58'-36	max. Earth dist.	3260 Apr 01 16:11	14°♍00'04	1.71926 AU	
minimum elong	3257 Oct 29 17:41	6°♌31'18	6°56'43		3260 Apr 14 12:23	0°♌		
min. Earth dist.	3257 Oct 30 07:06	6°♌10'45	0.27687 AU	evening rise	3260 May 07 01:38	27°♌57'41		
morning rise	3257 Nov 03 07:53	3°♌46'43			3260 May 08 17:14	0°♍		
	3257 Nov 11 14:43	30°♌♌		asc. node	3260 May 17 03:24	10°♍23'26		
direct	3257 Nov 19 08:43	28°♌45'58			3260 Jun 02 02:19	0°♎		
	3257 Nov 27 08:54	0°♌			3260 Jun 26 15:59	0°♏		
asc. node	3257 Nov 30 08:04	1°♌01'33			3260 Jul 21 11:16	0°♎		
greatest brilliancy	3257 Dec 03 14:34	2°♌27'50	-4.6m		3260 Aug 15 14:41	0°♎		
	3258 Jan 07 01:13	0°♏		desc. node	3260 Sep 05 17:06	24°♎42'46		
morning max el	3258 Jan 09 02:00	2°♏03'11	46°54'15		3260 Sep 10 06:59	0°♌		
	3258 Feb 03 20:26	0°♎			3260 Oct 06 21:53	0°♏		
	3258 Mar 01 15:17	0°♏		evening max el	3260 Nov 01 13:44	26°♏54'53	46°45'29	
desc. node	3258 Mar 21 22:07	24°♏15'42			3260 Nov 04 17:36	0°♎		

greatest brilliancy	3260 Dec 10 05:13	26°☾35'28	-4.6m	superior conj	3263 Jun 09 06:29	19°♊29'50	0°-12'-46
retrograde	3260 Dec 21 17:11	29°☾02'18		minimum elong	3263 Jun 09 09:15	19°♊38'19	0°12'40
asc. node	3260 Dec 27 19:57	28°☾16'29		behind sun begin	3263 Jun 08 19:04	18°♊54'39	
evening set	3261 Jan 05 03:20	24°☾54'49		behind sun end	3263 Jun 09 23:25	20°♊21'58	
inferior conj	3261 Jan 11 05:44	21°☾20'10	3°39'09	max. Earth dist.	3263 Jun 10 17:52	21°♊18'42	1.73306 AU
minimum elong	3261 Jan 10 21:57	21°☾32'05	3°36'50	asc. node	3263 Jun 14 15:10	26°♊05'47	
min. Earth dist.	3261 Jan 10 20:46	21°☾33'53	0.26519 AU		3263 Jun 17 19:19	0°☾	
morning rise	3261 Jan 16 16:43	18°☾07'04			3263 Jul 12 05:01	0°♊	
direct	3261 Jan 31 16:07	13°☾42'06		evening rise	3263 Jul 15 22:10	4°♊33'40	
greatest brilliancy	3261 Feb 12 05:13	16°☾11'48	-4.7m		3263 Aug 05 15:40	0°♊	
	3261 Mar 05 08:27	0°☾			3263 Aug 30 03:50	0°♊	
morning max el	3261 Mar 22 22:26	16°☾17'19	46°45'57		3263 Sep 23 18:43	0°♊	
	3261 Apr 05 04:10	0°☾		desc. node	3263 Oct 04 05:03	12°♊39'14	
desc. node	3261 Apr 18 09:59	14°☾27'16			3263 Oct 18 13:44	0°☾	
	3261 May 02 04:42	0°☾			3263 Nov 12 14:54	0°☾	
	3261 May 28 01:22	0°☾			3263 Dec 08 03:37	0°☾	
	3261 Jun 22 09:50	0°♊			3264 Jan 03 21:03	0°☾	
	3261 Jul 17 11:03	0°☾		evening max el	3264 Jan 14 01:08	10°☾40'08	47°13'49
asc. node	3261 Aug 09 12:51	27°☾55'04		asc. node	3264 Jan 25 07:52	21°☾41'11	
	3261 Aug 11 05:56	0°♊			3264 Feb 03 20:28	0°☾	
	3261 Sep 04 18:27	0°♊		greatest brilliancy	3264 Feb 20 23:07	11°☾10'46	-4.7m
morning set	3261 Sep 18 21:41	17°♊25'50		retrograde	3264 Mar 04 23:21	14°☾20'39	
	3261 Sep 29 01:18	0°♊		evening set	3264 Mar 23 00:40	8°☾03'44	
max. Earth dist.	3261 Oct 22 21:50	29°♊40'32	1.72119 AU	inferior conj	3264 Mar 25 22:05	6°☾16'08	8°47'50
	3261 Oct 23 04:05	0°♊		minimum elong	3264 Mar 26 01:23	6°☾10'58	8°47'41
				min. Earth dist.	3264 Mar 25 11:51	6°☾32'08	0.27684 AU
superior conj	3261 Oct 26 00:54	3°♊34'35	1°09'48	morning rise	3264 Mar 29 02:13	4°☾18'32	
minimum elong	3261 Oct 26 10:17	4°♊03'52	1°09'32		3264 Apr 06 16:20	30°☾	
	3261 Nov 16 04:31	0°☾		direct	3264 Apr 15 16:22	28°☾20'45	
desc. node	3261 Nov 29 02:45	16°☾10'22			3264 Apr 25 02:53	0°☾	
evening rise	3261 Dec 04 08:06	22°☾42'36		greatest brilliancy	3264 Apr 26 19:15	0°☾36'28	-4.6m
	3261 Dec 10 03:50	0°☾		desc. node	3264 May 15 21:35	12°☾13'51	
	3262 Jan 03 02:46	0°☾		morning max el	3264 Jun 04 00:12	29°☾08'46	46°01'53
	3262 Jan 27 02:35	0°☾			3264 Jun 04 21:20	0°☾	
	3262 Feb 20 05:51	0°☾			3264 Jul 03 15:48	0°♊	
	3262 Mar 16 16:41	0°☾			3264 Jul 30 08:12	0°☾	
asc. node	3262 Mar 22 05:40	6°☾43'05			3264 Aug 25 01:00	0°♊	
	3262 Apr 10 17:11	0°♊		asc. node	3264 Sep 06 00:47	14°♊16'45	
	3262 May 06 18:00	0°☾			3264 Sep 19 01:58	0°♊	
	3262 Jun 03 22:47	0°♊			3264 Oct 13 15:08	0°♊	
evening max el	3262 Jun 07 18:30	3°♊44'29	45°31'26		3264 Nov 06 20:04	0°♊	
desc. node	3262 Jul 11 19:23	29°♊57'37		morning set	3264 Nov 28 21:13	27°♊33'24	
	3262 Jul 11 21:23	0°♊			3264 Nov 30 20:00	0°☾	
greatest brilliancy	3262 Jul 12 17:58	0°♊23'51	-4.5m		3264 Dec 24 17:23	0°☾	
retrograde	3262 Jul 26 11:26	3°♊42'25		desc. node	3264 Dec 26 14:33	2°☾21'58	
	3262 Aug 09 08:11	30°☾					
evening set	3262 Aug 12 02:45	28°♊29'14		superior conj	3265 Jan 08 11:15	18°☾32'40	0°-30'-18
inferior conj	3262 Aug 17 00:21	25°♊30'12	-7°-12'-27	minimum elong	3265 Jan 08 03:34	18°☾08'31	0°29'57
minimum elong	3262 Aug 16 15:11	25°♊44'33	7°11'01	max. Earth dist.	3265 Jan 08 06:12	18°☾16'50	1.71115 AU
min. Earth dist.	3262 Aug 17 00:16	25°♊30'20	0.29049 AU		3265 Jan 17 13:44	0°☾	
morning rise	3262 Aug 21 03:27	22°♊57'32			3265 Feb 10 10:18	0°☾	
direct	3262 Sep 07 14:56	17°♊12'21		evening rise	3265 Feb 18 16:48	10°☾23'03	
greatest brilliancy	3262 Sep 21 18:53	20°♊42'21	-4.5m		3265 Mar 06 08:40	0°☾	
	3262 Oct 06 14:17	0°♊			3265 Mar 30 10:56	0°☾	
morning max el	3262 Oct 27 02:23	18°♊10'11	46°12'39	asc. node	3265 Apr 18 17:32	23°☾46'39	
asc. node	3262 Nov 01 22:18	24°♊01'59			3265 Apr 23 19:25	0°♊	
	3262 Nov 07 15:42	0°♊			3265 May 18 12:37	0°☾	
	3262 Dec 04 13:11	0°♊			3265 Jun 12 18:14	0°♊	
	3262 Dec 29 19:57	0°☾			3265 Jul 08 19:47	0°♊	
	3263 Jan 23 10:01	0°☾			3265 Aug 05 12:55	0°♊	
	3263 Feb 16 16:40	0°☾		desc. node	3265 Aug 08 07:18	2°♊49'44	
desc. node	3263 Feb 21 12:15	5°☾58'27		evening max el	3265 Aug 18 02:02	12°♊28'47	45°41'53
	3263 Mar 12 20:22	0°☾			3265 Sep 07 09:58	0°♊	
	3263 Apr 05 23:42	0°☾		greatest brilliancy	3265 Sep 24 20:00	10°♊06'06	-4.5m
	3263 Apr 30 04:16	0°☾		retrograde	3265 Oct 05 22:16	12°♊17'55	
morning set	3263 May 02 11:50	2°☾51'59		evening set	3265 Oct 22 19:45	6°♊53'38	
	3263 May 24 10:51	0°♊		inferior conj	3265 Oct 26 21:28	4°♊26'32	-7°-11'-19

minimum elong	3265 Oct 27 07:19	4° \mathbb{M} 11'23	7°09'35			3268 Apr 13 23:25	0° \mathcal{B}	
min. Earth dist.	3265 Oct 27 20:32	3° \mathbb{M} 51'06	0.27757 AU	evening rise		3268 May 04 16:14	25° \mathcal{B} 40'24	
morning rise	3265 Oct 31 18:28	1° \mathbb{M} 31'00				3268 May 08 04:15	0° \mathbb{I}	
	3265 Nov 03 13:51	30° \mathbb{R} \mathcal{A}		asc. node		3268 May 16 05:25	9° \mathbb{I} 55'46	
direct	3265 Nov 17 00:00	26° \mathcal{A} 24'50				3268 Jun 01 13:24	0° \mathcal{E}	
asc. node	3265 Nov 29 10:06	29° \mathcal{A} 16'40				3268 Jun 26 03:18	0° \mathcal{Q}	
	3265 Nov 30 23:57	0° \mathbb{M}				3268 Jul 20 23:03	0° \mathbb{M}	
greatest brilliancy	3265 Dec 01 05:42	0° \mathbb{M} 06'56	-4.6m			3268 Aug 15 03:19	0° \mathcal{A}	
morning max el	3266 Jan 06 17:05	29° \mathbb{M} 42'07	46°53'28	desc. node		3268 Sep 04 19:04	24° \mathcal{A} 08'28	
	3266 Jan 07 00:06	0° \mathcal{A}				3268 Sep 09 21:08	0° \mathbb{M}	
	3266 Feb 03 12:57	0° \mathcal{B}				3268 Oct 06 15:05	0° \mathcal{A}	
	3266 Mar 01 05:24	0° \approx		evening max el		3268 Oct 30 02:28	24° \mathcal{A} 29'30	46°43'15
desc. node	3266 Mar 21 00:09	23° \approx 42'25				3268 Nov 04 19:23	0° \mathcal{B}	
	3266 Mar 26 05:08	0° \mathcal{H}		greatest brilliancy		3268 Dec 07 19:46	24° \mathcal{B} 08'50	-4.6m
	3266 Apr 19 21:51	0° \mathcal{Y}		retrograde		3268 Dec 19 04:45	26° \mathcal{B} 33'01	
	3266 May 14 11:56	0° \mathcal{B}		asc. node		3268 Dec 26 22:03	25° \mathcal{B} 20'19	
	3266 Jun 08 01:16	0° \mathbb{I}		evening set		3269 Jan 02 14:18	22° \mathcal{B} 27'41	
	3266 Jul 02 13:58	0° \mathcal{E}		inferior conj		3269 Jan 08 18:02	18° \mathcal{B} 51'36	3°16'28
morning set	3266 Jul 10 13:11	9° \mathcal{E} 45'25		minimum elong		3269 Jan 08 10:55	19° \mathcal{B} 02'28	3°14'17
asc. node	3266 Jul 12 03:06	11° \mathcal{E} 41'35		min. Earth dist.		3269 Jan 08 10:46	19° \mathcal{B} 02'42	0.26511 AU
	3266 Jul 27 01:10	0° \mathcal{Q}		morning rise		3269 Jan 14 07:35	15° \mathcal{B} 34'47	
max. Earth dist.	3266 Aug 14 00:10	22° \mathcal{Q} 05'32	1.73369 AU	direct		3269 Jan 29 03:57	11° \mathcal{B} 13'19	
				greatest brilliancy		3269 Feb 09 20:41	13° \mathcal{B} 46'15	-4.7m
superior conj	3266 Aug 16 01:10	24° \mathcal{Q} 36'30	1°10'40			3269 Mar 05 18:11	0° \approx	
minimum elong	3266 Aug 15 16:55	24° \mathcal{Q} 11'04	1°10'27	morning max el		3269 Mar 20 10:27	13° \approx 48'57	46°47'12
	3266 Aug 20 10:07	0° \mathbb{M}				3269 Apr 04 23:10	0° \mathcal{H}	
	3266 Sep 13 17:00	0° \mathcal{A}		desc. node		3269 Apr 17 11:54	13° \mathcal{H} 46'03	
evening rise	3266 Sep 21 04:55	9° \mathcal{A} 16'31				3269 May 01 19:44	0° \mathcal{Y}	
	3266 Oct 07 22:47	0° \mathbb{M}				3269 May 27 14:33	0° \mathcal{B}	
desc. node	3266 Oct 31 16:53	29° \mathbb{M} 23'59				3269 Jun 21 21:59	0° \mathbb{I}	
	3266 Nov 01 04:31	0° \mathcal{A}				3269 Jul 16 22:33	0° \mathcal{E}	
	3266 Nov 25 10:53	0° \mathcal{B}		asc. node		3269 Aug 08 14:57	27° \mathcal{E} 27'38	
	3266 Dec 19 18:48	0° \approx				3269 Aug 10 17:02	0° \mathcal{Q}	
	3267 Jan 13 07:03	0° \mathcal{H}				3269 Sep 04 05:22	0° \mathbb{M}	
	3267 Feb 07 06:24	0° \mathcal{Y}		morning set		3269 Sep 16 14:46	15° \mathbb{M} 16'40	
asc. node	3267 Feb 21 19:46	16° \mathcal{Y} 59'28				3269 Sep 28 12:10	0° \mathcal{A}	
	3267 Mar 05 07:44	0° \mathcal{B}		max. Earth dist.		3269 Oct 20 13:18	27° \mathcal{A} 25'05	1.72173 AU
evening max el	3267 Mar 26 20:46	22° \mathcal{B} 50'35	46°25'19			3269 Oct 22 15:00	0° \mathbb{M}	
	3267 Apr 03 06:22	0° \mathbb{I}						
greatest brilliancy	3267 May 01 00:57	20° \mathbb{I} 48'10	-4.6m	superior conj		3269 Oct 23 16:14	1° \mathbb{M} 18'38	1°11'43
retrograde	3267 May 15 15:54	24° \mathbb{I} 35'43		minimum elong		3269 Oct 24 01:17	1° \mathbb{M} 46'51	1°11'29
evening set	3267 May 30 22:22	20° \mathbb{I} 01'26				3269 Nov 15 15:34	0° \mathcal{A}	
inferior conj	3267 Jun 05 23:38	16° \mathbb{I} 21'31	1°45'55	desc. node		3269 Nov 28 04:51	15° \mathcal{A} 42'12	
minimum elong	3267 Jun 06 03:29	16° \mathbb{I} 15'28	1°44'47	evening rise		3269 Dec 01 20:22	20° \mathcal{A} 15'59	
min. Earth dist.	3267 Jun 05 20:14	16° \mathbb{I} 26'52	0.28614 AU			3269 Dec 09 15:00	0° \mathcal{B}	
morning rise	3267 Jun 12 09:08	12° \mathbb{I} 31'35				3270 Jan 02 14:05	0° \approx	
desc. node	3267 Jun 13 09:27	11° \mathbb{I} 59'17				3270 Jan 26 14:07	0° \mathcal{H}	
direct	3267 Jun 27 09:51	8° \mathbb{I} 10'37				3270 Feb 19 17:41	0° \mathcal{Y}	
greatest brilliancy	3267 Jul 10 01:50	11° \mathbb{I} 01'05	-4.5m			3270 Mar 16 05:02	0° \mathcal{B}	
	3267 Aug 06 13:13	0° \mathcal{E}		asc. node		3270 Mar 21 07:35	6° \mathcal{B} 11'06	
morning max el	3267 Aug 15 02:57	7° \mathcal{E} 52'54	45°42'50			3270 Apr 10 06:30	0° \mathbb{I}	
	3267 Sep 05 20:50	0° \mathcal{Q}				3270 May 06 09:20	0° \mathcal{E}	
	3267 Oct 02 18:53	0° \mathbb{M}				3270 Jun 03 19:52	0° \mathcal{Q}	
asc. node	3267 Oct 04 12:35	2° \mathbb{M} 00'21		evening max el		3270 Jun 05 09:31	1° \mathcal{Q} 31'30	45°32'32
	3267 Oct 28 06:17	0° \mathcal{A}		greatest brilliancy		3270 Jul 10 06:53	28° \mathcal{Q} 11'08	-4.5m
	3267 Nov 21 22:32	0° \mathbb{M}		desc. node		3270 Jul 10 21:31	28° \mathcal{Q} 27'31	
	3267 Dec 16 04:07	0° \mathcal{A}				3270 Jul 14 21:47	0° \mathbb{M}	
desc. node	3268 Jan 09 04:20	0° \mathcal{B}		retrograde		3270 Jul 24 03:58	1° \mathbb{M} 34'05	
	3268 Jan 24 02:25	18° \mathcal{B} 42'35				3270 Aug 02 01:41	30° \mathbb{R} \mathcal{Q}	
	3268 Feb 02 02:16	0° \approx		evening set		3270 Aug 09 15:59	26° \mathcal{Q} 24'39	
morning set	3268 Feb 14 05:49	15° \approx 15'20		inferior conj		3270 Aug 14 16:45	23° \mathcal{Q} 21'18	-7°-1'-18
	3268 Feb 25 23:45	0° \mathcal{H}		minimum elong		3270 Aug 14 07:19	23° \mathcal{Q} 36'02	6°59'43
	3268 Mar 20 22:19	0° \mathcal{Y}		min. Earth dist.		3270 Aug 14 15:53	23° \mathcal{Q} 22'39	0.29058 AU
				morning rise		3270 Aug 18 22:29	20° \mathcal{Q} 44'57	
superior conj	3268 Mar 26 03:10	6° \mathcal{Y} 30'11	-1°-25'-31	direct		3270 Sep 05 07:06	15° \mathcal{Q} 03'15	
minimum elong	3268 Mar 26 06:38	6° \mathcal{Y} 41'00	1°25'30	greatest brilliancy		3270 Sep 19 11:49	18° \mathcal{Q} 33'57	-4.5m
max. Earth dist.	3268 Mar 30 05:32	11° \mathcal{Y} 37'21	1.71868 AU			3270 Oct 07 01:11	0° \mathbb{M}	

morning max el	3270 Oct 24 18:01	15° \mathbb{M} 56'47	46°11'05	asc. node	3273 Apr 17 19:35	23° \mathcal{C} 18'16	
asc. node	3270 Nov 01 00:23	23° \mathbb{M} 16'34			3273 Apr 23 06:47	0° \mathbb{I}	
	3270 Nov 07 09:55	0° $\underline{\mathcal{A}}$			3273 May 18 00:28	0° \mathcal{S}	
	3270 Dec 04 03:46	0° \mathbb{M}			3273 Jun 12 06:58	0° \mathcal{Q}	
	3270 Dec 29 09:03	0° \mathcal{X}			3273 Jul 08 10:21	0° \mathbb{M}	
	3271 Jan 22 22:20	0° \mathcal{Z}			3273 Aug 05 07:59	0° $\underline{\mathcal{A}}$	
	3271 Feb 16 04:28	0° \approx		desc. node	3273 Aug 07 09:17	2° $\underline{\mathcal{A}}$ 04'51	
desc. node	3271 Feb 20 14:19	5° \approx 28'26		evening max el	3273 Aug 15 17:13	10° $\underline{\mathcal{A}}$ 15'51	45°40'29
	3271 Mar 12 07:49	0° \mathcal{H}			3273 Sep 08 03:42	0° \mathbb{M}	
	3271 Apr 05 10:53	0° \mathcal{Y}		greatest brilliancy	3273 Sep 22 08:49	7° \mathbb{M} 48'39	-4.5m
	3271 Apr 29 15:15	0° \mathcal{B}		retrograde	3273 Oct 03 11:55	10° \mathbb{M} 00'47	
morning set	3271 Apr 30 02:34	0° \mathcal{B} 35'02		evening set	3273 Oct 20 12:49	4° \mathbb{M} 32'12	
	3271 May 23 21:42	0° \mathbb{I}		inferior conj	3273 Oct 24 11:44	2° \mathbb{M} 08'46	-7°-23'-10
				minimum elong	3273 Oct 24 21:15	1° \mathbb{M} 54'06	7°21'36
superior conj	3271 Jun 06 23:12	17° \mathbb{I} 20'18	0°-16'-3	min. Earth dist.	3273 Oct 25 10:24	1° \mathbb{M} 33'52	0.27822 AU
minimum elong	3271 Jun 07 02:39	17° \mathbb{I} 30'57	0°15'54		3273 Oct 28 00:22	30° \mathcal{R} $\underline{\mathcal{A}}$	
max. Earth dist.	3271 Jun 08 12:34	19° \mathbb{I} 15'22	1.73276 AU	morning rise	3273 Oct 29 05:19	29° $\underline{\mathcal{A}}$ 17'46	
asc. node	3271 Jun 13 17:19	25° \mathbb{I} 39'18		direct	3273 Nov 14 15:20	24° $\underline{\mathcal{A}}$ 06'25	
	3271 Jun 17 06:04	0° \mathcal{S}		asc. node	3273 Nov 28 12:11	27° $\underline{\mathcal{A}}$ 37'41	
	3271 Jul 11 15:47	0° \mathcal{Q}		greatest brilliancy	3273 Nov 28 20:21	27° $\underline{\mathcal{A}}$ 47'30	-4.6m
evening rise	3271 Jul 13 16:49	2° \mathcal{Q} 30'33			3273 Dec 02 22:51	0° \mathbb{M}	
	3271 Aug 05 02:34	0° \mathbb{M}		morning max el	3274 Jan 04 07:15	27° \mathbb{M} 20'17	46°52'25
	3271 Aug 29 15:00	0° $\underline{\mathcal{A}}$			3274 Jan 06 21:33	0° \mathcal{X}	
	3271 Sep 23 06:21	0° \mathbb{M}			3274 Feb 03 04:47	0° \mathcal{Z}	
desc. node	3271 Oct 03 07:02	12° \mathbb{M} 09'13			3274 Feb 28 19:06	0° \approx	
	3271 Oct 18 02:04	0° \mathcal{X}		desc. node	3274 Mar 20 02:05	23° \approx 09'45	
	3271 Nov 12 04:20	0° \mathcal{Z}			3274 Mar 25 17:42	0° \mathcal{H}	
	3271 Dec 07 18:59	0° \approx			3274 Apr 19 09:41	0° \mathcal{Y}	
	3272 Jan 03 16:42	0° \mathcal{H}			3274 May 13 23:16	0° \mathcal{B}	
evening max el	3272 Jan 11 15:53	8° \mathcal{H} 18'25	47°14'17		3274 Jun 07 12:14	0° \mathbb{I}	
asc. node	3272 Jan 24 09:58	20° \mathcal{H} 40'22			3274 Jul 02 00:41	0° \mathcal{S}	
	3272 Feb 04 11:13	0° \mathcal{Y}		morning set	3274 Jul 08 06:52	7° \mathcal{S} 39'52	
greatest brilliancy	3272 Feb 18 13:37	8° \mathcal{Y} 48'21	-4.7m	asc. node	3274 Jul 11 05:07	11° \mathcal{S} 15'06	
retrograde	3272 Mar 02 14:18	11° \mathcal{Y} 58'37			3274 Jul 26 11:46	0° \mathcal{Q}	
evening set	3272 Mar 20 15:32	5° \mathcal{Y} 40'34		max. Earth dist.	3274 Aug 11 19:01	20° \mathcal{Q} 03'13	1.73390 AU
min. Earth dist.	3272 Mar 23 00:46	4° \mathcal{Y} 12'06	0.27641 AU				
inferior conj	3272 Mar 23 12:05	3° \mathcal{Y} 54'26	8°51'21	superior conj	3274 Aug 13 19:21	22° \mathcal{Q} 32'04	1°08'52
minimum elong	3272 Mar 23 14:33	3° \mathcal{Y} 50'37	8°51'15	minimum elong	3274 Aug 13 10:53	22° \mathcal{Q} 05'59	1°08'36
morning rise	3272 Mar 26 13:42	2° \mathcal{Y} 00'57			3274 Aug 19 20:42	0° \mathbb{M}	
	3272 Mar 30 02:19	30° \mathcal{R} \mathcal{H}			3274 Sep 13 03:40	0° $\underline{\mathcal{A}}$	
direct	3272 Apr 13 06:11	25° \mathcal{H} 59'47		evening rise	3274 Sep 18 21:59	7° $\underline{\mathcal{A}}$ 07'41	
greatest brilliancy	3272 Apr 24 07:34	28° \mathcal{H} 14'47	-4.6m		3274 Oct 07 09:37	0° \mathbb{M}	
	3272 Apr 28 06:59	0° \mathcal{Y}		desc. node	3274 Oct 30 19:00	28° \mathbb{M} 56'19	
desc. node	3272 May 14 23:42	11° \mathcal{Y} 06'20			3274 Oct 31 15:36	0° \mathcal{X}	
morning max el	3272 Jun 01 15:33	26° \mathcal{Y} 54'14	46°03'16		3274 Nov 24 22:18	0° \mathcal{Z}	
	3272 Jun 04 19:30	0° \mathcal{B}			3274 Dec 19 06:42	0° \approx	
	3272 Jul 03 07:31	0° \mathbb{I}			3275 Jan 12 19:40	0° \mathcal{H}	
	3272 Jul 29 21:29	0° \mathcal{S}			3275 Feb 06 20:15	0° \mathcal{Y}	
	3272 Aug 24 13:04	0° \mathcal{Q}		asc. node	3275 Feb 20 21:40	16° \mathcal{Y} 21'32	
asc. node	3272 Sep 05 02:43	13° \mathcal{Q} 47'26			3275 Mar 05 00:20	0° \mathcal{B}	
	3272 Sep 18 13:22	0° \mathbb{M}		evening max el	3275 Mar 24 11:38	20° \mathcal{B} 33'55	46°27'23
	3272 Oct 13 02:12	0° $\underline{\mathcal{A}}$			3275 Apr 03 08:01	0° \mathbb{I}	
	3272 Nov 06 06:58	0° \mathbb{M}		greatest brilliancy	3275 Apr 28 19:17	18° \mathbb{I} 39'05	-4.6m
greatest brilliancy	3272 Nov 07 00:13	0° \mathbb{M} 53'43	-3.9m	retrograde	3275 May 13 07:33	22° \mathbb{I} 23'58	
morning set	3272 Nov 26 10:38	25° \mathbb{M} 11'04		evening set	3275 May 28 15:58	17° \mathbb{I} 47'51	
	3272 Nov 30 06:52	0° \mathcal{X}		inferior conj	3275 Jun 03 15:31	14° \mathbb{I} 10'12	2°06'03
	3272 Dec 24 04:17	0° \mathcal{Z}		minimum elong	3275 Jun 03 20:04	14° \mathbb{I} 03'03	2°04'43
desc. node	3272 Dec 25 16:41	1° \mathcal{Z} 54'24		min. Earth dist.	3275 Jun 03 12:35	14° \mathbb{I} 14'49	0.28587 AU
				morning rise	3275 Jun 10 00:38	10° \mathbb{I} 20'25	
superior conj	3273 Jan 05 21:31	15° \mathcal{Z} 59'35	0°-26'-32	desc. node	3275 Jun 12 11:33	9° \mathbb{I} 04'58	
minimum elong	3273 Jan 05 14:43	15° \mathcal{Z} 38'13	0°26'13	direct	3275 Jun 25 01:15	5° \mathbb{I} 59'49	
max. Earth dist.	3273 Jan 05 14:51	15° \mathcal{Z} 38'39	1.71128 AU	greatest brilliancy	3275 Jul 07 15:34	8° \mathbb{I} 48'10	-4.5m
	3273 Jan 17 00:41	0° \approx			3275 Aug 06 15:13	0° \mathcal{S}	
	3273 Feb 09 21:18	0° \mathcal{H}		morning max el	3275 Aug 12 17:16	5° \mathcal{S} 39'26	45°42'39
evening rise	3273 Feb 16 03:02	7° \mathcal{H} 50'05			3275 Sep 05 13:14	0° \mathcal{Q}	
	3273 Mar 05 19:44	0° \mathcal{Y}			3275 Oct 02 08:23	0° \mathbb{M}	
	3273 Mar 29 22:05	0° \mathcal{B}		asc. node	3275 Oct 03 14:38	1° \mathbb{M} 27'30	

	3275 Oct 27 18:30	0°♄		greatest brilliancy	3278 Jul 07 19:50	25°♄58'33	-4.5m
	3275 Nov 21 10:07	0°♍		desc. node	3278 Jul 09 23:30	26°♄54'10	
	3275 Dec 15 15:21	0°♎		retrograde	3278 Jul 21 20:38	29°♄25'25	
	3276 Jan 08 15:22	0°♏		evening set	3278 Aug 07 05:06	24°♄19'45	
desc. node	3276 Jan 23 04:25	18°♏14'36		inferior conj	3278 Aug 12 08:55	21°♄12'02	-6°-49'-24
	3276 Feb 01 13:09	0°♐		minimum elong	3278 Aug 11 23:18	21°♄27'03	6°47'42
morning set	3276 Feb 11 15:55	12°♐42'18		min. Earth dist.	3278 Aug 12 07:08	21°♄14'50	0.29067 AU
	3276 Feb 25 10:32	0°♑		morning rise	3278 Aug 16 17:24	18°♄31'54	
	3276 Mar 20 09:01	0°♒		direct	3278 Sep 02 23:31	12°♄53'52	
				greatest brilliancy	3278 Sep 17 04:11	16°♄24'52	-4.5m
superior conj	3276 Mar 23 15:28	4°♒05'12	-1°-26'-1		3278 Oct 07 09:09	0°♓	
minimum elong	3276 Mar 23 17:58	4°♒12'59	1°26'01	morning max el	3278 Oct 22 10:09	13°♓45'04	46°09'35
max. Earth dist.	3276 Mar 27 17:10	9°♒10'23	1.71817 AU	asc. node	3278 Oct 31 02:31	22°♓32'13	
	3276 Apr 13 10:07	0°♈			3278 Nov 07 03:38	0°♄	
evening rise	3276 May 02 06:29	23°♈22'52			3278 Dec 03 18:03	0°♍	
	3276 May 07 14:59	0°♉			3278 Dec 28 21:53	0°♎	
asc. node	3276 May 15 07:32	9°♉29'12			3279 Jan 22 10:24	0°♏	
	3276 Jun 01 00:15	0°♊			3279 Feb 15 16:04	0°♐	
	3276 Jun 25 14:24	0°♋		desc. node	3279 Feb 19 16:13	4°♐58'33	
	3276 Jul 20 10:38	0°♌			3279 Mar 11 19:05	0°♑	
	3276 Aug 14 15:46	0°♍			3279 Apr 04 21:53	0°♒	
desc. node	3276 Sep 03 21:04	23°♍34'51		morning set	3279 Apr 27 17:33	28°♒19'18	
	3276 Sep 09 11:11	0°♎			3279 Apr 29 02:03	0°♈	
	3276 Oct 06 08:22	0°♏			3279 May 23 08:21	0°♉	
evening max el	3276 Oct 27 14:39	22°♏03'54	46°41'08				
	3276 Nov 04 22:13	0°♐		superior conj	3279 Jun 04 16:01	15°♐11'34	0°-19'-18
greatest brilliancy	3276 Dec 05 09:55	21°♐42'55	-4.6m	minimum elong	3279 Jun 04 20:09	15°♐24'19	0°19'07
retrograde	3276 Dec 16 16:45	24°♐05'20		max. Earth dist.	3279 Jun 06 09:34	17°♐19'34	1.73248 AU
asc. node	3276 Dec 26 00:05	22°♐19'56		asc. node	3279 Jun 12 19:20	25°♐12'53	
evening set	3276 Dec 31 01:32	20°♐01'23			3279 Jun 16 16:40	0°♑	
inferior conj	3277 Jan 06 06:23	16°♐24'24	2°53'19	evening rise	3279 Jul 11 11:30	0°♒27'50	
minimum elong	3277 Jan 06 00:01	16°♐34'08	2°51'20		3279 Jul 11 02:26	0°♋	
min. Earth dist.	3277 Jan 06 00:47	16°♐32'58	0.26504 AU		3279 Aug 04 13:24	0°♌	
morning rise	3277 Jan 11 22:25	13°♐04'19			3279 Aug 29 02:10	0°♍	
direct	3277 Jan 26 15:48	8°♐45'45			3279 Sep 22 18:00	0°♎	
greatest brilliancy	3277 Feb 07 12:24	11°♐22'32	-4.7m	desc. node	3279 Oct 02 09:08	11°♎39'31	
	3277 Mar 06 00:41	0°♐			3279 Oct 17 14:28	0°♏	
morning max el	3277 Mar 17 23:12	11°♐23'44	46°48'28		3279 Nov 11 17:52	0°♐	
	3277 Apr 04 17:10	0°♑			3279 Dec 07 10:32	0°♑	
desc. node	3277 Apr 16 14:05	13°♑07'16			3280 Jan 03 12:55	0°♒	
	3277 May 01 10:09	0°♒		evening max el	3280 Jan 09 07:11	5°♒58'12	47°14'40
	3277 May 27 03:20	0°♈		asc. node	3280 Jan 23 11:55	19°♒37'50	
	3277 Jun 21 09:51	0°♉			3280 Feb 05 06:58	0°♓	
	3277 Jul 16 09:49	0°♊		greatest brilliancy	3280 Feb 16 04:52	6°♓26'49	-4.7m
asc. node	3277 Aug 07 16:54	27°♊00'21		retrograde	3280 Feb 29 05:16	9°♓36'10	
	3277 Aug 10 03:56	0°♋		evening set	3280 Mar 18 05:57	3°♓17'51	
	3277 Sep 03 16:03	0°♌		min. Earth dist.	3280 Mar 20 13:29	1°♓52'00	0.27594 AU
morning set	3277 Sep 14 07:35	13°♌07'21		inferior conj	3280 Mar 21 02:00	1°♓32'29	8°53'58
	3277 Sep 27 22:48	0°♍		minimum elong	3280 Mar 21 03:36	1°♓29'59	8°53'56
max. Earth dist.	3277 Oct 18 06:38	25°♍16'13	1.72223 AU		3280 Mar 23 13:51	30°♒♈	
				morning rise	3280 Mar 24 01:27	29°♒42'25	
superior conj	3277 Oct 21 07:23	29°♍02'57	1°13'32	direct	3280 Apr 10 20:11	23°♒38'49	
minimum elong	3277 Oct 21 16:03	29°♍29'56	1°13'19	greatest brilliancy	3280 Apr 21 18:48	25°♒51'49	-4.6m
	3277 Oct 22 01:42	0°♎			3280 Apr 30 03:27	0°♓	
	3277 Nov 15 02:23	0°♏		desc. node	3280 May 14 01:43	10°♓00'37	
desc. node	3277 Nov 27 06:55	15°♏14'43		morning max el	3280 May 30 06:32	24°♓39'01	46°04'42
evening rise	3277 Nov 29 08:41	17°♏50'19			3280 Jun 04 16:42	0°♈	
	3277 Dec 09 01:57	0°♐			3280 Jul 02 22:54	0°♉	
	3278 Jan 02 01:11	0°♑			3280 Jul 29 10:36	0°♊	
	3278 Jan 26 01:24	0°♒			3280 Aug 24 01:05	0°♋	
	3278 Feb 19 05:16	0°♓		asc. node	3280 Sep 04 04:48	13°♋18'33	
	3278 Mar 15 17:07	0°♈			3280 Sep 18 00:50	0°♌	
asc. node	3278 Mar 20 09:42	5°♈40'35			3280 Oct 12 13:22	0°♍	
	3278 Apr 09 19:34	0°♉			3280 Nov 05 18:00	0°♎	
	3278 May 06 00:34	0°♊		greatest brilliancy	3280 Nov 22 02:23	20°♎25'30	-3.9m
evening max el	3278 Jun 03 01:11	29°♊20'41	45°33'28	morning set	3280 Nov 23 23:51	22°♎47'46	
	3278 Jun 03 17:29	0°♋			3280 Nov 29 17:52	0°♏	

	3280 Dec 23 15:16	0°☾		minimum elong	3283 Jun 01 12:44	11°☿50'07	2°24'29
desc. node	3280 Dec 24 18:37	1°☾25'58		min. Earth dist.	3283 Jun 01 05:12	12°☿01'59	0.28559 AU
				morning rise	3283 Jun 07 16:05	8°☿09'01	
superior conj	3281 Jan 03 07:40	13°☾25'56	0°-22'-42	desc. node	3283 Jun 11 13:33	6°☿14'05	
minimum elong	3281 Jan 03 01:48	13°☾07'30	0°22'26	direct	3283 Jun 22 16:19	3°☿48'16	
max. Earth dist.	3281 Jan 02 21:39	12°☾54'25	1.71138 AU	greatest brilliancy	3283 Jul 05 06:19	6°☿35'46	-4.5m
	3281 Jan 16 11:43	0°≈			3283 Aug 06 16:09	0°☾	
evening rise	3281 Feb 09 08:23	0°☿		morning max el	3283 Aug 10 07:57	3°☾26'07	45°42'42
	3281 Feb 13 13:11	5°☿16'29			3283 Sep 05 05:33	0°☿	
	3281 Mar 05 06:52	0°☿			3283 Oct 01 21:59	0°☿	
asc. node	3281 Mar 29 09:20	0°☿		asc. node	3283 Oct 02 16:47	0°☿54'29	
	3281 Apr 16 21:42	22°☿49'42			3283 Oct 27 06:55	0°☿	
	3281 Apr 22 18:15	0°☿			3283 Nov 20 21:58	0°☿	
	3281 May 17 12:24	0°☾			3283 Dec 15 02:56	0°☿	
	3281 Jun 11 19:50	0°☿			3284 Jan 08 02:48	0°☿	
	3281 Jul 08 01:09	0°☿		desc. node	3284 Jan 22 06:27	17°☿45'20	
desc. node	3281 Aug 05 03:44	0°☿			3284 Feb 01 00:29	0°≈	
evening max el	3281 Aug 06 11:15	1°☿19'00		morning set	3284 Feb 09 01:28	10°≈06'08	
	3281 Aug 13 07:31	8°☿00'28	45°38'52		3284 Feb 24 21:45	0°☿	
	3281 Sep 09 04:09	0°☿			3284 Mar 19 20:09	0°☿	
greatest brilliancy	3281 Sep 19 22:10	5°☿31'02	-4.5m				
retrograde	3281 Oct 01 01:00	7°☿42'52		superior conj	3284 Mar 21 03:19	1°☿37'27	-1°-26'-22
evening set	3281 Oct 18 05:43	2°☿09'59		minimum elong	3284 Mar 21 04:48	1°☿42'05	1°26'23
	3281 Oct 21 19:35	30°☿		max. Earth dist.	3284 Mar 25 01:38	6°☿32'14	1.71762 AU
inferior conj	3281 Oct 22 01:56	29°☿50'11	-7°-34'-14		3284 Apr 12 21:12	0°☿	
minimum elong	3281 Oct 22 11:03	29°☿36'06	7°32'51	evening rise	3284 Apr 29 20:28	21°☿03'23	
min. Earth dist.	3281 Oct 23 00:33	29°☿15'17	0.27892 AU		3284 May 07 02:05	0°☿	
morning rise	3281 Oct 26 16:02	27°☿03'44		asc. node	3284 May 14 09:30	9°☿01'03	
direct	3281 Nov 12 06:01	21°☿46'54			3284 May 31 11:27	0°☾	
greatest brilliancy	3281 Nov 26 11:32	25°☿27'37	-4.6m		3284 Jun 25 01:51	0°☿	
asc. node	3281 Nov 27 14:10	26°☿00'55			3284 Jul 19 22:34	0°☿	
	3281 Dec 04 07:03	0°☿			3284 Aug 14 04:36	0°☿	
morning max el	3282 Jan 01 20:40	24°☿55'22	46°51'30	desc. node	3284 Sep 02 23:13	23°☿00'44	
	3282 Jan 06 18:39	0°☿			3284 Sep 09 01:39	0°☿	
	3282 Feb 02 20:41	0°☿			3284 Oct 06 02:18	0°☿	
	3282 Feb 28 08:54	0°≈		evening max el	3284 Oct 25 03:15	19°☿38'52	46°38'55
desc. node	3282 Mar 19 04:16	22°≈37'21			3284 Nov 05 03:07	0°☿	
	3282 Mar 25 06:23	0°☿		greatest brilliancy	3284 Dec 02 22:46	19°☿14'32	-4.6m
	3282 Apr 18 21:40	0°☿		retrograde	3284 Dec 14 05:02	21°☿36'29	
	3282 May 13 10:45	0°☿		asc. node	3284 Dec 25 02:03	19°☿12'54	
	3282 Jun 06 23:22	0°☿		evening set	3284 Dec 28 12:55	17°☿33'16	
	3282 Jul 01 11:36	0°☾		inferior conj	3285 Jan 03 18:37	13°☿55'38	2°29'38
morning set	3282 Jul 06 00:50	5°☾34'36		minimum elong	3285 Jan 03 13:02	14°☿04'07	2°27'53
asc. node	3282 Jul 10 07:06	10°☾48'00		min. Earth dist.	3285 Jan 03 14:26	14°☿01'59	0.26510 AU
	3282 Jul 25 22:33	0°☿		morning rise	3285 Jan 09 13:02	10°☿32'37	
max. Earth dist.	3282 Aug 09 14:09	18°☿01'17	1.73411 AU	direct	3285 Jan 24 04:05	6°☿16'25	
				greatest brilliancy	3285 Feb 05 03:58	8°☿56'59	-4.7m
superior conj	3282 Aug 11 13:54	20°☿28'17	1°06'58		3285 Mar 06 05:51	0°≈	
minimum elong	3282 Aug 11 05:15	20°☿01'40	1°06'42	morning max el	3285 Mar 15 13:02	8°≈59'28	46°49'40
	3282 Aug 19 07:28	0°☿			3285 Apr 04 11:22	0°☿	
	3282 Sep 12 14:32	0°☿		desc. node	3285 Apr 15 16:06	12°☿26'50	
evening rise	3282 Sep 16 15:26	4°☿59'28			3285 May 01 00:56	0°☿	
	3282 Oct 06 20:42	0°☿			3285 May 26 16:28	0°☿	
desc. node	3282 Oct 29 21:04	28°☿27'27			3285 Jun 20 22:01	0°☿	
	3282 Oct 31 03:01	0°☿			3285 Jul 15 21:24	0°☾	
	3282 Nov 24 10:08	0°☿		asc. node	3285 Aug 06 18:59	26°☾32'33	
	3282 Dec 18 19:02	0°≈			3285 Aug 09 15:08	0°☿	
	3283 Jan 12 08:44	0°☿			3285 Sep 03 03:03	0°☿	
	3283 Feb 06 10:38	0°☿		morning set	3285 Sep 12 00:47	10°☿58'26	
asc. node	3283 Feb 19 23:47	15°☿42'53			3285 Sep 27 09:44	0°☿	
	3283 Mar 04 17:38	0°☿		max. Earth dist.	3285 Oct 16 00:17	23°☿07'35	1.72269 AU
evening max el	3283 Mar 22 01:37	18°☿14'03	46°29'39				
	3283 Apr 03 11:34	0°☿		superior conj	3285 Oct 18 23:06	26°☿48'09	1°15'13
greatest brilliancy	3283 Apr 26 12:55	16°☿28'12	-4.6m	minimum elong	3285 Oct 19 07:18	27°☿13'41	1°15'01
retrograde	3283 May 10 23:18	20°☿11'46			3285 Oct 21 12:40	0°☿	
evening set	3283 May 26 09:46	15°☿33'18			3285 Nov 14 13:27	0°☿	
inferior conj	3283 Jun 01 07:31	11°☿58'19	2°26'00	desc. node	3285 Nov 26 08:52	14°☿45'59	

evening rise	3285 Nov 26 21:32	15° ♊ 25'35			3288 Jun 04 13:27	0° ♋		
	3285 Dec 08 13:10	0° ♌			3288 Jul 02 14:17	0° ♍		
	3286 Jan 01 12:36	0° ♎			3288 Jul 28 23:50	0° ♏		
	3286 Jan 25 13:04	0° ♐			3288 Aug 23 13:12	0° ♑		
	3286 Feb 18 17:17	0° ♒		asc. node	3288 Sep 03 06:53	12° ♒ 49'28		
	3286 Mar 15 05:42	0° ♓			3288 Sep 17 12:20	0° ♈		
asc. node	3286 Mar 19 11:45	5° ♈ 08'22			3288 Oct 12 00:34	0° ♉		
	3286 Apr 09 09:11	0° ♊			3288 Nov 05 05:04	0° ♋		
	3286 May 05 16:31	0° ♌		morning set	3288 Nov 21 13:19	20° ♌ 25'12		
evening max el	3286 May 31 17:39	27° ♌ 10'45	45°34'41		3288 Nov 29 04:52	0° ♍		
	3286 Jun 03 16:28	0° ♎			3288 Dec 23 02:17	0° ♏		
greatest brilliancy	3286 Jul 05 09:49	23° ♎ 46'30	-4.5m	desc. node	3288 Dec 23 20:41	0° ♐ 57'49		
desc. node	3286 Jul 09 01:30	25° ♏ 16'52		max. Earth dist.	3288 Dec 31 01:54	10° ♐ 02'13	1.71148 AU	
retrograde	3286 Jul 19 13:23	27° ♑ 15'59						
evening set	3286 Aug 04 18:29	22° ♑ 14'14		superior conj	3288 Dec 31 18:18	10° ♑ 53'47	0°-18'-51	
inferior conj	3286 Aug 10 01:11	19° ♒ 02'09	-6°-36'-59	minimum elong	3288 Dec 31 13:23	10° ♑ 38'22	0°18'38	
minimum elong	3286 Aug 09 15:26	19° ♒ 17'23	6°35'11		3289 Jan 15 22:45	0° ♓		
min. Earth dist.	3286 Aug 09 22:21	19° ♒ 06'35	0.29068 AU		3289 Feb 08 19:27	0° ♊		
morning rise	3286 Aug 14 12:22	16° ♒ 18'11		evening rise	3289 Feb 10 23:40	2° ♊ 44'00		
direct	3286 Aug 31 16:21	10° ♒ 44'06			3289 Mar 04 17:58	0° ♋		
greatest brilliancy	3286 Sep 14 19:26	14° ♒ 13'50	-4.5m		3289 Mar 28 20:32	0° ♌		
	3286 Oct 07 15:04	0° ♍		asc. node	3289 Apr 15 23:38	22° ♌ 20'36		
morning max el	3286 Oct 20 02:27	11° ♍ 33'22	46°08'07		3289 Apr 22 05:45	0° ♊		
asc. node	3286 Oct 30 04:25	21° ♍ 47'16			3289 May 17 00:26	0° ♋		
	3286 Nov 06 21:10	0° ♌			3289 Jun 11 08:52	0° ♎		
	3286 Dec 03 08:22	0° ♍			3289 Jul 07 16:14	0° ♏		
	3286 Dec 28 10:49	0° ♐			3289 Aug 05 00:11	0° ♑		
	3287 Jan 21 22:37	0° ♒		desc. node	3289 Aug 05 13:26	0° ♒ 32'49		
	3287 Feb 15 03:50	0° ♓		evening max el	3289 Aug 10 21:06	5° ♒ 43'20	45°37'30	
desc. node	3287 Feb 18 18:23	4° ♓ 28'50			3289 Sep 10 14:16	0° ♈		
	3287 Mar 11 06:35	0° ♊		greatest brilliancy	3289 Sep 17 11:28	3° ♈ 13'47	-4.5m	
	3287 Apr 04 09:11	0° ♋		retrograde	3289 Sep 28 14:11	5° ♈ 25'53		
morning set	3287 Apr 25 08:01	26° ♋ 00'56		evening set	3289 Oct 15 22:36	29° ♈ 48'38		
	3287 Apr 28 13:10	0° ♌			3289 Oct 15 14:49	30° ♈		
	3287 May 22 19:18	0° ♍		inferior conj	3289 Oct 19 16:20	27° ♈ 32'29	-7°-44'-22	
superior conj	3287 Jun 02 08:16	13° ♍ 00'05	0°-22'-34	minimum elong	3289 Oct 20 00:59	27° ♈ 19'05	7°43'08	
minimum elong	3287 Jun 02 13:06	13° ♍ 14'56	0°22'21	min. Earth dist.	3289 Oct 20 15:03	26° ♈ 57'21	0.27960 AU	
max. Earth dist.	3287 Jun 04 06:45	15° ♍ 23'18	1.73213 AU	morning rise	3289 Oct 24 02:58	24° ♈ 50'40		
asc. node	3287 Jun 11 21:17	24° ♍ 45'23		direct	3289 Nov 09 20:27	19° ♈ 28'04		
	3287 Jun 16 03:33	0° ♎		greatest brilliancy	3289 Nov 24 03:34	23° ♈ 09'34	-4.6m	
evening rise	3287 Jul 09 05:47	28° ♎ 23'06		asc. node	3289 Nov 26 16:14	24° ♈ 28'12		
	3287 Jul 10 13:21	0° ♏		morning max el	3289 Dec 05 05:57	0° ♉		
	3287 Aug 04 00:29	0° ♐			3289 Dec 30 10:07	22° ♉ 30'59	46°50'33	
	3287 Aug 28 13:34	0° ♑			3290 Jan 06 14:55	0° ♊		
	3287 Sep 22 05:54	0° ♒			3290 Feb 02 12:13	0° ♓		
desc. node	3287 Oct 01 11:09	11° ♒ 08'54		desc. node	3290 Feb 27 22:28	0° ♊		
	3287 Oct 17 03:06	0° ♋			3290 Mar 18 06:14	22° ♊ 04'56		
	3287 Nov 11 07:40	0° ♌			3290 Mar 24 18:51	0° ♋		
	3287 Dec 07 02:26	0° ♍			3290 Apr 18 09:26	0° ♌		
	3288 Jan 03 09:51	0° ♎			3290 May 12 22:02	0° ♍		
evening max el	3288 Jan 06 22:30	3° ♎ 37'49	47°14'52		3290 Jun 06 10:21	0° ♌		
asc. node	3288 Jan 22 14:00	18° ♎ 34'01		morning set	3290 Jun 30 22:23	0° ♏		
	3288 Feb 06 10:02	0° ♐		asc. node	3290 Jul 03 18:34	3° ♏ 28'57		
greatest brilliancy	3288 Feb 13 20:50	4° ♐ 06'02	-4.7m		3290 Jul 09 09:13	10° ♏ 21'35		
retrograde	3288 Feb 26 19:56	7° ♐ 13'15		max. Earth dist.	3290 Jul 25 09:14	0° ♑		
evening set	3288 Mar 15 19:53	0° ♒ 55'47			3290 Aug 07 08:58	15° ♑ 58'41	1.73434 AU	
	3288 Mar 17 08:03	30° ♒		superior conj	3290 Aug 09 08:11	18° ♑ 24'01	1°04'58	
min. Earth dist.	3288 Mar 18 02:27	29° ♒ 31'20	0.27549 AU	minimum elong	3290 Aug 08 23:25	17° ♑ 57'02	1°04'42	
inferior conj	3288 Mar 18 15:57	29° ♒ 10'16	8°55'35		3290 Aug 18 18:08	0° ♓		
minimum elong	3288 Mar 18 16:40	29° ♒ 09'08	8°55'35		3290 Sep 12 01:17	0° ♈		
morning rise	3288 Mar 21 13:39	27° ♒ 22'49		evening rise	3290 Sep 14 08:43	2° ♈ 51'15		
direct	3288 Apr 08 10:11	21° ♒ 17'40			3290 Oct 06 07:39	0° ♉		
greatest brilliancy	3288 Apr 19 06:08	23° ♒ 28'20	-4.6m	desc. node	3290 Oct 22 22:59	27° ♉ 58'40		
	3288 May 01 10:02	0° ♋			3290 Oct 30 14:16	0° ♊		
desc. node	3288 May 13 03:43	8° ♋ 56'02			3290 Nov 23 21:48	0° ♋		
morning max el	3288 May 27 20:48	22° ♋ 21'15	46°06'00		3290 Dec 18 07:13	0° ♌		

	3291 Jan 11 21:41	0° H			3293 Sep 02 13:41	0° M		
	3291 Feb 06 00:56	0° Y		morning set	3293 Sep 09 18:02	8° M 50'51		
asc. node	3291 Feb 19 01:53	15° Y 04'32			3293 Sep 26 20:21	0° L		
	3291 Mar 04 11:02	0° B		max. Earth dist.	3293 Oct 13 15:43	20° L 52'59	1.72318 AU	
evening max el	3291 Mar 19 15:26	15° B 54'32	46°32'01					
	3291 Apr 03 16:31	0° II		superior conj	3293 Oct 16 14:47	24° L 34'13	1°16'45	
greatest brilliancy	3291 Apr 24 05:23	14° II 16'41	-4.6m	minimum elong	3293 Oct 16 22:27	24° L 58'08	1°16'35	
retrograde	3291 May 08 15:20	18° II 00'39			3293 Oct 20 23:21	0° M		
evening set	3291 May 24 03:40	13° II 19'19			3293 Nov 14 00:15	0° J		
inferior conj	3291 May 29 23:32	9° II 47'20	2°45'35	evening rise	3293 Nov 24 10:07	13° J 00'51		
minimum elong	3291 May 30 05:23	9° II 38'07	2°43'55	desc. node	3293 Nov 25 10:59	14° J 18'34		
min. Earth dist.	3291 May 29 21:40	9° II 50'15	0.28534 AU		3293 Dec 08 00:07	0° C		
morning rise	3291 Jun 05 07:25	5° II 58'56			3293 Dec 31 23:43	0° \approx		
desc. node	3291 Jun 10 15:33	3° II 28'22			3294 Jan 25 00:26	0° H		
direct	3291 Jun 20 07:13	1° II 37'27			3294 Feb 18 04:59	0° Y		
greatest brilliancy	3291 Jul 02 21:38	4° II 24'59	-4.5m		3294 Mar 14 17:58	0° B		
	3291 Aug 06 15:35	0° C		asc. node	3294 Mar 18 13:41	4° B 36'48		
morning max el	3291 Aug 07 23:32	1° C 15'41	45°42'38		3294 Apr 08 22:33	0° II		
	3291 Sep 04 21:22	0° L			3294 May 05 08:19	0° C		
	3291 Oct 01 11:17	0° M		evening max el	3294 May 29 10:36	25° C 02'55	45°35'54	
asc. node	3291 Oct 01 18:40	0° M 21'29			3294 Jun 03 16:01	0° L		
	3291 Oct 26 19:04	0° L		greatest brilliancy	3294 Jul 03 01:01	21° L 37'12	-4.5m	
	3291 Nov 20 09:32	0° M		desc. node	3294 Jul 08 03:39	23° L 37'31		
	3291 Dec 14 14:13	0° J		retrograde	3294 Jul 17 05:54	25° L 07'43		
	3292 Jan 07 13:55	0° C		evening set	3294 Aug 02 08:03	20° L 10'06		
desc. node	3292 Jan 21 08:32	17° C 17'14		inferior conj	3294 Aug 07 17:30	16° L 53'41	-6°-24'-3	
	3292 Jan 31 11:29	0° \approx		minimum elong	3294 Aug 07 07:40	17° L 09'04	6°22'09	
morning set	3292 Feb 06 11:00	7° \approx 30'48		min. Earth dist.	3294 Aug 07 13:47	16° L 59'30	0.29067 AU	
	3292 Feb 24 08:40	0° H		morning rise	3294 Aug 12 07:20	14° L 05'43		
				direct	3294 Aug 29 09:15	8° L 35'56		
superior conj	3292 Mar 18 15:02	29° H 10'06	-1°-26'-32	greatest brilliancy	3294 Sep 12 09:21	12° L 02'30	-4.5m	
minimum elong	3292 Mar 18 15:30	29° H 11'35	1°26'34		3294 Oct 07 18:33	0° M		
	3292 Mar 19 06:59	0° Y		morning max el	3294 Oct 17 18:03	9° M 21'11	46°06'29	
max. Earth dist.	3292 Mar 22 08:10	3° Y 48'51	1.71711 AU	asc. node	3294 Oct 29 06:31	21° M 04'29		
	3292 Apr 12 07:59	0° B			3294 Nov 06 13:58	0° L		
evening rise	3292 Apr 27 10:24	18° B 44'38			3294 Dec 02 22:16	0° M		
	3292 May 06 12:51	0° II			3294 Dec 27 23:28	0° J		
asc. node	3292 May 13 11:32	8° II 34'05			3295 Jan 21 10:33	0° C		
	3292 May 30 22:19	0° C			3295 Feb 14 15:21	0° \approx		
	3292 Jun 24 12:59	0° L		desc. node	3295 Feb 17 20:25	3° \approx 59'32		
	3292 Jul 19 10:14	0° M			3295 Mar 10 17:47	0° H		
	3292 Aug 13 17:13	0° L			3295 Apr 03 20:08	0° Y		
desc. node	3292 Sep 02 01:10	22° L 26'34		morning set	3295 Apr 22 22:19	23° Y 43'00		
	3292 Sep 08 16:02	0° M			3295 Apr 27 23:56	0° B		
	3292 Oct 05 20:25	0° J			3295 May 22 05:57	0° II		
evening max el	3292 Oct 22 16:53	17° J 17'17	46°36'46					
	3292 Nov 05 09:46	0° C		superior conj	3295 May 31 00:30	10° II 49'23	0°-25'-48	
greatest brilliancy	3292 Nov 30 11:01	16° C 46'26	-4.6m	minimum elong	3295 May 31 05:59	11° II 06'17	0°25'34	
retrograde	3292 Dec 11 17:42	19° C 08'24		max. Earth dist.	3295 Jun 02 04:06	13° II 28'25	1.73177 AU	
asc. node	3292 Dec 24 04:09	16° C 01'43		asc. node	3295 Jun 10 23:26	24° II 19'22		
evening set	3292 Dec 26 00:31	15° C 05'45			3295 Jun 15 14:08	0° C		
inferior conj	3293 Jan 01 06:45	11° C 27'36	2°05'44	evening rise	3295 Jul 07 00:06	26° C 19'20		
minimum elong	3293 Jan 01 02:01	11° C 34'48	2°04'13		3295 Jul 09 23:59	0° L		
min. Earth dist.	3293 Jan 01 03:43	11° C 32'12	0.26514 AU		3295 Aug 03 11:17	0° M		
morning rise	3293 Jan 07 03:23	8° C 02'01			3295 Aug 28 00:40	0° L		
direct	3293 Jan 21 16:49	3° C 48'05			3295 Sep 21 17:31	0° M		
greatest brilliancy	3293 Feb 02 18:26	6° C 31'14	-4.7m	desc. node	3295 Sep 30 13:09	10° M 39'07		
	3293 Mar 06 08:47	0° \approx			3295 Oct 16 15:30	0° J		
morning max el	3293 Mar 13 03:31	6° \approx 38'01	46°50'42		3295 Nov 10 21:21	0° C		
	3293 Apr 04 04:45	0° H			3295 Dec 06 18:25	0° \approx		
desc. node	3293 Apr 14 18:03	11° H 47'47			3296 Jan 03 07:27	0° H		
	3293 Apr 30 15:10	0° Y		evening max el	3296 Jan 04 13:12	1° H 16'00	47°14'51	
	3293 May 26 05:08	0° B		asc. node	3296 Jan 21 16:04	17° H 28'38		
	3293 Jun 20 09:46	0° II			3296 Feb 08 00:44	0° Y		
	3293 Jul 15 08:33	0° C		greatest brilliancy	3296 Feb 11 13:33	1° Y 45'52	-4.7m	
asc. node	3293 Aug 05 21:03	26° C 05'53		retrograde	3296 Feb 24 09:56	4° Y 49'51		
	3293 Aug 09 01:56	0° L			3296 Mar 10 23:21	30° R H		

evening set	3296 Mar 13 09:11	28° K 34'15		max. Earth dist.	3298 Aug 05 05:41	14° Ω 01'55	1.73456 AU
min. Earth dist.	3296 Mar 15 15:38	27° K 09'54	0.27498 AU				
inferior conj	3296 Mar 16 05:44	26° K 47'53	8°56'20	superior conj	3298 Aug 07 02:28	16° Ω 19'46	1°02'54
minimum elong	3296 Mar 16 05:31	26° K 48'13	8°56'21	minimum elong	3298 Aug 06 17:37	15° Ω 52'32	1°02'36
morning rise	3296 Mar 19 02:03	25° K 02'23			3298 Aug 18 04:48	0° M	
direct	3296 Apr 05 23:28	18° K 56'22			3298 Sep 11 12:03	0° Ω	
greatest brilliancy	3296 Apr 16 17:59	21° K 05'23	-4.6m	evening rise	3298 Sep 12 02:18	0° Ω 43'58	
	3296 May 02 07:58	0° Y			3298 Oct 05 18:39	0° M	
desc. node	3296 May 12 05:51	7° Y 53'56		desc. node	3298 Oct 28 01:08	27° M 30'28	
morning max el	3296 May 25 10:01	20° Y 01'19	46°07'24		3298 Oct 30 01:34	0° X	
	3296 Jun 04 09:15	0° B			3298 Nov 23 09:28	0° B	
	3296 Jul 02 05:11	0° II			3298 Dec 17 19:24	0° \approx	
	3296 Jul 28 12:42	0° B			3299 Jan 11 10:40	0° K	
	3296 Aug 23 01:02	0° Ω			3299 Feb 05 15:24	0° Y	
asc. node	3296 Sep 02 08:48	12° Ω 20'36		asc. node	3299 Feb 18 03:46	14° Y 25'07	
	3296 Sep 16 23:36	0° M			3299 Mar 04 04:55	0° B	
	3296 Oct 11 11:31	0° Ω		evening max el	3299 Mar 17 05:57	13° B 36'18	46°34'16
	3296 Nov 04 15:53	0° M			3299 Apr 03 23:57	0° II	
morning set	3296 Nov 19 03:06	18° M 04'17		greatest brilliancy	3299 Apr 21 21:11	12° II 03'25	-4.6m
	3296 Nov 28 15:40	0° X		retrograde	3299 May 06 07:40	15° II 48'31	
desc. node	3296 Dec 22 22:48	0° B 30'23		evening set	3299 May 21 21:35	11° II 04'01	
	3296 Dec 22 13:08	0° B		inferior conj	3299 May 27 15:25	7° II 35'12	3°05'07
max. Earth dist.	3296 Dec 28 05:48	7° B 09'29	1.71169 AU	minimum elong	3299 May 27 21:53	7° II 25'03	3°03'18
				min. Earth dist.	3299 May 27 13:48	7° II 37'44	0.28510 AU
superior conj	3296 Dec 29 04:59	8° B 22'22	0°-14'-59	morning rise	3299 Jun 02 22:28	3° II 48'12	
minimum elong	3296 Dec 29 01:04	8° B 10'04	0°14'48	desc. node	3299 Jun 09 17:40	0° II 46'03	
behind sun begin	3296 Dec 28 13:59	7° B 35'12			3299 Jun 12 13:24	30° R B	
behind sun end	3296 Dec 29 12:10	8° B 44'56		direct	3299 Jun 17 22:22	29° B 25'29	
	3297 Jan 15 09:41	0° \approx			3299 Jun 23 11:26	0° II	
evening rise	3297 Feb 08 09:48	0° K 10'38		greatest brilliancy	3299 Jun 30 12:48	2° II 13'18	-4.5m
	3297 Feb 08 06:25	0° K		morning max el	3299 Aug 05 15:50	29° II 06'34	45°42'42
	3297 Mar 04 05:00	0° Y			3299 Aug 06 14:12	0° B	
	3297 Mar 28 07:42	0° B			3299 Sep 04 13:01	0° Ω	
asc. node	3297 Apr 15 01:41	21° B 52'09		asc. node	3299 Sep 30 20:46	29° Ω 48'59	
	3297 Apr 21 17:10	0° II			3299 Oct 01 00:33	0° M	
	3297 May 16 12:23	0° B			3299 Oct 26 07:16	0° Ω	
	3297 Jun 10 21:51	0° Ω			3299 Nov 19 21:12	0° M	
	3297 Jul 07 07:23	0° M			3299 Dec 14 01:36	0° X	
desc. node	3297 Aug 04 15:24	29° M 45'49			3300 Jan 07 01:08	0° B	
	3297 Aug 04 21:11	0° Ω		desc. node	3300 Jan 20 10:33	16° B 48'38	
evening max el	3297 Aug 08 10:29	3° Ω 26'13	45°36'16		3300 Jan 30 22:34	0° \approx	
	3297 Sep 12 17:11	0° M		morning set	3300 Feb 03 21:03	4° \approx 56'50	
greatest brilliancy	3297 Sep 14 23:50	0° M 56'18	-4.5m		3300 Feb 23 19:39	0° K	
retrograde	3297 Sep 26 03:44	3° M 10'06					
	3297 Oct 08 22:43	30° R Ω		superior conj	3300 Mar 17 02:53	26° K 42'43	-1°-26'-33
evening set	3297 Oct 13 15:26	27° Ω 28'23		minimum elong	3300 Mar 17 02:19	26° K 40'57	1°26'34
inferior conj	3297 Oct 17 06:51	25° Ω 15'47	-7°-53'-33		3300 Mar 19 17:55	0° Y	
minimum elong	3297 Oct 17 14:59	25° Ω 03'12	7°52'31	max. Earth dist.	3300 Mar 20 16:58	1° Y 12'03	1.71667 AU
min. Earth dist.	3297 Oct 18 05:35	24° Ω 40'39	0.28028 AU		3300 Apr 12 18:55	0° B	
morning rise	3297 Oct 21 14:07	22° Ω 38'49		evening rise	3300 Apr 26 00:17	16° B 25'08	
direct	3297 Nov 07 11:04	17° Ω 10'08			3300 May 06 23:49	0° II	
greatest brilliancy	3297 Nov 21 20:27	20° Ω 53'40	-4.6m	asc. node	3300 May 13 13:39	8° II 06'41	
asc. node	3297 Nov 25 18:17	22° Ω 59'29			3300 May 31 09:25	0° B	
	3297 Dec 05 22:32	0° M			3300 Jun 25 00:21	0° Ω	
morning max el	3297 Dec 28 00:11	20° M 08'47	46°49'35		3300 Jul 19 22:09	0° M	
	3298 Jan 06 10:24	0° X			3300 Aug 14 06:09	0° Ω	
	3298 Feb 02 03:26	0° B		desc. node	3300 Sep 02 03:11	21° Ω 51'46	
	3298 Feb 27 11:54	0° \approx			3300 Sep 09 06:49	0° M	
desc. node	3298 Mar 17 08:12	21° \approx 32'37			3300 Oct 06 15:13	0° X	
	3298 Mar 24 07:17	0° K		evening max el	3300 Oct 21 07:24	14° X 57'31	46°34'32
	3298 Apr 17 21:12	0° Y			3300 Nov 06 19:11	0° B	
	3298 May 12 09:21	0° B		greatest brilliancy	3300 Nov 28 23:37	14° B 18'33	-4.6m
	3298 Jun 05 21:20	0° II		retrograde	3300 Dec 10 06:32	16° B 39'57	
	3298 Jun 30 09:09	0° B		asc. node	3300 Dec 24 06:11	12° B 46'17	
morning set	3298 Jul 01 12:08	1° B 22'42		evening set	3300 Dec 24 12:34	12° B 37'54	
asc. node	3298 Jul 08 11:13	9° B 54'54		inferior conj	3300 Dec 30 19:00	8° B 59'18	1°41'37
	3298 Jul 24 19:53	0° Ω		minimum elong	3300 Dec 30 15:08	9° B 05'10	1°40'22

min. Earth dist.	3300 Dec 30 17:06	9°𐌵02'11	0.26518 AU			3303 Aug 03 22:25	0°𐌹	
morning rise	3301 Jan 05 17:38	5°𐌵31'17				3303 Aug 28 12:08	0°𐌱	
direct	3301 Jan 20 06:01	1°𐌵19'43				3303 Sep 22 05:30	0°𐌹	
greatest brilliancy	3301 Feb 01 08:18	4°𐌵04'17	-4.7m	desc. node		3303 Sep 30 15:15	10°𐌹08'31	
	3301 Mar 07 10:26	0°𐌹				3303 Oct 17 04:18	0°𐌹	
morning max el	3301 Mar 11 17:44	4°𐌹15'27	46°51'44			3303 Nov 11 11:29	0°𐌵	
	3301 Apr 04 21:54	0°𐌹				3303 Dec 07 11:00	0°𐌹	
desc. node	3301 Apr 14 20:14	11°𐌹09'24		evening max el		3304 Jan 03 02:52	28°𐌹50'32	47°14'42
	3301 May 01 05:25	0°𐌹				3304 Jan 04 06:16	0°𐌹	
	3301 May 26 17:57	0°𐌹		asc. node		3304 Jan 21 18:01	16°𐌹20'19	
	3301 Jun 20 21:43	0°𐌹		greatest brilliancy		3304 Feb 10 06:13	29°𐌹24'23	-4.7m
	3301 Jul 15 19:58	0°𐌹				3304 Feb 11 15:29	0°𐌹	
asc. node	3301 Aug 05 23:01	25°𐌹38'00		retrograde		3304 Feb 22 23:31	2°𐌹25'19	
	3301 Aug 09 13:01	0°𐌹				3304 Mar 04 20:09	30°𐌹	
	3301 Sep 03 00:36	0°𐌹		evening set		3304 Mar 11 21:57	26°𐌹12'18	
morning set	3301 Sep 08 11:19	6°𐌹42'36		min. Earth dist.		3304 Mar 14 05:11	24°𐌹46'47	0.27450 AU
	3301 Sep 27 07:14	0°𐌱		inferior conj		3304 Mar 14 19:30	24°𐌹24'24	8°56'07
max. Earth dist.	3301 Oct 12 06:06	18°𐌱34'31	1.72366 AU	minimum elong		3304 Mar 14 18:22	24°𐌹26'10	8°56'06
				morning rise		3304 Mar 17 14:58	22°𐌹40'04	
superior conj	3301 Oct 15 06:39	22°𐌱20'14	1°18'09	direct		3304 Apr 04 12:14	16°𐌹33'39	
minimum elong	3301 Oct 15 13:47	22°𐌱42'27	1°18'02	greatest brilliancy		3304 Apr 15 07:03	18°𐌹42'27	-4.6m
	3301 Oct 21 10:18	0°𐌹				3304 May 04 00:46	0°𐌹	
	3301 Nov 14 11:19	0°𐌹		desc. node		3304 May 12 07:51	6°𐌹52'06	
evening rise	3301 Nov 22 22:54	10°𐌹35'59		morning max el		3304 May 23 22:58	17°𐌹39'35	46°09'02
desc. node	3301 Nov 25 13:02	13°𐌹50'07				3304 Jun 05 04:49	0°𐌹	
	3301 Dec 08 11:21	0°𐌵				3304 Jul 02 20:11	0°𐌹	
	3302 Jan 01 11:10	0°𐌹				3304 Jul 29 01:46	0°𐌹	
	3302 Jan 25 12:06	0°𐌹				3304 Aug 23 13:06	0°𐌹	
	3302 Feb 18 16:59	0°𐌹		asc. node		3304 Sep 02 10:55	11°𐌹51'31	
	3302 Mar 15 06:32	0°𐌹				3304 Sep 17 11:09	0°𐌹	
asc. node	3302 Mar 18 15:49	4°𐌹05'00				3304 Oct 11 22:48	0°𐌱	
	3302 Apr 09 12:16	0°𐌹				3304 Nov 05 03:02	0°𐌹	
	3302 May 06 00:40	0°𐌹		morning set		3304 Nov 17 16:54	15°𐌹42'29	
evening max el	3302 May 28 03:06	22°𐌹53'08	45°36'58			3304 Nov 29 02:48	0°𐌹	
	3302 Jun 04 17:05	0°𐌹		desc. node		3304 Dec 23 00:45	0°𐌵01'28	
greatest brilliancy	3302 Jul 01 17:00	19°𐌹27'54	-4.5m			3304 Dec 23 00:17	0°𐌵	
desc. node	3302 Jul 08 05:36	21°𐌹53'36		max. Earth dist.		3304 Dec 26 11:44	4°𐌵22'13	1.71192 AU
retrograde	3302 Jul 15 22:00	22°𐌹58'36						
evening set	3302 Jul 31 21:50	18°𐌹05'02		superior conj		3304 Dec 27 15:39	5°𐌵50'00	0°-11'-6
inferior conj	3302 Aug 06 09:56	14°𐌹44'32	-6°-10'-38	minimum elong		3304 Dec 27 12:45	5°𐌵40'52	0°10'58
minimum elong	3302 Aug 06 00:05	14°𐌹59'58	6°08'38	behind sun begin		3304 Dec 26 17:13	4°𐌵39'28	
min. Earth dist.	3302 Aug 06 05:44	14°𐌹51'06	0.29064 AU	behind sun end		3304 Dec 28 08:17	6°𐌵42'17	
morning rise	3302 Aug 11 02:23	11°𐌹52'28				3305 Jan 15 20:52	0°𐌹	
direct	3302 Aug 28 01:54	6°𐌹27'04		evening rise		3305 Feb 06 19:59	27°𐌹36'35	
greatest brilliancy	3302 Sep 10 23:11	9°𐌹50'05	-4.5m			3305 Feb 08 17:40	0°𐌹	
	3302 Oct 08 20:53	0°𐌹				3305 Mar 04 16:19	0°𐌹	
morning max el	3302 Oct 16 08:50	7°𐌹06'01	46°04'56			3305 Mar 28 19:11	0°𐌹	
asc. node	3302 Oct 29 08:38	20°𐌹21'26		asc. node		3305 Apr 15 03:48	21°𐌹22'46	
	3302 Nov 07 06:49	0°𐌱				3305 Apr 22 04:57	0°𐌹	
	3302 Dec 03 12:20	0°𐌹				3305 May 17 00:42	0°𐌹	
	3302 Dec 28 12:18	0°𐌹				3305 Jun 11 11:13	0°𐌹	
	3303 Jan 21 22:45	0°𐌵				3305 Jul 07 23:01	0°𐌹	
	3303 Feb 15 03:09	0°𐌹		desc. node		3305 Aug 04 17:25	28°𐌹57'38	
desc. node	3303 Feb 17 22:21	3°𐌹29'00				3305 Aug 05 19:13	0°𐌱	
	3303 Mar 11 05:18	0°𐌹		evening max el		3305 Aug 07 00:06	1°𐌱09'14	45°35'07
	3303 Apr 04 07:24	0°𐌹		greatest brilliancy		3305 Sep 13 11:00	28°𐌱37'08	-4.5m
morning set	3303 Apr 21 12:44	21°𐌹24'27				3305 Sep 17 18:49	0°𐌹	
	3303 Apr 28 10:59	0°𐌹		retrograde		3305 Sep 24 17:50	0°𐌹54'00	
	3303 May 22 16:52	0°𐌹				3305 Oct 01 11:51	30°𐌹𐌱	
				evening set		3305 Oct 12 08:10	25°𐌱07'47	
superior conj	3303 May 29 16:57	8°𐌹38'31	0°-28'-59	inferior conj		3305 Oct 15 21:25	22°𐌱58'28	-8°-2'00
minimum elong	3303 May 29 23:03	8°𐌹57'21	0°28'43	minimum elong		3305 Oct 16 04:59	22°𐌱46'47	8°01'07
max. Earth dist.	3303 Jun 01 01:22	11°𐌹32'28	1.73137 AU	min. Earth dist.		3305 Oct 16 19:47	22°𐌱23'57	0.28098 AU
asc. node	3303 Jun 11 01:25	23°𐌹51'59		morning rise		3305 Oct 20 01:25	20°𐌱26'26	
	3303 Jun 16 01:00	0°𐌹		direct		3305 Nov 06 02:09	14°𐌱51'37	
evening rise	3303 Jul 05 18:34	24°𐌹15'06		greatest brilliancy		3305 Nov 20 13:53	18°𐌱37'57	-4.6m
	3303 Jul 10 10:56	0°𐌹		asc. node		3305 Nov 25 20:17	21°𐌱32'55	

	3305 Dec 07 11:19	0°♌			3308 Jun 24 11:47	0°♏		
morning max el	3305 Dec 26 15:17	17°♌48'28	46°48'33		3308 Jul 19 10:09	0°♐		
	3306 Jan 07 05:41	0°♑			3308 Aug 13 19:09	0°♐		
	3306 Feb 02 18:44	0°♒		desc. node	3308 Sep 01 05:21	21°♐17'24		
	3306 Feb 28 01:26	0°♑			3308 Sep 08 21:42	0°♌		
desc. node	3306 Mar 17 10:24	21°♑00'30			3308 Oct 06 10:24	0°♑		
	3306 Mar 24 19:50	0°♒		evening max el	3308 Oct 18 22:01	12°♑38'33	46°32'16	
	3306 Apr 18 09:08	0°♑			3308 Nov 07 07:32	0°♒		
	3306 May 12 20:51	0°♑		greatest brilliancy	3308 Nov 26 12:36	11°♒51'53	-4.6m	
	3306 Jun 06 08:32	0°♑		retrograde	3308 Dec 07 18:56	14°♒11'54		
morning set	3306 Jun 30 05:48	29°♑16'03		evening set	3308 Dec 22 00:54	10°♒10'24		
	3306 Jun 30 20:08	0°♑		asc. node	3308 Dec 23 08:10	9°♒27'48		
asc. node	3306 Jul 08 13:13	9°♑27'34		inferior conj	3308 Dec 28 07:16	6°♒31'31	1°17'16	
	3306 Jul 25 06:44	0°♏		minimum elong	3308 Dec 28 04:19	6°♒36'01	1°16'19	
max. Earth dist.	3306 Aug 04 03:54	12°♏09'18	1.73472 AU	min. Earth dist.	3308 Dec 28 06:37	6°♒32'31	0.26529 AU	
				morning rise	3309 Jan 03 07:41	3°♒01'02		
superior conj	3306 Aug 05 20:52	14°♏15'23	1°00'44		3309 Jan 10 08:55	30°♒♑		
minimum elong	3306 Aug 05 11:59	13°♏48'01	1°00'25	direct	3309 Jan 17 19:08	28°♑51'52		
	3306 Aug 18 15:37	0°♐			3309 Jan 25 10:24	0°♒		
evening rise	3306 Sep 10 20:09	28°♐37'09		greatest brilliancy	3309 Jan 29 22:15	1°♒37'27	-4.7m	
	3306 Sep 11 22:59	0°♑			3309 Mar 07 10:50	0°♑		
	3306 Oct 06 05:48	0°♌		morning max el	3309 Mar 09 07:04	1°♑50'27	46°52'31	
desc. node	3306 Oct 28 03:11	27°♌01'30			3309 Apr 04 14:46	0°♒		
	3306 Oct 30 13:03	0°♑		desc. node	3309 Apr 13 22:13	10°♒30'45		
	3306 Nov 23 21:22	0°♒			3309 Apr 30 19:31	0°♑		
	3306 Dec 18 07:51	0°♑			3309 May 26 06:37	0°♑		
	3307 Jan 11 23:58	0°♒			3309 Jun 20 09:32	0°♑		
	3307 Feb 06 06:16	0°♑			3309 Jul 15 07:14	0°♑		
asc. node	3307 Feb 18 05:55	13°♑45'31		asc. node	3309 Aug 05 01:07	25°♑10'56		
	3307 Mar 04 23:28	0°♑			3309 Aug 08 23:58	0°♏		
evening max el	3307 Mar 15 21:10	11°♑19'14	46°36'35		3309 Sep 02 11:23	0°♐		
	3307 Apr 05 10:27	0°♑		morning set	3309 Sep 06 04:34	4°♐34'37		
greatest brilliancy	3307 Apr 20 13:00	9°♑49'34	-4.6m		3309 Sep 26 17:58	0°♑		
retrograde	3307 May 05 00:10	13°♑35'20		max. Earth dist.	3309 Oct 09 19:18	16°♑12'56	1.72411 AU	
evening set	3307 May 20 15:29	8°♑47'34						
inferior conj	3307 May 26 07:05	5°♑21'56	3°24'35	superior conj	3309 Oct 12 22:47	20°♑07'41	1°19'27	
minimum elong	3307 May 26 14:09	5°♑10'53	3°22'36	minimum elong	3309 Oct 13 05:20	20°♑28'03	1°19'19	
min. Earth dist.	3307 May 26 05:24	5°♑24'36	0.28485 AU		3309 Oct 20 21:04	0°♌		
morning rise	3307 Jun 01 13:09	1°♑36'41			3309 Nov 13 22:11	0°♑		
	3307 Jun 04 17:33	30°♒♑		evening rise	3309 Nov 20 12:01	8°♑12'53		
desc. node	3307 Jun 09 19:39	28°♑07'31		desc. node	3309 Nov 24 15:00	13°♑22'06		
direct	3307 Jun 16 13:54	27°♑12'32			3309 Dec 07 22:21	0°♒		
greatest brilliancy	3307 Jun 29 03:10	29°♑59'53	-4.5m		3309 Dec 31 22:22	0°♑		
	3307 Jun 29 03:16	0°♑			3310 Jan 24 23:35	0°♒		
morning max el	3307 Aug 04 08:32	26°♑58'04	45°42'52		3310 Feb 18 04:51	0°♑		
	3307 Aug 07 12:05	0°♑			3310 Mar 14 19:02	0°♑		
	3307 Sep 05 04:32	0°♏		asc. node	3310 Mar 17 17:51	3°♑33'12		
asc. node	3307 Sep 30 22:53	29°♏16'36			3310 Apr 09 01:58	0°♑		
	3307 Oct 01 13:46	0°♐			3310 May 05 17:12	0°♑		
	3307 Oct 26 19:26	0°♑		evening max el	3310 May 25 18:32	20°♑40'58	45°38'13	
	3307 Nov 20 08:52	0°♌			3310 Jun 04 19:24	0°♏		
	3307 Dec 14 13:01	0°♑		greatest brilliancy	3310 Jun 29 08:40	17°♏18'20	-4.5m	
	3308 Jan 07 12:24	0°♒		desc. node	3310 Jul 07 07:37	20°♏06'09		
desc. node	3308 Jan 20 12:36	16°♒19'51		retrograde	3310 Jul 13 13:37	20°♏49'44		
	3308 Jan 31 09:44	0°♑		evening set	3310 Jul 29 11:33	15°♏59'52		
morning set	3308 Feb 02 06:44	2°♑21'21		inferior conj	3310 Aug 04 02:14	12°♏35'39	-5°-56'-35	
	3308 Feb 24 06:44	0°♒		minimum elong	3310 Aug 03 16:25	12°♏51'03	5°54'31	
				min. Earth dist.	3310 Aug 03 21:52	12°♏42'29	0.29060 AU	
superior conj	3308 Mar 14 14:08	24°♒13'05	-1°-26'-22	morning rise	3310 Aug 08 21:17	9°♏39'28		
minimum elong	3308 Mar 14 12:29	24°♒07'57	1°26'23	direct	3310 Aug 25 17:57	4°♏18'18		
max. Earth dist.	3308 Mar 18 03:21	28°♒39'56	1.71621 AU	greatest brilliancy	3310 Sep 08 13:47	7°♏38'53	-4.5m	
	3308 Mar 19 04:57	0°♑			3310 Oct 08 21:39	0°♐		
	3308 Apr 12 05:53	0°♑		morning max el	3310 Oct 13 22:54	4°♐49'44	46°03'35	
evening rise	3308 Apr 23 13:43	14°♑04'03		asc. node	3310 Oct 28 10:33	19°♐39'02		
	3308 May 06 10:49	0°♑			3310 Nov 06 23:05	0°♑		
asc. node	3308 May 12 15:37	7°♑38'45			3310 Dec 03 01:59	0°♌		
	3308 May 30 20:33	0°♑			3310 Dec 28 00:45	0°♑		

	3311 Jan 21 10:33	0°☾			3313 Jul 07 14:29	0°☿	
	3311 Feb 14 14:34	0°≈		desc. node	3313 Aug 03 19:34	28°☿09'56	
desc. node	3311 Feb 17 00:32	3°≈00'24		evening max el	3313 Aug 04 14:32	28°☿55'20	45°34'05
	3311 Mar 10 16:26	0°☿			3313 Aug 05 17:45	0°♄	
	3311 Apr 03 18:21	0°☿		greatest brilliancy	3313 Sep 10 21:41	26°♄18'38	-4.5m
morning set	3311 Apr 19 02:45	19°☿05'22		retrograde	3313 Sep 22 08:26	28°♄38'57	
	3311 Apr 27 21:46	0°♄		evening set	3313 Oct 10 00:43	22°♄48'34	
	3311 May 22 03:31	0°♄		inferior conj	3313 Oct 13 11:58	20°♄42'10	-8°-9'-34
				minimum elong	3313 Oct 13 18:57	20°♄31'24	8°08'50
superior conj	3311 May 27 08:58	6°♄27'05	0°-32'-10	min. Earth dist.	3313 Oct 14 09:32	20°♄08'55	0.28167 AU
minimum elong	3311 May 27 15:40	6°♄47'45	0°31'52	morning rise	3313 Oct 17 12:50	18°♄14'55	
max. Earth dist.	3311 May 29 20:09	9°♄29'34	1.73096 AU	direct	3313 Nov 03 17:41	12°♄34'20	
asc. node	3311 Jun 10 03:26	23°♄25'27		greatest brilliancy	3313 Nov 18 06:43	16°♄22'43	-4.6m
	3311 Jun 15 11:38	0°♄		asc. node	3313 Nov 24 22:21	20°♄10'21	
evening rise	3311 Jul 03 12:33	22°♄10'16			3313 Dec 07 20:22	0°♄	
	3311 Jul 09 21:36	0°♄		morning max el	3313 Dec 24 06:56	15°♄30'47	46°47'25
	3311 Aug 03 09:17	0°☿			3314 Jan 07 00:06	0°♄	
	3311 Aug 27 23:20	0°♄			3314 Feb 02 09:28	0°☾	
	3311 Sep 21 17:15	0°♄			3314 Feb 27 14:30	0°≈	
desc. node	3311 Sep 29 17:16	9°♄38'25		desc. node	3314 Mar 16 12:20	20°≈28'54	
	3311 Oct 16 16:55	0°♄			3314 Mar 24 07:56	0°☿	
	3311 Nov 11 01:26	0°☾			3314 Apr 17 20:35	0°☿	
	3311 Dec 07 03:29	0°≈			3314 May 12 07:53	0°♄	
evening max el	3311 Dec 31 15:53	26°≈24'51	47°14'42		3314 Jun 05 19:16	0°♄	
	3312 Jan 04 05:29	0°☿		morning set	3314 Jun 27 23:37	27°♄11'08	
asc. node	3312 Jan 20 20:09	15°☿12'10			3314 Jun 30 06:42	0°♄	
greatest brilliancy	3312 Feb 07 22:03	27°☿03'26	-4.7m	asc. node	3314 Jul 07 15:20	9°♄01'46	
	3312 Feb 19 01:04	0°☿			3314 Jul 24 17:13	0°♄	
retrograde	3312 Feb 20 13:10	0°☿02'45		max. Earth dist.	3314 Aug 02 02:29	10°♄18'49	1.73490 AU
	3312 Feb 22 01:03	30°☿					
evening set	3312 Mar 09 10:16	23°☿52'44		superior conj	3314 Aug 03 15:14	12°♄11'53	0°58'28
inferior conj	3312 Mar 12 09:23	22°☿02'42	8°54'50	minimum elong	3314 Aug 03 06:21	11°♄44'35	0°58'09
minimum elong	3312 Mar 12 07:21	22°☿05'52	8°54'47		3314 Aug 18 02:07	0°☿	
min. Earth dist.	3312 Mar 11 18:49	22°☿25'26	0.27405 AU	evening rise	3314 Sep 08 13:54	26°☿30'59	
morning rise	3312 Mar 15 04:34	20°☿18'51			3314 Sep 11 09:36	0°♄	
direct	3312 Apr 02 01:01	14°☿12'28			3314 Oct 05 16:40	0°♄	
greatest brilliancy	3312 Apr 12 21:02	16°☿22'09	-4.6m	desc. node	3314 Oct 27 05:06	26°♄33'02	
	3312 May 04 12:39	0°☿			3314 Oct 30 00:15	0°♄	
desc. node	3312 May 11 09:52	5°☿53'07			3314 Nov 23 09:00	0°☾	
morning max el	3312 May 21 12:25	15°☿20'06	46°10'32		3314 Dec 17 20:05	0°≈	
	3312 Jun 04 23:25	0°♄			3315 Jan 11 13:06	0°☿	
	3312 Jul 02 10:39	0°♄			3315 Feb 05 21:02	0°☿	
	3312 Jul 28 14:25	0°♄		asc. node	3315 Feb 17 07:59	13°☿06'10	
	3312 Aug 23 00:48	0°♄			3315 Mar 04 18:09	0°♄	
asc. node	3312 Sep 01 13:00	11°♄23'24		evening max el	3315 Mar 13 13:12	9°♄05'07	46°38'57
	3312 Sep 16 22:19	0°♄			3315 Apr 05 23:53	0°♄	
	3312 Oct 11 09:42	0°♄		greatest brilliancy	3315 Apr 18 06:09	7°♄38'46	-4.6m
	3312 Nov 04 13:49	0°♄		retrograde	3315 May 02 16:55	11°♄23'33	
morning set	3312 Nov 15 06:41	13°♄21'44		evening set	3315 May 18 09:42	6°♄32'43	
	3312 Nov 28 13:35	0°♄		inferior conj	3315 May 23 22:56	3°♄10'13	3°43'34
desc. node	3312 Dec 22 02:51	29°♄34'02		minimum elong	3315 May 24 06:32	2°♄58'19	3°41'29
	3312 Dec 22 11:06	0°☾		min. Earth dist.	3315 May 23 20:54	3°♄13'23	0.28456 AU
max. Earth dist.	3312 Dec 23 19:46	1°☾42'37	1.71213 AU		3315 May 29 04:11	30°☿	
				morning rise	3315 May 30 03:48	29°☿26'55	
superior conj	3312 Dec 25 02:23	3°☾18'53	0°-7'-10	desc. node	3315 Jun 08 21:41	25°☿35'43	
minimum elong	3312 Dec 25 00:30	3°☾12'58	0°07'06	direct	3315 Jun 14 05:52	25°☿01'26	
behind sun begin	3312 Dec 24 00:51	1°☾58'36		greatest brilliancy	3315 Jun 26 16:27	27°☿46'46	-4.5m
behind sun end	3312 Dec 26 00:10	4°☾27'21			3315 Jul 01 08:20	0°♄	
	3313 Jan 15 07:43	0°≈		morning max el	3315 Aug 02 01:01	24°♄50'14	45°42'52
evening rise	3313 Feb 04 06:26	25°≈04'40			3315 Aug 07 08:42	0°♄	
	3313 Feb 08 04:31	0°☿			3315 Sep 04 19:28	0°♄	
	3313 Mar 04 03:13	0°☿		asc. node	3315 Sep 30 00:47	28°♄44'29	
	3313 Mar 28 06:13	0°☿			3315 Oct 01 02:39	0°☿	
asc. node	3313 Apr 14 05:45	20°☿54'21			3315 Oct 26 07:22	0°♄	
	3313 Apr 21 16:17	0°♄			3315 Nov 19 20:19	0°♄	
	3313 May 16 12:37	0°♄			3315 Dec 14 00:13	0°♄	
	3313 Jun 11 00:15	0°♄			3316 Jan 06 23:27	0°☾	

desc. node	3316 Jan 19 14:40	15°☾51'48		retrograde	3318 Jul 11 05:41	18°♊41'36	
morning set	3316 Jan 30 16:22	29°☾46'25		evening set	3318 Jul 27 01:38	13°♊54'58	
	3316 Jan 30 20:41	0°≈		inferior conj	3318 Aug 01 18:47	10°♊27'26	-5°-42'-6
	3316 Feb 23 17:38	0°☿		minimum elong	3318 Aug 01 09:03	10°♊42'43	5°39'59
				min. Earth dist.	3318 Aug 01 14:20	10°♊34'25	0.29052 AU
superior conj	3316 Mar 12 01:17	21°☿43'38	-1°-26'-2	morning rise	3318 Aug 06 16:25	7°♊27'24	
minimum elong	3316 Mar 11 22:36	21°☿35'13	1°26'02	direct	3318 Aug 23 09:53	2°♊10'09	
max. Earth dist.	3316 Mar 15 15:02	26°☿12'13	1.71574 AU	greatest brilliancy	3318 Sep 06 05:25	5°♊29'35	-4.5m
	3316 Mar 18 15:48	0°♀			3318 Oct 08 21:10	0°♐	
	3316 Apr 11 16:42	0°♋		morning max el	3318 Oct 11 13:15	2°♐34'23	46°02'11
	3316 Apr 21 03:06	11°♋43'15		asc. node	3318 Oct 27 12:40	18°♐57'41	
evening rise	3316 May 05 21:38	0°♈			3318 Nov 06 15:06	0°♏	
	3316 May 11 17:40	7°♈11'42			3318 Dec 02 15:38	0°♌	
	3316 May 30 07:27	0°♍			3318 Dec 27 13:21	0°♏	
	3316 Jun 23 23:00	0°♊			3319 Jan 20 22:35	0°♋	
asc. node	3316 Jul 18 21:58	0°♐			3319 Feb 14 02:14	0°≈	
	3316 Aug 13 08:02	0°♎		desc. node	3319 Feb 16 02:31	2°≈30'20	
	3316 Aug 31 07:17	20°♎42'34			3319 Mar 10 03:50	0°☿	
	3316 Sep 08 12:39	0°♌			3319 Apr 03 05:31	0°♀	
desc. node	3316 Oct 06 06:03	0°♏		morning set	3319 Apr 16 16:22	16°♀44'10	
	3316 Oct 16 12:00	10°♏18'14	46°29'49		3319 Apr 27 08:46	0°♋	
	3316 Nov 07 23:59	0°♋			3319 May 21 14:25	0°♈	
	3316 Nov 24 02:38	9°♋26'32	-4.6m				
retrograde	3316 Dec 05 06:46	11°♋43'58		superior conj	3319 May 25 00:52	4°♈14'30	0°-35'-17
evening set	3316 Dec 19 13:28	7°♋42'44		minimum elong	3319 May 25 08:09	4°♈36'57	0°34'59
asc. node	3316 Dec 22 10:17	6°♋06'21		max. Earth dist.	3319 May 27 13:17	7°♈20'53	1.73053 AU
inferior conj	3316 Dec 25 19:34	4°♋04'02	0°52'49	asc. node	3319 Jun 09 05:33	22°♈58'29	
minimum elong	3316 Dec 25 17:32	4°♋07'08	0°52'10		3319 Jun 14 22:29	0°♍	
min. Earth dist.	3316 Dec 25 20:29	4°♋02'38	0.26543 AU	evening rise	3319 Jul 01 06:37	20°♍04'55	
morning rise	3316 Dec 31 21:28	0°♋31'10			3319 Jul 09 08:32	0°♊	
	3317 Jan 01 21:25	30°♌♏			3319 Aug 02 20:22	0°♐	
	3317 Jan 15 07:46	26°♏24'09			3319 Aug 27 10:44	0°♎	
	3317 Jan 27 12:43	29°♏11'18	-4.7m		3319 Sep 21 05:13	0°♌	
greatest brilliancy	3317 Jan 29 07:16	0°♋		desc. node	3319 Sep 28 19:16	9°♌07'45	
	3317 Mar 06 19:20	29°♋22'47	46°53'18		3319 Oct 16 05:46	0°♏	
	3317 Mar 07 10:06	0°≈			3319 Nov 10 15:47	0°♋	
	3317 Apr 04 07:15	0°☿			3319 Dec 06 20:39	0°≈	
desc. node	3317 Apr 13 00:12	9°☿52'34		evening max el	3319 Dec 29 04:58	23°≈58'00	47°14'21
	3317 Apr 30 09:26	0°♀			3320 Jan 04 06:25	0°☿	
	3317 May 25 19:11	0°♋		asc. node	3320 Jan 19 22:10	14°☿00'02	
	3317 Jun 19 21:15	0°♈		greatest brilliancy	3320 Feb 05 12:46	24°☿38'45	-4.7m
asc. node	3317 Jul 14 18:25	0°♍		retrograde	3320 Feb 18 02:48	27°☿37'34	
	3317 Aug 04 03:10	24°♍43'57		evening set	3320 Mar 06 21:37	21°☿31'03	
	3317 Aug 08 10:49	0°♊		inferior conj	3320 Mar 09 22:50	19°☿38'09	8°52'27
	3317 Sep 01 22:06	0°♐		minimum elong	3320 Mar 09 19:53	19°☿42'45	8°52'21
morning set	3317 Sep 03 22:06	2°♐27'50		min. Earth dist.	3320 Mar 09 07:49	20°☿01'32	0.27359 AU
	3317 Sep 26 04:41	0°♎		morning rise	3320 Mar 12 18:18	17°☿54'09	
	3317 Oct 07 09:51	13°♎55'37	1.72465 AU	direct	3320 Mar 30 13:35	11°☿48'24	
				greatest brilliancy	3320 Apr 10 10:32	13°☿59'10	-4.6m
superior conj	3317 Oct 10 15:12	17°♎56'02	1°20'35		3320 May 04 22:10	0°♀	
minimum elong	3317 Oct 10 21:07	18°♎14'26	1°20'29	desc. node	3320 May 10 11:59	4°♀54'13	
	3317 Oct 20 07:52	0°♌		morning max el	3320 May 19 02:19	13°♀00'13	46°12'12
	3317 Nov 13 09:07	0°♏			3320 Jun 04 18:00	0°♋	
	3317 Nov 18 01:11	5°♏49'46			3320 Jul 02 01:20	0°♈	
evening rise	3317 Nov 23 17:06	12°♏54'13			3320 Jul 28 03:21	0°♍	
desc. node	3317 Dec 07 09:29	0°♋			3320 Aug 22 12:47	0°♊	
	3317 Dec 31 09:43	0°≈		asc. node	3320 Aug 31 14:54	10°♊53'48	
	3318 Jan 24 11:12	0°☿			3320 Sep 16 09:46	0°♐	
	3318 Feb 17 16:51	0°♀			3320 Oct 10 20:51	0°♎	
asc. node	3318 Mar 14 07:41	0°♋			3320 Nov 04 00:51	0°♌	
	3318 Mar 16 19:48	3°♋00'41		morning set	3320 Nov 12 21:09	11°♌02'29	
	3318 Apr 08 15:55	0°♈			3320 Nov 28 00:37	0°♏	
	3318 May 05 10:10	0°♍		desc. node	3320 Dec 21 04:55	29°♏05'41	
evening max el	3318 May 23 09:24	18°♍27'08	45°39'37	max. Earth dist.	3320 Dec 21 07:11	29°♏12'49	1.71242 AU
	3318 Jun 04 23:25	0°♊			3320 Dec 21 22:13	0°♋	
	3318 Jun 26 23:56	15°♊08'22	-4.5m				
	3318 Jul 06 09:46	18°♊15'11		superior conj	3320 Dec 22 13:30	0°♋48'03	0°-3'-17

minimum elong	3320 Dec 22 12:38	0° $\overline{3}$ 45'20	0°03'15	direct	3323 Jun 11 21:35	22° $\overline{8}$ 48'02	
behind sun begin	3320 Dec 21 11:06	29° $\overline{7}$ 25'05		greatest brilliancy	3323 Jun 24 05:09	25° $\overline{8}$ 30'40	-4.5m
behind sun end	3320 Dec 23 14:10	2° $\overline{3}$ 05'36			3323 Jul 02 20:08	0° $\overline{\Pi}$	
	3321 Jan 14 18:53	0° \approx		morning max el	3323 Jul 30 16:24	22° $\overline{\Pi}$ 38'09	45°42'58
evening rise	3321 Feb 01 16:50	22° \approx 31'18			3323 Aug 07 05:14	0° $\overline{\mathfrak{S}}$	
	3321 Feb 07 15:46	0° $\overline{\mathfrak{H}}$			3323 Sep 04 10:40	0° $\overline{\Omega}$	
	3321 Mar 03 14:34	0° $\overline{\Upsilon}$		asc. node	3323 Sep 29 02:53	28° $\overline{\Omega}$ 11'58	
	3321 Mar 27 17:45	0° $\overline{\mathfrak{B}}$			3323 Sep 30 15:49	0° $\overline{\mathfrak{M}}$	
asc. node	3321 Apr 13 07:48	20° $\overline{\mathfrak{B}}$ 24'48			3323 Oct 25 19:35	0° $\overline{\underline{a}}$	
	3321 Apr 21 04:08	0° $\overline{\Pi}$			3323 Nov 19 08:03	0° $\overline{\mathfrak{M}}$	
	3321 May 16 01:04	0° $\overline{\mathfrak{S}}$			3323 Dec 13 11:40	0° $\overline{\mathfrak{A}}$	
	3321 Jun 10 13:53	0° $\overline{\Omega}$			3324 Jan 06 10:44	0° $\overline{\mathfrak{B}}$	
	3321 Jul 07 06:43	0° $\overline{\mathfrak{M}}$		desc. node	3324 Jan 18 16:39	15° $\overline{\mathfrak{B}}$ 22'44	
evening max el	3321 Aug 02 05:54	26° $\overline{\mathfrak{M}}$ 42'33	45°33'12	morning set	3324 Jan 28 02:31	27° $\overline{\mathfrak{B}}$ 12'23	
desc. node	3321 Aug 02 21:30	27° $\overline{\mathfrak{M}}$ 19'40			3324 Jan 30 07:51	0° \approx	
	3321 Aug 05 17:50	0° $\overline{\underline{a}}$			3324 Feb 23 04:44	0° $\overline{\mathfrak{H}}$	
greatest brilliancy	3321 Sep 08 09:05	24° $\overline{\underline{a}}$ 00'19	-4.5m				
retrograde	3321 Sep 19 23:16	26° $\overline{\underline{a}}$ 23'17		superior conj	3324 Mar 09 12:45	19° $\overline{\mathfrak{H}}$ 14'30	-1°-25'-31
evening set	3321 Oct 07 17:17	20° $\overline{\underline{a}}$ 29'25		minimum elong	3324 Mar 09 09:03	19° $\overline{\mathfrak{H}}$ 02'53	1°25'31
inferior conj	3321 Oct 11 02:41	18° $\overline{\underline{a}}$ 25'31	-8°-16'-18	max. Earth dist.	3324 Mar 13 03:19	23° $\overline{\mathfrak{H}}$ 45'42	1.71530 AU
minimum elong	3321 Oct 11 09:01	18° $\overline{\underline{a}}$ 15'44	8°15'43		3324 Mar 18 02:51	0° $\overline{\Upsilon}$	
min. Earth dist.	3321 Oct 11 23:08	17° $\overline{\underline{a}}$ 53'57	0.28228 AU		3324 Apr 11 03:45	0° $\overline{\mathfrak{B}}$	
morning rise	3321 Oct 15 00:29	16° $\overline{\underline{a}}$ 02'46		evening rise	3324 Apr 18 16:22	9° $\overline{\mathfrak{B}}$ 21'14	
direct	3321 Nov 01 09:35	10° $\overline{\underline{a}}$ 17'03			3324 May 05 08:44	0° $\overline{\Pi}$	
greatest brilliancy	3321 Nov 15 22:18	14° $\overline{\underline{a}}$ 05'35	-4.6m	asc. node	3324 May 10 19:45	6° $\overline{\Pi}$ 43'53	
asc. node	3321 Nov 24 00:24	18° $\overline{\underline{a}}$ 49'56			3324 May 29 18:43	0° $\overline{\mathfrak{S}}$	
	3321 Dec 08 03:09	0° $\overline{\mathfrak{M}}$			3324 Jun 23 10:36	0° $\overline{\Omega}$	
morning max el	3321 Dec 21 22:33	13° $\overline{\mathfrak{M}}$ 12'33	46°46'12		3324 Jul 18 10:11	0° $\overline{\mathfrak{M}}$	
	3322 Jan 06 18:18	0° $\overline{\mathfrak{A}}$			3324 Aug 12 21:23	0° $\overline{\underline{a}}$	
	3322 Feb 02 00:19	0° $\overline{\mathfrak{B}}$		desc. node	3324 Aug 30 09:19	20° $\overline{\underline{a}}$ 06'52	
	3322 Feb 27 03:50	0° \approx			3324 Sep 08 04:09	0° $\overline{\mathfrak{M}}$	
desc. node	3322 Mar 15 14:19	19° \approx 56'14			3324 Oct 06 02:40	0° $\overline{\mathfrak{A}}$	
	3322 Mar 23 20:24	0° $\overline{\mathfrak{H}}$		evening max el	3324 Oct 14 00:52	7° $\overline{\mathfrak{A}}$ 54'28	46°27'25
	3322 Apr 17 08:31	0° $\overline{\Upsilon}$			3324 Nov 08 22:29	0° $\overline{\mathfrak{B}}$	
	3322 May 11 19:25	0° $\overline{\mathfrak{B}}$		greatest brilliancy	3324 Nov 21 17:12	7° $\overline{\mathfrak{B}}$ 01'07	-4.6m
	3322 Jun 05 06:30	0° $\overline{\Pi}$		retrograde	3324 Dec 02 18:16	9° $\overline{\mathfrak{B}}$ 15'38	
morning set	3322 Jun 25 16:59	25° $\overline{\Pi}$ 03'25		evening set	3324 Dec 17 02:13	5° $\overline{\mathfrak{B}}$ 14'06	
	3322 Jun 29 17:43	0° $\overline{\mathfrak{S}}$		asc. node	3324 Dec 21 12:17	2° $\overline{\mathfrak{B}}$ 42'24	
asc. node	3322 Jul 06 17:19	8° $\overline{\mathfrak{S}}$ 34'08		inferior conj	3324 Dec 23 07:52	1° $\overline{\mathfrak{B}}$ 36'10	0°28'21
	3322 Jul 24 04:07	0° $\overline{\Omega}$		minimum elong	3324 Dec 23 06:47	1° $\overline{\mathfrak{B}}$ 37'50	0°28'00
max. Earth dist.	3322 Jul 31 00:49	8° $\overline{\Omega}$ 26'18	1.73501 AU	min. Earth dist.	3324 Dec 23 10:42	1° $\overline{\mathfrak{B}}$ 31'51	0.26557 AU
					3324 Dec 25 23:24	30° $\overline{\mathfrak{R}}$ $\overline{\mathfrak{A}}$	
superior conj	3322 Aug 01 09:16	10° $\overline{\Omega}$ 06'08	0°56'08	morning rise	3324 Dec 29 11:04	28° $\overline{\mathfrak{A}}$ 01'10	
minimum elong	3322 Aug 01 00:28	9° $\overline{\Omega}$ 39'03	0°55'48	direct	3325 Jan 12 19:55	23° $\overline{\mathfrak{A}}$ 55'46	
	3322 Aug 17 13:02	0° $\overline{\mathfrak{M}}$		greatest brilliancy	3325 Jan 25 04:04	26° $\overline{\mathfrak{A}}$ 45'44	-4.7m
evening rise	3322 Sep 06 07:36	24° $\overline{\mathfrak{M}}$ 23'26			3325 Jan 31 09:43	0° $\overline{\mathfrak{B}}$	
	3322 Sep 10 20:39	0° $\overline{\underline{a}}$		morning max el	3325 Mar 04 07:14	26° $\overline{\mathfrak{B}}$ 53'43	46°54'16
	3322 Oct 05 03:57	0° $\overline{\mathfrak{M}}$			3325 Mar 07 08:31	0° \approx	
desc. node	3322 Oct 26 07:15	26° $\overline{\mathfrak{M}}$ 04'04			3325 Apr 03 23:30	0° $\overline{\mathfrak{H}}$	
	3322 Oct 29 11:50	0° $\overline{\mathfrak{A}}$		desc. node	3325 Apr 12 02:22	9° $\overline{\mathfrak{H}}$ 15'06	
	3322 Nov 22 20:59	0° $\overline{\mathfrak{B}}$			3325 Apr 29 23:16	0° $\overline{\Upsilon}$	
	3322 Dec 17 08:38	0° \approx			3325 May 25 07:45	0° $\overline{\mathfrak{B}}$	
	3323 Jan 11 02:35	0° $\overline{\mathfrak{H}}$			3325 Jun 19 09:04	0° $\overline{\Pi}$	
	3323 Feb 05 12:17	0° $\overline{\Upsilon}$			3325 Jul 14 05:45	0° $\overline{\mathfrak{S}}$	
asc. node	3323 Feb 16 09:53	12° $\overline{\Upsilon}$ 25'01		asc. node	3325 Aug 03 05:08	24° $\overline{\mathfrak{S}}$ 16'07	
	3323 Mar 04 13:46	0° $\overline{\mathfrak{B}}$			3325 Aug 07 21:52	0° $\overline{\Omega}$	
evening max el	3323 Mar 11 05:05	6° $\overline{\mathfrak{B}}$ 49'16	46°40'56		3325 Sep 01 09:00	0° $\overline{\mathfrak{M}}$	
	3323 Apr 06 19:00	0° $\overline{\Pi}$		morning set	3325 Sep 01 15:18	0° $\overline{\mathfrak{M}}$ 19'25	
greatest brilliancy	3323 Apr 16 00:06	5° $\overline{\Pi}$ 27'02	-4.6m		3325 Sep 25 15:33	0° $\overline{\underline{a}}$	
retrograde	3323 Apr 30 09:04	9° $\overline{\Pi}$ 09'10		max. Earth dist.	3325 Oct 05 02:12	11° $\overline{\underline{a}}$ 43'31	1.72516 AU
evening set	3323 May 16 03:47	4° $\overline{\Pi}$ 15'25					
inferior conj	3323 May 21 14:30	0° $\overline{\Pi}$ 56'08	4°02'25	superior conj	3325 Oct 08 07:23	15° $\overline{\underline{a}}$ 43'20	1°21'36
minimum elong	3323 May 21 22:35	0° $\overline{\Pi}$ 43'26	4°00'14	minimum elong	3325 Oct 08 12:40	15° $\overline{\underline{a}}$ 59'44	1°21'32
min. Earth dist.	3323 May 21 12:19	0° $\overline{\Pi}$ 59'34	0.28429 AU		3325 Oct 19 18:47	0° $\overline{\mathfrak{M}}$	
	3323 May 23 02:23	30° $\overline{\mathfrak{R}}$ $\overline{\mathfrak{B}}$			3325 Nov 12 20:10	0° $\overline{\mathfrak{A}}$	
morning rise	3323 May 27 17:55	27° $\overline{\mathfrak{B}}$ 14'49		evening rise	3325 Nov 15 14:21	3° $\overline{\mathfrak{A}}$ 26'29	
desc. node	3323 Jun 07 23:46	23° $\overline{\mathfrak{B}}$ 06'18		desc. node	3325 Nov 22 19:08	12° $\overline{\mathfrak{A}}$ 25'47	

	3325 Dec 06 20:43	0°☾			3328 Aug 22 00:27	0°♈		
	3325 Dec 30 21:11	0°♊		asc. node	3328 Aug 30 17:03	10°♈25'51		
	3326 Jan 23 22:55	0°♋			3328 Sep 15 20:57	0°♎		
	3326 Feb 17 04:54	0°♌			3328 Oct 10 07:48	0°♊		
	3326 Mar 13 20:22	0°♍			3328 Nov 03 11:44	0°♎		
asc. node	3326 Mar 15 21:55	2°♌28'45		morning set	3328 Nov 10 11:30	8°♎43'24		
	3326 Apr 08 05:56	0°♎			3328 Nov 27 11:30	0°♌		
	3326 May 05 03:25	0°♏		max. Earth dist.	3328 Dec 18 17:41	26°♌40'43	1.71265 AU	
evening max el	3326 May 20 23:57	16°♏12'38	45°40'59					
	3326 Jun 05 05:24	0°♈		superior conj	3328 Dec 20 00:25	28°♌17'16	0°00'40	
greatest brilliancy	3326 Jun 24 13:52	12°♈56'29	-4.5m	minimum elong	3328 Dec 20 00:35	28°♌17'47	0°00'40	
desc. node	3326 Jul 05 11:42	16°♈19'38		behind sun begin	3328 Dec 18 22:49	26°♌56'50		
retrograde	3326 Jul 08 22:00	16°♈33'09		behind sun end	3328 Dec 21 02:21	29°♌38'45		
evening set	3326 Jul 24 15:41	11°♈49'13		desc. node	3328 Dec 20 06:57	28°♌37'50		
inferior conj	3326 Jul 30 11:13	8°♈18'39	-5°-27'-5		3328 Dec 21 09:07	0°☾		
minimum elong	3326 Jul 30 01:36	8°♈33'43	5°24'54		3329 Jan 14 05:49	0°♊		
min. Earth dist.	3326 Jul 30 06:36	8°♈25'52	0.29050 AU	evening rise	3329 Jan 30 03:04	19°♊58'14		
morning rise	3326 Aug 04 11:26	5°♈14'56			3329 Feb 07 02:45	0°♋		
direct	3326 Aug 21 01:42	0°♈01'15			3329 Mar 03 01:40	0°♌		
greatest brilliancy	3326 Sep 03 22:05	3°♈21'07	-4.5m		3329 Mar 27 05:01	0°♍		
	3326 Oct 08 19:51	0°♎		asc. node	3329 Apr 12 09:53	19°♍56'08		
morning max el	3326 Oct 09 04:25	0°♎20'47	46°00'53		3329 Apr 20 15:42	0°♎		
asc. node	3326 Oct 26 14:45	18°♎16'28			3329 May 15 13:13	0°♏		
	3326 Nov 06 06:57	0°♊			3329 Jun 10 03:13	0°♈		
	3326 Dec 02 05:12	0°♋			3329 Jul 06 22:46	0°♎		
	3326 Dec 27 01:51	0°♌		evening max el	3329 Jul 30 21:34	24°♎31'46	45°32'14	
	3327 Jan 20 10:31	0°☾		desc. node	3329 Aug 01 23:34	26°♎30'05		
	3327 Feb 13 13:48	0°♊			3329 Aug 05 18:31	0°♊		
desc. node	3327 Feb 15 04:29	2°♊00'31		greatest brilliancy	3329 Sep 05 21:16	21°♊44'21	-4.5m	
	3327 Mar 09 15:08	0°♋		retrograde	3329 Sep 17 13:45	24°♊08'56		
	3327 Apr 02 16:35	0°♌		evening set	3329 Oct 05 09:41	18°♊12'13		
morning set	3327 Apr 14 06:01	14°♌23'21		inferior conj	3329 Oct 08 17:31	16°♊10'18	-8°-22'-11	
	3327 Apr 26 19:37	0°♍		minimum elong	3329 Oct 08 23:08	16°♊01'35	8°21'44	
	3327 May 21 01:09	0°♎		min. Earth dist.	3329 Oct 09 12:55	15°♊40'17	0.28292 AU	
				morning rise	3329 Oct 12 12:23	13°♊51'39		
superior conj	3327 May 22 16:55	2°♎02'49	0°-38'-22	direct	3329 Oct 30 01:35	8°♊01'13		
minimum elong	3327 May 23 00:44	2°♎26'58	0°38'02	greatest brilliancy	3329 Nov 13 13:09	11°♊48'22	-4.6m	
max. Earth dist.	3327 May 25 06:44	5°♎13'35	1.73010 AU	asc. node	3329 Nov 23 02:24	17°♊32'39		
asc. node	3327 Jun 08 07:32	22°♎31'38			3329 Dec 08 07:35	0°♋		
	3327 Jun 14 09:11	0°♏		morning max el	3329 Dec 19 13:40	10°♋53'43	46°44'49	
evening rise	3327 Jun 29 00:51	18°♏00'40			3330 Jan 06 11:54	0°♌		
	3327 Jul 08 19:18	0°♈			3330 Feb 01 14:46	0°☾		
	3327 Aug 02 07:21	0°♎			3330 Feb 26 16:48	0°♊		
	3327 Aug 26 22:06	0°♊		desc. node	3330 Mar 14 16:32	19°♊25'18		
	3327 Sep 20 17:10	0°♋			3330 Mar 23 08:30	0°♌		
desc. node	3327 Sep 27 21:22	8°♋37'28			3330 Apr 16 20:03	0°♍		
	3327 Oct 15 18:40	0°♌			3330 May 11 06:33	0°♎		
	3327 Nov 10 06:12	0°☾			3330 Jun 04 17:21	0°♎		
	3327 Dec 06 14:02	0°♊		morning set	3330 Jun 23 10:37	22°♎57'39		
evening max el	3327 Dec 26 18:45	21°♊33'37	47°14'07		3330 Jun 29 04:21	0°♏		
	3328 Jan 04 08:25	0°♋		asc. node	3330 Jul 05 19:20	8°♏07'48		
asc. node	3328 Jan 19 00:07	12°♋46'11			3330 Jul 23 14:38	0°♈		
greatest brilliancy	3328 Feb 03 02:50	22°♋13'51	-4.7m	max. Earth dist.	3330 Jul 28 22:25	6°♈32'48	1.73508 AU	
retrograde	3328 Feb 15 17:04	25°♋12'53						
evening set	3328 Mar 04 08:35	19°♋10'18		superior conj	3330 Jul 30 03:41	8°♈02'48	0°53'44	
min. Earth dist.	3328 Mar 06 20:27	17°♋38'29	0.27312 AU	minimum elong	3330 Jul 29 19:00	7°♈36'06	0°53'23	
inferior conj	3328 Mar 07 12:16	17°♋13'56	8°49'15		3330 Aug 16 23:33	0°♎		
minimum elong	3328 Mar 07 08:25	17°♋19'54	8°49'02	evening rise	3330 Sep 04 01:44	22°♎18'31		
morning rise	3328 Mar 10 08:25	15°♋29'11			3330 Sep 10 07:18	0°♊		
direct	3328 Mar 28 02:34	9°♋24'49			3330 Oct 04 14:50	0°♋		
greatest brilliancy	3328 Apr 07 23:12	11°♋35'50	-4.6m	desc. node	3330 Oct 25 09:18	25°♋35'55		
	3328 May 05 04:47	0°♌			3330 Oct 28 23:05	0°♌		
desc. node	3328 May 09 13:59	3°♌57'08			3330 Nov 22 08:43	0°☾		
morning max el	3328 May 16 17:05	10°♌43'15	46°13'56		3330 Dec 16 21:00	0°♊		
	3328 Jun 04 11:49	0°♍			3331 Jan 10 15:56	0°♋		
	3328 Jul 01 15:31	0°♎			3331 Feb 05 03:30	0°♌		
	3328 Jul 27 15:53	0°♏		asc. node	3331 Feb 15 12:02	11°♌44'57		

	3331 Mar 04 09:40	0°♄			3333 Jun 18 20:37	0°♂		
evening max el	3331 Mar 08 20:17	4°♄32'19	46°43'04		3333 Jul 13 16:49	0°♄		
	3331 Apr 07 20:23	0°♂		asc. node	3333 Aug 02 07:13	23°♄49'30		
greatest brilliancy	3331 Apr 13 18:42	3°♂17'04	-4.6m		3333 Aug 07 08:38	0°♂		
retrograde	3331 Apr 28 00:49	6°♂55'55		morning set	3333 Aug 30 08:45	28°♂12'34		
evening set	3331 May 13 22:02	1°♂59'12			3333 Aug 31 19:38	0°♄		
	3331 May 17 05:15	30°♄			3333 Sep 25 02:09	0°♄		
inferior conj	3331 May 19 06:10	28°♄43'20	4°20'59	max. Earth dist.	3333 Oct 02 20:21	9°♄37'48	1.72562 AU	
minimum elong	3331 May 19 14:41	28°♄29'55	4°18'44					
min. Earth dist.	3331 May 19 04:02	28°♄46'41	0.28397 AU	superior conj	3333 Oct 06 00:03	13°♄32'56	1°22'29	
morning rise	3331 May 25 07:52	25°♄04'06		minimum elong	3333 Oct 06 04:40	13°♄47'19	1°22'26	
desc. node	3331 Jun 07 01:46	20°♄43'09			3333 Oct 19 05:26	0°♄		
direct	3331 Jun 09 12:59	20°♄35'57			3333 Nov 12 06:56	0°♄		
greatest brilliancy	3331 Jun 21 18:03	23°♄15'54	-4.5m	evening rise	3333 Nov 13 04:12	1°♄06'19		
	3331 Jul 03 20:49	0°♂		desc. node	3333 Nov 21 21:07	11°♄58'06		
morning max el	3331 Jul 28 07:14	20°♂25'53	45°43'15		3333 Dec 06 07:41	0°♄		
	3331 Aug 07 00:37	0°♄			3333 Dec 30 08:22	0°♄		
	3331 Sep 04 01:11	0°♂			3334 Jan 23 10:24	0°♄		
asc. node	3331 Sep 28 04:58	27°♂40'50			3334 Feb 16 16:49	0°♄		
	3331 Sep 30 04:26	0°♄			3334 Mar 13 09:02	0°♄		
	3331 Oct 25 07:19	0°♄		asc. node	3334 Mar 14 23:57	1°♄56'39		
	3331 Nov 18 19:21	0°♄			3334 Apr 07 20:03	0°♂		
	3331 Dec 12 22:46	0°♄			3334 May 04 21:02	0°♄		
desc. node	3332 Jan 05 21:43	0°♄		evening max el	3334 May 18 15:14	14°♄00'05	45°42'37	
morning set	3332 Jan 17 18:43	14°♄54'45			3334 Jun 05 13:43	0°♂		
	3332 Jan 25 12:16	24°♄37'50		greatest brilliancy	3334 Jun 22 03:31	10°♂44'30	-4.5m	
	3332 Jan 29 18:47	0°♄		desc. node	3334 Jul 04 13:45	14°♂20'10		
	3332 Feb 22 15:36	0°♄		retrograde	3334 Jul 06 14:47	14°♂25'01		
				evening set	3334 Jul 22 05:54	9°♂43'32		
superior conj	3332 Mar 06 23:40	16°♄44'19	-1°-24'-50	inferior conj	3334 Jul 28 03:36	6°♂10'08	-5°-11'-35	
minimum elong	3332 Mar 06 18:56	16°♄29'27	1°24'47	minimum elong	3334 Jul 27 18:11	6°♂24'52	5°09'23	
max. Earth dist.	3332 Mar 10 11:27	21°♄06'53	1.71483 AU	min. Earth dist.	3334 Jul 27 22:36	6°♂17'58	0.29043 AU	
	3332 Mar 17 13:40	0°♄		morning rise	3334 Aug 02 06:27	3°♂02'56		
	3332 Apr 10 14:31	0°♄			3334 Aug 08 09:10	30°♄		
evening rise	3332 Apr 16 05:05	6°♄58'11		direct	3334 Aug 18 17:48	27°♄52'41		
	3332 May 04 19:32	0°♂			3334 Aug 29 15:38	0°♂		
asc. node	3332 May 09 21:42	6°♂16'30		greatest brilliancy	3334 Sep 01 14:35	1°♂13'04	-4.5m	
	3332 May 29 05:40	0°♄		morning max el	3334 Oct 06 20:37	28°♂10'27	45°59'40	
	3332 Jun 22 21:54	0°♂			3334 Oct 08 17:25	0°♄		
	3332 Jul 17 22:07	0°♄		asc. node	3334 Oct 25 16:40	17°♄35'48		
	3332 Aug 12 10:26	0°♄			3334 Nov 05 22:20	0°♄		
desc. node	3332 Aug 29 11:29	19°♄32'29			3334 Dec 01 18:27	0°♄		
	3332 Sep 07 19:25	0°♄			3334 Dec 26 14:05	0°♄		
	3332 Oct 05 23:25	0°♄			3335 Jan 19 22:13	0°♄		
evening max el	3332 Oct 11 13:14	5°♄31'11	46°25'06		3335 Feb 13 01:11	0°♄		
	3332 Nov 10 04:17	0°♄		desc. node	3335 Feb 14 06:39	1°♄31'52		
greatest brilliancy	3332 Nov 19 07:11	4°♄36'53	-4.6m		3335 Mar 09 02:16	0°♄		
retrograde	3332 Nov 30 05:59	6°♄49'33			3335 Apr 02 03:32	0°♄		
evening set	3332 Dec 14 15:21	2°♄46'52		morning set	3335 Apr 11 19:24	12°♄01'44		
	3332 Dec 19 11:36	30°♄			3335 Apr 26 06:27	0°♄		
inferior conj	3332 Dec 20 20:23	29°♄10'08	0°03'59					
minimum elong	3332 Dec 20 20:14	29°♄10'22	0°03'56	superior conj	3335 May 20 08:31	29°♄49'36	0°-41'-26	
transit middle	3332 Dec 20 20:14	29°♄10'22	0°03'56	minimum elong	3335 May 20 16:51	0°♂15'19	0°41'04	
transit begin	3332 Dec 20 16:16	29°♄16'25			3335 May 20 11:53	0°♂		
transit end	3332 Dec 21 00:12	29°♄04'20		max. Earth dist.	3335 May 22 23:43	3°♂04'46	1.72969 AU	
asc. node	3332 Dec 20 14:16	29°♄19'29		asc. node	3335 Jun 07 09:33	22°♂04'51		
min. Earth dist.	3332 Dec 21 01:07	29°♄02'55	0.26583 AU		3335 Jun 13 19:55	0°♄		
morning rise	3332 Dec 27 00:42	25°♄33'25		evening rise	3335 Jun 26 18:41	15°♄55'07		
direct	3333 Jan 10 08:09	21°♄28'50			3335 Jul 08 06:05	0°♂		
greatest brilliancy	3333 Jan 22 20:26	24°♄22'45	-4.7m		3335 Aug 01 18:19	0°♄		
	3333 Feb 01 18:45	0°♄			3335 Aug 26 09:27	0°♄		
morning max el	3333 Mar 01 20:04	24°♄27'30	46°55'00		3335 Sep 20 05:09	0°♄		
	3333 Mar 07 05:53	0°♄		desc. node	3335 Sep 26 23:22	8°♄06'55		
	3333 Apr 03 15:21	0°♄			3335 Oct 15 07:36	0°♄		
desc. node	3333 Apr 11 04:20	8°♄37'43			3335 Nov 09 20:43	0°♄		
	3333 Apr 29 12:50	0°♄			3335 Dec 06 07:40	0°♄		
	3333 May 24 20:04	0°♄		evening max el	3335 Dec 24 09:46	19°♄12'48	47°13'51	

	3336 Jan 04 11:43	0° H		asc. node	3338 Jul 04 21:27	7° S 41'03	
asc. node	3336 Jan 18 02:16	11° H 31'03			3338 Jul 23 01:26	0° Q	
greatest brilliancy	3336 Jan 31 16:56	19° H 49'42	-4.7m	max. Earth dist.	3338 Jul 26 18:08	4° Q 32'38	1.73518 AU
retrograde	3336 Feb 13 07:41	22° H 48'46					
evening set	3336 Mar 01 19:19	16° H 50'48		superior conj	3338 Jul 27 22:00	5° Q 58'19	0°51'15
min. Earth dist.	3336 Mar 04 09:02	15° H 16'19	0.27265 AU	minimum elong	3338 Jul 27 13:29	5° Q 32'07	0°50'54
inferior conj	3336 Mar 05 01:48	14° H 50'19	8°44'58		3338 Aug 16 10:23	0° M	
minimum elong	3336 Mar 04 21:08	14° H 57'34	8°44'39	evening rise	3338 Sep 01 19:40	20° M 12'04	
morning rise	3336 Mar 07 23:08	13° H 04'01			3338 Sep 09 18:17	0° L	
direct	3336 Mar 25 16:10	7° H 02'00			3338 Oct 04 02:04	0° M	
greatest brilliancy	3336 Apr 05 11:04	9° H 12'01	-4.6m	desc. node	3338 Oct 24 11:14	25° M 06'31	
	3336 May 05 09:17	0° Y			3338 Oct 28 10:39	0° J	
desc. node	3336 May 08 16:01	3° Y 01'24			3338 Nov 21 20:44	0° Z	
morning max el	3336 May 14 08:04	8° Y 26'41	46°15'22		3338 Dec 16 09:42	0° \approx	
	3336 Jun 04 05:19	0° B			3339 Jan 10 05:41	0° H	
	3336 Jul 01 05:42	0° I			3339 Feb 04 19:14	0° Y	
	3336 Jul 27 04:30	0° S		asc. node	3339 Feb 14 14:04	11° Y 03'11	
asc. node	3336 Aug 21 12:12	0° Q			3339 Mar 04 06:33	0° B	
	3336 Aug 29 19:05	9° Q 57'13		evening max el	3339 Mar 06 10:39	2° B 12'12	46°45'09
	3336 Sep 15 08:12	0° M			3339 Apr 09 09:12	0° I	
	3336 Oct 09 18:48	0° L		greatest brilliancy	3339 Apr 11 12:58	1° I 05'36	-4.6m
	3336 Nov 02 22:39	0° M		retrograde	3339 Apr 25 16:18	4° I 41'50	
morning set	3336 Nov 08 01:57	6° M 24'36			3339 May 11 03:39	30° R B	
	3336 Nov 26 22:26	0° J		evening set	3339 May 11 16:22	29° B 41'52	
max. Earth dist.	3336 Dec 16 02:03	24° J 01'46	1.71289 AU	inferior conj	3339 May 16 21:51	26° B 29'45	4°39'05
				minimum elong	3339 May 17 06:46	26° B 15'42	4°36'47
superior conj	3336 Dec 17 11:38	25° J 47'13	0°04'34	min. Earth dist.	3339 May 16 20:03	26° B 32'34	0.28367 AU
minimum elong	3336 Dec 17 12:48	25° J 50'55	0°04'31	morning rise	3339 May 22 21:37	22° B 52'49	
behind sun begin	3336 Dec 16 11:51	24° J 32'33		desc. node	3339 Jun 06 03:48	18° B 24'04	
behind sun end	3336 Dec 18 13:45	27° J 09'16		direct	3339 Jun 07 03:49	18° B 22'54	
desc. node	3336 Dec 19 08:59	28° J 09'41		greatest brilliancy	3339 Jun 19 07:35	21° B 00'58	-4.5m
	3336 Dec 20 20:06	0° Z			3339 Jul 04 15:22	0° I	
	3337 Jan 13 16:51	0° \approx		morning max el	3339 Jul 25 21:42	18° I 11'40	45°43'31
evening rise	3337 Jan 27 13:31	17° \approx 25'29			3339 Aug 06 19:49	0° S	
	3337 Feb 06 13:50	0° H			3339 Sep 03 15:55	0° Q	
	3337 Mar 02 12:50	0° Y		asc. node	3339 Sep 27 06:54	27° Q 08'10	
	3337 Mar 26 16:22	0° B			3339 Sep 29 17:24	0° M	
asc. node	3337 Apr 11 11:50	19° B 26'49			3339 Oct 24 19:26	0° L	
	3337 Apr 20 03:24	0° I			3339 Nov 18 07:02	0° M	
	3337 May 15 01:35	0° S			3339 Dec 12 10:12	0° J	
	3337 Jun 09 16:54	0° Q			3340 Jan 05 09:01	0° Z	
	3337 Jul 06 15:25	0° M		desc. node	3340 Jan 16 20:49	14° Z 25'56	
evening max el	3337 Jul 28 12:54	22° M 19'18	45°31'18	morning set	3340 Jan 22 21:58	22° Z 02'08	
desc. node	3337 Aug 01 01:43	25° M 38'52			3340 Jan 29 06:00	0° \approx	
	3337 Aug 05 20:59	0° L			3340 Feb 22 02:47	0° H	
greatest brilliancy	3337 Sep 03 10:29	19° L 28'46	-4.5m				
retrograde	3337 Sep 15 03:46	21° L 54'00		superior conj	3340 Mar 04 10:32	14° H 12'57	-1°-23'-57
evening set	3337 Oct 03 01:54	15° L 55'00		minimum elong	3340 Mar 04 04:48	13° H 54'57	1°23'54
inferior conj	3337 Oct 06 08:25	13° L 54'45	-8°-27'-18	max. Earth dist.	3340 Mar 07 16:37	18° H 17'45	1.71441 AU
minimum elong	3337 Oct 06 13:19	13° L 47'10	8°26'58		3340 Mar 17 00:49	0° Y	
min. Earth dist.	3337 Oct 07 03:05	13° L 25'49	0.28350 AU		3340 Apr 10 01:39	0° B	
morning rise	3337 Oct 10 00:31	11° L 39'52		evening rise	3340 Apr 13 17:45	4° B 33'53	
direct	3337 Oct 27 17:11	5° L 45'05			3340 May 04 06:41	0° I	
greatest brilliancy	3337 Nov 11 03:34	9° L 30'12	-4.6m	asc. node	3340 May 08 23:47	5° I 48'31	
asc. node	3337 Nov 22 04:28	16° L 17'20			3340 May 28 16:58	0° S	
	3337 Dec 08 10:32	0° M			3340 Jun 22 09:33	0° Q	
morning max el	3337 Dec 17 03:47	8° M 31'56	46°43'25		3340 Jul 17 10:26	0° M	
	3338 Jan 06 05:17	0° J			3340 Aug 11 23:59	0° L	
	3338 Feb 01 05:13	0° Z		desc. node	3340 Aug 28 13:23	18° L 55'54	
	3338 Feb 26 05:50	0° \approx			3340 Sep 07 11:24	0° M	
desc. node	3338 Mar 13 18:26	18° \approx 53'01			3340 Oct 05 21:32	0° J	
	3338 Mar 22 20:43	0° H		evening max el	3340 Oct 09 01:41	3° J 06'48	46°22'47
	3338 Apr 16 07:43	0° Y			3340 Nov 12 00:53	0° Z	
	3338 May 10 17:51	0° B		greatest brilliancy	3340 Nov 16 20:20	2° Z 10'07	-4.6m
	3338 Jun 04 04:22	0° I		retrograde	3340 Nov 27 18:03	4° Z 21'58	
morning set	3338 Jun 21 04:15	20° I 51'10		evening set	3340 Dec 12 04:34	0° Z 17'34	
	3338 Jun 28 15:12	0° S			3340 Dec 12 17:43	30° R J	

inferior conj	3340 Dec 18 08:46	26° ♁ 42'26	0°-20'-30			3343 May 19 22:51	0° ♁	
minimum elong	3340 Dec 18 09:34	26° ♁ 41'14	0°20'15	max. Earth dist.		3343 May 20 18:31	1° ♁ 00'46	1.72927 AU
min. Earth dist.	3340 Dec 18 15:14	26° ♁ 32'37	0.26611 AU	asc. node		3343 Jun 06 11:40	21° ♁ 37'45	
asc. node	3340 Dec 19 16:24	25° ♁ 54'22				3343 Jun 13 06:51	0° ♁	
morning rise	3340 Dec 24 14:02	23° ♁ 04'33		evening rise		3343 Jun 24 12:30	13° ♁ 48'50	
direct	3341 Jan 07 20:33	19° ♁ 00'11				3343 Jul 07 17:06	0° ♁	
greatest brilliancy	3341 Jan 20 12:39	21° ♁ 58'23	-4.7m			3343 Aug 01 05:31	0° ♁	
	3341 Feb 02 19:04	0° ♁				3343 Aug 25 21:01	0° ♁	
morning max el	3341 Feb 27 09:44	22° ♁ 02'21	46°55'43			3343 Sep 19 17:20	0° ♁	
	3341 Mar 07 02:54	0° ♁		desc. node		3343 Sep 26 01:23	7° ♁ 35'50	
	3341 Apr 03 07:17	0° ♁				3343 Oct 14 20:48	0° ♁	
desc. node	3341 Apr 10 06:22	7° ♁ 59'51				3343 Nov 09 11:37	0° ♁	
	3341 Apr 29 02:37	0° ♁				3343 Dec 06 02:01	0° ♁	
	3341 May 24 08:40	0° ♁		evening max el		3343 Dec 22 01:08	16° ♁ 51'54	47°13'13
	3341 Jun 18 08:28	0° ♁				3344 Jan 04 17:19	0° ♁	
	3341 Jul 13 04:11	0° ♁		asc. node		3344 Jan 17 04:16	10° ♁ 11'48	
asc. node	3341 Aug 01 09:17	23° ♁ 21'48		greatest brilliancy		3344 Jan 29 07:37	17° ♁ 24'36	-4.7m
	3341 Aug 06 19:44	0° ♁		retrograde		3344 Feb 10 21:46	20° ♁ 22'17	
morning set	3341 Aug 28 02:20	26° ♁ 05'14		evening set		3344 Feb 28 05:21	14° ♁ 29'54	
	3341 Aug 31 06:35	0° ♁		min. Earth dist.		3344 Mar 01 21:28	12° ♁ 51'48	0.27215 AU
	3341 Sep 24 13:05	0° ♁		inferior conj		3344 Mar 02 14:59	12° ♁ 24'39	8°39'38
max. Earth dist.	3341 Sep 30 15:25	7° ♁ 33'56	1.72613 AU	minimum elong		3344 Mar 02 09:30	12° ♁ 33'09	8°39'12
				morning rise		3344 Mar 05 13:53	10° ♁ 36'06	
superior conj	3341 Oct 03 16:41	11° ♁ 21'25	1°23'15	direct		3344 Mar 23 05:31	4° ♁ 37'24	
minimum elong	3341 Oct 03 20:37	11° ♁ 33'37	1°23'12	greatest brilliancy		3344 Apr 02 22:19	6° ♁ 45'49	-4.6m
	3341 Oct 18 16:28	0° ♁				3344 May 05 12:26	0° ♁	
evening rise	3341 Nov 10 17:53	28° ♁ 44'23		desc. node		3344 May 07 18:09	2° ♁ 06'15	
	3341 Nov 11 18:08	0° ♁		morning max el		3344 May 11 22:09	6° ♁ 07'10	46°16'55
desc. node	3341 Nov 20 23:15	11° ♁ 29'37				3344 Jun 03 22:37	0° ♁	
	3341 Dec 05 19:04	0° ♁				3344 Jun 30 19:50	0° ♁	
	3341 Dec 29 19:59	0° ♁				3344 Jul 26 17:08	0° ♁	
	3342 Jan 22 22:17	0° ♁				3344 Aug 20 23:59	0° ♁	
	3342 Feb 16 05:07	0° ♁		asc. node		3344 Aug 28 21:01	9° ♁ 28'02	
	3342 Mar 12 22:06	0° ♁				3344 Sep 14 19:31	0° ♁	
asc. node	3342 Mar 14 01:53	1° ♁ 23'13				3344 Oct 09 05:52	0° ♁	
	3342 Apr 07 10:40	0° ♁				3344 Nov 02 09:38	0° ♁	
	3342 May 04 15:27	0° ♁		morning set		3344 Nov 05 16:47	4° ♁ 06'52	
evening max el	3342 May 16 07:25	11° ♁ 48'50	45°44'16			3344 Nov 26 09:25	0° ♁	
	3342 Jun 06 01:35	0° ♁		max. Earth dist.		3344 Dec 13 08:44	21° ♁ 17'34	1.71319 AU
greatest brilliancy	3342 Jun 19 17:54	8° ♁ 32'34	-4.5m					
desc. node	3342 Jul 03 15:54	12° ♁ 15'19		superior conj		3344 Dec 14 23:11	23° ♁ 18'13	0°08'25
retrograde	3342 Jul 04 07:47	12° ♁ 15'50		minimum elong		3344 Dec 15 01:19	23° ♁ 24'58	0°08'18
evening set	3342 Jul 19 20:17	7° ♁ 36'50		behind sun begin		3344 Dec 14 02:59	22° ♁ 14'48	
inferior conj	3342 Jul 25 19:57	4° ♁ 00'39	-4°-55'-32	behind sun end		3344 Dec 15 23:40	24° ♁ 35'07	
minimum elong	3342 Jul 25 10:47	4° ♁ 14'58	4°53'21	desc. node		3344 Dec 18 11:04	27° ♁ 41'35	
min. Earth dist.	3342 Jul 25 14:20	4° ♁ 09'26	0.29033 AU			3344 Dec 20 07:08	0° ♁	
morning rise	3342 Jul 31 01:21	0° ♁ 50'04				3345 Jan 13 03:57	0° ♁	
	3342 Aug 01 13:16	30° ♁		evening rise		3345 Jan 24 23:51	14° ♁ 52'05	
direct	3342 Aug 16 10:18	25° ♁ 43'23				3345 Feb 06 01:01	0° ♁	
greatest brilliancy	3342 Aug 30 05:59	29° ♁ 03'02	-4.5m			3345 Mar 02 00:08	0° ♁	
	3342 Sep 01 05:50	0° ♁				3345 Mar 26 03:51	0° ♁	
morning max el	3342 Oct 04 13:10	26° ♁ 00'28	45°58'22	asc. node		3345 Apr 10 13:56	18° ♁ 57'34	
	3342 Oct 08 14:30	0° ♁				3345 Apr 19 15:13	0° ♁	
asc. node	3342 Oct 24 18:48	16° ♁ 55'23				3345 May 14 14:03	0° ♁	
	3342 Nov 05 13:47	0° ♁				3345 Jun 09 06:43	0° ♁	
	3342 Dec 01 07:54	0° ♁				3345 Jul 06 08:23	0° ♁	
	3342 Dec 26 02:38	0° ♁		evening max el		3345 Jul 26 03:30	20° ♁ 05'10	45°30'27
	3343 Jan 19 10:16	0° ♁		desc. node		3345 Jul 31 03:38	24° ♁ 46'14	
	3343 Feb 12 12:53	0° ♁				3345 Aug 06 01:01	0° ♁	
desc. node	3343 Feb 13 08:38	1° ♁ 01'36		greatest brilliancy		3345 Aug 31 23:58	17° ♁ 13'55	-4.5m
	3343 Mar 08 13:42	0° ♁		retrograde		3345 Sep 12 17:41	19° ♁ 39'56	
	3343 Apr 01 14:44	0° ♁		evening set		3345 Sep 30 17:57	13° ♁ 39'01	
morning set	3343 Apr 09 08:28	9° ♁ 38'20		inferior conj		3345 Oct 03 23:30	11° ♁ 40'06	-8°-31'-30
	3343 Apr 25 17:29	0° ♁		minimum elong		3345 Oct 04 03:38	11° ♁ 33'41	8°31'16
				min. Earth dist.		3345 Oct 04 17:41	11° ♁ 11'50	0.28406 AU
superior conj	3343 May 17 23:56	27° ♁ 35'02	0°-44'-25	morning rise		3345 Oct 07 13:05	9° ♁ 28'39	
minimum elong	3343 May 18 08:43	28° ♁ 02'11	0°44'04	direct		3345 Oct 25 08:25	3° ♁ 29'43	

greatest brilliancy	3345 Nov 08 18:48	7°♄13'46	-4.6m	asc. node	3348 May 08 01:52	5°♄21'34	
asc. node	3345 Nov 21 06:32	15°♄04'39			3348 May 28 03:58	0°♄	
	3345 Dec 08 11:49	0°♄			3348 Jun 21 20:55	0°♄	
morning max el	3345 Dec 14 17:24	6°♄09'23	46°42'08		3348 Jul 16 22:28	0°♄	
	3346 Jan 05 22:09	0°♄			3348 Aug 11 13:16	0°♄	
	3346 Jan 31 19:22	0°♄		desc. node	3348 Aug 27 15:27	18°♄20'34	
	3346 Feb 25 18:42	0°♄			3348 Sep 07 03:13	0°♄	
desc. node	3346 Mar 12 20:27	18°♄21'25			3348 Oct 05 20:02	0°♄	
	3346 Mar 22 08:49	0°♄		evening max el	3348 Oct 06 14:51	0°♄45'43	46°20'32
	3346 Apr 15 19:20	0°♄		greatest brilliancy	3348 Nov 14 08:26	29°♄43'47	-4.6m
	3346 May 10 05:05	0°♄			3348 Nov 15 01:50	0°♄	
	3346 Jun 03 15:19	0°♄		retrograde	3348 Nov 25 06:32	1°♄55'55	
morning set	3346 Jun 18 21:37	18°♄44'06			3348 Dec 05 01:24	30°♄	
	3346 Jun 28 01:56	0°♄		evening set	3348 Dec 09 18:03	27°♄49'28	
asc. node	3346 Jul 03 23:26	7°♄14'15		inferior conj	3348 Dec 15 21:10	24°♄15'59	0°-44'-50
	3346 Jul 22 12:04	0°♄		minimum elong	3348 Dec 15 22:53	24°♄13'21	0°44'17
max. Earth dist.	3346 Jul 24 13:32	2°♄32'03	1.73525 AU	min. Earth dist.	3348 Dec 16 05:01	24°♄04'03	0.26643 AU
				asc. node	3348 Dec 18 18:23	22°♄31'40	
superior conj	3346 Jul 25 16:13	3°♄54'05	0°48'41	morning rise	3348 Dec 22 03:12	20°♄37'23	
minimum elong	3346 Jul 25 07:55	3°♄28'32	0°48'21	direct	3349 Jan 05 09:43	16°♄32'51	
	3346 Aug 15 21:03	0°♄		greatest brilliancy	3349 Jan 18 04:29	19°♄34'50	-4.7m
evening rise	3346 Aug 30 13:46	18°♄06'42			3349 Feb 03 12:31	0°♄	
	3346 Sep 09 05:07	0°♄		morning max el	3349 Feb 25 00:17	19°♄40'41	46°56'30
	3346 Oct 03 13:08	0°♄			3349 Mar 06 22:46	0°♄	
desc. node	3346 Oct 23 13:22	24°♄38'13			3349 Apr 02 22:29	0°♄	
	3346 Oct 27 22:03	0°♄		desc. node	3349 Apr 09 08:29	7°♄23'56	
	3346 Nov 21 08:36	0°♄			3349 Apr 28 15:47	0°♄	
	3346 Dec 15 22:14	0°♄			3349 May 23 20:43	0°♄	
	3347 Jan 09 19:17	0°♄			3349 Jun 17 19:51	0°♄	
	3347 Feb 04 10:55	0°♄			3349 Jul 12 15:09	0°♄	
asc. node	3347 Feb 13 16:00	10°♄21'26		asc. node	3349 Jul 31 11:14	22°♄54'57	
evening max el	3347 Mar 04 00:20	29°♄51'00	46°47'04		3349 Aug 06 06:26	0°♄	
	3347 Mar 04 03:54	0°♄		morning set	3349 Aug 25 19:54	23°♄59'06	
greatest brilliancy	3347 Apr 09 06:05	28°♄52'50	-4.6m		3349 Aug 30 17:09	0°♄	
	3347 Apr 11 18:42	0°♄			3349 Sep 23 23:37	0°♄	
retrograde	3347 Apr 23 07:40	2°♄27'59		max. Earth dist.	3349 Sep 28 10:07	5°♄30'14	1.72657 AU
	3347 May 04 09:05	30°♄					
evening set	3347 May 09 10:37	27°♄24'16		superior conj	3349 Oct 01 09:21	9°♄11'19	1°23'52
inferior conj	3347 May 14 13:25	24°♄16'17	4°56'48	minimum elong	3349 Oct 01 12:34	9°♄21'18	1°23'51
minimum elong	3347 May 14 22:41	24°♄01'41	4°54'29		3349 Oct 18 03:04	0°♄	
min. Earth dist.	3347 May 14 12:06	24°♄18'22	0.28339 AU	evening rise	3349 Nov 08 07:40	26°♄24'11	
morning rise	3347 May 20 11:06	20°♄42'03			3349 Nov 11 04:54	0°♄	
direct	3347 Jun 04 18:15	16°♄09'42		desc. node	3349 Nov 20 01:15	11°♄02'02	
desc. node	3347 Jun 05 05:54	16°♄09'59			3349 Dec 05 06:04	0°♄	
greatest brilliancy	3347 Jun 16 22:10	18°♄47'27	-4.5m		3349 Dec 29 07:14	0°♄	
	3347 Jul 05 05:00	0°♄			3350 Jan 22 09:49	0°♄	
morning max el	3347 Jul 23 12:32	15°♄58'50	45°43'59		3350 Feb 15 17:05	0°♄	
	3347 Aug 06 14:14	0°♄			3350 Mar 12 10:48	0°♄	
	3347 Sep 03 06:11	0°♄		asc. node	3350 Mar 13 04:03	0°♄51'32	
asc. node	3347 Sep 26 09:01	26°♄37'09			3350 Apr 07 00:57	0°♄	
	3347 Sep 29 05:58	0°♄			3350 May 04 09:44	0°♄	
	3347 Oct 24 07:11	0°♄		evening max el	3350 May 14 00:12	9°♄40'29	45°45'55
	3347 Nov 17 18:22	0°♄			3350 Jun 06 16:35	0°♄	
	3347 Dec 11 21:18	0°♄		greatest brilliancy	3350 Jun 17 09:23	6°♄23'41	-4.5m
	3348 Jan 04 19:59	0°♄		retrograde	3350 Jul 02 00:44	10°♄08'05	
desc. node	3348 Jan 15 22:46	13°♄57'41		desc. node	3350 Jul 02 17:47	10°♄07'30	
morning set	3348 Jan 20 08:05	19°♄28'42		evening set	3350 Jul 17 10:59	5°♄31'40	
	3348 Jan 28 16:54	0°♄		inferior conj	3350 Jul 23 12:24	1°♄52'42	-4°-39'-10
	3348 Feb 21 13:36	0°♄		minimum elong	3350 Jul 23 03:32	2°♄06'34	4°37'00
				min. Earth dist.	3350 Jul 23 06:10	2°♄02'26	0.29021 AU
superior conj	3348 Mar 01 21:40	11°♄43'28	-1°-22'-54		3350 Jul 26 13:11	30°♄	
minimum elong	3348 Mar 01 14:59	11°♄22'30	1°22'50	morning rise	3350 Jul 28 20:15	28°♄38'44	
max. Earth dist.	3348 Mar 04 21:31	15°♄28'52	1.71402 AU	direct	3350 Aug 14 03:17	23°♄35'45	
	3348 Mar 16 11:35	0°♄		greatest brilliancy	3350 Aug 27 20:37	26°♄53'25	-4.5m
	3348 Apr 09 12:23	0°♄			3350 Sep 02 19:45	0°♄	
evening rise	3348 Apr 11 06:34	2°♄11'08		morning max el	3350 Oct 02 05:26	23°♄51'07	45°57'02
	3348 May 03 17:29	0°♄			3350 Oct 08 10:25	0°♄	

asc. node	3350 Oct 23 20:51	16° \cap 16'18			3353 May 14 02:26	0° \ominus	
	3350 Nov 05 04:36	0° $\underline{\cap}$			3353 Jun 08 20:32	0° Ω	
	3350 Nov 30 20:51	0° \cap			3353 Jul 06 01:30	0° \cap	
	3350 Dec 25 14:42	0° z		evening max el	3353 Jul 23 17:17	17° \cap 49'43	45°29'46
	3351 Jan 18 21:52	0° $\overline{\cap}$		desc. node	3353 Jul 30 05:42	23° \cap 53'32	
desc. node	3351 Feb 12 10:36	0° \approx 32'31			3353 Aug 06 06:41	0° $\underline{\cap}$	
	3351 Feb 12 00:10	0° \approx		greatest brilliancy	3353 Aug 29 12:39	14° $\underline{\cap}$ 58'56	-4.5m
	3351 Mar 08 00:45	0° X		retrograde	3353 Sep 10 07:46	17° $\underline{\cap}$ 27'00	
	3351 Apr 01 01:35	0° Υ		evening set	3353 Sep 28 09:41	11° $\underline{\cap}$ 24'20	
morning set	3351 Apr 06 21:31	7° Υ 15'52		inferior conj	3353 Oct 01 14:40	9° $\underline{\cap}$ 26'19	-8°-34'-48
	3351 Apr 25 04:11	0° B		minimum elong	3353 Oct 01 18:00	9° $\underline{\cap}$ 21'09	8°34'40
				min. Earth dist.	3353 Oct 02 08:23	8° $\underline{\cap}$ 58'47	0.28465 AU
superior conj	3351 May 15 15:24	25° B 21'41	0°-47'-21	morning rise	3353 Oct 05 02:05	7° $\underline{\cap}$ 18'01	
minimum elong	3351 May 16 00:36	25° B 50'09	0°46'59	direct	3353 Oct 22 23:34	1° $\underline{\cap}$ 14'58	
max. Earth dist.	3351 May 18 15:00	29° B 03'04	1.72880 AU	greatest brilliancy	3353 Nov 06 11:17	4° $\underline{\cap}$ 59'35	-4.6m
	3351 May 19 09:26	0° \cap		asc. node	3353 Nov 20 08:30	13° $\underline{\cap}$ 54'06	
asc. node	3351 Jun 05 13:38	21° \cap 11'21			3353 Dec 08 11:51	0° \cap	
	3351 Jun 12 17:24	0° \ominus		morning max el	3353 Dec 12 07:17	3° \cap 47'41	46°40'45
evening rise	3351 Jun 22 06:24	11° \ominus 43'58			3354 Jan 05 14:41	0° z	
	3351 Jul 07 03:43	0° Ω			3354 Jan 31 09:23	0° $\overline{\cap}$	
	3351 Jul 31 16:21	0° \cap			3354 Feb 25 07:28	0° \approx	
	3351 Aug 25 08:17	0° $\underline{\cap}$		desc. node	3354 Mar 11 22:38	17° \approx 50'27	
	3351 Sep 19 05:16	0° \cap			3354 Mar 21 20:52	0° X	
desc. node	3351 Sep 25 03:28	7° \cap 05'50			3354 Apr 15 06:53	0° Υ	
	3351 Oct 14 09:46	0° z			3354 May 09 16:16	0° B	
	3351 Nov 09 02:21	0° $\overline{\cap}$			3354 Jun 03 02:14	0° \cap	
	3351 Dec 05 20:26	0° \approx		morning set	3354 Jun 16 14:47	16° \cap 36'16	
evening max el	3351 Dec 19 15:56	14° \approx 30'31	47°12'27		3354 Jun 27 12:40	0° \ominus	
	3352 Jan 05 00:41	0° X		asc. node	3354 Jul 03 01:26	6° \ominus 47'29	
asc. node	3352 Jan 16 06:14	8° X 50'48			3354 Jul 21 22:44	0° Ω	
greatest brilliancy	3352 Jan 26 23:02	15° X 01'13	-4.7m	max. Earth dist.	3354 Jul 22 08:57	0° Ω 31'24	1.73529 AU
retrograde	3352 Feb 08 11:20	17° X 56'19					
evening set	3352 Feb 25 15:05	12° X 10'11		superior conj	3354 Jul 23 10:26	1° Ω 49'45	0°46'04
min. Earth dist.	3352 Feb 28 10:15	10° X 27'27	0.27166 AU	minimum elong	3354 Jul 23 02:22	1° Ω 24'57	0°45'43
inferior conj	3352 Feb 29 04:08	9° X 59'41	8°33'23		3354 Aug 15 07:44	0° \cap	
minimum elong	3352 Feb 28 21:51	10° X 09'26	8°32'47	evening rise	3354 Aug 28 08:02	16° \cap 02'03	
morning rise	3352 Mar 03 04:53	8° X 08'16			3354 Sep 08 15:56	0° $\underline{\cap}$	
direct	3352 Mar 20 18:34	2° X 13'25			3354 Oct 03 00:13	0° \cap	
greatest brilliancy	3352 Mar 31 10:22	4° X 20'50	-4.6m	desc. node	3354 Oct 22 15:24	24° \cap 09'29	
	3352 May 05 13:49	0° Υ			3354 Oct 27 09:31	0° z	
desc. node	3352 May 06 20:07	1° Υ 12'28			3354 Nov 20 20:35	0° $\overline{\cap}$	
morning max el	3352 May 09 11:21	3° Υ 45'55	46°18'33		3354 Dec 15 10:57	0° \approx	
	3352 Jun 03 15:18	0° B			3355 Jan 09 09:10	0° X	
	3352 Jun 30 09:33	0° \cap			3355 Feb 04 03:03	0° Υ	
	3352 Jul 26 05:23	0° \ominus		asc. node	3355 Feb 12 18:09	9° Υ 39'12	
	3352 Aug 20 11:26	0° Ω		evening max el	3355 Mar 01 13:58	27° Υ 29'02	46°49'10
asc. node	3352 Aug 27 23:10	9° Ω 00'27			3355 Mar 04 02:18	0° B	
	3352 Sep 14 06:32	0° \cap		greatest brilliancy	3355 Apr 06 22:08	26° B 37'54	-4.6m
	3352 Oct 08 16:41	0° $\underline{\cap}$			3355 Apr 17 14:53	0° \cap	
	3352 Nov 01 20:25	0° \cap		retrograde	3355 Apr 20 23:11	0° \cap 13'17	
morning set	3352 Nov 03 07:34	1° \cap 49'38			3355 Apr 24 06:22	30° B	
	3352 Nov 25 20:13	0° z		evening set	3355 May 07 04:46	25° B 05'22	
max. Earth dist.	3352 Dec 10 13:58	18° z 29'24	1.71350 AU	inferior conj	3355 May 12 04:50	22° B 01'42	5°14'11
				minimum elong	3355 May 12 14:23	21° B 46'41	5°11'51
superior conj	3352 Dec 12 10:46	20° z 50'00	0°12'14	min. Earth dist.	3355 May 12 03:40	22° B 03'32	0.28312 AU
minimum elong	3352 Dec 12 13:52	20° z 59'42	0°12'05	morning rise	3355 May 18 00:17	18° B 30'42	
behind sun begin	3352 Dec 11 20:30	20° z 05'11		direct	3355 Jun 02 08:41	13° B 55'17	
behind sun end	3352 Dec 13 07:14	21° z 54'13		desc. node	3355 Jun 04 07:53	13° B 59'45	
desc. node	3352 Dec 17 13:01	27° z 13'43		greatest brilliancy	3355 Jun 14 12:57	16° B 33'23	-4.5m
	3352 Dec 19 17:58	0° $\overline{\cap}$			3355 Jul 05 15:26	0° \cap	
	3353 Jan 12 14:51	0° \approx		morning max el	3355 Jul 21 04:08	13° \cap 47'16	45°44'33
evening rise	3353 Jan 22 10:07	12° \approx 19'10			3355 Aug 06 08:25	0° \ominus	
	3353 Feb 05 12:00	0° X			3355 Sep 02 20:28	0° Ω	
	3353 Mar 01 11:16	0° Υ		asc. node	3355 Sep 25 11:03	26° Ω 05'32	
	3353 Mar 25 15:11	0° B			3355 Sep 28 18:37	0° \cap	
asc. node	3353 Apr 09 15:59	18° B 28'36			3355 Oct 23 19:02	0° $\underline{\cap}$	
	3353 Apr 19 02:55	0° \cap			3355 Nov 17 05:48	0° \cap	

	3355 Dec 11 08:33	0°♊		desc. node	3358 Jul 01 19:52	7°♌53'04	
	3356 Jan 04 07:09	0°♋		evening set	3358 Jul 15 01:44	3°♌24'32	
desc. node	3356 Jan 15 00:51	13°♋29'13			3358 Jul 20 17:50	30°♌	
morning set	3356 Jan 17 18:05	16°♋54'12		inferior conj	3358 Jul 21 04:43	29°♌42'57	-4°-22'-23
	3356 Jan 28 04:01	0°♌		minimum elong	3358 Jul 20 20:13	29°♌56'16	4°20'14
	3356 Feb 21 00:42	0°♍		min. Earth dist.	3358 Jul 20 22:06	29°♌53'19	0.29006 AU
				morning rise	3358 Jul 26 14:55	26°♌25'31	
superior conj	3356 Feb 28 08:10	9°♍11'04	-1°-21'-41	direct	3358 Aug 11 20:00	21°♌26'28	
minimum elong	3356 Feb 28 00:36	8°♍47'16	1°21'34	greatest brilliancy	3358 Aug 25 10:24	24°♌41'03	-4.5m
max. Earth dist.	3356 Mar 02 02:42	12°♍39'52	1.71368 AU		3358 Sep 03 23:06	0°♌	
	3356 Mar 15 22:38	0°♎		morning max el	3358 Sep 29 20:41	21°♌37'56	45°55'44
evening rise	3356 Apr 08 18:47	29°♎45'35			3358 Oct 08 06:15	0°♎	
	3356 Apr 08 23:25	0°♏		asc. node	3358 Oct 22 22:48	15°♎36'00	
	3356 May 03 04:35	0°♐			3358 Nov 04 19:40	0°♏	
asc. node	3356 May 07 03:48	4°♐53'18			3358 Nov 30 10:07	0°♐	
	3356 May 27 15:16	0°♑			3358 Dec 25 03:06	0°♊	
	3356 Jun 21 08:37	0°♒			3359 Jan 18 09:45	0°♋	
	3356 Jul 16 10:53	0°♓			3359 Feb 11 11:44	0°♌	
	3356 Aug 11 02:59	0°♈		desc. node	3359 Feb 11 12:47	0°♌03'15	
desc. node	3356 Aug 26 17:35	17°♈44'15			3359 Mar 07 12:04	0°♍	
	3356 Sep 06 19:36	0°♉			3359 Mar 31 12:45	0°♎	
evening max el	3356 Oct 04 04:56	28°♉26'29	46°18'24	morning set	3359 Apr 04 10:28	4°♎52'04	
	3356 Oct 05 19:48	0°♊			3359 Apr 24 15:14	0°♏	
greatest brilliancy	3356 Nov 11 20:06	27°♊17'02	-4.6m				
retrograde	3356 Nov 22 19:21	29°♊29'41		superior conj	3359 May 13 06:34	23°♏06'09	0°-50'-14
evening set	3356 Dec 07 07:54	25°♊21'13		minimum elong	3359 May 13 16:07	23°♏35'41	0°49'52
inferior conj	3356 Dec 13 09:39	21°♊49'17	-1°-8'-53	max. Earth dist.	3359 May 16 10:53	27°♏02'09	1.72834 AU
minimum elong	3356 Dec 13 12:18	21°♊45'17	1°08'03		3359 May 18 20:25	0°♐	
min. Earth dist.	3356 Dec 13 18:30	21°♊35'52	0.26679 AU	asc. node	3359 Jun 04 15:39	20°♐43'51	
asc. node	3356 Dec 17 20:22	19°♊10'41			3359 Jun 12 04:22	0°♑	
morning rise	3356 Dec 19 16:14	18°♊10'17		evening rise	3359 Jun 19 23:48	9°♑36'12	
direct	3357 Jan 02 23:22	14°♊05'36			3359 Jul 06 14:45	0°♒	
greatest brilliancy	3357 Jan 15 19:25	17°♊09'46	-4.7m		3359 Jul 31 03:38	0°♓	
	3357 Feb 04 01:50	0°♋			3359 Aug 24 20:00	0°♈	
morning max el	3357 Feb 22 14:58	17°♋18'26	46°56'53		3359 Sep 18 17:42	0°♉	
	3357 Mar 06 18:26	0°♌		desc. node	3359 Sep 24 05:27	6°♉34'03	
	3357 Apr 02 13:55	0°♍			3359 Oct 13 23:18	0°♊	
desc. node	3357 Apr 08 10:27	6°♍46'31			3359 Nov 08 17:44	0°♋	
	3357 Apr 28 05:18	0°♎			3359 Dec 05 15:47	0°♌	
	3357 May 23 09:09	0°♏		evening max el	3359 Dec 17 05:57	12°♌06'06	47°11'44
	3357 Jun 17 07:36	0°♐			3360 Jan 05 11:09	0°♍	
	3357 Jul 12 02:28	0°♑		asc. node	3360 Jan 15 08:23	7°♍26'41	
asc. node	3357 Jul 30 13:21	22°♑27'33		greatest brilliancy	3360 Jan 24 15:05	12°♍37'54	-4.7m
	3357 Aug 05 17:29	0°♒		retrograde	3360 Feb 06 00:33	15°♍29'59	
morning set	3357 Aug 23 13:22	21°♒51'37		evening set	3360 Feb 23 00:48	9°♍50'27	
	3357 Aug 30 04:05	0°♓		min. Earth dist.	3360 Feb 25 23:31	8°♍02'26	0.27114 AU
	3357 Sep 23 10:32	0°♈		inferior conj	3360 Feb 26 17:27	7°♍34'34	8°26'15
max. Earth dist.	3357 Sep 26 02:51	3°♈19'22	1.72699 AU	minimum elong	3360 Feb 26 10:26	7°♍45'28	8°25'28
				morning rise	3360 Feb 29 20:19	5°♍39'52	
superior conj	3357 Sep 29 02:10	7°♈00'35	1°24'22		3360 Mar 15 07:42	30°♎	
minimum elong	3357 Sep 29 04:40	7°♈08'22	1°24'21	direct	3360 Mar 18 07:13	29°♎49'12	
	3357 Oct 17 14:03	0°♉			3360 Mar 21 07:44	0°♏	
evening rise	3357 Nov 05 21:44	24°♉03'47		greatest brilliancy	3360 Mar 28 23:24	1°♏56'34	-4.6m
	3357 Nov 10 16:01	0°♊		desc. node	3360 May 05 22:10	0°♎19'22	
desc. node	3357 Nov 19 03:14	10°♊33'22			3360 May 05 14:11	0°♏	
	3357 Dec 04 17:22	0°♋		morning max el	3360 May 06 23:46	1°♎21'53	46°20'03
	3357 Dec 28 18:46	0°♌			3360 Jun 03 07:57	0°♏	
	3358 Jan 21 21:40	0°♍			3360 Jun 29 23:27	0°♐	
	3358 Feb 15 05:25	0°♎			3360 Jul 25 17:56	0°♑	
asc. node	3358 Mar 12 06:01	0°♏17'56			3360 Aug 19 23:13	0°♒	
	3358 Mar 12 00:01	0°♏		asc. node	3360 Aug 27 01:11	8°♒31'25	
	3358 Apr 06 15:54	0°♐			3360 Sep 13 17:52	0°♓	
	3358 May 04 05:09	0°♑			3360 Oct 08 03:50	0°♈	
evening max el	3358 May 11 16:51	7°♑30'05	45°47'34	morning set	3360 Oct 31 22:17	29°♈31'14	
	3358 Jun 07 14:02	0°♒			3360 Nov 01 07:30	0°♉	
greatest brilliancy	3358 Jun 15 02:04	4°♒14'27	-4.5m		3360 Nov 25 07:20	0°♊	
retrograde	3358 Jun 29 17:12	7°♒58'20		max. Earth dist.	3360 Dec 07 21:09	15°♊46'23	1.71385 AU

superior conj	3360 Dec 09 22:26	18°♂21'03	0°16'01	min. Earth dist.	3363 May 09 18:58	19°♂49'30	0.28282 AU
minimum elong	3360 Dec 10 02:27	18°♂33'37	0°15'50	morning rise	3363 May 15 13:26	16°♂20'02	
behind sun begin	3360 Dec 09 20:34	18°♂15'10		direct	3363 May 30 23:41	11°♂41'19	
behind sun end	3360 Dec 10 08:20	18°♂52'04		desc. node	3363 Jun 03 09:56	11°♂54'52	
desc. node	3360 Dec 16 15:07	26°♂45'18		greatest brilliancy	3363 Jun 12 03:10	14°♂19'13	-4.5m
	3360 Dec 19 05:08	0°♂			3363 Jul 05 22:51	0°♂	
	3361 Jan 12 02:03	0°♂		morning max el	3363 Jul 18 20:26	11°♂37'47	45°45'04
evening rise	3361 Jan 19 20:33	9°♂45'51			3363 Aug 06 02:01	0°♂	
	3361 Feb 04 23:17	0°♂			3363 Sep 02 10:31	0°♂	
	3361 Feb 28 22:37	0°♂		asc. node	3363 Sep 24 12:59	25°♂33'49	
	3361 Mar 25 02:43	0°♂			3363 Sep 28 07:11	0°♂	
asc. node	3361 Apr 08 17:56	17°♂58'45			3363 Oct 23 06:52	0°♂	
	3361 Apr 18 14:49	0°♂			3363 Nov 16 17:14	0°♂	
	3361 May 13 15:04	0°♂			3363 Dec 10 19:47	0°♂	
	3361 Jun 08 10:42	0°♂			3364 Jan 03 18:17	0°♂	
	3361 Jul 05 19:20	0°♂		desc. node	3364 Jan 14 02:56	13°♂00'53	
evening max el	3361 Jul 21 07:06	15°♂33'35	45°29'07	morning set	3364 Jan 15 04:10	14°♂20'13	
desc. node	3361 Jul 29 07:50	22°♂58'57			3364 Jan 27 15:06	0°♂	
	3361 Aug 06 15:09	0°♂			3364 Feb 20 11:45	0°♂	
greatest brilliancy	3361 Aug 27 00:27	12°♂42'13	-4.5m				
retrograde	3361 Sep 07 22:23	15°♂13'34		superior conj	3364 Feb 25 18:34	6°♂38'22	-1°-20'-17
evening set	3361 Sep 26 01:06	9°♂09'27		minimum elong	3364 Feb 25 10:08	6°♂11'52	1°20'08
inferior conj	3361 Sep 29 05:53	7°♂11'53	-8°-37'-18	max. Earth dist.	3364 Feb 28 10:35	9°♂59'19	1.71336 AU
minimum elong	3361 Sep 29 08:24	7°♂07'57	8°37'14		3364 Mar 15 09:38	0°♂	
min. Earth dist.	3361 Sep 29 22:55	6°♂45'25	0.28523 AU	evening rise	3364 Apr 06 07:00	27°♂20'06	
morning rise	3361 Oct 02 15:28	5°♂06'24			3364 Apr 08 10:25	0°♂	
	3361 Oct 13 13:15	30°♂			3364 May 02 15:37	0°♂	
direct	3361 Oct 20 14:53	28°♂59'35		asc. node	3364 May 06 05:54	4°♂25'45	
	3361 Oct 27 22:12	0°♂			3364 May 27 02:28	0°♂	
greatest brilliancy	3361 Nov 04 04:38	2°♂46'08	-4.6m		3364 Jun 20 20:11	0°♂	
asc. node	3361 Nov 19 10:35	12°♂45'00			3364 Jul 15 23:10	0°♂	
	3361 Dec 08 11:04	0°♂			3364 Aug 10 16:38	0°♂	
morning max el	3361 Dec 09 21:51	1°♂27'15	46°39'21	desc. node	3364 Aug 25 19:30	17°♂07'31	
	3362 Jan 05 07:09	0°♂			3364 Sep 06 12:08	0°♂	
	3362 Jan 30 23:28	0°♂		evening max el	3364 Oct 01 19:30	26°♂08'48	46°16'01
	3362 Feb 24 20:21	0°♂			3364 Oct 05 20:36	0°♂	
desc. node	3362 Mar 11 00:32	17°♂18'13		greatest brilliancy	3364 Nov 09 08:37	24°♂51'33	-4.6m
	3362 Mar 21 09:01	0°♂		retrograde	3364 Nov 20 08:01	27°♂03'28	
	3362 Apr 14 18:31	0°♂		evening set	3364 Dec 04 21:59	22°♂53'06	
	3362 May 09 03:32	0°♂		inferior conj	3364 Dec 10 22:08	19°♂22'52	-1°-32'-51
	3362 Jun 02 13:13	0°♂		minimum elong	3364 Dec 11 01:40	19°♂17'30	1°31'44
morning set	3362 Jun 14 08:14	14°♂29'03		min. Earth dist.	3364 Dec 11 08:02	19°♂07'49	0.26716 AU
	3362 Jun 26 23:29	0°♂		asc. node	3364 Dec 16 22:29	15°♂52'09	
asc. node	3362 Jul 02 03:33	6°♂20'53		morning rise	3364 Dec 17 04:58	15°♂43'30	
max. Earth dist.	3362 Jul 20 05:50	28°♂35'01	1.73538 AU	direct	3364 Dec 31 12:59	11°♂38'45	
				greatest brilliancy	3365 Jan 13 09:42	14°♂44'02	-4.7m
superior conj	3362 Jul 21 04:48	29°♂45'36	0°43'23		3365 Feb 04 11:41	0°♂	
minimum elong	3362 Jul 20 21:01	29°♂21'39	0°43'02	morning max el	3365 Feb 20 04:51	14°♂54'28	46°57'13
	3362 Jul 21 09:29	0°♂			3365 Mar 06 13:24	0°♂	
	3362 Aug 14 18:34	0°♂			3365 Apr 02 04:57	0°♂	
evening rise	3362 Aug 26 02:28	13°♂57'28		desc. node	3365 Apr 07 12:29	6°♂10'09	
	3362 Sep 08 02:55	0°♂			3365 Apr 27 18:31	0°♂	
	3362 Oct 02 11:26	0°♂			3365 May 22 21:19	0°♂	
desc. node	3362 Oct 21 17:21	23°♂40'07			3365 Jun 16 19:06	0°♂	
	3362 Oct 26 21:07	0°♂			3365 Jul 11 13:32	0°♂	
	3362 Nov 20 08:43	0°♂		asc. node	3365 Jul 29 15:22	22°♂00'38	
	3362 Dec 14 23:51	0°♂			3365 Aug 05 04:16	0°♂	
	3363 Jan 08 23:17	0°♂		morning set	3365 Aug 21 07:17	19°♂46'27	
	3363 Feb 03 19:33	0°♂			3365 Aug 29 14:44	0°♂	
asc. node	3363 Feb 11 20:09	8°♂55'44			3365 Sep 22 21:10	0°♂	
evening max el	3363 Feb 27 04:33	25°♂09'15	46°51'18	max. Earth dist.	3365 Sep 23 19:20	1°♂08'41	1.72745 AU
	3363 Mar 04 01:44	0°♂					
greatest brilliancy	3363 Apr 04 14:08	24°♂22'58	-4.6m	superior conj	3365 Sep 26 19:26	4°♂52'13	1°24'44
retrograde	3363 Apr 18 15:23	27°♂58'53		minimum elong	3365 Sep 26 21:13	4°♂57'45	1°24'43
evening set	3363 May 04 23:08	22°♂46'38			3365 Oct 17 00:47	0°♂	
inferior conj	3363 May 09 20:21	19°♂47'21	5°31'06	evening rise	3365 Nov 03 12:01	21°♂44'51	
minimum elong	3363 May 10 06:09	19°♂31'58	5°28'46		3365 Nov 10 02:57	0°♂	

desc. node	3365 Nov 18 05:23	10°♄05'50		desc. node	3368 May 05 00:17	29°♁27'53	
	3365 Dec 04 04:31	0°♄			3368 May 05 13:18	0°♄	
	3365 Dec 28 06:10	0°♁			3368 Jun 03 00:03	0°♄	
	3366 Jan 21 09:22	0°♁			3368 Jun 29 12:57	0°♁	
	3366 Feb 14 17:37	0°♄			3368 Jul 25 06:06	0°♁	
asc. node	3366 Mar 11 07:59	29°♄44'46			3368 Aug 19 10:37	0°♁	
	3366 Mar 11 13:06	0°♄		asc. node	3368 Aug 26 03:07	8°♁03'12	
	3366 Apr 06 06:48	0°♁			3368 Sep 13 04:52	0°♁	
	3366 May 04 00:51	0°♁			3368 Oct 07 14:37	0°♁	
evening max el	3366 May 09 08:49	5°♁18'39	45°49'16	morning set	3368 Oct 29 13:36	27°♁16'00	
	3366 Jun 08 18:59	0°♁			3368 Oct 31 18:12	0°♁	
greatest brilliancy	3366 Jun 12 19:22	2°♁06'54	-4.5m		3368 Nov 24 18:02	0°♄	
retrograde	3366 Jun 27 09:27	5°♁49'48		max. Earth dist.	3368 Dec 05 08:51	13°♄18'52	1.71422 AU
desc. node	3366 Jun 30 22:00	5°♁35'07					
evening set	3366 Jul 12 16:47	1°♁18'27		superior conj	3368 Dec 07 10:40	15°♄55'09	0°19'43
	3366 Jul 14 23:08	30°♁		minimum elong	3368 Dec 07 15:32	16°♄10'26	0°19'29
inferior conj	3366 Jul 18 21:10	27°♁34'40	-4°-5'-11	desc. node	3368 Dec 15 17:11	26°♄18'07	
minimum elong	3366 Jul 18 13:05	27°♁47'22	4°03'06		3368 Dec 18 15:53	0°♄	
min. Earth dist.	3366 Jul 18 14:33	27°♁45'03	0.28986 AU		3369 Jan 11 12:54	0°♁	
morning rise	3366 Jul 24 09:36	24°♁13'46		evening rise	3369 Jan 17 07:19	7°♁14'44	
direct	3366 Aug 09 12:20	19°♁18'40			3369 Feb 04 10:15	0°♁	
greatest brilliancy	3366 Aug 23 00:14	22°♁30'03	-4.5m		3369 Feb 28 09:45	0°♄	
	3366 Sep 04 18:20	0°♁			3369 Mar 24 14:04	0°♄	
morning max el	3366 Sep 27 11:10	19°♁24'17	45°54'35	asc. node	3369 Apr 07 20:02	17°♄29'54	
	3366 Oct 08 01:00	0°♁			3369 Apr 18 02:33	0°♁	
asc. node	3366 Oct 22 00:55	14°♁57'51			3369 May 13 03:35	0°♁	
	3366 Nov 04 10:07	0°♁			3369 Jun 08 00:48	0°♁	
	3366 Nov 29 22:56	0°♁			3369 Jul 05 13:20	0°♁	
	3366 Dec 24 15:09	0°♄		evening max el	3369 Jul 18 21:30	13°♁19'42	45°28'41
	3367 Jan 17 21:23	0°♄		desc. node	3369 Jul 28 09:45	22°♁03'28	
desc. node	3367 Feb 10 14:44	29°♄33'59			3369 Aug 07 02:14	0°♁	
	3367 Feb 10 23:04	0°♁		greatest brilliancy	3369 Aug 24 11:35	10°♁25'44	-4.5m
	3367 Mar 06 23:10	0°♁		retrograde	3369 Sep 05 13:38	13°♁01'08	
	3367 Mar 30 23:40	0°♄		evening set	3369 Sep 23 16:14	6°♁55'58	
morning set	3367 Apr 01 22:55	2°♄27'19		inferior conj	3369 Sep 26 21:05	4°♁58'22	-8°-39'-3
	3367 Apr 24 02:01	0°♄		minimum elong	3369 Sep 26 22:49	4°♁55'41	8°39'01
				min. Earth dist.	3369 Sep 27 13:07	4°♁33'30	0.28575 AU
superior conj	3367 May 10 21:30	20°♄50'45	0°-53'-3	morning rise	3369 Sep 30 05:11	2°♁55'18	
minimum elong	3367 May 11 07:20	21°♄21'11	0°52'41		3369 Oct 05 12:04	30°♁	
max. Earth dist.	3367 May 14 05:46	24°♄59'05	1.72784 AU	direct	3369 Oct 18 06:32	26°♁45'18	
	3367 May 18 07:07	0°♁			3369 Oct 31 17:04	0°♁	
asc. node	3367 Jun 03 17:47	20°♁17'32		greatest brilliancy	3369 Nov 01 21:42	0°♁33'40	-4.6m
	3367 Jun 11 15:03	0°♁		asc. node	3369 Nov 18 12:38	11°♁38'46	
evening rise	3367 Jun 17 17:08	7°♁29'04		morning max el	3369 Dec 07 13:25	29°♁10'47	46°38'08
	3367 Jul 06 01:31	0°♁			3369 Dec 08 08:53	0°♁	
	3367 Jul 30 14:37	0°♁			3370 Jan 04 22:53	0°♄	
	3367 Aug 24 07:23	0°♁			3370 Jan 30 13:00	0°♄	
	3367 Sep 18 05:45	0°♁			3370 Feb 24 08:48	0°♁	
desc. node	3367 Sep 23 07:30	6°♁03'40		desc. node	3370 Mar 10 02:35	16°♁47'37	
	3367 Oct 13 12:26	0°♄			3370 Mar 20 20:49	0°♁	
	3367 Nov 08 08:50	0°♄			3370 Apr 14 05:54	0°♄	
	3367 Dec 05 11:13	0°♁			3370 May 08 14:34	0°♄	
evening max el	3367 Dec 14 18:52	9°♁39'55	47°10'40		3370 Jun 02 00:00	0°♁	
	3368 Jan 06 00:44	0°♁		morning set	3370 Jun 12 01:11	12°♁20'48	
asc. node	3368 Jan 14 10:21	5°♁59'49			3370 Jun 26 10:06	0°♁	
greatest brilliancy	3368 Jan 22 06:42	10°♁14'11	-4.7m	asc. node	3370 Jul 01 05:31	5°♁54'23	
retrograde	3368 Feb 03 13:18	13°♁03'43		max. Earth dist.	3370 Jul 18 03:59	26°♁43'04	1.73542 AU
evening set	3368 Feb 20 10:00	7°♁30'48					
min. Earth dist.	3368 Feb 23 12:50	5°♁36'52	0.27069 AU	superior conj	3370 Jul 18 22:42	27°♁40'36	0°40'35
inferior conj	3368 Feb 24 06:34	5°♁09'21	8°17'49	minimum elong	3370 Jul 18 15:14	27°♁17'40	0°40'16
minimum elong	3368 Feb 23 22:51	5°♁21'19	8°16'53		3370 Jul 20 20:03	0°♁	
morning rise	3368 Feb 27 11:54	3°♁10'56			3370 Aug 14 05:11	0°♁	
	3368 Mar 04 11:37	30°♁		evening rise	3370 Aug 23 20:42	11°♁52'59	
direct	3368 Mar 15 19:20	27°♁24'32			3370 Sep 07 13:41	0°♁	
greatest brilliancy	3368 Mar 26 13:21	29°♁33'14	-4.6m		3370 Oct 01 22:29	0°♁	
	3368 Mar 27 16:16	0°♁		desc. node	3370 Oct 20 19:30	23°♁11'56	
morning max el	3368 May 04 12:07	28°♁58'00	46°21'44		3370 Oct 26 08:32	0°♄	

	3370 Nov 19 20:39	0°☾		asc. node	3373 Jul 28 17:21	21°☾33'30	
	3370 Dec 14 12:31	0°≈			3373 Aug 04 15:07	0°♈	
	3371 Jan 08 13:09	0°✠		morning set	3373 Aug 19 00:55	17°♈40'05	
	3371 Feb 03 11:57	0°♊			3373 Aug 29 01:28	0°♊	
asc. node	3371 Feb 10 22:07	8°♊12'42		max. Earth dist.	3373 Sep 21 10:41	28°♊54'17	1.72790 AU
evening max el	3371 Feb 24 19:52	22°♊52'12	46°53'11		3373 Sep 22 07:54	0°♊	
	3371 Mar 04 01:52	0°♋					
greatest brilliancy	3371 Apr 02 06:10	22°♋08'25	-4.6m	superior conj	3373 Sep 24 12:28	2°♊42'54	1°24'58
retrograde	3371 Apr 16 07:36	25°♋44'10		minimum elong	3373 Sep 24 13:31	2°♊46'09	1°24'58
evening set	3371 May 02 17:24	20°♋27'35			3373 Oct 16 11:37	0°♋	
inferior conj	3371 May 07 11:37	17°♋32'35	5°47'33	evening rise	3373 Nov 01 02:08	19°♋25'14	
minimum elong	3371 May 07 21:37	17°♋16'56	5°45'15		3373 Nov 09 13:58	0°♋	
min. Earth dist.	3371 May 07 09:44	17°♋35'33	0.28257 AU	desc. node	3373 Nov 17 07:21	9°♋37'30	
morning rise	3371 May 13 02:12	14°♋09'13			3373 Dec 03 15:46	0°☾	
direct	3371 May 28 14:58	9°♋27'02			3373 Dec 27 17:40	0°≈	
desc. node	3371 Jun 02 12:01	9°♋54'19			3374 Jan 20 21:12	0°✠	
greatest brilliancy	3371 Jun 09 16:34	12°♋03'50	-4.5m		3374 Feb 14 05:57	0°♊	
	3371 Jul 06 04:04	0°♌		asc. node	3374 Mar 10 10:09	29°♊11'52	
morning max el	3371 Jul 16 12:45	9°♌28'21	45°45'34		3374 Mar 11 02:19	0°♋	
	3371 Aug 05 19:13	0°☾			3374 Apr 05 21:54	0°♌	
	3371 Sep 02 00:22	0°♈			3374 May 03 21:09	0°☾	
asc. node	3371 Sep 23 15:09	25°♈03'15		evening max el	3374 May 06 23:53	3°☾04'54	45°50'59
	3371 Sep 27 19:34	0°♊		greatest brilliancy	3374 Jun 10 11:38	29°☾57'53	-4.5m
	3371 Oct 22 18:31	0°♋			3374 Jun 10 13:25	0°♈	
	3371 Nov 16 04:31	0°♌		retrograde	3374 Jun 25 01:25	3°♈41'17	
	3371 Dec 10 06:51	0°♋		desc. node	3374 Jun 29 23:54	3°♈12'22	
	3372 Jan 03 05:16	0°☾			3374 Jul 08 19:47	30°♋☾	
morning set	3372 Jan 12 14:39	11°☾47'58		evening set	3374 Jul 10 07:58	29°☾11'47	
desc. node	3372 Jan 13 04:53	12°☾32'41		inferior conj	3374 Jul 16 13:41	25°☾26'14	-3°-47'-38
	3372 Jan 27 02:01	0°≈		minimum elong	3374 Jul 16 06:02	25°☾38'15	3°45'38
	3372 Feb 19 22:35	0°✠		min. Earth dist.	3374 Jul 16 07:20	25°☾36'12	0.28972 AU
				morning rise	3374 Jul 22 04:14	22°☾01'58	
superior conj	3372 Feb 23 05:16	4°✠07'12	-1°-18'-43	direct	3374 Aug 07 04:19	17°☾10'23	
minimum elong	3372 Feb 22 20:04	3°✠38'18	1°18'33	greatest brilliancy	3374 Aug 20 15:16	20°☾19'57	-4.5m
max. Earth dist.	3372 Feb 25 21:02	7°✠27'30	1.71302 AU		3374 Sep 05 08:55	0°♈	
	3372 Mar 14 20:25	0°♊		morning max el	3374 Sep 25 01:30	17°♈09'30	45°53'26
evening rise	3372 Apr 03 19:25	24°♊55'42			3374 Oct 07 19:34	0°♊	
	3372 Apr 07 21:12	0°♋		asc. node	3374 Oct 21 02:59	14°♊19'08	
	3372 May 02 02:32	0°♌			3374 Nov 04 00:41	0°♋	
asc. node	3372 May 05 07:58	3°♌58'31			3374 Nov 29 11:55	0°♌	
	3372 May 26 13:37	0°☾			3374 Dec 24 03:22	0°♋	
	3372 Jun 20 07:45	0°♈			3375 Jan 17 09:09	0°☾	
	3372 Jul 15 11:30	0°♊		desc. node	3375 Feb 09 16:45	29°☾04'25	
	3372 Aug 10 06:25	0°♋			3375 Feb 10 10:33	0°≈	
desc. node	3372 Aug 24 21:36	16°♋30'54			3375 Mar 06 10:26	0°✠	
	3372 Sep 06 05:01	0°♌		morning set	3375 Mar 30 11:17	0°♊01'37	
evening max el	3372 Sep 29 09:40	23°♌50'16	46°13'41		3375 Mar 30 10:45	0°♊	
	3372 Oct 05 22:44	0°♋			3375 Apr 23 12:58	0°♋	
greatest brilliancy	3372 Nov 06 22:03	22°♋27'21	-4.6m				
retrograde	3372 Nov 17 20:08	24°♋37'22		superior conj	3375 May 08 12:38	18°♋35'23	0°-55'-46
evening set	3372 Dec 02 12:16	20°♋25'01		minimum elong	3375 May 08 22:42	19°♋06'34	0°55'24
inferior conj	3372 Dec 08 10:39	16°♋56'47	-1°-56'-35	max. Earth dist.	3375 May 11 23:04	22°♋50'31	1.72729 AU
minimum elong	3372 Dec 08 15:03	16°♋50'04	1°55'12		3375 May 17 17:58	0°♌	
min. Earth dist.	3372 Dec 08 21:52	16°♋39'41	0.26753 AU	asc. node	3375 Jun 02 19:44	19°♌50'17	
morning rise	3372 Dec 14 17:25	13°♋17'04			3375 Jun 11 01:52	0°☾	
asc. node	3372 Dec 16 00:29	12°♋37'08		evening rise	3375 Jun 15 10:38	5°☾22'01	
direct	3372 Dec 29 02:15	9°♋12'06			3375 Jul 05 12:26	0°♈	
greatest brilliancy	3373 Jan 11 00:07	12°♋18'24	-4.7m		3375 Jul 30 01:48	0°♊	
	3373 Feb 04 18:49	0°☾			3375 Aug 23 19:03	0°♋	
morning max el	3373 Feb 17 17:53	12°☾28'25	46°57'41		3375 Sep 17 18:10	0°♌	
	3373 Mar 06 07:47	0°≈		desc. node	3375 Sep 22 09:35	5°♌32'16	
	3373 Apr 01 19:39	0°✠			3375 Oct 13 02:03	0°♋	
desc. node	3373 Apr 06 14:37	5°✠34'41			3375 Nov 08 00:33	0°☾	
	3373 Apr 27 07:30	0°♊			3375 Dec 05 07:40	0°≈	
	3373 May 22 09:21	0°♋		evening max el	3375 Dec 12 07:23	7°≈11'49	47°09'45
	3373 Jun 16 06:33	0°♌			3376 Jan 06 19:29	0°✠	
	3373 Jul 11 00:36	0°☾		asc. node	3376 Jan 13 12:21	4°✠28'58	

greatest brilliancy	3376 Jan 19 21:29	7° 48 '21	-4.7m	asc. node	3378 Jun 30 07:33	5° 27 '06	
retrograde	3376 Feb 01 02:19	10° 36 '33		max. Earth dist.	3378 Jul 16 03:02	24° 52 '55	1.73540 AU
evening set	3376 Feb 17 18:58	5° 09 '58					
min. Earth dist.	3376 Feb 21 01:57	3° 10 '15	0.27024 AU	superior conj	3378 Jul 16 16:50	25° 35 '21	0°37'47
inferior conj	3376 Feb 21 19:35	2° 42 '58	8°08'29	minimum elong	3378 Jul 16 09:45	25° 13 '35	0°37'28
minimum elong	3376 Feb 21 11:13	2° 55 '55	8°07'21		3378 Jul 20 06:55	0° 0	
morning rise	3376 Feb 25 03:39	0° 40 '41			3378 Aug 13 16:05	0° 0	
	3376 Feb 26 07:28	30° 0		evening rise	3378 Aug 21 15:19	9° 48 '51	
direct	3376 Mar 13 07:22	24° 58 '31			3378 Sep 07 00:44	0° 0	
greatest brilliancy	3376 Mar 24 03:27	27° 09 '07	-4.6m		3378 Oct 01 09:47	0° 0	
	3376 Mar 30 05:35	0° 0		desc. node	3378 Oct 19 21:30	22° 42 '23	
morning max el	3376 May 02 01:23	26° 35 '25	46°23'32		3378 Oct 25 20:16	0° 0	
desc. node	3376 May 04 02:16	28° 36 '16			3378 Nov 19 08:58	0° 0	
	3376 May 05 11:46	0° 0			3378 Dec 14 01:41	0° 0	
	3376 Jun 02 16:08	0° 0			3379 Jan 08 03:41	0° 0	
	3376 Jun 29 02:33	0° 0			3379 Feb 03 05:14	0° 0	
	3376 Jul 24 18:25	0° 0		asc. node	3379 Feb 10 00:17	7° 28 '03	
	3376 Aug 18 22:14	0° 0		evening max el	3379 Feb 22 11:41	20° 34 '43	46°55'06
asc. node	3376 Aug 25 05:17	7° 35 '03			3379 Mar 04 03:55	0° 0	
	3376 Sep 12 16:07	0° 0		greatest brilliancy	3379 Mar 30 23:19	19° 53 '46	-4.6m
	3376 Oct 07 01:43	0° 0		retrograde	3379 Apr 13 23:43	23° 27 '39	
morning set	3376 Oct 27 04:46	24° 59 '17		evening set	3379 Apr 30 11:39	18° 07 '04	
	3376 Oct 31 05:16	0° 0		inferior conj	3379 May 05 02:48	15° 16 '18	6°03'33
	3376 Nov 24 05:07	0° 0		minimum elong	3379 May 05 12:55	15° 00 '27	6°01'19
max. Earth dist.	3376 Dec 02 21:02	10° 51 '38	1.71460 AU	min. Earth dist.	3379 May 05 00:17	15° 20 '14	0.28224 AU
				morning rise	3379 May 10 14:35	11° 57 '01	
superior conj	3376 Dec 04 22:33	13° 26 '58	0°23'25	direct	3379 May 26 06:13	7° 11 '31	
minimum elong	3376 Dec 05 04:15	13° 44 '48	0°23'08	desc. node	3379 Jun 01 13:59	7° 56 '58	
desc. node	3376 Dec 14 19:08	25° 49 '16		greatest brilliancy	3379 Jun 07 04:39	9° 45 '40	-4.5m
	3376 Dec 18 03:02	0° 0			3379 Jul 06 07:53	0° 0	
	3377 Jan 11 00:08	0° 0		morning max el	3379 Jul 14 04:38	7° 16 '59	45°46'10
evening rise	3377 Jan 14 17:44	4° 41 '23			3379 Aug 05 12:21	0° 0	
	3377 Feb 03 21:35	0° 0			3379 Sep 01 14:20	0° 0	
	3377 Feb 27 21:13	0° 0		asc. node	3379 Sep 22 17:08	24° 31 '37	
	3377 Mar 24 01:45	0° 0			3379 Sep 27 08:06	0° 0	
asc. node	3377 Apr 06 22:04	16° 59 '44			3379 Oct 22 06:20	0° 0	
	3377 Apr 17 14:39	0° 0			3379 Nov 15 15:58	0° 0	
	3377 May 12 16:29	0° 0			3379 Dec 09 18:09	0° 0	
	3377 Jun 07 15:22	0° 0			3380 Jan 02 16:30	0° 0	
	3377 Jul 05 08:04	0° 0		morning set	3380 Jan 10 01:05	9° 14 '39	
evening max el	3377 Jul 16 12:58	11° 07 '53	45°28'24	desc. node	3380 Jan 12 06:58	12° 03 '59	
desc. node	3377 Jul 27 11:51	21° 06 '43			3380 Jan 26 13:14	0° 0	
	3377 Aug 07 17:24	0° 0			3380 Feb 19 09:46	0° 0	
greatest brilliancy	3377 Aug 21 22:39	8° 09 '05	-4.5m				
retrograde	3377 Sep 03 05:12	10° 48 '32		superior conj	3380 Feb 20 15:27	1° 33 '15	-1°-16'-58
evening set	3377 Sep 21 07:10	4° 43 '04		minimum elong	3380 Feb 20 05:35	1° 02 '14	1°16'46
inferior conj	3377 Sep 24 12:28	2° 44 '42	-8°-39'-52	max. Earth dist.	3380 Feb 23 05:17	4° 47 '27	1.71271 AU
minimum elong	3377 Sep 24 13:23	2° 43 '16	8°39'53		3380 Mar 14 07:35	0° 0	
min. Earth dist.	3377 Sep 25 03:07	2° 21 '58	0.28628 AU	evening rise	3380 Apr 01 07:05	22° 27 '47	
morning rise	3377 Sep 27 19:27	0° 43 '22			3380 Apr 07 08:22	0° 0	
	3377 Sep 29 00:42	30° 0			3380 May 01 13:46	0° 0	
direct	3377 Oct 15 22:49	24° 31 '00		asc. node	3380 May 04 09:54	3° 29 '53	
greatest brilliancy	3377 Oct 30 13:57	28° 19 '43	-4.6m		3380 May 26 01:03	0° 0	
	3377 Nov 02 18:11	0° 0			3380 Jun 19 19:36	0° 0	
asc. node	3377 Nov 17 14:38	10° 33 '13			3380 Jul 15 00:07	0° 0	
morning max el	3377 Dec 05 05:34	26° 54 '51	46°36'32		3380 Aug 09 20:33	0° 0	
	3377 Dec 08 06:22	0° 0		desc. node	3380 Aug 23 23:42	15° 53 '32	
	3378 Jan 04 14:52	0° 0			3380 Sep 05 22:23	0° 0	
	3378 Jan 30 02:55	0° 0		evening max el	3380 Sep 26 23:21	21° 30 '27	46°11'26
	3378 Feb 23 21:38	0° 0			3380 Oct 06 02:28	0° 0	
desc. node	3378 Mar 09 04:45	16° 16 '08		greatest brilliancy	3380 Nov 04 12:11	20° 04 '32	-4.6m
	3378 Mar 20 08:59	0° 0		retrograde	3380 Nov 15 08:02	22° 12 '22	
	3378 Apr 13 17:35	0° 0		evening set	3380 Nov 30 03:00	17° 57 '37	
	3378 May 08 01:55	0° 0		inferior conj	3380 Dec 05 23:32	14° 31 '47	-2°-19'-36
	3378 Jun 01 11:06	0° 0		minimum elong	3380 Dec 06 04:45	14° 23 '49	2°17'59
morning set	3378 Jun 09 18:16	10° 11 '56		min. Earth dist.	3380 Dec 06 12:16	14° 12 '20	0.26797 AU
	3378 Jun 25 21:02	0° 0		morning rise	3380 Dec 12 05:58	10° 51 '56	

asc. node	3380 Dec 15 02:28	9°♊27'25		evening rise	3383 Jun 13 03:38	3°♋13'36	
direct	3380 Dec 26 15:21	6°♊46'18			3383 Jul 04 23:19	0°♌	
greatest brilliancy	3381 Jan 08 15:26	9°♊54'19	-4.7m		3383 Jul 29 12:56	0°♍	
	3381 Feb 04 23:53	0°♋			3383 Aug 23 06:38	0°♎	
morning max el	3381 Feb 15 06:33	10°♋00'51	46°57'48		3383 Sep 17 06:30	0°♏	
	3381 Mar 06 01:57	0°♌		desc. node	3383 Sep 21 11:32	5°♏00'51	
	3381 Apr 01 10:28	0°♍			3383 Oct 12 15:37	0°♐	
desc. node	3381 Apr 05 16:32	4°♍57'57			3383 Nov 07 16:18	0°♑	
	3381 Apr 26 20:43	0°♎			3383 Dec 05 04:32	0°♒	
	3381 May 21 21:36	0°♏		evening max el	3383 Dec 09 20:50	4°♒46'59	47°08'51
	3381 Jun 15 18:10	0°♐			3384 Jan 07 20:19	0°♓	
	3381 Jul 10 11:49	0°♑		asc. node	3384 Jan 12 14:30	2°♓55'59	
asc. node	3381 Jul 27 19:28	21°♑06'23		greatest brilliancy	3384 Jan 17 11:21	5°♓22'17	-4.7m
	3381 Aug 04 02:04	0°♒		retrograde	3384 Jan 29 15:53	8°♓10'24	
morning set	3381 Aug 16 18:31	15°♒33'21		evening set	3384 Feb 15 03:55	2°♓49'59	
	3381 Aug 28 12:17	0°♓		min. Earth dist.	3384 Feb 18 14:50	0°♓44'52	0.26980 AU
max. Earth dist.	3381 Sep 19 03:00	26°♓42'37	1.72834 AU	inferior conj	3384 Feb 19 08:36	0°♓17'27	7°58'13
	3381 Sep 21 18:43	0°♔		minimum elong	3384 Feb 18 23:40	0°♓31'15	7°56'52
					3384 Feb 19 19:55	30°♔	
superior conj	3381 Sep 22 05:46	0°♔34'16	1°25'05	morning rise	3384 Feb 22 19:37	28°♔11'09	
minimum elong	3381 Sep 22 06:06	0°♔35'17	1°25'05	direct	3384 Mar 10 19:49	22°♔33'26	
	3381 Oct 15 22:32	0°♕		greatest brilliancy	3384 Mar 21 16:56	24°♔45'23	-4.6m
evening rise	3381 Oct 29 16:48	17°♕07'14			3384 Mar 31 19:43	0°♖	
	3381 Nov 09 01:02	0°♗		morning max el	3384 Apr 29 15:34	24°♖15'58	46°25'09
desc. node	3381 Nov 16 09:20	9°♗09'06		desc. node	3384 May 03 04:18	27°♖46'36	
	3381 Dec 03 03:01	0°♘			3384 May 05 09:03	0°♙	
	3381 Dec 27 05:10	0°♙			3384 Jun 02 07:42	0°♚	
	3382 Jan 20 09:04	0°♘			3384 Jun 28 15:50	0°♛	
	3382 Feb 13 18:23	0°♙			3384 Jul 24 06:31	0°♜	
asc. node	3382 Mar 09 12:06	28°♙37'53			3384 Aug 18 09:39	0°♞	
	3382 Mar 10 15:45	0°♚		asc. node	3384 Aug 24 07:16	7°♞06'56	
	3382 Apr 05 13:23	0°♛			3384 Sep 12 03:08	0°♟	
	3382 May 03 18:24	0°♜			3384 Oct 06 12:33	0°♠	
evening max el	3382 May 04 14:28	0°♜49'18	45°52'49	morning set	3384 Oct 24 20:02	22°♠43'50	
greatest brilliancy	3382 Jun 08 03:06	27°♜47'01	-4.5m		3384 Oct 30 16:02	0°♡	
	3382 Jun 13 14:26	0°♞			3384 Nov 23 15:55	0°♢	
retrograde	3382 Jun 22 17:32	1°♞32'11		max. Earth dist.	3384 Nov 30 09:30	8°♢26'18	1.71497 AU
desc. node	3382 Jun 29 01:58	0°♞44'05					
	3382 Jul 01 12:42	30°♞		superior conj	3384 Dec 02 10:41	11°♢00'29	0°27'02
evening set	3382 Jul 07 23:11	27°♞04'04		minimum elong	3384 Dec 02 17:08	11°♢20'41	0°26'44
inferior conj	3382 Jul 14 06:04	23°♞17'11	-3°-29'-46	desc. node	3384 Dec 13 21:15	25°♢21'50	
minimum elong	3382 Jul 13 22:54	23°♞28'26	3°27'50		3384 Dec 17 13:53	0°♣	
min. Earth dist.	3382 Jul 14 00:03	23°♞26'38	0.28954 AU		3385 Jan 10 11:05	0°♤	
morning rise	3382 Jul 19 22:43	19°♞49'53		evening rise	3385 Jan 12 04:25	2°♤09'50	
direct	3382 Aug 04 19:51	15°♞01'27			3385 Feb 03 08:37	0°♥	
greatest brilliancy	3382 Aug 18 06:59	18°♞10'32	-4.5m		3385 Feb 27 08:21	0°♦	
	3382 Sep 05 19:47	0°♞			3385 Mar 23 13:06	0°♧	
morning max el	3382 Sep 22 16:23	14°♞56'14	45°52'27	asc. node	3385 Mar 06 00:02	16°♧30'27	
	3382 Oct 07 13:36	0°♟			3385 Apr 17 02:25	0°♨	
asc. node	3382 Oct 20 04:54	13°♟40'40			3385 May 12 05:07	0°♩	
	3382 Nov 03 14:59	0°♠			3385 Jun 07 05:48	0°♪	
	3382 Nov 29 00:43	0°♡			3385 Jul 05 03:02	0°♫	
	3382 Dec 23 15:25	0°♢		evening max el	3385 Jul 14 05:09	8°♫58'30	45°28'01
	3383 Jan 16 20:45	0°♣		desc. node	3385 Jul 26 13:56	20°♫09'14	
desc. node	3383 Feb 08 18:53	28°♣35'46			3385 Aug 08 13:29	0°♬	
	3383 Feb 09 21:51	0°♤		greatest brilliancy	3385 Aug 19 10:43	5°♬54'10	-4.5m
	3383 Mar 05 21:32	0°♥		retrograde	3385 Aug 31 20:28	8°♬36'18	
morning set	3383 Mar 27 23:32	27°♥35'50		evening set	3385 Sep 18 21:43	2°♬31'27	
	3383 Mar 29 21:43	0°♦		inferior conj	3385 Sep 22 03:47	0°♬31'42	-8°-40'00
	3383 Apr 22 23:50	0°♧		minimum elong	3385 Sep 22 03:54	0°♬31'33	8°40'01
				min. Earth dist.	3385 Sep 22 17:02	0°♬11'08	0.28675 AU
superior conj	3383 May 06 03:26	16°♧19'08	0°-58'-25		3385 Sep 23 00:13	30°♧	
minimum elong	3383 May 06 13:41	16°♧50'54	0°58'04	morning rise	3385 Sep 25 09:56	28°♧31'34	
max. Earth dist.	3383 May 09 13:28	20°♧33'07	1.72680 AU	direct	3385 Oct 13 15:13	22°♧17'40	
	3383 May 17 04:46	0°♨		greatest brilliancy	3385 Oct 28 04:53	26°♧04'59	-4.6m
asc. node	3383 Jun 01 21:47	19°♨23'23			3385 Nov 04 02:22	0°♩	
	3383 Jun 10 12:39	0°♩		asc. node	3385 Nov 16 16:42	9°♩30'26	

morning max el	3385 Dec 02 21:10	24°♌38'45	46°34'56		3388 Aug 09 10:28	0°♌	
	3385 Dec 08 02:41	0°♌		desc. node	3388 Aug 23 01:37	15°♌16'15	
	3386 Jan 04 06:11	0°♌			3388 Sep 05 15:51	0°♌	
	3386 Jan 29 16:18	0°♌		evening max el	3388 Sep 24 11:57	19°♌08'45	46°09'01
	3386 Feb 23 10:01	0°♌			3388 Oct 06 07:50	0°♌	
desc. node	3386 Mar 08 06:37	15°♌45'05		greatest brilliancy	3388 Nov 02 02:04	17°♌41'33	-4.6m
	3386 Mar 19 20:44	0°♌		retrograde	3388 Nov 12 19:36	19°♌47'32	
	3386 Apr 13 04:53	0°♌		evening set	3388 Nov 27 17:38	15°♌29'44	
	3386 May 07 12:51	0°♌		inferior conj	3388 Dec 03 12:12	12°♌06'48	-2°-42'-30
	3386 May 31 21:47	0°♌		minimum elong	3388 Dec 03 18:11	11°♌57'39	2°40'41
morning set	3386 Jun 07 11:26	8°♌04'31		min. Earth dist.	3388 Dec 04 02:43	11°♌44'36	0.26844 AU
	3386 Jun 25 07:35	0°♌		morning rise	3388 Dec 09 18:04	8°♌27'14	
asc. node	3386 Jun 29 09:40	5°♌01'16		asc. node	3388 Dec 14 04:36	6°♌21'45	
				direct	3388 Dec 24 03:57	4°♌20'12	
superior conj	3386 Jul 14 10:52	23°♌30'56	0°34'54	greatest brilliancy	3389 Jan 06 07:36	7°♌31'33	-4.7m
minimum elong	3386 Jul 14 04:13	23°♌10'27	0°34'36		3389 Feb 05 02:59	0°♌	
max. Earth dist.	3386 Jul 14 01:58	23°♌03'35	1.73540 AU	morning max el	3389 Feb 12 19:04	7°♌33'28	46°58'08
	3386 Jul 19 17:26	0°♌			3389 Mar 05 19:25	0°♌	
	3386 Aug 13 02:40	0°♌			3389 Apr 01 00:48	0°♌	
evening rise	3386 Aug 19 09:45	7°♌45'05		desc. node	3389 Apr 04 18:37	4°♌22'56	
	3386 Sep 06 11:28	0°♌			3389 Apr 26 09:31	0°♌	
	3386 Sep 30 20:49	0°♌			3389 May 21 09:31	0°♌	
desc. node	3386 Oct 18 23:28	22°♌13'39			3389 Jun 15 05:30	0°♌	
	3386 Oct 25 07:42	0°♌			3389 Jul 09 22:45	0°♌	
	3386 Nov 18 21:00	0°♌		asc. node	3389 Jul 26 21:27	20°♌39'41	
	3386 Dec 13 14:33	0°♌			3389 Aug 03 12:44	0°♌	
	3387 Jan 07 17:56	0°♌		morning set	3389 Aug 14 12:16	13°♌27'53	
	3387 Feb 02 22:26	0°♌			3389 Aug 27 22:50	0°♌	
asc. node	3387 Feb 09 02:15	6°♌43'28		max. Earth dist.	3389 Sep 16 21:45	24°♌39'19	1.72881 AU
evening max el	3387 Feb 20 03:16	18°♌17'37	46°56'52				
	3387 Mar 04 06:58	0°♌		superior conj	3389 Sep 19 23:13	28°♌26'51	1°25'04
greatest brilliancy	3387 Mar 28 17:20	17°♌41'10	-4.6m	minimum elong	3389 Sep 19 22:50	28°♌25'40	1°25'04
retrograde	3387 Apr 11 15:22	21°♌11'55			3389 Sep 21 05:18	0°♌	
evening set	3387 Apr 28 05:57	15°♌47'33			3389 Oct 15 09:15	0°♌	
inferior conj	3387 May 02 17:58	13°♌01'07	6°19'06	evening rise	3389 Oct 27 07:34	14°♌50'17	
minimum elong	3387 May 03 04:07	12°♌45'11	6°16'56		3389 Nov 08 11:57	0°♌	
min. Earth dist.	3387 May 02 15:06	13°♌05'38	0.28189 AU	desc. node	3389 Nov 15 11:29	8°♌41'34	
morning rise	3387 May 08 02:44	9°♌45'56			3389 Dec 02 14:10	0°♌	
direct	3387 May 23 21:16	4°♌57'12			3389 Dec 26 16:35	0°♌	
desc. node	3387 May 31 16:03	6°♌05'13			3390 Jan 19 20:51	0°♌	
greatest brilliancy	3387 Jun 04 16:26	7°♌28'11	-4.5m		3390 Feb 13 06:44	0°♌	
	3387 Jul 06 09:33	0°♌		asc. node	3390 Mar 08 14:05	28°♌04'18	
morning max el	3387 Jul 11 19:34	5°♌04'28	45°46'45		3390 Mar 10 05:06	0°♌	
	3387 Aug 05 04:41	0°♌			3390 Apr 05 04:54	0°♌	
	3387 Sep 01 03:46	0°♌		evening max el	3390 May 02 05:10	28°♌34'32	45°54'47
asc. node	3387 Sep 21 19:06	24°♌01'05			3390 May 03 16:13	0°♌	
	3387 Sep 26 20:15	0°♌		greatest brilliancy	3390 Jun 05 17:48	25°♌35'41	-4.5m
	3387 Oct 21 17:49	0°♌		retrograde	3390 Jun 20 10:05	29°♌23'40	
	3387 Nov 15 03:07	0°♌		desc. node	3390 Jun 28 04:06	28°♌11'41	
	3387 Dec 09 05:08	0°♌		evening set	3390 Jul 05 14:33	24°♌56'26	
	3388 Jan 02 03:25	0°♌		inferior conj	3390 Jul 11 22:27	21°♌08'30	-3°-11'-27
morning set	3388 Jan 07 11:28	6°♌42'19		minimum elong	3390 Jul 11 15:49	21°♌18'55	3°09'38
desc. node	3388 Jan 11 09:03	11°♌36'20		min. Earth dist.	3390 Jul 11 16:36	21°♌17'41	0.28937 AU
	3388 Jan 26 00:05	0°♌		morning rise	3390 Jul 17 17:09	17°♌38'29	
				direct	3390 Aug 02 11:28	12°♌52'47	
superior conj	3388 Feb 18 01:38	29°♌00'28	-1°-15'-4	greatest brilliancy	3390 Aug 15 23:09	16°♌02'12	-4.5m
minimum elong	3388 Feb 17 15:09	28°♌27'33	1°14'49		3390 Sep 06 03:31	0°♌	
	3388 Feb 18 20:35	0°♌		morning max el	3390 Sep 20 08:11	12°♌45'50	45°51'34
max. Earth dist.	3388 Feb 20 11:55	2°♌03'32	1.71242 AU		3390 Oct 07 07:02	0°♌	
	3388 Mar 13 18:22	0°♌		asc. node	3390 Oct 19 07:02	13°♌03'37	
evening rise	3388 Mar 29 18:39	20°♌00'31			3390 Nov 03 04:59	0°♌	
	3388 Apr 06 19:11	0°♌			3390 Nov 28 13:21	0°♌	
	3388 May 01 00:40	0°♌			3390 Dec 23 03:23	0°♌	
asc. node	3388 May 03 12:00	3°♌02'44			3391 Jan 16 08:20	0°♌	
	3388 May 25 12:09	0°♌		desc. node	3391 Feb 07 20:50	28°♌06'26	
	3388 Jun 19 07:07	0°♌			3391 Feb 09 09:10	0°♌	
	3388 Jul 14 12:27	0°♌			3391 Mar 05 08:40	0°♌	

morning set	3391 Mar 25 11:18	25° κ 08'25		evening set	3393 Sep 16 12:07	0° ε 20'18	
	3391 Mar 29 08:41	0° γ			3393 Sep 17 01:35	30° κ η	
	3391 Apr 22 10:40	0° δ		inferior conj	3393 Sep 19 19:16	28° η 18'39	-8°-39'-25
superior conj	3391 May 03 17:56	14° δ 01'57	-1°-1'00	minimum elong	3393 Sep 19 18:34	28° η 19'44	8°39'25
minimum elong	3391 May 04 04:18	14° δ 34'06	1°00'38	min. Earth dist.	3393 Sep 20 07:20	27° η 59'53	0.28717 AU
max. Earth dist.	3391 May 07 03:56	18° δ 16'01	1.72629 AU	morning rise	3393 Sep 23 00:52	26° η 19'05	
	3391 May 16 15:31	0° π		direct	3393 Oct 11 07:35	20° η 04'19	
asc. node	3391 May 31 23:52	18° π 56'41		greatest brilliancy	3393 Oct 25 19:09	23° η 48'59	-4.6m
	3391 Jun 09 23:25	0° ε			3393 Nov 05 01:39	0° ε	
evening rise	3391 Jun 10 20:37	1° ε 05'10		asc. node	3393 Nov 15 18:44	8° ε 28'36	
	3391 Jul 04 10:12	0° ζ		morning max el	3393 Nov 30 12:04	22° ε 20'27	46°33'26
	3391 Jul 29 00:05	0° η			3393 Dec 07 22:35	0° π	
	3391 Aug 22 18:15	0° ε			3394 Jan 03 21:29	0° κ	
	3391 Sep 16 18:52	0° π			3394 Jan 29 05:46	0° ε	
desc. node	3391 Sep 20 13:37	4° π 29'45		desc. node	3394 Feb 22 22:32	0° ≈	
	3391 Oct 12 05:15	0° κ			3394 Mar 07 08:42	15° ≈ 14'05	
	3391 Nov 07 08:18	0° ε			3394 Mar 19 08:41	0° κ	
	3391 Dec 05 02:14	0° ≈			3394 Apr 12 16:25	0° γ	
evening max el	3391 Dec 07 11:02	2° ≈ 24'02	47°07'39		3394 May 07 00:05	0° δ	
	3392 Jan 09 07:43	0° κ		morning set	3394 May 31 08:47	0° π	
asc. node	3392 Jan 11 16:26	1° κ 18'26			3394 Jun 05 04:18	5° π 55'06	
greatest brilliancy	3392 Jan 15 00:25	2° κ 54'21	-4.7m	asc. node	3394 Jun 24 18:27	0° ε	
retrograde	3392 Jan 27 05:30	5° κ 42'43			3394 Jun 28 11:36	4° ε 33'56	
evening set	3392 Feb 12 12:31	0° κ 28'33		superior conj	3394 Jul 12 04:42	21° ε 24'59	0°31'57
	3392 Feb 13 08:02	30° κ ≈		minimum elong	3394 Jul 11 22:29	21° ε 05'54	0°31'40
min. Earth dist.	3392 Feb 16 03:17	28° ≈ 18'06	0.26938 AU	max. Earth dist.	3394 Jul 11 23:46	21° ε 09'50	1.73532 AU
inferior conj	3392 Feb 16 21:19	27° ≈ 50'19	7°46'46		3394 Jul 19 04:15	0° ζ	
minimum elong	3392 Feb 16 11:53	28° ≈ 04'51	7°45'15		3394 Aug 12 13:32	0° η	
morning rise	3392 Feb 20 11:29	25° ≈ 39'43		evening rise	3394 Aug 17 04:08	5° η 40'23	
direct	3392 Mar 08 08:34	20° ≈ 06'52			3394 Sep 05 22:31	0° ε	
greatest brilliancy	3392 Mar 19 05:35	22° ≈ 19'23	-4.6m		3394 Sep 30 08:10	0° π	
	3392 Apr 01 23:02	0° κ		desc. node	3394 Oct 18 01:36	21° π 44'26	
morning max el	3392 Apr 27 06:07	21° κ 56'40	46°26'50		3394 Oct 24 19:29	0° κ	
desc. node	3392 May 02 06:25	26° κ 57'20			3394 Nov 18 09:22	0° ε	
	3392 May 05 05:51	0° γ			3394 Dec 13 03:46	0° ≈	
	3392 Jun 01 23:11	0° δ			3395 Jan 07 08:35	0° κ	
	3392 Jun 28 05:07	0° π			3395 Feb 02 16:13	0° γ	
	3392 Jul 23 18:38	0° ε		asc. node	3395 Feb 08 04:13	5° γ 57'43	
	3392 Aug 17 21:07	0° ζ		evening max el	3395 Feb 17 18:02	15° γ 57'39	46°58'27
asc. node	3392 Aug 23 09:12	6° ζ 38'27			3395 Mar 04 12:04	0° δ	
	3392 Sep 11 14:15	0° η		greatest brilliancy	3395 Mar 26 11:25	15° δ 27'44	-4.6m
	3392 Oct 05 23:29	0° ε		retrograde	3395 Apr 09 06:29	18° δ 55'21	
morning set	3392 Oct 22 11:44	20° ε 29'30		evening set	3395 Apr 26 00:19	13° δ 27'07	
	3392 Oct 30 02:55	0° π		inferior conj	3395 Apr 30 09:13	10° δ 45'07	6°34'00
	3392 Nov 23 02:48	0° κ		minimum elong	3395 Apr 30 19:21	10° δ 29'11	6°31'55
max. Earth dist.	3392 Nov 27 20:49	5° κ 57'06	1.71532 AU	min. Earth dist.	3395 Apr 30 06:17	10° δ 49'45	0.28157 AU
				morning rise	3395 May 05 14:47	7° δ 34'10	
superior conj	3392 Nov 29 23:21	8° κ 35'28	0°30'33	direct	3395 May 21 12:00	2° δ 41'53	
minimum elong	3392 Nov 30 06:29	8° κ 57'49	0°30'14	desc. node	3395 May 30 18:07	4° δ 16'38	
desc. node	3392 Dec 12 23:17	24° κ 53'50		greatest brilliancy	3395 Jun 02 05:20	5° δ 10'44	-4.5m
	3392 Dec 17 00:51	0° ε			3395 Jul 06 10:25	0° π	
evening rise	3393 Jan 09 15:20	29° ε 38'35		morning max el	3395 Jul 09 09:57	2° π 49'15	45°47'25
	3393 Jan 09 22:10	0° ≈			3395 Aug 04 21:09	0° ε	
	3393 Feb 02 19:50	0° κ			3395 Aug 31 17:28	0° ζ	
	3393 Feb 26 19:44	0° γ		asc. node	3395 Sep 20 21:14	23° ζ 30'13	
	3393 Mar 23 00:43	0° δ			3395 Sep 26 08:39	0° η	
asc. node	3393 Apr 05 02:07	16° δ 00'39			3395 Oct 21 05:34	0° ε	
	3393 Apr 16 14:29	0° π			3395 Nov 14 14:33	0° π	
	3393 May 11 18:05	0° ε			3395 Dec 08 16:26	0° κ	
	3393 Jun 06 20:39	0° ζ			3396 Jan 01 14:38	0° ε	
	3393 Jul 04 22:50	0° η		morning set	3396 Jan 04 22:11	4° ε 09'54	
evening max el	3393 Jul 11 21:13	6° η 48'09	45°27'44	desc. node	3396 Jan 10 10:59	11° ε 07'17	
desc. node	3393 Jul 25 15:51	19° η 09'36			3396 Jan 25 11:15	0° ≈	
	3393 Aug 09 17:23	0° ε					
greatest brilliancy	3393 Aug 17 00:00	3° ε 40'19	-4.5m	superior conj	3396 Feb 15 12:09	26° ≈ 27'47	-1°-13'00
retrograde	3393 Aug 29 11:27	6° ε 23'53		minimum elong	3396 Feb 15 01:09	25° ≈ 53'14	1°12'44

max. Earth dist.	3396 Feb 17 16:08	29° \approx 11'09	1.71211 AU	morning max el	3398 Sep 18 00:48	10° Ω 36'51	45°50'34
	3396 Feb 18 07:41	0° H			3398 Oct 07 00:24	0° M	
	3396 Mar 13 05:26	0° Y		asc. node	3398 Oct 18 09:03	12° M 25'48	
evening rise	3396 Mar 27 06:29	17° Y 33'07			3398 Nov 02 19:09	0° $\underline{\text{A}}$	
	3396 Apr 06 06:17	0° B			3398 Nov 28 02:09	0° M	
	3396 Apr 30 11:53	0° II			3398 Dec 22 15:30	0° Z	
asc. node	3396 May 02 14:03	2° II 34'29			3399 Jan 15 20:03	0° Z	
	3396 May 24 23:36	0° S		desc. node	3399 Feb 06 22:53	27° Z 36'56	
	3396 Jun 18 19:01	0° Ω			3399 Feb 08 20:39	0° \approx	
	3396 Jul 14 01:14	0° M			3399 Mar 04 19:58	0° H	
	3396 Aug 09 00:57	0° $\underline{\text{A}}$		morning set	3399 Mar 22 22:55	22° H 39'50	
desc. node	3396 Aug 22 03:43	14° $\underline{\text{A}}$ 38'07			3399 Mar 28 19:51	0° Y	
	3396 Sep 05 10:08	0° M			3399 Apr 21 21:42	0° B	
evening max el	3396 Sep 22 00:19	16° M 45'50	46°06'49				
	3396 Oct 06 15:51	0° Z		superior conj	3399 May 01 08:22	11° B 43'49	-1°-3'-28
greatest brilliancy	3396 Oct 30 15:03	15° Z 17'17	-4.6m	minimum elong	3399 May 01 18:48	12° B 16'10	1°03'08
retrograde	3396 Nov 10 07:39	17° Z 22'48		max. Earth dist.	3399 May 04 19:29	16° B 01'31	1.72576 AU
evening set	3396 Nov 25 08:35	13° Z 01'19			3399 May 16 02:26	0° II	
inferior conj	3396 Dec 01 01:03	9° Z 41'32	-3°-4'-56	asc. node	3399 May 31 01:50	18° II 29'07	
minimum elong	3396 Dec 01 07:46	9° Z 31'17	3°02'55	evening rise	3399 Jun 08 13:39	28° II 56'29	
min. Earth dist.	3396 Dec 01 17:08	9° Z 16'59	0.26898 AU		3399 Jun 09 10:19	0° S	
morning rise	3396 Dec 07 06:11	6° Z 02'50			3399 Jul 03 21:13	0° Ω	
asc. node	3396 Dec 13 06:33	3° Z 21'17			3399 Jul 28 11:23	0° M	
direct	3396 Dec 21 16:57	1° Z 53'36			3399 Aug 22 06:03	0° $\underline{\text{A}}$	
greatest brilliancy	3397 Jan 04 00:41	5° Z 09'25	-4.7m		3399 Sep 16 07:29	0° M	
	3397 Feb 05 04:57	0° Z		desc. node	3399 Sep 19 15:41	3° M 58'00	
morning max el	3397 Feb 10 08:41	5° Z 07'54	46°58'29		3399 Oct 11 19:12	0° Z	
	3397 Mar 05 12:49	0° \approx			3399 Nov 07 00:45	0° Z	
	3397 Mar 31 15:16	0° H		evening max el	3399 Dec 05 01:59	0° \approx 02'38	47°06'28
desc. node	3397 Apr 03 20:43	3° H 47'21			3399 Dec 05 00:56	0° \approx	
	3397 Apr 25 22:30	0° Y		asc. node	3400 Jan 10 18:27	29° \approx 37'11	
	3397 May 20 21:38	0° B			3400 Jan 11 13:48	0° H	
	3397 Jun 14 17:04	0° II		greatest brilliancy	3400 Jan 12 13:52	0° H 26'51	-4.7m
	3397 Jul 09 09:56	0° S		retrograde	3400 Jan 24 19:09	3° H 14'44	
asc. node	3397 Jul 25 23:27	20° S 12'07			3400 Feb 06 09:15	30° R \approx	
	3397 Aug 02 23:43	0° Ω		evening set	3400 Feb 09 21:17	28° \approx 07'00	
morning set	3397 Aug 12 06:03	11° Ω 21'33		min. Earth dist.	3400 Feb 13 15:44	25° \approx 51'13	0.26896 AU
	3397 Aug 27 09:43	0° M		inferior conj	3400 Feb 14 10:04	25° \approx 23'01	7°34'25
max. Earth dist.	3397 Sep 14 17:38	22° M 38'35	1.72924 AU	minimum elong	3400 Feb 14 00:14	25° \approx 38'09	7°32'44
				morning rise	3400 Feb 18 03:29	23° \approx 07'53	
superior conj	3397 Sep 17 16:41	26° M 18'32	1°24'56	direct	3400 Mar 06 21:44	17° \approx 40'20	
minimum elong	3397 Sep 17 15:35	26° M 15'07	1°24'55	greatest brilliancy	3400 Mar 17 17:46	19° \approx 52'33	-4.6m
	3397 Sep 20 16:12	0° $\underline{\text{A}}$			3400 Apr 03 19:08	0° H	
	3397 Oct 14 20:15	0° M		morning max el	3400 Apr 25 20:18	19° H 36'07	46°28'21
evening rise	3397 Oct 24 22:30	12° M 33'01		desc. node	3400 May 02 08:24	26° H 08'22	
	3397 Nov 07 23:08	0° Z			3400 May 06 02:04	0° Y	
desc. node	3397 Nov 14 13:28	8° Z 12'41			3400 Jun 02 14:32	0° B	
	3397 Dec 02 01:36	0° Z			3400 Jun 28 18:22	0° II	
	3397 Dec 26 04:19	0° \approx			3400 Jul 24 06:46	0° S	
	3398 Jan 19 08:58	0° H			3400 Aug 18 08:36	0° Ω	
	3398 Feb 12 19:26	0° Y		asc. node	3400 Aug 23 11:24	6° Ω 10'43	
asc. node	3398 Mar 07 16:14	27° Y 30'13			3400 Sep 12 01:23	0° M	
	3398 Mar 09 18:51	0° B			3400 Oct 06 10:27	0° $\underline{\text{A}}$	
	3398 Apr 04 20:55	0° II		morning set	3400 Oct 21 03:28	18° $\underline{\text{A}}$ 15'08	
evening max el	3398 Apr 29 20:41	26° II 21'14	45°56'52		3400 Oct 30 13:51	0° M	
	3398 May 03 15:10	0° S			3400 Nov 23 13:47	0° Z	
greatest brilliancy	3398 Jun 03 08:29	23° S 24'03	-4.5m	max. Earth dist.	3400 Nov 26 05:13	3° Z 18'38	1.71571 AU
retrograde	3398 Jun 18 03:07	27° S 14'52					
desc. node	3398 Jun 27 05:58	25° S 34'55		superior conj	3400 Nov 28 12:01	6° Z 10'17	0°34'02
evening set	3398 Jul 03 06:14	22° S 48'19		minimum elong	3400 Nov 28 19:46	6° Z 34'35	0°33'40
inferior conj	3398 Jul 09 14:56	18° S 59'27	-2°-52'-53	desc. node	3400 Dec 13 01:17	24° Z 25'26	
minimum elong	3398 Jul 09 08:51	19° S 08'58	2°51'13		3400 Dec 17 11:54	0° Z	
min. Earth dist.	3398 Jul 09 08:55	19° S 08'52	0.28921 AU	evening rise	3401 Jan 08 01:59	27° Z 06'17	
morning rise	3398 Jul 15 11:35	15° S 27'01			3401 Jan 10 09:18	0° \approx	
direct	3398 Jul 31 03:46	10° S 43'49			3401 Feb 03 07:04	0° H	
greatest brilliancy	3398 Aug 13 15:14	13° S 53'26	-4.5m		3401 Feb 27 07:07	0° Y	
	3398 Sep 06 09:15	0° Ω			3401 Mar 23 12:22	0° B	

asc. node	3401 Apr 05 04:09	15°♄30'32		3403 Oct 21 17:02	0°♊	
	3401 Apr 17 02:38	0°♈		3403 Nov 15 01:41	0°♌	
	3401 May 12 07:11	0°♊		3403 Dec 09 03:26	0°♍	
	3401 Jun 07 11:43	0°♋		3404 Jan 02 01:35	0°♎	
	3401 Jul 05 19:13	0°♌	morning set	3404 Jan 03 08:59	1°♏38'39	
evening max el	3401 Jul 10 12:34	4°♐36'10	45°27'33	desc. node	3404 Jan 10 13:07	10°♏39'37
desc. node	3401 Jul 25 18:00	18°♐09'19		3404 Jan 25 22:10	0°♐	
	3401 Aug 12 09:16	0°♑				
greatest brilliancy	3401 Aug 15 13:54	1°♑27'38	-4.5m	superior conj	3404 Feb 13 22:18	23°♑54'35 -1°-10'-46
retrograde	3401 Aug 28 02:12	4°♒12'15		minimum elong	3404 Feb 13 10:54	23°♑18'44 1°10'28
	3401 Sep 11 21:43	30°♒		max. Earth dist.	3404 Feb 15 18:15	26°♑12'44 1.71190 AU
evening set	3401 Sep 15 02:18	28°♒10'35			3404 Feb 18 18:35	0°♓
inferior conj	3401 Sep 18 10:53	26°♒06'33	-8°-37'-58		3404 Mar 13 16:20	0°♑
minimum elong	3401 Sep 18 09:24	26°♒08'53	8°37'57	evening rise	3404 Mar 25 17:45	15°♑04'31
min. Earth dist.	3401 Sep 18 22:02	25°♒49'09	0.28757 AU		3404 Apr 06 17:12	0°♒
morning rise	3401 Sep 21 16:21	24°♒06'55			3404 Apr 30 22:53	0°♈
direct	3401 Oct 09 23:34	17°♒51'52		asc. node	3404 May 02 16:00	2°♈06'33
greatest brilliancy	3401 Oct 24 09:42	21°♒34'00	-4.6m		3404 May 25 10:50	0°♊
	3401 Nov 06 18:35	0°♋			3404 Jun 19 06:44	0°♌
asc. node	3401 Nov 15 20:44	7°♋28'32			3404 Jul 14 13:51	0°♍
morning max el	3401 Nov 29 02:00	20°♋00'00	46°31'46		3404 Aug 09 15:20	0°♎
	3401 Dec 08 17:50	0°♏		desc. node	3404 Aug 22 05:48	14°♋00'24
	3402 Jan 04 12:33	0°♐			3404 Sep 06 04:33	0°♌
	3402 Jan 29 19:08	0°♑		evening max el	3404 Sep 20 13:13	14°♌25'24 46°04'48
	3402 Feb 23 10:59	0°♒			3404 Oct 08 02:08	0°♍
desc. node	3402 Mar 07 10:52	14°♒43'33		greatest brilliancy	3404 Oct 29 03:09	12°♒53'40 -4.6m
	3402 Mar 19 20:32	0°♓		retrograde	3404 Nov 08 20:23	14°♒59'52
	3402 Apr 13 03:50	0°♑		evening set	3404 Nov 23 23:47	10°♒34'23
	3402 May 07 11:11	0°♒		inferior conj	3404 Nov 29 13:59	7°♒17'51 -3°-26'-44
	3402 May 31 19:40	0°♈		minimum elong	3404 Nov 29 21:24	7°♒06'35 3°24'34
morning set	3402 Jun 03 21:00	3°♈45'31		min. Earth dist.	3404 Nov 30 07:10	6°♒51'41 0.26951 AU
	3402 Jun 25 05:13	0°♊		morning rise	3404 Dec 05 18:14	3°♒40'36
asc. node	3402 Jun 28 13:40	4°♊07'15		asc. node	3404 Dec 13 08:35	0°♒28'05
					3404 Dec 15 06:05	30°♒
superior conj	3402 Jul 10 22:35	19°♊19'33	0°28'58	direct	3404 Dec 20 06:31	29°♒28'47
minimum elong	3402 Jul 10 16:52	19°♊02'00	0°28'42		3404 Dec 25 09:47	0°♓
max. Earth dist.	3402 Jul 10 19:35	19°♊10'20	1.73523 AU	greatest brilliancy	3405 Jan 02 17:18	2°♓48'33 -4.7m
	3402 Jul 19 14:57	0°♋			3405 Feb 06 05:07	0°♑
	3402 Aug 13 00:16	0°♌		morning max el	3405 Feb 08 23:11	2°♑45'56 46°58'33
evening rise	3402 Aug 15 22:42	3°♌36'40			3405 Mar 06 05:30	0°♒
	3402 Sep 06 09:24	0°♍			3405 Apr 01 05:16	0°♓
	3402 Sep 30 19:20	0°♎		desc. node	3405 Apr 03 22:39	3°♓12'26
desc. node	3402 Oct 18 03:36	21°♎15'24			3405 Apr 26 11:09	0°♑
	3402 Oct 25 07:06	0°♏			3405 May 21 09:27	0°♒
	3402 Nov 18 21:38	0°♐			3405 Jun 15 04:20	0°♈
	3402 Dec 13 16:56	0°♑			3405 Jul 09 20:50	0°♊
	3403 Jan 07 23:19	0°♒		asc. node	3405 Jul 26 01:34	19°♊45'51
	3403 Feb 03 10:22	0°♓			3405 Aug 03 10:22	0°♋
asc. node	3403 Feb 08 06:23	5°♓11'59		morning set	3405 Aug 10 23:38	9°♋15'35
evening max el	3403 Feb 16 07:44	13°♓34'54	47°00'04		3405 Aug 27 20:17	0°♌
	3403 Mar 05 19:19	0°♑		max. Earth dist.	3405 Sep 13 13:47	20°♌39'37 1.72965 AU
greatest brilliancy	3403 Mar 25 05:02	13°♑13'25	-4.6m			
retrograde	3403 Apr 07 21:17	16°♑38'36		superior conj	3405 Sep 16 10:03	24°♌10'52 1°24'40
evening set	3403 Apr 24 18:30	11°♑06'16		minimum elong	3405 Sep 16 08:15	24°♌05'18 1°24'40
inferior conj	3403 Apr 29 00:18	8°♑28'56	6°48'15		3405 Sep 21 02:48	0°♍
minimum elong	3403 Apr 29 10:20	8°♑13'09	6°46'18		3405 Oct 15 06:59	0°♎
min. Earth dist.	3403 Apr 28 21:26	8°♑33'28	0.28125 AU	evening rise	3405 Oct 23 13:31	10°♎17'03
morning rise	3403 May 04 02:30	5°♑22'33			3405 Nov 08 10:01	0°♏
direct	3403 May 20 02:03	0°♑26'13		desc. node	3405 Nov 14 15:27	7°♏44'52
desc. node	3403 May 30 20:07	2°♑32'05			3405 Dec 02 12:40	0°♐
greatest brilliancy	3403 May 31 18:58	2°♑54'10	-4.5m		3405 Dec 26 15:39	0°♑
	3403 Jul 07 09:57	0°♒			3406 Jan 19 20:42	0°♒
morning max el	3403 Jul 08 00:06	0°♒33'50	45°48'12		3406 Feb 13 07:47	0°♓
	3403 Aug 05 13:07	0°♊		asc. node	3406 Mar 07 18:11	26°♓56'31
	3403 Sep 01 06:48	0°♋			3406 Mar 10 08:20	0°♌
asc. node	3403 Sep 20 23:13	22°♋59'42			3406 Apr 05 12:52	0°♍
	3403 Sep 26 20:46	0°♌		evening max el	3406 Apr 28 12:56	24°♌10'22 45°58'52

	3406 May 04 14:52	0°☿				3408 Nov 23 00:33	0°♊	
greatest brilliancy	3406 Jun 02 00:19	21°☿14'14	-4.5m	max. Earth dist.		3408 Nov 23 13:17	0°♊39'52	1.71614 AU
retrograde	3406 Jun 16 20:07	25°☿06'00						
desc. node	3406 Jun 27 08:06	22°☿53'32		superior conj		3408 Nov 26 00:45	3°♊46'04	0°37'24
evening set	3406 Jul 01 21:56	20°☿40'15		minimum elong		3408 Nov 26 09:03	4°♊12'05	0°37'02
inferior conj	3406 Jul 08 07:10	16°☿50'24	-2°-33'-59	desc. node		3408 Dec 12 03:22	23°♊57'56	
minimum elong	3406 Jul 08 01:41	16°☿58'59	2°32'26			3408 Dec 16 22:47	0°♋	
min. Earth dist.	3406 Jul 08 00:48	17°☿00'22	0.28902 AU	evening rise		3409 Jan 05 12:39	24°♋34'37	
morning rise	3406 Jul 14 05:43	13°☿15'42				3409 Jan 09 20:17	0°♌	
direct	3406 Jul 29 20:19	8°☿35'08				3409 Feb 02 18:10	0°♌	
greatest brilliancy	3406 Aug 12 06:12	11°☿43'47	-4.5m			3409 Feb 26 18:20	0°♍	
	3406 Sep 07 12:46	0°♌				3409 Mar 22 23:49	0°♎	
morning max el	3406 Sep 16 17:14	8°♌28'23	45°49'34	asc. node		3409 Apr 04 06:08	15°♎01'03	
	3406 Oct 07 17:05	0°♍				3409 Apr 16 14:34	0°♏	
asc. node	3406 Oct 18 11:02	11°♍49'08				3409 May 11 20:05	0°☿	
	3406 Nov 03 08:51	0°♎				3409 Jun 07 02:43	0°♌	
	3406 Nov 28 14:35	0°♎				3409 Jul 05 16:04	0°♍	
	3406 Dec 23 03:15	0°♊		evening max el		3409 Jul 08 03:13	2°♍23'05	45°27'18
	3407 Jan 16 07:24	0°♋		desc. node		3409 Jul 24 20:03	17°♍07'56	
desc. node	3407 Feb 07 00:59	27°♋08'47		greatest brilliancy		3409 Aug 13 03:37	29°♍15'08	-4.5m
	3407 Feb 09 07:44	0°♌				3409 Aug 15 01:29	0°♎	
	3407 Mar 05 06:52	0°♌		retrograde		3409 Aug 25 16:55	2°♎01'26	
morning set	3407 Mar 21 10:46	20°♌13'10				3409 Sep 04 21:19	30°♎	
	3407 Mar 29 06:37	0°♍		evening set		3409 Sep 12 16:12	26°♎02'01	
	3407 Apr 22 08:21	0°♎		inferior conj		3409 Sep 16 02:38	23°♎55'09	-8°-35'-41
				minimum elong		3409 Sep 16 00:20	23°♎58'46	8°35'38
superior conj	3407 Apr 29 22:46	9°♎26'32	-1°-5'-50	min. Earth dist.		3409 Sep 16 13:05	23°♎38'49	0.28797 AU
minimum elong	3407 Apr 30 09:11	9°♎58'52	1°05'32	morning rise		3409 Sep 19 08:18	21°♎55'02	
max. Earth dist.	3407 May 03 12:52	13°♎53'41	1.72528 AU	direct		3409 Oct 07 15:12	15°♎39'58	
	3407 May 16 13:02	0°♏		greatest brilliancy		3409 Oct 22 01:25	19°♎21'05	-4.6m
asc. node	3407 May 31 03:54	18°♏02'46				3409 Nov 07 07:01	0°♏	
evening rise	3407 Jun 07 06:28	26°♏47'52		asc. node		3409 Nov 14 22:49	6°♏30'25	
	3407 Jun 09 20:57	0°☿		morning max el		3409 Nov 26 15:36	17°♏39'07	46°30'08
	3407 Jul 04 07:59	0°♌				3409 Dec 08 12:27	0°♎	
	3407 Jul 28 22:27	0°♍				3410 Jan 04 03:20	0°♊	
	3407 Aug 22 17:37	0°♎				3410 Jan 29 08:19	0°♋	
	3407 Sep 16 19:53	0°♎				3410 Feb 22 23:18	0°♌	
desc. node	3407 Sep 19 17:38	3°♎26'39		desc. node		3410 Mar 06 12:43	14°♌12'20	
	3407 Oct 12 09:01	0°♊				3410 Mar 19 08:16	0°♌	
	3407 Nov 07 17:14	0°♋				3410 Apr 12 15:08	0°♍	
evening max el	3407 Dec 03 17:01	27°♋42'11	47°05'09			3410 May 06 22:10	0°♎	
	3407 Dec 06 00:20	0°♌				3410 May 31 06:26	0°♏	
asc. node	3408 Jan 10 20:37	27°♌53'08		morning set		3410 Jun 01 13:57	1°♏37'00	
greatest brilliancy	3408 Jan 11 04:24	28°♌01'34	-4.7m			3410 Jun 24 15:50	0°☿	
	3408 Jan 17 00:01	0°♌		asc. node		3410 Jun 27 15:46	3°☿41'06	
retrograde	3408 Jan 23 08:33	0°♌47'31						
	3408 Jan 29 12:34	30°♎		superior conj		3410 Jul 08 16:44	17°☿15'20	0°25'59
evening set	3408 Feb 08 06:11	25°♌46'29		minimum elong		3410 Jul 08 11:33	16°☿59'23	0°25'43
min. Earth dist.	3408 Feb 12 04:30	23°♌25'02	0.26848 AU	max. Earth dist.		3410 Jul 08 15:06	17°☿10'18	1.73516 AU
inferior conj	3408 Feb 12 22:51	22°♌56'47	7°21'18			3410 Jul 19 01:33	0°♌	
minimum elong	3408 Feb 12 12:40	23°♌12'28	7°19'24			3410 Aug 12 10:56	0°♍	
morning rise	3408 Feb 16 19:30	20°♌36'59		evening rise		3410 Aug 13 17:28	1°♍33'55	
direct	3408 Mar 04 10:45	15°♌15'07				3410 Sep 05 20:16	0°♎	
greatest brilliancy	3408 Mar 15 05:56	17°♌26'42	-4.6m			3410 Sep 30 06:32	0°♎	
	3408 Apr 04 09:32	0°♌		desc. node		3410 Oct 17 05:35	20°♎46'13	
morning max el	3408 Apr 23 09:25	17°♌14'01	46°29'53			3410 Oct 24 18:47	0°♊	
desc. node	3408 May 01 10:26	25°♌21'37				3410 Nov 18 09:57	0°♋	
	3408 May 05 21:12	0°♍				3410 Dec 13 06:14	0°♌	
	3408 Jun 02 05:17	0°♎				3411 Jan 07 14:16	0°♌	
	3408 Jun 28 07:12	0°♏				3411 Feb 03 05:04	0°♍	
	3408 Jul 23 18:35	0°☿		asc. node		3411 Feb 07 08:20	4°♍24'45	
	3408 Aug 17 19:50	0°♌		evening max el		3411 Feb 13 20:57	11°♍10'35	47°01'36
asc. node	3408 Aug 22 13:21	5°♌42'54				3411 Mar 06 05:26	0°♎	
	3408 Sep 11 12:18	0°♍		greatest brilliancy		3411 Mar 22 21:51	10°♎57'29	-4.6m
	3408 Oct 05 21:12	0°♎		retrograde		3411 Apr 05 12:15	14°♎21'30	
morning set	3408 Oct 18 19:05	16°♎01'11		evening set		3411 Apr 22 12:35	8°♎44'46	
	3408 Oct 30 00:34	0°♎		inferior conj		3411 Apr 26 15:19	6°♎12'17	7°01'58

minimum elong	3411 Apr 27 01:12	5°♄56'46	7°00'09	minimum elong	3413 Sep 14 01:24	21°♎56'17	1°24'16
min. Earth dist.	3411 Apr 26 12:27	6°♄16'48	0.28090 AU		3413 Sep 20 13:38	0°♎	
morning rise	3411 May 01 14:03	3°♄10'53			3413 Oct 14 17:57	0°♎	
	3411 May 08 02:31	30°♋		evening rise	3413 Oct 21 04:56	8°♎01'30	
direct	3411 May 17 15:54	28°♋09'56			3413 Nov 07 21:11	0°♋	
	3411 May 27 16:37	0°♋		desc. node	3413 Nov 13 17:36	7°♋16'32	
greatest brilliancy	3411 May 29 09:09	0°♋38'01	-4.5m		3413 Dec 02 00:07	0°♋	
desc. node	3411 May 29 22:10	0°♋51'15			3413 Dec 26 03:26	0°♋	
morning max el	3411 Jul 05 14:45	28°♋19'33	45°49'14		3414 Jan 19 08:55	0°♋	
	3411 Jul 07 08:26	0°♋			3414 Feb 12 20:39	0°♋	
	3411 Aug 05 04:47	0°♋		asc. node	3414 Mar 06 20:11	26°♋21'27	
	3411 Aug 31 20:03	0°♋			3414 Mar 09 22:23	0°♋	
asc. node	3411 Sep 20 01:11	22°♋29'06			3414 Apr 05 05:33	0°♋	
	3411 Sep 26 08:52	0°♋		evening max el	3414 Apr 26 05:25	21°♋58'44	46°00'55
	3411 Oct 21 04:35	0°♋			3414 May 04 16:18	0°♋	
	3411 Nov 14 12:58	0°♋		greatest brilliancy	3414 May 30 17:22	19°♋04'49	-4.5m
	3411 Dec 08 14:36	0°♋		retrograde	3414 Jun 14 13:01	22°♋55'47	
morning set	3411 Dec 31 19:49	29°♋07'01		desc. node	3414 Jun 26 10:10	20°♋06'58	
	3412 Jan 01 12:41	0°♋		evening set	3414 Jun 29 13:51	18°♋30'58	
desc. node	3412 Jan 09 15:09	10°♋11'11		inferior conj	3414 Jul 05 23:25	14°♋40'14	-2°-14'-50
	3412 Jan 25 09:14	0°♋		minimum elong	3414 Jul 05 18:35	14°♋47'49	2°13'27
				min. Earth dist.	3414 Jul 05 16:49	14°♋50'35	0.28877 AU
superior conj	3412 Feb 11 08:15	21°♋20'12	-1°-8'-23	morning rise	3414 Jul 11 23:41	11°♋03'16	
minimum elong	3412 Feb 10 20:31	20°♋43'19	1°08'02	direct	3414 Jul 27 12:54	6°♋25'32	
max. Earth dist.	3412 Feb 12 22:10	23°♋19'23	1.71173 AU	greatest brilliancy	3414 Aug 09 20:03	9°♋31'45	-4.5m
	3412 Feb 18 05:38	0°♋			3414 Sep 07 15:06	0°♋	
	3412 Mar 13 03:24	0°♋		morning max el	3414 Sep 14 09:10	6°♋17'55	45°48'44
evening rise	3412 Mar 23 04:57	12°♋35'07			3414 Oct 07 09:44	0°♋	
	3412 Apr 06 04:19	0°♋		asc. node	3414 Oct 17 13:09	11°♋12'27	
	3412 Apr 30 10:06	0°♋			3414 Nov 02 22:41	0°♋	
asc. node	3412 May 01 18:07	1°♋38'31			3414 Nov 28 03:13	0°♋	
	3412 May 24 22:16	0°♋			3414 Dec 22 15:17	0°♋	
	3412 Jun 18 18:37	0°♋			3415 Jan 15 19:07	0°♋	
	3412 Jul 14 02:40	0°♋		desc. node	3415 Feb 06 02:56	26°♋38'46	
	3412 Aug 09 06:00	0°♋			3415 Feb 08 19:15	0°♋	
desc. node	3412 Aug 21 07:43	13°♋21'33			3415 Mar 04 18:14	0°♋	
	3412 Sep 05 23:38	0°♋		morning set	3415 Mar 18 22:02	17°♋43'09	
evening max el	3412 Sep 18 02:57	12°♋06'44	46°02'39		3415 Mar 28 17:50	0°♋	
	3412 Oct 08 16:16	0°♋			3415 Apr 21 19:27	0°♋	
greatest brilliancy	3412 Oct 26 14:39	10°♋28'57	-4.6m				
retrograde	3412 Nov 06 09:28	12°♋36'10		superior conj	3415 Apr 27 12:37	7°♋06'09	-1°-8'-8
evening set	3412 Nov 21 15:09	8°♋06'37		minimum elong	3415 Apr 27 22:55	7°♋38'10	1°07'50
inferior conj	3412 Nov 27 02:55	4°♋53'15	-3°-48'-5	max. Earth dist.	3415 May 01 07:10	11°♋47'12	1.72475 AU
minimum elong	3412 Nov 27 10:56	4°♋41'02	3°45'48		3415 May 16 00:04	0°♋	
min. Earth dist.	3412 Nov 27 20:51	4°♋25'57	0.27011 AU	asc. node	3415 May 30 05:58	17°♋35'06	
morning rise	3412 Dec 03 06:02	1°♋17'46		evening rise	3415 Jun 04 22:52	24°♋36'40	
	3412 Dec 05 19:31	30°♋			3415 Jun 09 08:00	0°♋	
asc. node	3412 Dec 12 10:41	27°♋39'34			3415 Jul 03 19:11	0°♋	
direct	3412 Dec 17 20:36	27°♋03'10			3415 Jul 28 09:56	0°♋	
	3412 Dec 30 10:32	0°♋			3415 Aug 22 05:36	0°♋	
greatest brilliancy	3412 Dec 31 09:16	0°♋25'51	-4.7m		3415 Sep 16 08:41	0°♋	
	3413 Feb 06 04:38	0°♋		desc. node	3415 Sep 18 19:42	2°♋54'33	
morning max el	3413 Feb 06 14:08	0°♋24'05	46°58'32		3415 Oct 11 23:15	0°♋	
	3413 Mar 05 22:13	0°♋			3415 Nov 07 10:19	0°♋	
	3413 Mar 31 19:27	0°♋		evening max el	3415 Dec 01 06:59	25°♋18'18	47°03'32
desc. node	3413 Apr 03 00:44	2°♋37'14			3415 Dec 06 01:11	0°♋	
	3413 Apr 26 00:01	0°♋		greatest brilliancy	3416 Jan 08 19:24	25°♋35'25	-4.7m
	3413 May 20 21:32	0°♋		asc. node	3416 Jan 09 22:31	26°♋03'10	
	3413 Jun 14 15:52	0°♋		retrograde	3416 Jan 20 21:10	28°♋18'25	
	3413 Jul 09 07:59	0°♋		evening set	3416 Feb 05 14:58	23°♋24'02	
asc. node	3413 Jul 25 03:33	19°♋18'17		min. Earth dist.	3416 Feb 09 17:35	20°♋56'18	0.26809 AU
	3413 Aug 02 21:17	0°♋		inferior conj	3416 Feb 10 11:27	20°♋28'45	7°07'06
morning set	3413 Aug 08 17:38	7°♋10'10		minimum elong	3416 Feb 10 01:02	20°♋44'50	7°05'02
	3413 Aug 27 07:06	0°♋		morning rise	3416 Feb 14 11:25	18°♋03'57	
max. Earth dist.	3413 Sep 11 10:26	18°♋41'34	1.73003 AU	direct	3416 Mar 01 23:03	12°♋47'46	
				greatest brilliancy	3416 Mar 12 19:07	14°♋59'47	-4.6m
superior conj	3413 Sep 14 03:51	22°♋03'54	1°24'17		3416 Apr 04 21:06	0°♋	

morning max el	3416 Apr 20 21:34	14° Υ 47'26	46°31'25		3418 Dec 12 19:42	0° \approx	
desc. node	3416 Apr 30 12:32	24° Υ 34'01			3419 Jan 07 05:25	0° Υ	
	3416 May 05 16:27	0° Υ			3419 Feb 03 00:11	0° Υ	
	3416 Jun 01 20:22	0° Υ		asc. node	3419 Feb 06 10:21	3° Υ 37'13	
	3416 Jun 27 20:25	0° Π		evening max el	3419 Feb 11 10:39	8° Υ 47'43	47°03'11
	3416 Jul 23 06:46	0° Υ			3419 Mar 06 18:55	0° Υ	
	3416 Aug 17 07:26	0° Ω		greatest brilliancy	3419 Mar 20 13:23	8° Υ 40'02	-4.6m
asc. node	3416 Aug 21 15:20	5° Ω 14'05		retrograde	3419 Apr 03 03:36	12° Υ 04'26	
	3416 Sep 10 23:33	0° Π		evening set	3419 Apr 20 06:38	6° Υ 22'56	
	3416 Oct 05 08:17	0° Ω		inferior conj	3419 Apr 24 06:19	3° Υ 55'19	7°15'00
morning set	3416 Oct 16 10:59	13° Ω 47'10		minimum elong	3419 Apr 24 15:59	3° Υ 40'09	7°13'18
	3416 Oct 29 11:34	0° Π		min. Earth dist.	3419 Apr 24 03:04	4° Υ 00'24	0.28063 AU
max. Earth dist.	3416 Nov 20 23:31	28° Π 07'10	1.71656 AU	morning rise	3419 Apr 29 01:33	0° Υ 59'16	
	3416 Nov 22 11:34	0° Υ			3419 Apr 30 19:53	30° Υ	
				direct	3419 May 15 06:07	25° Υ 53'15	
superior conj	3416 Nov 23 14:04	1° Υ 22'59	0°40'40	greatest brilliancy	3419 May 26 23:19	28° Υ 21'35	-4.5m
minimum elong	3416 Nov 23 22:52	1° Υ 50'32	0°40'18	desc. node	3419 May 29 00:14	29° Υ 13'51	
desc. node	3416 Dec 11 05:24	23° Υ 29'29			3419 May 30 15:02	0° Υ	
	3416 Dec 16 09:53	0° Υ		morning max el	3419 Jul 03 06:19	26° Υ 06'58	45°50'07
evening rise	3417 Jan 02 23:50	22° Υ 03'57			3419 Jul 07 06:15	0° Π	
	3417 Jan 09 07:30	0° \approx			3419 Aug 04 20:23	0° Υ	
	3417 Feb 02 05:31	0° Υ			3419 Aug 31 09:19	0° Ω	
	3417 Feb 26 05:52	0° Υ		asc. node	3419 Sep 19 03:21	21° Ω 58'53	
	3417 Mar 22 11:39	0° Υ			3419 Sep 25 21:00	0° Π	
asc. node	3417 Apr 03 08:13	14° Υ 30'36			3419 Oct 20 16:08	0° Ω	
	3417 Apr 16 02:58	0° Π			3419 Nov 14 00:15	0° Π	
	3417 May 11 09:31	0° Υ			3419 Dec 08 01:45	0° Υ	
	3417 Jun 06 18:24	0° Ω		morning set	3419 Dec 29 06:54	26° Υ 36'18	
evening max el	3417 Jul 05 17:11	0° Π 07'08	45°27'19		3419 Dec 31 23:46	0° Υ	
	3417 Jul 05 14:13	0° Π		desc. node	3420 Jan 08 17:06	9° Υ 42'32	
desc. node	3417 Jul 23 21:58	16° Π 03'30			3420 Jan 24 20:14	0° \approx	
greatest brilliancy	3417 Aug 10 16:16	27° Π 00'14	-4.5m				
retrograde	3417 Aug 23 07:51	29° Π 49'36		superior conj	3420 Feb 08 18:24	18° \approx 46'39	-1°-5'-52
evening set	3417 Sep 10 05:43	23° Π 52'31		minimum elong	3420 Feb 08 06:27	18° \approx 09'01	1°05'29
inferior conj	3417 Sep 13 18:16	21° Π 42'37	-8°-32'-46	max. Earth dist.	3420 Feb 10 05:01	20° \approx 35'29	1.71153 AU
minimum elong	3417 Sep 13 15:11	21° Π 47'26	8°32'38		3420 Feb 17 16:35	0° Υ	
min. Earth dist.	3417 Sep 14 04:03	21° Π 27'21	0.28834 AU		3420 Mar 12 14:20	0° Υ	
morning rise	3417 Sep 17 00:27	19° Π 41'41		evening rise	3420 Mar 20 16:28	10° Υ 07'06	
direct	3417 Oct 05 06:33	13° Π 26'46			3420 Apr 05 15:16	0° Υ	
greatest brilliancy	3417 Oct 19 17:58	17° Π 08'23	-4.6m		3420 Apr 29 21:11	0° Π	
	3417 Nov 07 16:37	0° Ω		asc. node	3420 Apr 30 20:08	1° Π 10'38	
asc. node	3417 Nov 14 00:51	5° Ω 32'43			3420 May 24 09:37	0° Υ	
morning max el	3417 Nov 24 05:56	15° Ω 19'32	46°28'47		3420 Jun 18 06:30	0° Ω	
	3417 Dec 08 06:48	0° Π			3420 Jul 13 15:33	0° Π	
	3418 Jan 03 18:04	0° Υ			3420 Aug 08 20:53	0° Ω	
	3418 Jan 28 21:31	0° Υ		desc. node	3420 Aug 20 09:51	12° Ω 42'53	
	3418 Feb 22 11:40	0° \approx			3420 Sep 05 19:17	0° Π	
desc. node	3418 Mar 05 14:50	13° \approx 41'40		evening max el	3420 Sep 15 17:25	9° Π 50'04	46°00'38
	3418 Mar 18 20:06	0° Υ			3420 Oct 09 11:06	0° Υ	
	3418 Apr 12 02:37	0° Υ		greatest brilliancy	3420 Oct 24 02:21	8° Υ 04'57	-4.6m
	3418 May 06 09:23	0° Υ		retrograde	3420 Nov 03 22:30	10° Υ 12'36	
morning set	3418 May 30 06:18	29° Υ 25'38		evening set	3420 Nov 19 06:39	5° Υ 39'12	
	3418 May 30 17:28	0° Π		inferior conj	3420 Nov 24 15:48	2° Υ 28'59	-4°-9'-2
	3418 Jun 24 02:44	0° Υ		minimum elong	3420 Nov 25 00:22	2° Υ 15'55	4°06'38
asc. node	3418 Jun 26 17:42	3° Υ 13'35		min. Earth dist.	3420 Nov 25 10:18	2° Υ 00'48	0.27069 AU
					3420 Nov 28 19:17	30° Π	
superior conj	3418 Jul 06 10:17	15° Υ 08'27	0°22'53	morning rise	3420 Nov 30 17:30	28° Π 55'24	
minimum elong	3418 Jul 06 05:39	14° Υ 54'12	0°22'39	asc. node	3420 Dec 11 12:39	24° Π 57'10	
max. Earth dist.	3418 Jul 06 10:03	15° Υ 07'44	1.73507 AU	direct	3420 Dec 15 10:47	24° Π 38'07	
	3418 Jul 18 12:23	0° Ω		greatest brilliancy	3420 Dec 29 00:05	28° Π 02'04	-4.7m
evening rise	3418 Aug 11 11:52	29° Ω 29'23			3421 Jan 01 18:48	0° Υ	
	3418 Aug 11 21:50	0° Π		morning max el	3421 Feb 04 04:54	28° Υ 02'16	46°58'30
	3418 Sep 05 07:21	0° Ω			3421 Feb 06 03:00	0° Υ	
	3418 Sep 29 17:57	0° Π			3421 Mar 05 14:25	0° \approx	
desc. node	3418 Oct 16 07:42	20° Π 16'53			3421 Mar 31 09:15	0° Υ	
	3418 Oct 24 06:41	0° Υ		desc. node	3421 Apr 02 02:48	2° Υ 02'56	
	3418 Nov 17 22:29	0° Υ			3421 Apr 25 12:33	0° Υ	

	3421 May 20 09:17	0°♄		asc. node	3424 Jan 09 00:33	24°♊09'42	
	3421 Jun 14 03:06	0°♂		retrograde	3424 Jan 18 09:25	25°♊50'11	
	3421 Jul 08 18:52	0°♄		evening set	3424 Feb 02 23:47	21°♊02'05	
asc. node	3421 Jul 24 05:33	18°♄51'29		min. Earth dist.	3424 Feb 07 06:59	18°♊27'56	0.26769 AU
	3421 Aug 02 07:59	0°♂		inferior conj	3424 Feb 08 00:01	18°♊01'41	6°51'58
morning set	3421 Aug 06 11:28	5°♂04'52		minimum elong	3424 Feb 07 13:25	18°♊18'02	6°49'45
	3421 Aug 26 17:45	0°♄		morning rise	3424 Feb 12 03:20	15°♊31'54	
max. Earth dist.	3421 Sep 09 04:45	16°♄36'52	1.73041 AU	direct	3424 Feb 28 10:51	10°♊21'08	
				greatest brilliancy	3424 Mar 10 09:11	12°♊34'48	-4.6m
superior conj	3421 Sep 11 21:25	19°♄56'46	1°23'47		3424 Apr 05 05:09	0°♋	
minimum elong	3421 Sep 11 18:17	19°♄47'06	1°23'45	morning max el	3424 Apr 18 09:29	12°♋21'18	46°33'04
	3421 Sep 20 00:19	0°♄		desc. node	3424 Apr 29 14:31	23°♋48'03	
	3421 Oct 14 04:45	0°♌			3424 May 05 10:44	0°♌	
evening rise	3421 Oct 18 20:04	5°♌45'43			3424 Jun 01 10:49	0°♌	
	3421 Nov 07 08:10	0°♍			3424 Jun 27 09:05	0°♌	
desc. node	3421 Nov 12 19:33	6°♍48'15			3424 Jul 22 18:27	0°♍	
	3421 Dec 01 11:21	0°♄			3424 Aug 16 18:32	0°♂	
	3421 Dec 25 15:00	0°♊		asc. node	3424 Aug 20 17:30	4°♂47'13	
	3422 Jan 18 20:55	0°♋			3424 Sep 10 10:21	0°♄	
	3422 Feb 12 09:18	0°♌			3424 Oct 04 18:57	0°♄	
asc. node	3422 Mar 05 22:19	25°♌47'35		morning set	3424 Oct 14 02:58	11°♄34'34	
	3422 Mar 09 12:14	0°♌			3424 Oct 28 22:14	0°♌	
	3422 Apr 04 22:08	0°♌		max. Earth dist.	3424 Nov 18 11:16	25°♌40'07	1.71705 AU
evening max el	3422 Apr 23 21:41	19°♌47'42	46°03'02				
	3422 May 04 18:32	0°♍		superior conj	3424 Nov 21 03:18	29°♌00'29	0°43'53
greatest brilliancy	3422 May 28 10:56	16°♍57'26	-4.5m	minimum elong	3424 Nov 21 12:31	29°♌29'21	0°43'29
retrograde	3422 Jun 12 05:34	20°♍47'02			3424 Nov 21 22:19	0°♍	
desc. node	3422 Jun 25 12:03	17°♍18'27		desc. node	3424 Dec 10 07:24	23°♍01'46	
evening set	3422 Jun 27 06:05	16°♍23'03			3424 Dec 15 20:45	0°♄	
inferior conj	3422 Jul 03 15:49	12°♍31'42	-1°-55'-30	evening rise	3424 Dec 31 10:44	19°♄33'18	
minimum elong	3422 Jul 03 11:38	12°♍38'16	1°54'18		3425 Jan 08 18:28	0°♊	
min. Earth dist.	3422 Jul 03 09:15	12°♍42'02	0.28854 AU		3425 Feb 01 16:35	0°♋	
morning rise	3422 Jul 09 17:36	8°♍52'24			3425 Feb 25 17:06	0°♌	
direct	3422 Jul 25 05:23	4°♍17'33			3425 Mar 21 23:11	0°♌	
greatest brilliancy	3422 Aug 07 09:40	7°♍20'38	-4.5m	asc. node	3425 Apr 02 10:13	14°♌00'57	
	3422 Sep 07 15:39	0°♂			3425 Apr 15 15:03	0°♌	
morning max el	3422 Sep 12 00:23	4°♂06'37	45°47'44		3425 May 10 22:40	0°♍	
	3422 Oct 07 01:48	0°♄			3425 Jun 06 09:52	0°♂	
asc. node	3422 Oct 16 15:09	10°♄36'24		evening max el	3425 Jul 03 07:50	27°♂54'21	45°27'34
	3422 Nov 02 12:10	0°♄			3425 Jul 05 12:39	0°♄	
	3422 Nov 27 15:32	0°♌		desc. node	3425 Jul 23 00:07	14°♄59'34	
	3422 Dec 22 03:00	0°♍		greatest brilliancy	3425 Aug 08 03:59	24°♄46'16	-4.5m
	3423 Jan 15 06:29	0°♄		retrograde	3425 Aug 20 23:36	27°♄40'12	
desc. node	3423 Feb 05 05:00	26°♄10'15		evening set	3425 Sep 07 19:14	21°♄45'39	
	3423 Feb 08 06:24	0°♊		inferior conj	3425 Sep 11 10:11	19°♄32'19	-8°-28'-57
	3423 Mar 04 05:14	0°♋		minimum elong	3425 Sep 11 06:22	19°♄38'17	8°28'46
morning set	3423 Mar 16 09:10	15°♋13'48		min. Earth dist.	3425 Sep 11 19:00	19°♄18'35	0.28871 AU
	3423 Mar 28 04:40	0°♌		morning rise	3425 Sep 14 17:19	17°♄30'06	
	3423 Apr 21 06:10	0°♌		direct	3425 Oct 02 22:26	11°♄15'52	
				greatest brilliancy	3425 Oct 17 10:59	14°♄58'29	-4.6m
superior conj	3423 Apr 25 02:33	4°♌47'08	-1°-10'-19		3425 Nov 07 22:55	0°♄	
minimum elong	3423 Apr 25 12:40	5°♌18'33	1°10'02	asc. node	3425 Nov 13 02:49	4°♄37'30	
max. Earth dist.	3423 Apr 29 00:48	9°♌39'49	1.72416 AU	morning max el	3425 Nov 21 21:21	13°♄04'06	46°27'08
	3423 May 15 10:42	0°♌			3425 Dec 08 00:23	0°♌	
asc. node	3423 May 29 07:55	17°♌08'20			3426 Jan 03 08:25	0°♍	
evening rise	3423 Jun 02 15:20	22°♌26'51			3426 Jan 28 10:27	0°♄	
	3423 Jun 08 18:38	0°♍			3426 Feb 21 23:48	0°♊	
	3423 Jul 03 05:57	0°♂		desc. node	3426 Mar 04 16:57	13°♊11'36	
	3423 Jul 27 21:00	0°♄			3426 Mar 18 07:42	0°♋	
	3423 Aug 21 17:13	0°♄			3426 Apr 11 13:49	0°♌	
	3423 Sep 15 21:14	0°♌			3426 May 05 20:18	0°♌	
desc. node	3423 Sep 17 21:46	2°♌23'17		morning set	3426 May 27 22:37	27°♌15'01	
	3423 Oct 11 13:22	0°♍			3426 May 30 04:11	0°♌	
	3423 Nov 07 03:31	0°♄			3426 Jun 23 13:20	0°♍	
evening max el	3423 Nov 28 20:02	22°♄52'50	47°01'57	asc. node	3426 Jun 25 19:46	2°♄47'21	
	3423 Dec 06 03:04	0°♊					
greatest brilliancy	3424 Jan 06 10:47	23°♊10'19	-4.7m	superior conj	3426 Jul 04 03:59	13°♊02'53	0°19'46

minimum elong	3426 Jul 03 23:56	12° \mathfrak{G} 50'25	0°19'34	asc. node	3428 Dec 10 14:40	22° \mathfrak{M} 22'11	
max. Earth dist.	3426 Jul 04 06:25	13° \mathfrak{G} 10'21	1.73496 AU	direct	3428 Dec 13 01:07	22° \mathfrak{M} 14'54	
	3426 Jul 17 22:56	0° \mathfrak{Q}		greatest brilliancy	3428 Dec 26 14:25	25° \mathfrak{M} 38'47	-4.7m
evening rise	3426 Aug 09 06:40	27° \mathfrak{Q} 27'01			3429 Jan 03 06:35	0° \mathfrak{X}	
	3426 Aug 11 08:26	0° \mathfrak{M}		morning max el	3429 Feb 01 18:59	25° \mathfrak{X} 39'10	46°58'10
	3426 Sep 04 18:08	0° \mathfrak{A}			3429 Feb 06 00:21	0° \mathfrak{Z}	
	3426 Sep 29 05:04	0° \mathfrak{M}			3429 Mar 05 06:20	0° \approx	
desc. node	3426 Oct 15 09:42	19° \mathfrak{M} 48'07			3429 Mar 30 23:00	0° \mathfrak{H}	
	3426 Oct 23 18:17	0° \mathfrak{X}		desc. node	3429 Apr 01 04:45	1° \mathfrak{H} 28'12	
	3426 Nov 17 10:48	0° \mathfrak{Z}			3429 Apr 25 01:08	0° \mathfrak{Y}	
	3426 Dec 12 09:04	0° \approx			3429 May 19 21:08	0° \mathfrak{B}	
	3427 Jan 06 20:40	0° \mathfrak{H}			3429 Jun 13 14:26	0° \mathfrak{I}	
	3427 Feb 02 19:52	0° \mathfrak{Y}			3429 Jul 08 05:51	0° \mathfrak{G}	
asc. node	3427 Feb 05 12:29	2° \mathfrak{Y} 49'14		asc. node	3429 Jul 23 07:40	18° \mathfrak{G} 24'47	
evening max el	3427 Feb 09 01:23	6° \mathfrak{Y} 27'29	47°04'39		3429 Aug 01 18:46	0° \mathfrak{Q}	
	3427 Mar 07 13:07	0° \mathfrak{B}		morning set	3429 Aug 04 05:14	2° \mathfrak{Q} 59'12	
greatest brilliancy	3427 Mar 18 04:54	6° \mathfrak{B} 22'13	-4.6m		3429 Aug 26 04:27	0° \mathfrak{M}	
retrograde	3427 Mar 31 19:20	9° \mathfrak{B} 46'45		max. Earth dist.	3429 Sep 06 21:50	14° \mathfrak{M} 28'15	1.73077 AU
evening set	3427 Apr 18 00:29	4° \mathfrak{B} 00'38					
inferior conj	3427 Apr 21 21:05	1° \mathfrak{B} 37'46	7°27'23	superior conj	3429 Sep 09 15:11	17° \mathfrak{M} 50'11	1°23'09
minimum elong	3427 Apr 22 06:29	1° \mathfrak{B} 23'03	7°25'50	minimum elong	3429 Sep 09 11:25	17° \mathfrak{M} 38'33	1°23'08
min. Earth dist.	3427 Apr 21 17:08	1° \mathfrak{B} 43'57	0.28029 AU		3429 Sep 19 11:05	0° \mathfrak{A}	
	3427 Apr 24 12:02	30° \mathfrak{R} \mathfrak{Y}			3429 Oct 13 15:37	0° \mathfrak{M}	
morning rise	3427 Apr 26 12:43	28° \mathfrak{Y} 47'21		evening rise	3429 Oct 16 11:37	3° \mathfrak{M} 31'06	
direct	3427 May 12 20:30	23° \mathfrak{Y} 36'15			3429 Nov 06 19:14	0° \mathfrak{X}	
greatest brilliancy	3427 May 24 12:10	26° \mathfrak{Y} 03'41	-4.5m	desc. node	3429 Nov 11 21:34	6° \mathfrak{X} 20'00	
desc. node	3427 May 28 02:12	27° \mathfrak{Y} 39'52			3429 Nov 30 22:39	0° \mathfrak{Z}	
	3427 Jun 01 09:16	0° \mathfrak{B}			3429 Dec 25 02:36	0° \approx	
morning max el	3427 Jun 30 22:23	23° \mathfrak{B} 56'03	45°51'06		3430 Jan 18 08:59	0° \mathfrak{H}	
	3427 Jul 07 03:04	0° \mathfrak{I}			3430 Feb 11 22:04	0° \mathfrak{Y}	
	3427 Aug 04 11:31	0° \mathfrak{G}		asc. node	3430 Mar 05 00:15	25° \mathfrak{Y} 12'35	
	3427 Aug 30 22:15	0° \mathfrak{Q}			3430 Mar 09 02:19	0° \mathfrak{B}	
asc. node	3427 Sep 18 05:16	21° \mathfrak{Q} 28'40			3430 Apr 04 15:17	0° \mathfrak{I}	
	3427 Sep 25 08:52	0° \mathfrak{M}		evening max el	3430 Apr 21 13:14	17° \mathfrak{I} 33'50	46°04'57
	3427 Oct 20 03:27	0° \mathfrak{A}			3430 May 04 22:54	0° \mathfrak{G}	
	3427 Nov 13 11:18	0° \mathfrak{M}		greatest brilliancy	3430 May 26 04:36	14° \mathfrak{G} 48'47	-4.5m
	3427 Dec 07 12:41	0° \mathfrak{X}		retrograde	3430 Jun 09 21:33	18° \mathfrak{G} 36'54	
morning set	3427 Dec 26 18:26	24° \mathfrak{X} 07'35		evening set	3430 Jun 24 22:20	14° \mathfrak{G} 13'27	
	3427 Dec 31 10:40	0° \mathfrak{Z}		desc. node	3430 Jun 24 14:12	14° \mathfrak{G} 24'31	
desc. node	3428 Jan 07 19:14	9° \mathfrak{Z} 14'55		inferior conj	3430 Jul 01 08:06	10° \mathfrak{G} 21'57	-1°-35'-54
	3428 Jan 24 07:09	0° \approx		minimum elong	3430 Jul 01 04:36	10° \mathfrak{G} 27'26	1°34'54
				min. Earth dist.	3430 Jul 01 01:58	10° \mathfrak{G} 31'36	0.28829 AU
superior conj	3428 Feb 06 04:22	16° \approx 12'38	-1°-3'-10	morning rise	3430 Jul 07 11:16	6° \mathfrak{G} 40'22	
minimum elong	3428 Feb 05 16:19	15° \approx 34'42	1°02'47	direct	3430 Jul 22 21:15	2° \mathfrak{G} 08'15	
max. Earth dist.	3428 Feb 07 13:25	17° \approx 56'33	1.71143 AU	greatest brilliancy	3430 Aug 04 23:35	5° \mathfrak{G} 08'43	-4.5m
	3428 Feb 17 03:31	0° \mathfrak{H}			3430 Sep 07 15:22	0° \mathfrak{Q}	
	3428 Mar 12 01:17	0° \mathfrak{Y}		morning max el	3430 Sep 09 14:53	1° \mathfrak{Q} 52'54	45°46'57
evening rise	3428 Mar 18 03:26	7° \mathfrak{Y} 37'11			3430 Oct 06 17:49	0° \mathfrak{M}	
	3428 Apr 05 02:16	0° \mathfrak{B}		asc. node	3430 Oct 15 17:09	10° \mathfrak{M} 00'06	
	3428 Apr 29 08:16	0° \mathfrak{I}			3430 Nov 02 01:42	0° \mathfrak{A}	
asc. node	3428 Apr 29 22:05	0° \mathfrak{I} 42'27			3430 Nov 27 03:58	0° \mathfrak{M}	
	3428 May 23 20:58	0° \mathfrak{G}			3430 Dec 21 14:51	0° \mathfrak{X}	
	3428 Jun 17 18:24	0° \mathfrak{Q}			3431 Jan 14 18:00	0° \mathfrak{Z}	
	3428 Jul 13 04:29	0° \mathfrak{M}		desc. node	3431 Feb 04 07:06	25° \mathfrak{Z} 41'22	
	3428 Aug 08 11:53	0° \mathfrak{A}			3431 Feb 07 17:42	0° \approx	
desc. node	3428 Aug 19 11:54	12° \mathfrak{A} 03'54			3431 Mar 03 16:22	0° \mathfrak{H}	
	3428 Sep 05 15:24	0° \mathfrak{M}		morning set	3431 Mar 13 20:30	12° \mathfrak{H} 44'29	
evening max el	3428 Sep 13 08:21	7° \mathfrak{M} 35'00	45°58'38		3431 Mar 27 15:41	0° \mathfrak{Y}	
	3428 Oct 10 12:08	0° \mathfrak{X}			3431 Apr 20 17:05	0° \mathfrak{B}	
greatest brilliancy	3428 Oct 21 15:13	5° \mathfrak{X} 43'30	-4.6m				
retrograde	3428 Nov 01 11:25	7° \mathfrak{X} 50'30		superior conj	3431 Apr 22 16:32	2° \mathfrak{B} 27'32	-1°-12'-21
evening set	3428 Nov 16 22:37	3° \mathfrak{X} 13'25		minimum elong	3431 Apr 23 02:24	2° \mathfrak{B} 58'11	1°12'07
inferior conj	3428 Nov 22 05:03	0° \mathfrak{X} 06'29	-4°-29'-10	max. Earth dist.	3431 Apr 26 16:36	7° \mathfrak{B} 25'55	1.72363 AU
minimum elong	3428 Nov 22 14:07	29° \mathfrak{M} 52'38	4°26'41		3431 May 14 21:35	0° \mathfrak{I}	
	3428 Nov 22 09:18	30° \mathfrak{R} \mathfrak{M}		asc. node	3431 May 28 10:01	16° \mathfrak{I} 41'07	
min. Earth dist.	3428 Nov 23 00:12	29° \mathfrak{M} 37'15	0.27126 AU	evening rise	3431 May 31 07:32	20° \mathfrak{I} 15'15	
morning rise	3428 Nov 28 05:04	26° \mathfrak{M} 34'49			3431 Jun 08 05:35	0° \mathfrak{G}	

	3431 Jul 02 17:04	0°♍		desc. node	3434 Mar 03 18:50	12°♊39'55	
	3431 Jul 27 08:26	0°♎			3434 Mar 17 19:34	0°♋	
	3431 Aug 21 05:12	0°♌			3434 Apr 11 01:19	0°♐	
	3431 Sep 15 10:08	0°♍			3434 May 05 07:31	0°♉	
desc. node	3431 Sep 16 23:43	1°♍50'44		morning set	3434 May 25 15:05	25°♉03'53	
	3431 Oct 11 03:55	0°♊			3434 May 29 15:12	0°♈	
	3431 Nov 06 21:22	0°♎			3434 Jun 23 00:13	0°♊	
evening max el	3431 Nov 26 08:45	20°♎26'00	47°00'23	asc. node	3434 Jun 24 21:52	2°♎20'22	
	3431 Dec 06 06:44	0°♊					
greatest brilliancy	3432 Jan 04 01:42	20°♊44'09	-4.7m	superior conj	3434 Jul 01 21:45	10°♎56'32	0°16'38
asc. node	3432 Jan 08 02:42	22°♊11'14		minimum elong	3434 Jul 01 18:18	10°♎45'55	0°16'27
retrograde	3432 Jan 15 21:50	23°♊21'57		max. Earth dist.	3434 Jul 02 04:55	11°♎18'37	1.73486 AU
evening set	3432 Jan 31 08:50	18°♊39'25			3434 Jul 17 09:47	0°♍	
min. Earth dist.	3432 Feb 04 20:35	15°♊59'14	0.26731 AU	evening rise	3434 Aug 07 01:30	25°♍23'44	
inferior conj	3432 Feb 05 12:44	15°♊34'23	6°36'01		3434 Aug 10 19:23	0°♎	
minimum elong	3432 Feb 05 02:01	15°♊50'53	6°33'40		3434 Sep 04 05:19	0°♌	
morning rise	3432 Feb 09 19:25	12°♊59'50			3434 Sep 28 16:37	0°♍	
direct	3432 Feb 25 22:38	7°♊54'03		desc. node	3434 Oct 14 11:42	19°♍18'07	
greatest brilliancy	3432 Mar 07 23:53	10°♊10'17	-4.6m		3434 Oct 23 06:19	0°♊	
	3432 Apr 05 11:02	0°♋			3434 Nov 16 23:31	0°♎	
morning max el	3432 Apr 15 22:09	9°♋56'27	46°34'43		3434 Dec 11 22:53	0°♊	
desc. node	3432 Apr 28 16:35	23°♋02'30			3435 Jan 06 12:28	0°♋	
	3432 May 05 04:45	0°♐			3435 Feb 02 16:30	0°♐	
	3432 Jun 01 01:21	0°♉		asc. node	3435 Feb 04 14:25	1°♐59'04	
	3432 Jun 26 22:00	0°♈		evening max el	3435 Feb 06 16:58	4°♐08'28	47°06'02
	3432 Jul 22 06:28	0°♎			3435 Mar 08 14:29	0°♉	
	3432 Aug 16 06:02	0°♍		greatest brilliancy	3435 Mar 15 20:52	4°♉04'02	-4.6m
asc. node	3432 Aug 19 19:26	4°♍18'32		retrograde	3435 Mar 29 11:06	7°♉27'47	
	3432 Sep 09 21:31	0°♎		evening set	3435 Apr 15 18:17	1°♉37'21	
	3432 Oct 04 05:57	0°♌			3435 Apr 18 09:38	30°♋♐	
morning set	3432 Oct 11 18:55	9°♌20'54		inferior conj	3435 Apr 19 11:48	29°♐19'03	7°39'05
	3432 Oct 28 09:13	0°♍		minimum elong	3435 Apr 19 20:51	29°♐04'53	7°37'42
max. Earth dist.	3432 Nov 16 01:27	23°♍19'44	1.71751 AU	min. Earth dist.	3435 Apr 19 06:58	29°♐26'38	0.27993 AU
				morning rise	3435 Apr 23 23:42	26°♐34'17	
superior conj	3432 Nov 18 16:35	26°♍37'17	0°46'59	direct	3435 May 10 11:11	21°♐18'17	
minimum elong	3432 Nov 19 02:09	27°♍07'14	0°46'35	greatest brilliancy	3435 May 22 00:03	23°♐43'36	-4.5m
	3432 Nov 21 09:22	0°♊		desc. node	3435 May 27 04:19	26°♐08'23	
desc. node	3432 Dec 09 09:30	22°♊33'28			3435 Jun 02 14:49	0°♉	
	3432 Dec 15 07:54	0°♎		morning max el	3435 Jun 28 14:16	21°♉43'54	45°52'06
evening rise	3432 Dec 28 21:52	17°♎02'27			3435 Jul 06 23:28	0°♈	
	3433 Jan 08 05:45	0°♊			3435 Aug 04 02:42	0°♎	
	3433 Feb 01 03:59	0°♋			3435 Aug 30 11:22	0°♍	
	3433 Feb 25 04:39	0°♐		asc. node	3435 Sep 17 07:18	20°♍58'00	
	3433 Mar 21 11:03	0°♉			3435 Sep 24 21:00	0°♎	
asc. node	3433 Apr 01 12:13	13°♉30'19			3435 Oct 19 15:05	0°♌	
	3433 Apr 15 03:28	0°♈			3435 Nov 12 22:42	0°♍	
	3433 May 10 12:13	0°♎			3435 Dec 06 23:57	0°♊	
	3433 Jun 06 01:58	0°♍		morning set	3435 Dec 24 05:50	21°♊37'31	
evening max el	3433 Jun 30 23:15	25°♍42'18	45°27'42		3435 Dec 30 21:52	0°♎	
	3433 Jul 05 12:39	0°♎		desc. node	3436 Jan 06 21:16	8°♎46'06	
desc. node	3433 Jul 22 02:09	13°♎52'07			3436 Jan 23 18:19	0°♊	
greatest brilliancy	3433 Aug 05 15:17	22°♎30'15	-4.5m				
retrograde	3433 Aug 18 15:32	25°♎28'55		superior conj	3436 Feb 03 14:11	13°♊37'22	-1°00'-20
evening set	3433 Sep 05 08:19	19°♎37'21		minimum elong	3436 Feb 03 02:09	12°♊59'32	0°59'56
inferior conj	3433 Sep 09 01:55	17°♎20'10	-8°-24'-21	max. Earth dist.	3436 Feb 04 21:58	15°♊17'21	1.71128 AU
minimum elong	3433 Sep 08 21:23	17°♎27'14	8°24'05		3436 Feb 16 14:40	0°♋	
min. Earth dist.	3433 Sep 09 09:30	17°♎08'22	0.28906 AU		3436 Mar 11 12:28	0°♐	
morning rise	3433 Sep 12 10:17	15°♎16'16		evening rise	3436 Mar 15 14:19	5°♐06'10	
direct	3433 Sep 30 14:38	9°♎03'16			3436 Apr 04 13:29	0°♉	
greatest brilliancy	3433 Oct 15 03:33	12°♎46'35	-4.5m		3436 Apr 28 19:37	0°♈	
	3433 Nov 08 03:48	0°♌		asc. node	3436 Apr 29 00:13	0°♈14'07	
asc. node	3433 Nov 12 04:56	3°♌42'22			3436 May 23 08:35	0°♎	
morning max el	3433 Nov 19 13:22	10°♌49'10	46°25'34		3436 Jun 17 06:34	0°♍	
	3433 Dec 07 18:00	0°♍			3436 Jul 12 17:43	0°♎	
	3434 Jan 02 22:57	0°♊			3436 Aug 08 03:18	0°♌	
	3434 Jan 27 23:37	0°♎		desc. node	3436 Aug 18 13:51	11°♌23'39	
	3434 Feb 21 12:12	0°♊			3436 Sep 05 12:28	0°♍	

evening max el	3436 Sep 10 22:26	5° \mathbb{M} 17'18	45°56'27			3439 Mar 03 03:31	0° \mathbb{X}	
	3436 Oct 11 23:58	0° \mathbb{X}		morning set		3439 Mar 11 07:09	10° \mathbb{X} 12'50	
greatest brilliancy	3436 Oct 19 04:35	3° \mathbb{X} 21'41	-4.6m			3439 Mar 27 02:40	0° \mathbb{Y}	
retrograde	3436 Oct 29 23:32	5° \mathbb{X} 27'22						
evening set	3436 Nov 14 14:32	0° \mathbb{X} 46'24		superior conj		3439 Apr 20 06:04	0° \mathbb{X} 06'34	-1°-14'-18
	3436 Nov 15 23:10	30° \mathbb{R} \mathbb{M}		minimum elong		3439 Apr 20 15:36	0° \mathbb{X} 36'14	1°14'05
inferior conj	3436 Nov 19 18:14	27° \mathbb{M} 42'59	-4°-48'-43			3439 Apr 20 03:57	0° \mathbb{X}	
minimum elong	3436 Nov 20 03:42	27° \mathbb{M} 28'29	4°46'13	max. Earth dist.		3439 Apr 24 05:58	5° \mathbb{X} 04'40	1.72305 AU
min. Earth dist.	3436 Nov 20 14:19	27° \mathbb{M} 12'14	0.27188 AU			3439 May 14 08:24	0° \mathbb{I}	
morning rise	3436 Nov 25 16:15	24° \mathbb{M} 13'25		asc. node		3439 May 27 12:04	16° \mathbb{I} 14'06	
asc. node	3436 Dec 09 16:47	19° \mathbb{M} 51'30		evening rise		3439 May 28 23:28	18° \mathbb{I} 03'09	
direct	3436 Dec 10 14:59	19° \mathbb{M} 50'28				3439 Jun 07 16:27	0° \mathbb{S}	
greatest brilliancy	3436 Dec 24 05:30	23° \mathbb{M} 15'11	-4.6m			3439 Jul 02 04:05	0° \mathbb{Q}	
	3437 Jan 04 08:33	0° \mathbb{X}				3439 Jul 26 19:46	0° \mathbb{M}	
morning max el	3437 Jan 30 08:02	23° \mathbb{X} 12'24	46°57'55			3439 Aug 20 17:04	0° \mathbb{L}	
	3437 Feb 05 21:20	0° \mathbb{Z}				3439 Sep 14 22:58	0° \mathbb{M}	
	3437 Mar 04 22:14	0° \approx		desc. node		3439 Sep 16 01:49	1° \mathbb{M} 19'00	
	3437 Mar 30 12:48	0° \mathbb{X}				3439 Oct 10 18:26	0° \mathbb{X}	
desc. node	3437 Mar 31 06:52	0° \mathbb{X} 53'43				3439 Nov 06 15:22	0° \mathbb{Z}	
	3437 Apr 24 13:47	0° \mathbb{Y}		evening max el		3439 Nov 23 21:28	18° \mathbb{Z} 00'04	46°58'43
	3437 May 19 09:02	0° \mathbb{X}				3439 Dec 06 11:56	0° \approx	
	3437 Jun 13 01:51	0° \mathbb{I}		greatest brilliancy		3440 Jan 01 15:13	18° \approx 16'38	-4.7m
	3437 Jul 07 16:56	0° \mathbb{S}		asc. node		3440 Jan 07 04:35	20° \approx 07'48	
asc. node	3437 Jul 22 09:38	17° \mathbb{S} 57'16		retrograde		3440 Jan 13 10:27	20° \approx 53'50	
	3437 Aug 01 05:38	0° \mathbb{Q}		evening set		3440 Jan 28 17:50	16° \approx 16'13	
morning set	3437 Aug 01 23:11	0° \mathbb{Q} 53'48		min. Earth dist.		3440 Feb 02 09:50	13° \approx 30'31	0.26702 AU
	3437 Aug 25 15:15	0° \mathbb{M}		inferior conj		3440 Feb 03 01:15	13° \approx 06'51	6°19'10
max. Earth dist.	3437 Sep 04 15:08	12° \mathbb{M} 20'10	1.73113 AU	minimum elong		3440 Feb 02 14:31	13° \approx 23'20	6°16'40
				morning rise		3440 Feb 07 11:22	10° \approx 27'41	
superior conj	3437 Sep 07 09:15	15° \mathbb{M} 44'21	1°22'25	direct		3440 Feb 23 10:37	5° \approx 26'31	
minimum elong	3437 Sep 07 04:53	15° \mathbb{M} 30'53	1°22'23	greatest brilliancy		3440 Mar 05 14:37	7° \approx 45'39	-4.6m
	3437 Sep 18 21:54	0° \mathbb{L}				3440 Apr 05 15:00	0° \mathbb{X}	
	3437 Oct 13 02:34	0° \mathbb{M}		morning max el		3440 Apr 13 11:46	7° \mathbb{X} 33'55	46°36'20
evening rise	3437 Oct 14 03:27	1° \mathbb{M} 17'11		desc. node		3440 Apr 27 18:39	22° \mathbb{X} 17'41	
	3437 Nov 06 06:23	0° \mathbb{X}				3440 May 04 22:17	0° \mathbb{Y}	
desc. node	3437 Nov 10 23:43	5° \mathbb{X} 51'50				3440 May 31 15:34	0° \mathbb{X}	
	3437 Nov 30 10:06	0° \mathbb{Z}				3440 Jun 26 10:38	0° \mathbb{I}	
	3437 Dec 24 14:25	0° \approx				3440 Jul 21 18:12	0° \mathbb{S}	
	3438 Jan 17 21:15	0° \mathbb{X}				3440 Aug 15 17:13	0° \mathbb{Q}	
	3438 Feb 11 11:04	0° \mathbb{Y}		asc. node		3440 Aug 18 21:26	3° \mathbb{Q} 50'48	
asc. node	3438 Mar 04 02:17	24° \mathbb{Y} 37'19				3440 Sep 09 08:24	0° \mathbb{M}	
	3438 Mar 08 16:40	0° \mathbb{X}				3440 Oct 03 16:42	0° \mathbb{L}	
	3438 Apr 04 08:53	0° \mathbb{I}		morning set		3440 Oct 09 11:13	7° \mathbb{L} 09'12	
evening max el	3438 Apr 19 03:45	15° \mathbb{I} 17'13	46°07'03			3440 Oct 27 19:56	0° \mathbb{M}	
	3438 May 05 05:18	0° \mathbb{S}		max. Earth dist.		3440 Nov 13 16:19	21° \mathbb{M} 02'28	1.71792 AU
greatest brilliancy	3438 May 23 21:22	12° \mathbb{S} 38'52	-4.5m					
retrograde	3438 Jun 07 13:26	16° \mathbb{S} 26'57		superior conj		3440 Nov 16 06:22	24° \mathbb{M} 16'33	0°49'58
evening set	3438 Jun 22 14:42	12° \mathbb{S} 03'27		minimum elong		3440 Nov 16 16:13	24° \mathbb{M} 47'20	0°49'34
desc. node	3438 Jun 23 16:16	11° \mathbb{S} 27'38				3440 Nov 20 20:08	0° \mathbb{X}	
inferior conj	3438 Jun 29 00:24	8° \mathbb{S} 12'15	-1°-16'-10	desc. node		3440 Dec 08 11:30	22° \mathbb{X} 05'51	
minimum elong	3438 Jun 28 21:37	8° \mathbb{S} 16'39	1°15'21			3440 Dec 14 18:46	0° \mathbb{Z}	
min. Earth dist.	3438 Jun 28 18:54	8° \mathbb{S} 20'54	0.28805 AU	evening rise		3440 Dec 26 09:26	14° \mathbb{Z} 33'58	
morning rise	3438 Jul 05 04:48	4° \mathbb{S} 28'39				3441 Jan 07 16:43	0° \approx	
	3438 Jul 19 12:17	30° \mathbb{R} \mathbb{I}				3441 Jan 31 15:05	0° \mathbb{X}	
direct	3438 Jul 20 12:43	29° \mathbb{I} 58'48				3441 Feb 24 15:59	0° \mathbb{Y}	
	3438 Jul 21 13:16	0° \mathbb{S}				3441 Mar 20 22:43	0° \mathbb{X}	
greatest brilliancy	3438 Aug 02 14:32	2° \mathbb{S} 58'02	-4.5m	asc. node		3441 Mar 31 14:19	13° \mathbb{X} 00'38	
morning max el	3438 Sep 07 05:34	29° \mathbb{S} 39'44	45°46'22			3441 Apr 14 15:45	0° \mathbb{I}	
	3438 Sep 07 14:01	0° \mathbb{Q}				3441 May 10 01:39	0° \mathbb{S}	
	3438 Oct 06 09:30	0° \mathbb{M}				3441 Jun 05 18:03	0° \mathbb{Q}	
asc. node	3438 Oct 14 19:15	9° \mathbb{M} 24'37		evening max el		3441 Jun 28 15:24	23° \mathbb{Q} 32'54	45°28'04
	3438 Nov 01 15:03	0° \mathbb{L}				3441 Jul 05 13:26	0° \mathbb{M}	
	3438 Nov 26 16:15	0° \mathbb{M}		desc. node		3441 Jul 21 04:04	12° \mathbb{M} 43'42	
	3438 Dec 21 02:37	0° \mathbb{X}		greatest brilliancy		3441 Aug 03 03:36	20° \mathbb{M} 16'46	-4.5m
	3439 Jan 14 05:29	0° \mathbb{Z}		retrograde		3441 Aug 16 07:39	23° \mathbb{M} 18'58	
desc. node	3439 Feb 03 09:02	25° \mathbb{Z} 11'54		evening set		3441 Sep 02 21:26	17° \mathbb{M} 30'51	
	3439 Feb 07 05:00	0° \approx		inferior conj		3441 Sep 06 17:46	15° \mathbb{M} 09'26	-8°-19'-12

minimum elong	3441 Sep 06 12:33	15° \mathbb{M} 17'34	8°18'49	minimum elong	3444 Jan 31 12:19	10° \approx 26'35	0°56'58
min. Earth dist.	3441 Sep 06 23:52	14° \mathbb{M} 59'56	0.28936 AU	max. Earth dist.	3444 Feb 02 03:37	12° \approx 30'10	1.71113 AU
morning rise	3441 Sep 10 03:33	13° \mathbb{M} 03'28			3444 Feb 16 01:28	0° \mathbb{H}	
direct	3441 Sep 28 07:20	6° \mathbb{M} 52'19			3444 Mar 10 23:15	0° \mathbb{Y}	
greatest brilliancy	3441 Oct 12 19:10	10° \mathbb{M} 34'52	-4.5m	evening rise	3444 Mar 13 01:19	2° \mathbb{Y} 36'44	
	3441 Nov 08 06:27	0° $\underline{\mathbb{A}}$			3444 Apr 04 00:18	0° \mathbb{B}	
asc. node	3441 Nov 11 06:57	2° $\underline{\mathbb{A}}$ 49'17		asc. node	3444 Apr 28 02:14	29° \mathbb{B} 46'42	
morning max el	3441 Nov 17 05:36	8° $\underline{\mathbb{A}}$ 36'10	46°24'00		3444 Apr 28 06:33	0° \mathbb{I}	
	3441 Dec 07 10:50	0° \mathbb{M}			3444 May 22 19:50	0° \mathbb{S}	
	3442 Jan 02 12:56	0° \mathbb{Z}			3444 Jun 16 18:24	0° \mathbb{Q}	
	3442 Jan 27 12:17	0° \mathbb{Z}			3444 Jul 12 06:41	0° \mathbb{M}	
	3442 Feb 21 00:06	0° \approx			3444 Aug 07 18:35	0° $\underline{\mathbb{A}}$	
desc. node	3442 Mar 02 20:57	12° \approx 10'21		desc. node	3444 Aug 17 15:58	10° $\underline{\mathbb{A}}$ 44'25	
	3442 Mar 17 07:00	0° \mathbb{H}			3444 Sep 05 09:52	0° \mathbb{M}	
	3442 Apr 10 12:25	0° \mathbb{Y}		evening max el	3444 Sep 08 11:45	2° \mathbb{M} 58'53	45°54'26
	3442 May 04 18:24	0° \mathbb{B}			3444 Oct 14 05:19	0° \mathbb{Z}	
morning set	3442 May 23 07:18	22° \mathbb{B} 52'54		greatest brilliancy	3444 Oct 16 18:13	1° \mathbb{Z} 01'48	-4.6m
	3442 May 29 01:53	0° \mathbb{I}		retrograde	3444 Oct 27 11:40	3° \mathbb{Z} 06'22	
	3442 Jun 22 10:46	0° \mathbb{S}			3444 Nov 09 02:32	30° \mathbb{R} \mathbb{M}	
asc. node	3442 Jun 23 23:49	1° \mathbb{S} 53'53		evening set	3444 Nov 12 06:43	28° \mathbb{M} 21'06	
				inferior conj	3444 Nov 17 07:39	25° \mathbb{M} 21'29	-5°-7'-30
superior conj	3442 Jun 29 15:10	8° \mathbb{S} 50'07	0°13'26	minimum elong	3444 Nov 17 17:26	25° \mathbb{M} 06'28	5°05'00
minimum elong	3442 Jun 29 12:21	8° \mathbb{S} 41'27	0°13'18	min. Earth dist.	3444 Nov 18 04:46	24° \mathbb{M} 49'05	0.27252 AU
behind sun begin	3442 Jun 28 23:45	8° \mathbb{S} 02'41		morning rise	3444 Nov 23 03:30	21° \mathbb{M} 54'22	
behind sun end	3442 Jun 30 00:57	9° \mathbb{S} 20'12		direct	3444 Dec 08 04:37	17° \mathbb{M} 27'48	
max. Earth dist.	3442 Jun 30 03:53	9° \mathbb{S} 29'12	1.73469 AU	asc. node	3444 Dec 08 18:44	17° \mathbb{M} 28'13	
	3442 Jul 16 20:18	0° \mathbb{Q}		greatest brilliancy	3444 Dec 21 21:40	20° \mathbb{M} 54'37	-4.6m
evening rise	3442 Aug 04 20:07	23° \mathbb{Q} 20'58			3445 Jan 05 03:00	0° \mathbb{Z}	
	3442 Aug 10 05:59	0° \mathbb{M}		morning max el	3445 Jan 27 20:56	20° \mathbb{Z} 46'12	46°57'36
	3442 Sep 03 16:08	0° $\underline{\mathbb{A}}$			3445 Feb 05 17:14	0° \mathbb{Z}	
	3442 Sep 28 03:48	0° \mathbb{M}			3445 Mar 04 13:34	0° \approx	
desc. node	3442 Oct 13 13:49	18° \mathbb{M} 49'36		desc. node	3445 Mar 30 08:54	0° \mathbb{H} 20'06	
	3442 Oct 22 18:01	0° \mathbb{Z}			3445 Mar 30 02:09	0° \mathbb{H}	
	3442 Nov 16 11:56	0° \mathbb{Z}			3445 Apr 24 02:01	0° \mathbb{Y}	
	3442 Dec 11 12:24	0° \approx			3445 May 18 20:34	0° \mathbb{B}	
	3443 Jan 06 04:02	0° \mathbb{H}			3445 Jun 12 12:54	0° \mathbb{I}	
	3443 Feb 02 13:16	0° \mathbb{Y}			3445 Jul 07 03:40	0° \mathbb{S}	
asc. node	3443 Feb 03 16:29	1° \mathbb{Y} 09'48		asc. node	3445 Jul 21 11:40	17° \mathbb{S} 30'55	
evening max el	3443 Feb 04 08:48	1° \mathbb{Y} 51'23	47°07'17	morning set	3445 Jul 30 17:06	28° \mathbb{S} 49'07	
	3443 Mar 10 01:10	0° \mathbb{B}			3445 Jul 31 16:13	0° \mathbb{Q}	
greatest brilliancy	3443 Mar 13 13:35	1° \mathbb{B} 48'16	-4.6m		3445 Aug 25 01:47	0° \mathbb{M}	
retrograde	3443 Mar 27 02:33	5° \mathbb{B} 10'03		max. Earth dist.	3445 Sep 02 09:06	10° \mathbb{M} 14'55	1.73151 AU
	3443 Apr 12 06:13	30° \mathbb{R} \mathbb{Y}					
evening set	3443 Apr 13 12:05	29° \mathbb{Y} 15'42		superior conj	3445 Sep 05 03:15	13° \mathbb{M} 39'09	1°21'35
inferior conj	3443 Apr 17 02:34	27° \mathbb{Y} 01'46	7°50'07	minimum elong	3445 Sep 04 22:18	13° \mathbb{M} 23'54	1°21'30
minimum elong	3443 Apr 17 11:13	26° \mathbb{Y} 48'14	7°48'52		3445 Sep 18 08:29	0° $\underline{\mathbb{A}}$	
min. Earth dist.	3443 Apr 16 20:53	27° \mathbb{Y} 10'40	0.27957 AU	evening rise	3445 Oct 11 19:17	29° $\underline{\mathbb{A}}$ 04'13	
morning rise	3443 Apr 21 10:38	24° \mathbb{Y} 22'35			3445 Oct 12 13:16	0° \mathbb{M}	
direct	3443 May 08 02:04	19° \mathbb{Y} 01'52			3445 Nov 05 17:18	0° \mathbb{Z}	
greatest brilliancy	3443 May 19 11:40	21° \mathbb{Y} 24'23	-4.5m	desc. node	3445 Nov 10 01:38	5° \mathbb{Z} 23'47	
desc. node	3443 May 26 06:20	24° \mathbb{Y} 41'08			3445 Nov 29 21:19	0° \mathbb{Z}	
	3443 Jun 03 11:37	0° \mathbb{B}			3445 Dec 24 02:01	0° \approx	
morning max el	3443 Jun 26 05:31	19° \mathbb{B} 31'12	45°53'01		3446 Jan 17 09:21	0° \mathbb{H}	
	3443 Jul 06 18:50	0° \mathbb{I}			3446 Feb 10 23:55	0° \mathbb{Y}	
	3443 Aug 03 17:18	0° \mathbb{S}		asc. node	3446 Mar 03 04:24	24° \mathbb{Y} 02'37	
	3443 Aug 30 00:02	0° \mathbb{Q}			3446 Mar 08 06:58	0° \mathbb{B}	
asc. node	3443 Sep 16 09:27	20° \mathbb{Q} 28'51			3446 Apr 04 02:38	0° \mathbb{I}	
	3443 Sep 24 08:41	0° \mathbb{M}		evening max el	3446 Apr 16 18:03	13° \mathbb{I} 00'38	46°09'18
	3443 Oct 19 02:17	0° $\underline{\mathbb{A}}$			3446 May 05 13:49	0° \mathbb{S}	
	3443 Nov 12 09:40	0° \mathbb{M}		greatest brilliancy	3446 May 21 13:15	10° \mathbb{S} 28'31	-4.5m
	3443 Dec 06 10:49	0° \mathbb{Z}		retrograde	3446 Jun 05 05:41	14° \mathbb{S} 18'03	
morning set	3443 Dec 21 17:24	19° \mathbb{Z} 09'10		evening set	3446 Jun 20 07:16	9° \mathbb{S} 53'56	
	3443 Dec 30 08:41	0° \mathbb{Z}		desc. node	3446 Jun 22 18:09	8° \mathbb{S} 29'29	
desc. node	3444 Jan 05 23:13	8° \mathbb{Z} 18'11		inferior conj	3446 Jun 26 16:46	6° \mathbb{S} 03'24	0°-56'-20
	3444 Jan 23 05:07	0° \approx		minimum elong	3446 Jun 26 14:41	6° \mathbb{S} 06'40	0°55'43
				min. Earth dist.	3446 Jun 26 11:46	6° \mathbb{S} 11'16	0.28782 AU
superior conj	3444 Feb 01 00:14	11° \approx 04'02	0°-57'-24	morning rise	3446 Jul 02 22:19	2° \mathbb{S} 18'11	

	3446 Jul 07 16:24	30° RII			3449 Jan 31 02:24	0° H	
direct	3446 Jul 18 04:10	27° $\text{II}50'04$			3449 Feb 24 03:31	0° Y	
	3446 Jul 29 05:21	0° S			3449 Mar 20 10:37	0° B	
greatest brilliancy	3446 Jul 31 06:26	0° $\text{S}49'21$	-4.5m	asc. node	3449 Mar 30 16:18	12° $\text{B}29'51$	
morning max el	3446 Sep 04 20:56	27° $\text{S}28'53$	45°45'45		3449 Apr 14 04:17	0° II	
	3446 Sep 07 11:33	0° Q			3449 May 09 15:27	0° S	
	3446 Oct 06 00:47	0° M			3449 Jun 05 10:43	0° Q	
asc. node	3446 Oct 13 21:15	8° $\text{M}49'24$		evening max el	3449 Jun 26 07:54	21° $\text{Q}23'33$	45°28'28
	3446 Nov 01 04:10	0° A			3449 Jul 05 15:54	0° M	
	3446 Nov 26 04:23	0° L		desc. node	3449 Jul 20 06:15	11° $\text{M}33'04$	
	3446 Dec 20 14:14	0° J		greatest brilliancy	3449 Jul 31 17:17	18° $\text{M}04'20$	-4.5m
	3447 Jan 13 16:49	0° C		retrograde	3449 Aug 13 23:32	21° $\text{M}08'24$	
desc. node	3447 Feb 02 11:07	24° $\text{C}43'27$		evening set	3449 Aug 31 10:29	15° $\text{M}24'19$	
	3447 Feb 06 16:09	0° \approx		inferior conj	3449 Sep 04 09:41	12° $\text{M}58'22$	-8°-13'-20
	3447 Mar 02 14:32	0° H		minimum elong	3449 Sep 04 03:50	13° $\text{M}07'30$	8°12'50
morning set	3447 Mar 08 17:37	7° $\text{H}40'52$		min. Earth dist.	3449 Sep 04 14:24	12° $\text{M}51'00$	0.28959 AU
	3447 Mar 26 13:35	0° Y		morning rise	3449 Sep 07 21:05	10° $\text{M}49'51$	
				direct	3449 Sep 26 00:10	4° $\text{M}41'17$	
superior conj	3447 Apr 17 19:28	27° $\text{Y}45'16$	-1°-16'-8	greatest brilliancy	3449 Oct 10 09:31	8° $\text{M}21'13$	-4.5m
minimum elong	3447 Apr 18 04:35	28° $\text{Y}13'40$	1°15'55		3449 Nov 08 07:54	0° A	
	3447 Apr 19 14:46	0° B		asc. node	3449 Nov 10 08:57	1° $\text{A}56'33$	
max. Earth dist.	3447 Apr 21 17:08	2° $\text{B}36'35$	1.72249 AU	morning max el	3449 Nov 14 20:54	6° $\text{A}20'22$	46°22'14
	3447 May 13 19:12	0° II			3449 Dec 07 03:37	0° L	
evening rise	3447 May 26 15:19	15° $\text{II}50'57$			3450 Jan 02 03:05	0° J	
asc. node	3447 May 26 14:01	15° $\text{II}46'56$			3450 Jan 27 01:14	0° C	
	3447 Jun 07 03:16	0° S			3450 Feb 20 12:21	0° \approx	
	3447 Jul 01 15:02	0° Q		desc. node	3450 Mar 01 23:03	11° $\approx 39'35$	
	3447 Jul 26 07:02	0° M			3450 Mar 16 18:47	0° H	
	3447 Aug 20 04:57	0° A			3450 Apr 09 23:51	0° Y	
	3447 Sep 14 11:52	0° L			3450 May 04 05:35	0° B	
desc. node	3447 Sep 15 03:52	0° $\text{L}46'56$		morning set	3450 May 20 23:13	20° $\text{B}39'57$	
	3447 Oct 10 09:11	0° J			3450 May 28 12:53	0° II	
	3447 Nov 06 09:55	0° C			3450 Jun 21 21:40	0° S	
evening max el	3447 Nov 21 11:03	15° $\text{C}36'16$	46°57'05	asc. node	3450 Jun 23 01:52	1° $\text{S}26'43$	
	3447 Dec 06 19:27	0° \approx					
greatest brilliancy	3447 Dec 30 03:56	15° $\approx 47'56$	-4.7m	superior conj	3450 Jun 27 08:24	6° $\text{S}42'00$	0°10'12
asc. node	3448 Jan 06 06:41	17° $\approx 58'57$		minimum elong	3450 Jun 27 06:15	6° $\text{S}35'22$	0°10'06
retrograde	3448 Jan 10 23:27	18° $\approx 25'21$		behind sun begin	3450 Jun 26 12:24	5° $\text{S}40'29$	
evening set	3448 Jan 26 02:58	13° $\approx 52'17$		behind sun end	3450 Jun 28 00:06	7° $\text{S}30'15$	
min. Earth dist.	3448 Jan 30 22:40	11° $\approx 01'43$	0.26674 AU	max. Earth dist.	3450 Jun 28 02:12	7° $\text{S}36'44$	1.73451 AU
inferior conj	3448 Jan 31 13:39	10° $\approx 38'47$	6°01'23		3450 Jul 16 07:11	0° Q	
minimum elong	3448 Jan 31 03:00	10° $\approx 55'05$	5°58'49	evening rise	3450 Aug 02 14:40	21° $\text{Q}16'50$	
morning rise	3448 Feb 05 03:14	7° $\approx 55'07$			3450 Aug 09 16:57	0° M	
direct	3448 Feb 20 23:09	2° $\approx 58'37$			3450 Sep 03 03:19	0° A	
greatest brilliancy	3448 Mar 03 04:30	5° $\approx 19'49$	-4.6m		3450 Sep 27 15:19	0° L	
	3448 Apr 05 17:26	0° H		desc. node	3450 Oct 12 15:47	18° $\text{L}19'40$	
morning max el	3448 Apr 11 01:55	5° $\text{H}12'28$	46°37'48		3450 Oct 22 06:03	0° J	
desc. node	3448 Apr 26 20:39	21° $\text{H}33'01$			3450 Nov 16 00:45	0° C	
	3448 May 04 15:33	0° Y			3450 Dec 11 02:26	0° \approx	
	3448 May 31 05:46	0° B			3451 Jan 05 20:21	0° H	
	3448 Jun 25 23:19	0° II		evening max el	3451 Feb 01 23:43	29° $\text{H}30'12$	47°08'17
	3448 Jul 21 06:01	0° S			3451 Feb 02 11:27	0° Y	
	3448 Aug 15 04:30	0° Q		asc. node	3451 Feb 02 18:35	0° $\text{Y}18'05$	
asc. node	3448 Aug 17 23:36	3° $\text{Q}23'21$		greatest brilliancy	3451 Mar 11 07:07	29° $\text{Y}31'14$	-4.6m
	3448 Sep 08 19:22	0° M			3451 Mar 12 08:46	0° B	
	3448 Oct 03 03:32	0° A		retrograde	3451 Mar 24 17:15	2° $\text{B}49'40$	
morning set	3448 Oct 07 03:38	4° $\text{A}57'38$			3451 Apr 05 11:31	30° RY	
	3448 Oct 27 06:48	0° L		evening set	3451 Apr 11 05:33	26° $\text{Y}51'43$	
max. Earth dist.	3448 Nov 11 05:53	18° $\text{L}40'43$	1.71838 AU	inferior conj	3451 Apr 14 17:05	24° $\text{Y}42'04$	8°00'26
				minimum elong	3451 Apr 15 01:14	24° $\text{Y}29'16$	7°59'21
superior conj	3448 Nov 13 20:09	21° $\text{L}55'21$	0°52'51	min. Earth dist.	3451 Apr 14 10:50	24° $\text{Y}51'53$	0.27917 AU
minimum elong	3448 Nov 14 06:11	22° $\text{L}26'44$	0°52'28	morning rise	3451 Apr 18 21:13	22° $\text{Y}08'28$	
	3448 Nov 20 07:05	0° J		direct	3451 May 05 16:18	16° $\text{Y}43'07$	
desc. node	3448 Dec 07 13:31	21° $\text{J}37'34$		greatest brilliancy	3451 May 16 23:27	19° $\text{Y}03'11$	-4.5m
	3448 Dec 14 05:50	0° C		desc. node	3451 May 25 08:20	23° $\text{Y}14'54$	
evening rise	3448 Dec 23 20:42	12° $\text{C}03'55$			3451 Jun 04 03:52	0° B	
	3449 Jan 07 03:54	0° \approx		morning max el	3451 Jun 23 19:29	17° $\text{B}13'48$	45°54'01

	3451 Jul 06 14:10	0°♊			3454 Feb 10 13:04	0°♊	
	3451 Aug 03 08:10	0°♋		asc. node	3454 Mar 02 06:20	23°♊26'27	
	3451 Aug 29 13:02	0°♌			3454 Mar 07 21:40	0°♋	
asc. node	3451 Sep 15 11:21	19°♌57'51			3454 Apr 03 21:10	0°♌	
	3451 Sep 23 20:45	0°♍		evening max el	3454 Apr 14 08:43	10°♌43'58	46°11'27
	3451 Oct 18 13:51	0°♎			3454 May 06 02:05	0°♍	
	3451 Nov 11 20:58	0°♏		greatest brilliancy	3454 May 19 04:41	8°♍16'13	-4.5m
	3451 Dec 05 22:00	0°♐		retrograde	3454 Jun 02 22:17	12°♍07'34	
morning set	3451 Dec 19 05:19	16°♐40'54		evening set	3454 Jun 17 23:52	7°♍42'32	
	3451 Dec 29 19:50	0°♑		desc. node	3454 Jun 21 20:19	5°♍27'15	
desc. node	3452 Jan 05 01:21	7°♑49'49		inferior conj	3454 Jun 24 08:58	3°♍52'50	0°-36'-11
	3452 Jan 22 16:17	0°♒		minimum elong	3454 Jun 24 07:37	3°♍54'56	0°35'48
				min. Earth dist.	3454 Jun 24 04:12	4°♍00'18	0.28761 AU
superior conj	3452 Jan 29 10:20	8°♒29'44	0°-54'-20	morning rise	3454 Jun 30 15:36	0°♍06'24	
minimum elong	3452 Jan 28 22:39	7°♒52'58	0°53'54		3454 Jun 30 20:16	30°♒♊	
max. Earth dist.	3452 Jan 30 06:19	9°♒32'34	1.71107 AU	direct	3454 Jul 15 19:45	25°♊39'36	
	3452 Feb 15 12:40	0°♋		greatest brilliancy	3454 Jul 28 22:29	28°♊39'33	-4.5m
evening rise	3452 Mar 10 11:56	0°♌04'36			3454 Jul 31 19:22	0°♋	
	3452 Mar 10 10:28	0°♍		morning max el	3454 Sep 02 13:00	25°♋18'45	45°45'11
	3452 Apr 03 11:35	0°♎			3454 Sep 07 08:43	0°♌	
asc. node	3452 Apr 27 04:10	29°♎17'35			3454 Oct 05 16:10	0°♍	
	3452 Apr 27 17:58	0°♏		asc. node	3454 Oct 12 23:15	8°♍13'35	
	3452 May 22 07:33	0°♐			3454 Oct 31 17:28	0°♎	
	3452 Jun 16 06:46	0°♑			3454 Nov 25 16:43	0°♏	
	3452 Jul 11 20:14	0°♒			3454 Dec 20 02:04	0°♐	
	3452 Aug 07 10:38	0°♓			3455 Jan 13 04:21	0°♑	
desc. node	3452 Aug 16 18:00	10°♓03'02		desc. node	3455 Feb 01 13:11	24°♑14'19	
	3452 Sep 05 08:43	0°♔			3455 Feb 06 03:29	0°♒	
evening max el	3452 Sep 06 00:19	0°♔37'27	45°52'33		3455 Mar 02 01:41	0°♓	
greatest brilliancy	3452 Oct 14 07:28	28°♔40'29	-4.6m	morning set	3455 Mar 06 04:28	5°♓09'34	
	3452 Oct 18 16:47	0°♕			3455 Mar 26 00:36	0°♔	
retrograde	3452 Oct 25 00:10	0°♕44'45					
	3452 Oct 31 03:31	30°♕♔		superior conj	3455 Apr 15 09:02	25°♔24'03	-1°-17'-48
evening set	3452 Nov 09 22:59	25°♔54'44		minimum elong	3455 Apr 15 17:42	25°♔51'00	1°17'38
inferior conj	3452 Nov 14 21:07	22°♔59'14	-5°-25'-40	max. Earth dist.	3455 Apr 19 05:51	0°♕12'54	1.72198 AU
minimum elong	3452 Nov 15 07:10	22°♔43'48	5°23'11		3455 Apr 19 01:42	0°♕	
min. Earth dist.	3452 Nov 15 19:15	22°♔25'16	0.27316 AU		3455 May 13 06:07	0°♏	
morning rise	3452 Nov 20 14:38	19°♔35'04		evening rise	3455 May 24 07:13	13°♏38'22	
direct	3452 Dec 05 18:06	15°♔04'15		asc. node	3455 May 25 16:07	15°♏19'45	
asc. node	3452 Dec 07 20:46	15°♔09'34			3455 Jun 06 14:15	0°♐	
greatest brilliancy	3452 Dec 19 14:27	18°♔34'17	-4.6m		3455 Jul 01 02:11	0°♑	
	3453 Jan 05 17:08	0°♕			3455 Jul 25 18:31	0°♒	
morning max el	3453 Jan 25 10:14	18°♕20'16	46°57'18		3455 Aug 19 17:03	0°♓	
	3453 Feb 05 12:52	0°♖		desc. node	3455 Sep 14 05:49	0°♔13'55	
	3453 Mar 04 05:00	0°♗			3455 Sep 14 01:04	0°♕	
desc. node	3453 Mar 29 10:50	29°♗45'19			3455 Oct 10 00:18	0°♖	
	3453 Mar 29 15:46	0°♘			3455 Nov 06 05:10	0°♗	
	3453 Apr 23 14:37	0°♙		evening max el	3455 Nov 19 01:24	13°♗14'03	46°55'20
	3453 May 18 08:30	0°♚			3455 Dec 07 05:56	0°♘	
	3453 Jun 12 00:21	0°♛		greatest brilliancy	3455 Dec 27 16:42	13°♘18'53	-4.7m
	3453 Jul 06 14:49	0°♜		asc. node	3456 Jan 05 08:47	15°♘44'04	
asc. node	3453 Jul 20 13:46	17°♜03'36		retrograde	3456 Jan 08 12:37	15°♘56'06	
morning set	3453 Jul 28 10:41	26°♜42'13		evening set	3456 Jan 23 12:16	11°♘27'38	
	3453 Jul 31 03:12	0°♞		min. Earth dist.	3456 Jan 28 11:17	8°♘32'27	0.26642 AU
	3453 Aug 24 12:42	0°♟		inferior conj	3456 Jan 29 01:56	8°♘10'04	5°42'48
max. Earth dist.	3453 Aug 31 04:51	8°♟14'00	1.73188 AU	minimum elong	3456 Jan 28 15:27	8°♘26'05	5°40'10
				morning rise	3456 Feb 02 18:56	5°♘22'00	
superior conj	3453 Sep 02 21:03	11°♟32'12	1°20'36	direct	3456 Feb 18 11:58	0°♘30'25	
minimum elong	3453 Sep 02 15:33	11°♟15'12	1°20'31	greatest brilliancy	3456 Feb 29 17:20	2°♘52'24	-4.7m
	3453 Sep 17 19:26	0°♠			3456 Apr 05 18:28	0°♙	
evening rise	3453 Oct 09 11:13	26°♠50'25		morning max el	3456 Apr 08 15:58	2°♙50'52	46°39'22
	3453 Oct 12 00:22	0°♓		desc. node	3456 Apr 25 22:42	20°♙49'14	
	3453 Nov 05 04:37	0°♔			3456 May 04 08:24	0°♚	
desc. node	3453 Nov 09 03:40	4°♔54'52			3456 May 30 19:45	0°♛	
	3453 Nov 29 08:53	0°♕			3456 Jun 25 11:53	0°♜	
	3453 Dec 23 13:56	0°♖			3456 Jul 20 17:46	0°♝	
	3454 Jan 16 21:43	0°♗			3456 Aug 14 15:46	0°♞	

asc. node	3456 Aug 17 01:31	2°♌55'04		greatest brilliancy	3459 Mar 09 00:50	27°♍14'59	-4.6m
	3456 Sep 08 06:21	0°♎			3459 Mar 17 06:24	0°♎	
	3456 Oct 02 14:24	0°♏		retrograde	3459 Mar 22 07:39	0°♎30'05	
morning set	3456 Oct 04 19:59	2°♏45'57			3459 Mar 27 06:13	30°♎♍	
	3456 Oct 26 17:39	0°♎		evening set	3459 Apr 08 22:54	24°♍28'45	
max. Earth dist.	3456 Nov 08 17:53	16°♎14'11	1.71884 AU	inferior conj	3459 Apr 12 07:38	22°♍23'17	8°09'56
				minimum elong	3459 Apr 12 15:14	22°♍11'20	8°09'01
superior conj	3456 Nov 11 10:01	19°♎34'34	0°55'39	min. Earth dist.	3459 Apr 12 01:06	22°♍33'32	0.27877 AU
minimum elong	3456 Nov 11 20:09	20°♎06'15	0°55'15	morning rise	3459 Apr 16 07:50	19°♍55'17	
	3456 Nov 19 18:02	0°♏		direct	3459 May 03 06:02	14°♍25'05	
desc. node	3456 Dec 06 15:37	21°♏09'41		greatest brilliancy	3459 May 14 12:19	16°♍43'55	-4.5m
	3456 Dec 13 16:53	0°♎		desc. node	3459 May 24 10:26	21°♍52'29	
evening rise	3456 Dec 21 08:00	9°♎34'01			3459 Jun 04 15:34	0°♎	
	3457 Jan 06 15:04	0°♎		morning max el	3459 Jun 21 08:59	14°♎56'05	45°55'17
	3457 Jan 30 13:44	0°♏			3459 Jul 06 08:31	0°♏	
	3457 Feb 23 15:02	0°♍			3459 Aug 02 22:25	0°♎	
	3457 Mar 19 22:27	0°♎			3459 Aug 29 01:32	0°♏	
asc. node	3457 Mar 29 18:18	11°♎59'25		asc. node	3459 Sep 14 13:24	19°♏28'34	
	3457 Apr 13 16:44	0°♏			3459 Sep 23 08:23	0°♎	
	3457 May 09 05:09	0°♎			3459 Oct 18 01:04	0°♏	
	3457 Jun 05 03:27	0°♏			3459 Nov 11 07:59	0°♎	
evening max el	3457 Jun 24 00:05	19°♏14'00	45°28'45		3459 Dec 05 08:56	0°♏	
	3457 Jul 05 19:44	0°♎		morning set	3459 Dec 16 17:13	14°♏13'23	
desc. node	3457 Jul 19 08:14	10°♎20'37			3459 Dec 29 06:43	0°♎	
greatest brilliancy	3457 Jul 29 07:55	15°♎53'35	-4.5m	desc. node	3460 Jan 04 03:23	7°♎21'59	
retrograde	3457 Aug 11 15:08	18°♎58'35			3460 Jan 22 03:10	0°♎	
evening set	3457 Aug 28 23:33	13°♎18'54					
inferior conj	3457 Sep 02 01:45	10°♎48'11	-8°-6'-40	superior conj	3460 Jan 26 20:17	5°♎55'50	0°-51'-8
minimum elong	3457 Sep 01 19:18	10°♎58'15	8°06'04	minimum elong	3460 Jan 26 08:55	5°♎20'05	0°50'42
min. Earth dist.	3457 Sep 02 05:26	10°♎42'25	0.28982 AU	max. Earth dist.	3460 Jan 27 08:01	6°♎32'46	1.71103 AU
morning rise	3457 Sep 05 14:58	8°♎36'42			3460 Feb 14 23:33	0°♏	
direct	3457 Sep 23 16:44	2°♎31'07		evening rise	3460 Mar 07 22:28	27°♏33'09	
greatest brilliancy	3457 Oct 07 23:51	6°♎08'00	-4.5m		3460 Mar 09 21:23	0°♍	
	3457 Nov 08 07:59	0°♏			3460 Apr 02 22:33	0°♎	
asc. node	3457 Nov 09 11:02	1°♏05'17		asc. node	3460 Apr 26 06:18	28°♎50'01	
morning max el	3457 Nov 12 11:25	4°♏03'02	46°20'31		3460 Apr 27 05:05	0°♏	
	3457 Dec 06 19:58	0°♎			3460 May 21 18:59	0°♎	
	3458 Jan 01 16:57	0°♏			3460 Jun 15 18:48	0°♏	
	3458 Jan 26 13:55	0°♎			3460 Jul 11 09:27	0°♎	
	3458 Feb 20 00:22	0°♎			3460 Aug 07 02:24	0°♏	
desc. node	3458 Mar 01 00:56	11°♎08'46		desc. node	3460 Aug 15 19:58	9°♏22'27	
	3458 Mar 16 06:21	0°♏		evening max el	3460 Sep 03 13:03	28°♏18'10	45°50'42
	3458 Apr 09 11:06	0°♍			3460 Sep 05 07:54	0°♎	
	3458 May 03 16:33	0°♎		greatest brilliancy	3460 Oct 11 19:31	26°♎19'35	-4.5m
morning set	3458 May 18 15:23	18°♎28'25		retrograde	3460 Oct 22 13:10	28°♎24'58	
	3458 May 27 23:38	0°♏		evening set	3460 Nov 07 15:23	23°♎29'46	
	3458 Jun 21 08:16	0°♎		inferior conj	3460 Nov 12 10:41	20°♎38'24	-5°-42'-59
asc. node	3458 Jun 22 03:58	1°♎00'33		minimum elong	3460 Nov 12 20:56	20°♎22'41	5°40'33
				min. Earth dist.	3460 Nov 13 09:31	20°♎03'25	0.27389 AU
superior conj	3458 Jun 25 02:00	4°♎35'54	0°07'00	morning rise	3460 Nov 18 01:46	17°♎17'40	
minimum elong	3458 Jun 25 00:30	4°♎31'19	0°06'56	direct	3460 Dec 03 08:07	12°♎42'00	
behind sun begin	3458 Jun 24 03:41	3°♎27'18		asc. node	3460 Dec 06 22:52	12°♎57'30	
behind sun end	3458 Jun 25 21:20	5°♎35'21		greatest brilliancy	3460 Dec 17 07:53	16°♎16'01	-4.6m
max. Earth dist.	3458 Jun 26 00:05	5°♎43'51	1.73428 AU		3461 Jan 06 03:19	0°♏	
	3458 Jul 15 17:46	0°♏		morning max el	3461 Jan 23 00:39	15°♏57'59	46°56'55
evening rise	3458 Jul 31 09:33	19°♏14'34			3461 Feb 05 07:42	0°♎	
	3458 Aug 09 03:39	0°♎			3461 Mar 03 19:58	0°♎	
	3458 Sep 02 14:16	0°♏		desc. node	3461 Mar 28 12:58	29°♎12'12	
	3458 Sep 27 02:39	0°♎			3461 Mar 29 04:57	0°♏	
desc. node	3458 Oct 11 17:48	17°♎50'26			3461 Apr 23 02:48	0°♍	
	3458 Oct 21 17:56	0°♏			3461 May 17 20:01	0°♎	
	3458 Nov 15 13:24	0°♎			3461 Jun 11 11:26	0°♏	
	3458 Dec 10 16:21	0°♎			3461 Jul 06 01:35	0°♎	
	3459 Jan 05 12:40	0°♏		asc. node	3461 Jul 19 15:42	16°♎36'57	
evening max el	3459 Jan 30 13:35	27°♏06'57	47°09'13	morning set	3461 Jul 26 04:35	24°♎37'26	
asc. node	3459 Feb 01 20:30	29°♏25'40			3461 Jul 30 13:47	0°♏	
	3459 Feb 02 10:14	0°♍			3461 Aug 23 23:12	0°♎	

max. Earth dist.	3461 Aug 29 02:47	6° \cap 21'09	1.73219 AU	evening set	3464 Jan 20 21:59	9° \approx 04'10	
				min. Earth dist.	3464 Jan 26 00:14	6° \approx 04'14	0.26617 AU
superior conj	3461 Aug 31 15:16	9° \cap 27'49	1°19'31	inferior conj	3464 Jan 26 14:22	5° \approx 42'37	5°23'36
minimum elong	3461 Aug 31 09:15	9° \cap 09'15	1°19'26	minimum elong	3464 Jan 26 04:09	5° \approx 58'15	5°20'56
	3461 Sep 17 05:58	0° $\underline{\cap}$		morning rise	3464 Jan 31 10:38	2° \approx 50'03	
evening rise	3461 Oct 07 03:43	24° $\underline{\cap}$ 39'48			3464 Feb 06 07:17	30° \cap 3	
	3461 Oct 11 11:02	0° \cap		direct	3464 Feb 16 00:57	28° \cap 03'31	
	3461 Nov 04 15:31	0° \nearrow			3464 Feb 26 03:30	0° \approx	
desc. node	3461 Nov 08 05:49	4° \nearrow 27'33		greatest brilliancy	3464 Feb 27 06:13	0° \approx 25'40	-4.7m
	3461 Nov 28 20:08	0° \cap			3464 Apr 05 18:11	0° \cap	
	3461 Dec 23 01:34	0° \approx		morning max el	3464 Apr 06 05:29	0° \cap 28'02	46°40'37
	3462 Jan 16 09:53	0° \cap		desc. node	3464 Apr 25 00:48	20° \cap 06'22	
	3462 Feb 10 02:04	0° \cap			3464 May 04 00:51	0° \cap	
asc. node	3462 Mar 01 08:22	22° \cap 51'00			3464 May 30 09:32	0° \cap	
	3462 Mar 07 12:19	0° \cap			3464 Jun 25 00:18	0° \cap	
	3462 Apr 03 15:55	0° \cap			3464 Jul 20 05:22	0° \cap	
evening max el	3462 Apr 12 00:01	8° \cap 29'38	46°13'47		3464 Aug 14 02:52	0° \cap	
	3462 May 06 18:05	0° \cap		asc. node	3464 Aug 16 03:33	2° \cap 27'36	
greatest brilliancy	3462 May 16 20:25	6° \cap 05'07	-4.5m		3464 Sep 07 17:11	0° \cap	
retrograde	3462 May 31 15:12	9° \cap 57'41			3464 Oct 02 01:08	0° $\underline{\cap}$	
evening set	3462 Jun 15 16:35	5° \cap 31'37		morning set	3464 Oct 02 12:30	0° $\underline{\cap}$ 35'13	
desc. node	3462 Jun 20 22:20	2° \cap 24'34			3464 Oct 26 04:23	0° \cap	
inferior conj	3462 Jun 22 01:03	1° \cap 42'47	0°-15'-58	max. Earth dist.	3464 Nov 06 04:29	13° \cap 43'56	1.71925 AU
minimum elong	3462 Jun 22 00:27	1° \cap 43'43	0°15'48				
transit middle	3462 Jun 22 00:27	1° \cap 43'43	0°15'48	superior conj	3464 Nov 09 00:25	17° \cap 16'03	0°58'18
transit begin	3462 Jun 21 23:29	1° \cap 45'14		minimum elong	3464 Nov 09 10:35	17° \cap 47'51	0°57'56
transit end	3462 Jun 22 01:25	1° \cap 42'12			3464 Nov 19 04:48	0° \nearrow	
min. Earth dist.	3462 Jun 21 20:15	1° \cap 50'17	0.28737 AU	desc. node	3464 Dec 05 17:36	20° \nearrow 42'03	
	3462 Jun 24 19:15	30° \cap 11			3464 Dec 13 03:45	0° \cap	
morning rise	3462 Jun 28 08:38	27° \cap 55'28		evening rise	3464 Dec 18 19:48	7° \cap 06'22	
direct	3462 Jul 13 11:43	23° \cap 29'49			3465 Jan 06 02:03	0° \approx	
greatest brilliancy	3462 Jul 26 13:43	26° \cap 29'39	-4.5m		3465 Jan 30 00:52	0° \cap	
	3462 Aug 02 09:35	0° \cap			3465 Feb 23 02:26	0° \cap	
morning max el	3462 Aug 31 05:39	23° \cap 11'09	45°44'47		3465 Mar 19 10:16	0° \cap	
	3462 Sep 07 04:44	0° \cap		asc. node	3465 Mar 28 20:24	11° \cap 29'18	
	3462 Oct 05 06:54	0° \cap			3465 Apr 13 05:14	0° \cap	
asc. node	3462 Oct 12 01:21	7° \cap 39'30			3465 May 08 19:04	0° \cap	
	3462 Oct 31 06:15	0° $\underline{\cap}$			3465 Jun 04 20:39	0° \cap	
	3462 Nov 25 04:36	0° \cap		evening max el	3465 Jun 21 15:19	17° \cap 01'48	45°29'10
	3462 Dec 19 13:30	0° \nearrow			3465 Jul 06 01:39	0° \cap	
	3463 Jan 12 15:35	0° \cap		desc. node	3465 Jul 18 10:12	9° \cap 05'38	
desc. node	3463 Jan 31 15:08	23° \cap 45'40		greatest brilliancy	3465 Jul 26 22:29	13° \cap 42'21	-4.5m
	3463 Feb 05 14:34	0° \approx		retrograde	3465 Aug 09 06:19	16° \cap 48'29	
	3463 Mar 01 12:38	0° \cap		evening set	3465 Aug 26 12:24	11° \cap 13'18	
morning set	3463 Mar 03 14:44	2° \cap 37'02		inferior conj	3465 Aug 30 17:43	8° \cap 37'48	-7°-59'-24
	3463 Mar 25 11:25	0° \cap		minimum elong	3465 Aug 30 10:41	8° \cap 48'49	7°58'39
				min. Earth dist.	3465 Aug 30 20:44	8° \cap 33'05	0.29001 AU
superior conj	3463 Apr 12 21:53	23° \cap 01'00	-1°-19'-21	morning rise	3465 Sep 03 08:52	6° \cap 23'07	
minimum elong	3463 Apr 13 06:00	23° \cap 26'18	1°19'13	direct	3465 Sep 21 08:37	0° \cap 20'34	
max. Earth dist.	3463 Apr 16 19:27	27° \cap 52'24	1.72144 AU	greatest brilliancy	3465 Oct 05 14:27	3° \cap 54'57	-4.5m
	3463 Apr 18 12:27	0° \cap			3465 Nov 08 07:01	0° $\underline{\cap}$	
	3463 May 12 16:50	0° \cap		asc. node	3465 Nov 08 13:04	0° $\underline{\cap}$ 14'50	
evening rise	3463 May 21 22:35	11° \cap 24'45		morning max el	3465 Nov 10 01:21	1° $\underline{\cap}$ 44'18	46°18'59
asc. node	3463 May 24 18:09	14° \cap 52'58			3465 Dec 06 12:00	0° \cap	
	3463 Jun 06 01:01	0° \cap			3466 Jan 01 06:38	0° \nearrow	
	3463 Jun 30 13:08	0° \cap			3466 Jan 26 02:27	0° \cap	
	3463 Jul 25 05:49	0° \cap			3466 Feb 19 12:14	0° \approx	
	3463 Aug 19 04:59	0° $\underline{\cap}$		desc. node	3466 Feb 28 03:05	10° \approx 39'12	
desc. node	3463 Sep 13 07:55	29° $\underline{\cap}$ 42'04			3466 Mar 15 17:48	0° \cap	
	3463 Sep 13 14:04	0° \cap			3466 Apr 08 22:16	0° \cap	
	3463 Oct 09 15:16	0° \nearrow			3466 May 03 03:31	0° \cap	
	3463 Nov 06 00:31	0° \cap		morning set	3466 May 16 07:11	16° \cap 15'32	
evening max el	3463 Nov 16 16:08	10° \cap 54'12	46°53'31		3466 May 27 10:27	0° \cap	
	3463 Dec 07 19:12	0° \approx			3466 Jun 20 19:00	0° \cap	
greatest brilliancy	3463 Dec 25 06:09	10° \approx 52'11	-4.7m	asc. node	3466 Jun 21 05:54	0° \cap 33'32	
asc. node	3464 Jan 04 10:40	13° \approx 24'52					
retrograde	3464 Jan 06 01:41	13° \approx 28'04		superior conj	3466 Jun 22 19:11	2° \cap 28'11	0°03'45

minimum elong	3466 Jun 22 18:23	2° \mathfrak{G} 25'44	0°03'42	greatest brilliancy	3468 Dec 15 00:26	13° \mathfrak{M} 55'56	-4.6m
behind sun begin	3466 Jun 21 19:57	1° \mathfrak{G} 16'44			3469 Jan 06 11:09	0° \mathfrak{X}	
behind sun end	3466 Jun 23 16:49	3° \mathfrak{G} 34'44		morning max el	3469 Jan 20 15:58	13° \mathfrak{X} 37'17	46°56'27
max. Earth dist.	3466 Jun 23 19:21	3° \mathfrak{G} 42'33	1.73406 AU		3469 Feb 05 02:21	0° \mathfrak{Z}	
	3466 Jul 15 04:29	0° \mathfrak{Q}			3469 Mar 03 11:00	0° \approx	
evening rise	3466 Jul 29 04:00	17° \mathfrak{Q} 10'41		desc. node	3469 Mar 27 14:59	28° \approx 38'08	
	3466 Aug 08 14:28	0° \mathfrak{M}			3469 Mar 28 18:18	0° \mathfrak{H}	
	3466 Sep 02 01:20	0° \mathfrak{A}			3469 Apr 22 15:09	0° \mathfrak{Y}	
	3466 Sep 26 14:07	0° \mathfrak{M}			3469 May 17 07:43	0° \mathfrak{B}	
desc. node	3466 Oct 10 19:55	17° \mathfrak{M} 21'04			3469 Jun 10 22:41	0° \mathfrak{I}	
	3466 Oct 21 05:57	0° \mathfrak{X}			3469 Jul 05 12:36	0° \mathfrak{G}	
	3466 Nov 15 02:15	0° \mathfrak{Z}		asc. node	3469 Jul 18 17:46	16° \mathfrak{G} 09'53	
	3466 Dec 10 06:30	0° \approx		morning set	3469 Jul 23 22:35	22° \mathfrak{G} 32'06	
	3467 Jan 05 05:19	0° \mathfrak{H}			3469 Jul 30 00:39	0° \mathfrak{Q}	
evening max el	3467 Jan 28 02:50	24° \mathfrak{H} 42'11	47°10'17		3469 Aug 23 10:03	0° \mathfrak{M}	
asc. node	3467 Jan 31 22:36	28° \mathfrak{H} 32'55		max. Earth dist.	3469 Aug 27 00:33	4° \mathfrak{M} 26'44	1.73253 AU
	3467 Feb 02 09:57	0° \mathfrak{Y}					
greatest brilliancy	3467 Mar 06 17:45	24° \mathfrak{Y} 57'55	-4.6m	superior conj	3469 Aug 29 09:21	7° \mathfrak{M} 22'00	1°18'20
retrograde	3467 Mar 19 22:08	28° \mathfrak{Y} 11'05		minimum elong	3469 Aug 29 02:52	7° \mathfrak{M} 02'00	1°18'13
evening set	3467 Apr 06 16:11	22° \mathfrak{Y} 06'18			3469 Sep 16 16:52	0° \mathfrak{A}	
inferior conj	3467 Apr 09 22:20	20° \mathfrak{Y} 04'52	8°18'34	evening rise	3469 Oct 04 20:01	22° \mathfrak{A} 27'25	
minimum elong	3467 Apr 10 05:20	19° \mathfrak{Y} 53'53	8°17'48		3469 Oct 10 22:05	0° \mathfrak{M}	
min. Earth dist.	3467 Apr 09 15:30	20° \mathfrak{Y} 15'36	0.27840 AU		3469 Nov 04 02:49	0° \mathfrak{X}	
morning rise	3467 Apr 13 18:41	17° \mathfrak{Y} 42'30		desc. node	3469 Nov 07 07:44	3° \mathfrak{X} 58'25	
direct	3467 Apr 30 19:34	12° \mathfrak{Y} 07'10			3469 Nov 28 07:45	0° \mathfrak{Z}	
greatest brilliancy	3467 May 12 02:02	14° \mathfrak{Y} 25'43	-4.5m		3469 Dec 22 13:35	0° \approx	
desc. node	3467 May 23 12:27	20° \mathfrak{Y} 32'35			3470 Jan 15 22:26	0° \mathfrak{H}	
	3467 Jun 05 00:15	0° \mathfrak{B}			3470 Feb 09 15:30	0° \mathfrak{Y}	
morning max el	3467 Jun 18 23:01	12° \mathfrak{B} 39'07	45°56'24	asc. node	3470 Feb 28 10:29	22° \mathfrak{Y} 14'33	
	3467 Jul 06 02:37	0° \mathfrak{I}			3470 Mar 07 03:29	0° \mathfrak{B}	
	3467 Aug 02 12:45	0° \mathfrak{G}			3470 Apr 03 11:31	0° \mathfrak{I}	
asc. node	3467 Aug 28 14:13	0° \mathfrak{Q}		evening max el	3470 Apr 09 16:22	6° \mathfrak{I} 17'00	46°16'11
	3467 Sep 13 15:32	18° \mathfrak{Q} 58'52			3470 May 07 16:08	0° \mathfrak{G}	
	3467 Sep 22 20:14	0° \mathfrak{M}		greatest brilliancy	3470 May 14 13:13	3° \mathfrak{G} 54'55	-4.5m
	3467 Oct 17 12:28	0° \mathfrak{A}		retrograde	3470 May 29 08:18	7° \mathfrak{G} 47'17	
	3467 Nov 10 19:10	0° \mathfrak{M}		evening set	3470 Jun 13 09:40	3° \mathfrak{G} 20'20	
	3467 Dec 04 20:01	0° \mathfrak{X}			3470 Jun 18 23:37	30° \mathfrak{R} \mathfrak{I}	
morning set	3467 Dec 14 05:10	11° \mathfrak{X} 45'29		inferior conj	3470 Jun 19 17:17	29° \mathfrak{I} 32'22	0°04'10
	3467 Dec 28 17:47	0° \mathfrak{Z}		minimum elong	3470 Jun 19 17:26	29° \mathfrak{I} 32'07	0°04'08
desc. node	3468 Jan 03 05:20	6° \mathfrak{Z} 53'20		transit middle	3470 Jun 19 17:26	29° \mathfrak{I} 32'07	0°04'08
	3468 Jan 21 14:14	0° \approx		transit begin	3470 Jun 19 13:31	29° \mathfrak{I} 38'16	
				transit end	3470 Jun 19 21:21	29° \mathfrak{I} 25'59	
superior conj	3468 Jan 24 06:16	3° \approx 21'27	0°-47'-51	min. Earth dist.	3470 Jun 19 12:17	29° \mathfrak{I} 40'11	0.28710 AU
minimum elong	3468 Jan 23 19:18	2° \approx 46'58	0°47'24	desc. node	3470 Jun 20 00:15	29° \mathfrak{I} 21'27	
max. Earth dist.	3468 Jan 24 11:53	3° \approx 39'08	1.71100 AU	morning rise	3470 Jun 26 01:39	25° \mathfrak{I} 44'17	
	3468 Feb 14 10:37	0° \mathfrak{H}		direct	3470 Jul 11 04:09	21° \mathfrak{I} 19'54	
evening rise	3468 Mar 05 09:12	25° \mathfrak{H} 01'52		greatest brilliancy	3470 Jul 24 03:50	24° \mathfrak{I} 17'58	-4.5m
	3468 Mar 09 08:26	0° \mathfrak{Y}			3470 Aug 03 12:31	0° \mathfrak{G}	
	3468 Apr 02 09:38	0° \mathfrak{B}		morning max el	3470 Aug 28 22:12	21° \mathfrak{G} 02'38	45°44'10
asc. node	3468 Apr 25 08:18	28° \mathfrak{B} 21'37			3470 Sep 07 00:28	0° \mathfrak{Q}	
	3468 Apr 26 16:20	0° \mathfrak{I}			3470 Oct 04 21:50	0° \mathfrak{M}	
	3468 May 21 06:36	0° \mathfrak{G}		asc. node	3470 Oct 11 03:20	7° \mathfrak{M} 04'10	
	3468 Jun 15 07:07	0° \mathfrak{Q}			3470 Oct 30 19:23	0° \mathfrak{A}	
	3468 Jul 10 23:06	0° \mathfrak{M}			3470 Nov 24 16:53	0° \mathfrak{M}	
	3468 Aug 06 18:51	0° \mathfrak{A}			3470 Dec 19 01:20	0° \mathfrak{X}	
desc. node	3468 Aug 14 22:07	8° \mathfrak{A} 40'47			3471 Jan 12 03:09	0° \mathfrak{Z}	
evening max el	3468 Sep 01 02:43	26° \mathfrak{A} 00'11	45°48'58	desc. node	3471 Jan 30 17:16	23° \mathfrak{Z} 16'34	
	3468 Sep 05 08:41	0° \mathfrak{M}			3471 Feb 05 01:57	0° \approx	
greatest brilliancy	3468 Oct 09 06:43	23° \mathfrak{M} 56'56	-4.5m		3471 Feb 28 23:53	0° \mathfrak{H}	
retrograde	3468 Oct 20 02:38	26° \mathfrak{M} 04'11		morning set	3471 Mar 01 00:54	0° \mathfrak{H} 03'10	
evening set	3468 Nov 05 07:46	21° \mathfrak{M} 03'48			3471 Mar 24 22:35	0° \mathfrak{Y}	
inferior conj	3468 Nov 10 00:11	18° \mathfrak{M} 16'31	-5°-59'-37				
minimum elong	3468 Nov 10 10:33	18° \mathfrak{M} 00'38	5°57'16	superior conj	3471 Apr 10 10:41	20° \mathfrak{Y} 36'42	-1°-20'-48
min. Earth dist.	3468 Nov 10 23:18	17° \mathfrak{M} 41'09	0.27460 AU	minimum elong	3471 Apr 10 18:11	21° \mathfrak{Y} 00'03	1°20'40
morning rise	3468 Nov 15 12:40	14° \mathfrak{M} 59'36		max. Earth dist.	3471 Apr 14 10:09	25° \mathfrak{Y} 34'10	1.72090 AU
direct	3468 Nov 30 22:34	10° \mathfrak{M} 18'55			3471 Apr 17 23:32	0° \mathfrak{B}	
asc. node	3468 Dec 06 00:49	10° \mathfrak{M} 49'31			3471 May 12 03:53	0° \mathfrak{I}	

evening rise	3471 May 19 13:59	9°II10'09		morning max el	3473 Nov 07 15:31	29°II26'07	46°17'22
asc. node	3471 May 23 20:08	14°II25'05		asc. node	3473 Nov 07 15:03	29°II24'59	
	3471 Jun 05 12:05	0°II			3473 Nov 08 05:10	0°II	
	3471 Jun 30 00:21	0°II			3473 Dec 06 03:55	0°II	
	3471 Jul 24 17:24	0°II			3473 Dec 31 20:24	0°II	
	3471 Aug 18 17:15	0°II			3474 Jan 25 15:11	0°II	
desc. node	3471 Sep 12 09:57	29°II08'46			3474 Feb 19 00:22	0°II	
	3471 Sep 13 03:31	0°II		desc. node	3474 Feb 27 05:09	10°II08'33	
	3471 Oct 09 06:53	0°II			3474 Mar 15 05:31	0°II	
	3471 Nov 05 21:00	0°II			3474 Apr 08 09:40	0°II	
evening max el	3471 Nov 14 06:33	8°II32'04	46°51'28		3474 May 02 14:39	0°II	
	3471 Dec 08 13:52	0°II		morning set	3474 May 13 22:41	14°II01'06	
greatest brilliancy	3471 Dec 22 20:35	8°II24'55	-4.7m		3474 May 26 21:24	0°II	
retrograde	3472 Jan 03 14:10	10°II58'05		asc. node	3474 Jun 20 07:58	0°II06'31	
asc. node	3472 Jan 03 12:47	10°II58'04			3474 Jun 20 05:50	0°II	
evening set	3472 Jan 18 07:48	6°II38'41					
min. Earth dist.	3472 Jan 23 13:32	3°II33'42	0.26591 AU	superior conj	3474 Jun 20 12:20	0°II20'00	0°00'26
inferior conj	3472 Jan 24 02:39	3°II13'36	5°03'41	minimum elong	3474 Jun 20 12:15	0°II19'42	0°00'26
minimum elong	3472 Jan 23 16:47	3°II28'43	5°01'00	behind sun begin	3474 Jun 19 13:22	29°II09'19	
morning rise	3472 Jan 29 02:06	0°II16'25		behind sun end	3474 Jun 21 11:07	1°II30'06	
	3472 Jan 29 14:00	30°II		max. Earth dist.	3474 Jun 21 13:39	1°II37'51	1.73381 AU
direct	3472 Feb 13 13:19	25°II35'00			3474 Jul 14 15:19	0°II	
greatest brilliancy	3472 Feb 24 19:29	27°II57'46	-4.7m	evening rise	3474 Jul 26 22:41	15°II07'14	
	3472 Feb 29 04:45	0°II			3474 Aug 08 01:25	0°II	
morning max el	3472 Apr 03 17:53	28°II01'16	46°41'56		3474 Sep 01 12:29	0°II	
	3472 Apr 05 17:18	0°II			3474 Sep 26 01:37	0°II	
desc. node	3472 Apr 24 02:47	19°II22'49		desc. node	3474 Oct 09 21:53	16°II51'08	
	3472 May 03 17:21	0°II			3474 Oct 20 18:01	0°II	
	3472 May 29 23:29	0°II			3474 Nov 14 15:11	0°II	
	3472 Jun 24 12:55	0°II			3474 Dec 09 20:52	0°II	
	3472 Jul 19 17:11	0°II			3475 Jan 04 22:28	0°II	
	3472 Aug 13 14:11	0°II		evening max el	3475 Jan 25 16:06	22°II16'39	47°11'03
asc. node	3472 Aug 15 05:42	1°II59'54		asc. node	3475 Jan 31 00:41	27°II38'09	
	3472 Sep 07 04:13	0°II			3475 Feb 02 11:12	0°II	
morning set	3472 Sep 30 05:16	28°II24'37		greatest brilliancy	3475 Mar 04 09:38	22°II37'54	-4.6m
	3472 Oct 01 12:04	0°II		retrograde	3475 Mar 17 12:39	25°II50'16	
	3472 Oct 25 15:22	0°II		evening set	3475 Apr 04 08:55	19°II42'03	
max. Earth dist.	3472 Nov 03 15:45	11°II14'54	1.71978 AU	min. Earth dist.	3475 Apr 07 05:27	17°II55'50	0.27802 AU
				inferior conj	3475 Apr 07 12:40	17°II44'32	8°26'26
superior conj	3472 Nov 06 14:59	14°II57'15	1°00'50	minimum elong	3475 Apr 07 19:01	17°II34'35	8°25'49
minimum elong	3472 Nov 07 01:08	15°II28'57	1°00'29	morning rise	3475 Apr 11 05:17	15°II27'54	
	3472 Nov 18 15:53	0°II		direct	3475 Apr 28 08:46	9°II47'15	
desc. node	3472 Dec 04 19:39	20°II13'28		greatest brilliancy	3475 May 09 15:37	12°II06'08	-4.6m
	3472 Dec 12 14:57	0°II		desc. node	3475 May 22 14:27	19°II14'12	
evening rise	3472 Dec 16 07:25	4°II37'06			3475 Jun 05 06:47	0°II	
	3473 Jan 05 13:24	0°II		morning max el	3475 Jun 16 13:37	10°II23'02	45°57'45
	3473 Jan 29 12:23	0°II			3475 Jul 05 20:23	0°II	
	3473 Feb 22 14:12	0°II			3475 Aug 02 02:57	0°II	
	3473 Mar 18 22:24	0°II			3475 Aug 28 02:48	0°II	
asc. node	3473 Mar 27 22:23	10°II57'49		asc. node	3475 Sep 12 17:26	18°II28'42	
	3473 Apr 12 18:05	0°II			3475 Sep 22 07:59	0°II	
	3473 May 08 09:21	0°II			3475 Oct 16 23:47	0°II	
	3473 Jun 04 14:27	0°II			3475 Nov 10 06:14	0°II	
evening max el	3473 Jun 19 06:11	14°II48'09	45°29'48		3475 Dec 04 06:59	0°II	
	3473 Jul 06 10:07	0°II		morning set	3475 Dec 11 17:48	9°II20'11	
desc. node	3473 Jul 17 12:22	7°II48'35			3475 Dec 28 04:45	0°II	
greatest brilliancy	3473 Jul 24 12:23	11°II30'16	-4.5m	desc. node	3476 Jan 02 07:29	6°II25'41	
retrograde	3473 Aug 06 21:48	14°II39'01			3476 Jan 21 01:13	0°II	
evening set	3473 Aug 24 01:27	9°II08'06					
inferior conj	3473 Aug 28 09:59	6°II28'00	-7°-51'-30	superior conj	3476 Jan 21 16:27	0°II47'54	0°-44'-27
minimum elong	3473 Aug 28 02:26	6°II39'51	7°50'37	minimum elong	3476 Jan 21 05:59	0°II14'59	0°44'01
min. Earth dist.	3473 Aug 28 12:29	6°II24'06	0.29017 AU	max. Earth dist.	3476 Jan 21 19:48	0°II58'28	1.71107 AU
morning rise	3473 Sep 01 03:15	4°II10'01			3476 Feb 13 21:39	0°II	
	3473 Sep 09 09:44	30°II		evening rise	3476 Mar 02 19:48	22°II30'06	
direct	3473 Sep 19 00:26	28°II10'31			3476 Mar 08 19:30	0°II	
	3473 Sep 29 01:09	0°II			3476 Apr 01 20:47	0°II	
greatest brilliancy	3473 Oct 03 06:03	1°II43'35	-4.5m	asc. node	3476 Apr 24 10:17	27°II52'56	

	3476 Apr 26 03:39	0°♊			3478 Nov 24 04:43	0°♌	
	3476 May 20 18:16	0°♋			3478 Dec 18 12:46	0°♏	
	3476 Jun 14 19:28	0°♌			3479 Jan 11 14:20	0°♐	
	3476 Jul 10 12:46	0°♍	desc. node		3479 Jan 29 19:17	22°♑48'22	
	3476 Aug 06 11:27	0°♎			3479 Feb 04 12:57	0°♒	
desc. node	3476 Aug 14 00:06	7°♎58'37	morning set		3479 Feb 26 11:26	27°♒31'43	
evening max el	3476 Aug 29 17:30	23°♎45'36 45°47'22			3479 Feb 28 10:43	0°♓	
	3476 Sep 05 10:32	0°♏			3479 Mar 24 09:18	0°♓	
greatest brilliancy	3476 Oct 06 18:07	21°♏35'58 -4.5m					
retrograde	3476 Oct 17 16:32	23°♏44'55	superior conj		3479 Apr 07 23:42	18°♓14'17 -1°-22'-3	
evening set	3476 Nov 03 00:32	18°♏39'38	minimum elong		3479 Apr 08 06:28	18°♓35'26 1°21'58	
inferior conj	3476 Nov 07 13:58	15°♏56'18 -6°-15'-32	max. Earth dist.		3479 Apr 12 02:05	23°♓21'00 1.72037 AU	
minimum elong	3476 Nov 08 00:23	15°♏40'20 6°13'16			3479 Apr 17 10:12	0°♐	
min. Earth dist.	3476 Nov 08 13:01	15°♏21'00 0.27527 AU			3479 May 11 14:33	0°♊	
morning rise	3476 Nov 12 23:40	12°♏43'21	evening rise		3479 May 17 05:15	6°♊56'10	
direct	3476 Nov 28 13:37	7°♏57'49	asc. node		3479 May 22 22:14	13°♊58'41	
asc. node	3476 Dec 05 02:53	8°♏48'05			3479 Jun 04 22:49	0°♋	
greatest brilliancy	3476 Dec 12 15:58	11°♏36'04 -4.6m			3479 Jun 29 11:17	0°♌	
	3477 Jan 06 16:15	0°♏			3479 Jul 24 04:43	0°♍	
morning max el	3477 Jan 18 07:30	11°♏18'21 46°55'50			3479 Aug 18 05:16	0°♎	
	3477 Feb 04 20:12	0°♐	desc. node		3479 Sep 11 11:55	28°♎36'07	
	3477 Mar 03 01:35	0°♑			3479 Sep 12 16:44	0°♏	
desc. node	3477 Mar 26 16:57	28°♑04'44			3479 Oct 08 22:20	0°♏	
	3477 Mar 28 07:21	0°♓			3479 Nov 05 17:42	0°♐	
	3477 Apr 22 03:18	0°♓	evening max el		3479 Nov 11 20:02	6°♐08'56 46°49'24	
	3477 May 16 19:17	0°♐			3479 Dec 09 14:14	0°♑	
	3477 Jun 10 09:51	0°♊	greatest brilliancy		3479 Dec 20 11:29	5°♑59'28 -4.7m	
	3477 Jul 04 23:27	0°♋	retrograde		3480 Jan 01 02:05	8°♑29'29	
asc. node	3477 Jul 17 19:52	15°♋43'28	asc. node		3480 Jan 02 14:53	8°♑26'38	
morning set	3477 Jul 21 16:19	20°♋26'36	evening set		3480 Jan 15 17:49	4°♑14'05	
	3477 Jul 29 11:20	0°♌	min. Earth dist.		3480 Jan 21 03:17	1°♑03'58 0.26568 AU	
	3477 Aug 22 20:40	0°♍	inferior conj		3480 Jan 21 14:59	0°♑46'02 4°42'59	
max. Earth dist.	3477 Aug 24 21:39	2°♍31'01 1.73280 AU	minimum elong		3480 Jan 21 05:32	1°♑00'30 4°40'22	
					3480 Jan 22 21:05	30°♒♐	
superior conj	3477 Aug 27 03:20	5°♍16'35 1°17'03	morning rise		3480 Jan 26 17:29	27°♐44'19	
minimum elong	3477 Aug 26 20:24	4°♍55'13 1°16'54	direct		3480 Feb 11 01:14	23°♐07'37	
	3477 Sep 16 03:32	0°♎	greatest brilliancy		3480 Feb 22 09:50	25°♐32'17 -4.7m	
evening rise	3477 Oct 02 12:27	20°♎16'12			3480 Mar 01 23:48	0°♑	
	3477 Oct 10 08:55	0°♏	morning max el		3480 Apr 01 05:49	25°♑34'26 46°43'23	
	3477 Nov 03 13:53	0°♏			3480 Apr 05 14:58	0°♓	
desc. node	3477 Nov 06 09:47	3°♏30'23	desc. node		3480 Apr 23 04:50	18°♓41'24	
	3477 Nov 27 19:06	0°♐			3480 May 03 09:04	0°♓	
	3477 Dec 22 01:18	0°♑			3480 May 29 12:51	0°♐	
	3478 Jan 15 10:41	0°♓			3480 Jun 24 01:03	0°♊	
	3478 Feb 09 04:39	0°♓			3480 Jul 19 04:36	0°♋	
asc. node	3478 Feb 27 12:25	21°♓38'21			3480 Aug 13 01:09	0°♌	
	3478 Mar 06 18:29	0°♐	asc. node		3480 Aug 14 07:36	1°♌32'25	
	3478 Apr 03 07:26	0°♊			3480 Sep 06 14:57	0°♍	
evening max el	3478 Apr 07 08:46	4°♊05'06 46°18'15	morning set		3480 Sep 27 21:47	26°♍14'14	
	3478 May 08 22:39	0°♋			3480 Sep 30 22:42	0°♎	
greatest brilliancy	3478 May 12 06:55	1°♋45'59 -4.5m			3480 Oct 25 02:00	0°♏	
retrograde	3478 May 27 00:53	5°♋36'28	max. Earth dist.		3480 Nov 01 04:57	8°♏53'06 1.72028 AU	
evening set	3478 Jun 11 02:42	1°♋08'45					
	3478 Jun 13 02:36	30°♒♊	superior conj		3480 Nov 04 05:28	12°♏39'25 1°03'16	
inferior conj	3478 Jun 17 09:17	27°♊21'47 0°24'37	minimum elong		3480 Nov 04 15:32	13°♏10'48 1°02'55	
minimum elong	3478 Jun 17 10:12	27°♊20'21 0°24'20			3480 Nov 18 02:36	0°♏	
min. Earth dist.	3478 Jun 17 04:22	27°♊29'31 0.28683 AU	desc. node		3480 Dec 03 21:44	19°♏46'15	
desc. node	3478 Jun 19 02:25	26°♊17'33			3480 Dec 12 01:47	0°♐	
morning rise	3478 Jun 23 18:13	23°♊32'56	evening rise		3480 Dec 13 19:08	2°♐09'30	
direct	3478 Jul 08 20:20	19°♊09'57			3481 Jan 05 00:23	0°♑	
greatest brilliancy	3478 Jul 21 16:58	22°♊05'09 -4.5m			3481 Jan 28 23:34	0°♓	
	3478 Aug 04 08:02	0°♋			3481 Feb 22 01:36	0°♓	
morning max el	3478 Aug 26 13:57	18°♋52'47 45°43'41			3481 Mar 18 10:11	0°♐	
	3478 Sep 06 19:21	0°♌	asc. node		3481 Mar 27 00:25	10°♐27'36	
	3478 Oct 04 12:15	0°♍			3481 Apr 12 06:34	0°♊	
asc. node	3478 Oct 10 05:22	6°♍30'12			3481 May 07 23:20	0°♋	
	3478 Oct 30 08:02	0°♎			3481 Jun 04 08:12	0°♌	

evening max el	3481 Jun 16 20:44	12°Ω34'56	45°30'23		3483 Dec 03 17:56	0°♂	
	3481 Jul 06 21:07	0°♍		morning set	3483 Dec 09 06:15	6°♂54'29	
desc. node	3481 Jul 16 14:20	6°♍29'40			3483 Dec 27 15:41	0°♂	
greatest brilliancy	3481 Jul 22 01:01	9°♍17'24	-4.5m	desc. node	3484 Jan 01 09:29	5°♂57'37	
retrograde	3481 Aug 04 13:30	12°♍30'15					
evening set	3481 Aug 21 14:16	7°♍03'20		superior conj	3484 Jan 19 02:18	28°♂13'29	0°-40'-56
inferior conj	3481 Aug 26 02:06	4°♍18'38	-7°-42'-46	minimum elong	3484 Jan 18 16:27	27°♂42'28	0°40'32
minimum elong	3481 Aug 25 18:05	4°♍31'12	7°41'45	max. Earth dist.	3484 Jan 19 04:59	28°♂21'54	1.71108 AU
min. Earth dist.	3481 Aug 26 04:01	4°♍15'40	0.29036 AU		3484 Jan 20 12:10	0°≈	
morning rise	3481 Aug 29 21:42	1°♍57'15			3484 Feb 13 08:35	0°♂	
	3481 Sep 02 08:21	30°♍Ω		evening rise	3484 Feb 29 06:14	19°♂58'02	
direct	3481 Sep 16 16:11	26°♍00'44			3484 Mar 08 06:28	0°♍	
greatest brilliancy	3481 Sep 30 22:43	29°♍34'14	-4.5m		3484 Apr 01 07:50	0°♂	
	3481 Oct 01 20:13	0°♍		asc. node	3484 Apr 23 12:25	27°♂24'58	
morning max el	3481 Nov 05 06:27	27°♍10'40	46°15'53		3484 Apr 25 14:54	0°♂	
asc. node	3481 Nov 06 17:09	28°♍36'55			3484 May 20 05:54	0°♂	
	3481 Nov 08 02:15	0°♂			3484 Jun 14 07:48	0°♍	
	3481 Dec 05 19:18	0°♍			3484 Jul 10 02:29	0°♍	
	3481 Dec 31 09:43	0°♂			3484 Aug 06 04:18	0°♂	
	3482 Jan 25 03:30	0°♂		desc. node	3484 Aug 13 02:05	7°♂16'07	
	3482 Feb 18 12:06	0°≈		evening max el	3484 Aug 27 08:33	21°♂31'57	45°45'40
desc. node	3482 Feb 26 07:02	9°≈♂38'29			3484 Sep 05 13:49	0°♍	
	3482 Mar 14 16:53	0°♂		greatest brilliancy	3484 Oct 04 05:47	19°♍15'26	-4.5m
	3482 Apr 07 20:45	0°♍		retrograde	3484 Oct 15 05:53	21°♍25'21	
	3482 May 02 01:29	0°♂		evening set	3484 Oct 31 17:14	16°♍15'22	
morning set	3482 May 11 14:10	11°♂47'25		inferior conj	3484 Nov 05 03:40	13°♍35'53	-6°-30'-41
	3482 May 26 08:02	0°♂		minimum elong	3484 Nov 05 14:03	13°♍19'56	6°28'31
				min. Earth dist.	3484 Nov 06 02:36	13°♍00'42	0.27598 AU
superior conj	3482 Jun 18 05:33	28°♂12'52	0°-2'-51	morning rise	3484 Nov 10 10:23	10°♍26'52	
minimum elong	3482 Jun 18 06:09	28°♂14'44	0°02'50	direct	3484 Nov 26 04:43	5°♍36'31	
behind sun begin	3482 Jun 17 07:24	27°♂04'41		asc. node	3484 Dec 04 04:57	6°♍50'49	
behind sun end	3482 Jun 19 04:54	29°♂24'45		greatest brilliancy	3484 Dec 10 06:53	9°♍14'51	-4.6m
asc. node	3482 Jun 19 10:03	29°♂40'35			3485 Jan 06 19:48	0°♂	
max. Earth dist.	3482 Jun 19 08:42	29°♂36'26	1.73356 AU	morning max el	3485 Jan 15 22:16	8°♂56'53	46°55'05
	3482 Jun 19 16:22	0°♂			3485 Feb 04 13:52	0°♂	
	3482 Jul 14 01:52	0°♍			3485 Mar 02 16:09	0°≈	
evening rise	3482 Jul 24 17:27	13°♍04'59		desc. node	3485 Mar 25 19:05	27°≈♂31'44	
	3482 Aug 07 12:05	0°♍			3485 Mar 27 20:24	0°♂	
	3482 Aug 31 23:26	0°♂			3485 Apr 21 15:27	0°♍	
	3482 Sep 25 12:59	0°♍			3485 May 16 06:51	0°♂	
desc. node	3482 Oct 08 23:56	16°♍21'52			3485 Jun 09 21:01	0°♂	
	3482 Oct 20 05:59	0°♂			3485 Jul 04 10:23	0°♂	
	3482 Nov 14 04:03	0°♂		asc. node	3485 Jul 16 21:48	15°♂16'15	
	3482 Dec 09 11:12	0°≈		morning set	3485 Jul 19 10:10	18°♂21'11	
	3483 Jan 04 15:44	0°♂			3485 Jul 28 22:05	0°♍	
evening max el	3483 Jan 23 06:08	19°♂53'51	47°11'53		3485 Aug 22 07:21	0°♍	
asc. node	3483 Jan 30 02:37	26°♂42'39		max. Earth dist.	3485 Aug 22 17:14	0°♍30'28	1.73305 AU
	3483 Feb 02 13:31	0°♍					
greatest brilliancy	3483 Mar 02 00:23	20°♍17'03	-4.6m	superior conj	3485 Aug 24 21:32	3°♍11'41	1°15'38
retrograde	3483 Mar 15 03:32	23°♍29'51		minimum elong	3485 Aug 24 14:13	2°♍49'06	1°15'29
evening set	3483 Apr 02 01:18	17°♍18'22			3485 Sep 15 14:16	0°♂	
inferior conj	3483 Apr 05 02:54	15°♍24'23	8°33'24	evening rise	3485 Sep 30 05:08	18°♂05'36	
minimum elong	3483 Apr 05 08:34	15°♍15'33	8°32'55		3485 Oct 09 19:50	0°♍	
min. Earth dist.	3483 Apr 04 18:58	15°♍36'48	0.27765 AU		3485 Nov 03 01:04	0°♂	
morning rise	3483 Apr 08 15:58	13°♍13'23		desc. node	3485 Nov 05 11:55	3°♂02'14	
direct	3483 Apr 25 22:24	7°♍27'33			3485 Nov 27 06:38	0°♂	
greatest brilliancy	3483 May 07 04:38	9°♍46'22	-4.6m		3485 Dec 21 13:16	0°≈	
desc. node	3483 May 21 16:34	17°♍58'58			3486 Jan 14 23:14	0°♂	
	3483 Jun 05 11:01	0°♂			3486 Feb 08 18:12	0°♍	
morning max el	3483 Jun 14 05:02	8°♂09'28	45°59'09	asc. node	3486 Feb 26 14:28	21°♍01'24	
	3483 Jul 05 13:31	0°♂			3486 Mar 06 10:00	0°♂	
	3483 Aug 01 16:46	0°♂			3486 Apr 03 04:17	0°♂	
	3483 Aug 27 15:08	0°♍		evening max el	3486 Apr 05 00:28	1°♂50'34	46°20'31
asc. node	3483 Sep 11 19:31	17°♍59'41		greatest brilliancy	3486 May 10 01:05	29°♂37'01	-4.5m
	3483 Sep 21 19:34	0°♍			3486 May 10 20:27	0°♂	
	3483 Oct 16 10:57	0°♂		retrograde	3486 May 24 16:56	3°♂25'07	
	3483 Nov 09 17:14	0°♍			3486 Jun 06 19:52	30°♍♂	

evening set	3486 Jun 08 19:56	28°II56'27		superior conj	3488 Nov 01 20:20	10°III21'40	1°05'34
inferior conj	3486 Jun 15 01:22	25°II10'49	0°44'57	minimum elong	3488 Nov 02 06:14	10°III52'33	1°05'15
minimum elong	3486 Jun 15 03:02	25°II08'12	0°44'27		3488 Nov 17 13:39	0°♂	
min. Earth dist.	3486 Jun 14 20:46	25°II18'03	0.28655 AU	desc. node	3488 Dec 02 23:43	19°♂17'40	
desc. node	3486 Jun 18 04:24	23°II14'20		evening rise	3488 Dec 11 07:21	29°♂42'33	
morning rise	3486 Jun 21 10:38	21°II21'10			3488 Dec 11 12:56	0°♂	
direct	3486 Jul 06 12:15	16°II59'32			3489 Jan 04 11:40	0°≈	
greatest brilliancy	3486 Jul 19 06:16	19°II51'49	-4.5m		3489 Jan 28 11:03	0°♂	
	3486 Aug 04 22:49	0°♂			3489 Feb 21 13:21	0°♀	
morning max el	3486 Aug 24 04:56	16°♂40'29	45°43'18		3489 Mar 17 22:22	0°♂	
	3486 Sep 06 13:56	0°♂		asc. node	3489 Mar 26 02:29	9°♂56'15	
	3486 Oct 04 02:41	0°♂			3489 Apr 11 19:33	0°II	
asc. node	3486 Oct 09 07:27	5°♂56'01			3489 May 07 13:57	0°♂	
	3486 Oct 29 20:50	0°♂			3489 Jun 04 02:56	0°♂	
	3486 Nov 23 16:44	0°III		evening max el	3489 Jun 14 11:52	10°♂21'54	45°31'17
	3486 Dec 18 00:24	0°♂			3489 Jul 07 12:37	0°♂	
	3487 Jan 11 01:45	0°♂		desc. node	3489 Jul 15 16:18	5°♂07'17	
desc. node	3487 Jan 28 21:14	22°♂19'05		greatest brilliancy	3489 Jul 19 13:22	7°♂03'17	-4.5m
	3487 Feb 04 00:13	0°≈		retrograde	3489 Aug 02 05:53	10°♂20'46	
morning set	3487 Feb 23 21:26	24°≈57'28		evening set	3489 Aug 19 03:12	4°♂57'45	
	3487 Feb 27 21:53	0°♂		inferior conj	3489 Aug 23 18:19	2°♂08'26	-7°-33'-26
	3487 Mar 23 20:23	0°♀		minimum elong	3489 Aug 23 09:51	2°♂21'39	7°32'16
				min. Earth dist.	3489 Aug 23 19:16	2°♂06'57	0.29052 AU
superior conj	3487 Apr 05 12:11	15°♀49'06	-1°-23'-11		3489 Aug 27 05:26	30°♂♂	
minimum elong	3487 Apr 05 18:13	16°♀07'53	1°23'07	morning rise	3489 Aug 27 16:21	29°♂43'37	
max. Earth dist.	3487 Apr 09 15:50	20°♀59'52	1.71979 AU	direct	3489 Sep 14 08:22	23°♂50'14	
	3487 Apr 16 21:13	0°♂		greatest brilliancy	3489 Sep 28 15:32	27°♂24'26	-4.5m
	3487 May 11 01:31	0°II			3489 Oct 03 13:22	0°♂	
evening rise	3487 May 14 20:01	4°II39'38		morning max el	3489 Nov 02 22:20	24°♂56'54	46°14'21
asc. node	3487 May 22 00:14	13°II30'59		asc. node	3489 Nov 05 19:11	27°♂48'32	
	3487 Jun 04 09:51	0°♂			3489 Nov 07 22:59	0°♂	
	3487 Jun 28 22:31	0°♂			3489 Dec 05 10:48	0°III	
	3487 Jul 23 16:23	0°♂			3489 Dec 30 23:16	0°♂	
	3487 Aug 17 17:39	0°♂			3490 Jan 24 16:04	0°♂	
desc. node	3487 Sep 10 14:02	28°♂02'51			3490 Feb 18 00:05	0°≈	
	3487 Sep 12 06:22	0°III		desc. node	3490 Feb 25 09:12	9°≈08'30	
	3487 Oct 08 14:19	0°♂			3490 Mar 14 04:30	0°♂	
	3487 Nov 05 15:25	0°♂			3490 Apr 07 08:05	0°♀	
evening max el	3487 Nov 09 08:38	3°♂43'05	46°47'20		3490 May 01 12:37	0°♂	
	3487 Dec 11 00:38	0°≈		morning set	3490 May 09 05:31	9°♂32'09	
greatest brilliancy	3487 Dec 18 01:57	3°≈32'56	-4.7m		3490 May 25 19:01	0°II	
retrograde	3487 Dec 29 13:50	6°≈00'36					
asc. node	3488 Jan 01 16:44	5°≈48'43		superior conj	3490 Jun 15 22:27	26°II03'37	0°-6'-8
evening set	3488 Jan 13 04:06	1°≈48'21		minimum elong	3490 Jun 15 23:47	26°II07'43	0°06'06
	3488 Jan 16 08:06	30°♂♂		behind sun begin	3490 Jun 15 02:14	25°II01'24	
min. Earth dist.	3488 Jan 18 17:14	28°♂33'25	0.26554 AU	behind sun end	3490 Jun 16 21:20	27°II14'02	
inferior conj	3488 Jan 19 03:23	28°♂17'53	4°21'47	max. Earth dist.	3490 Jun 17 04:30	27°II36'05	1.73332 AU
minimum elong	3488 Jan 18 18:25	28°♂31'37	4°19'14	asc. node	3490 Jun 18 12:00	29°II13'01	
morning rise	3488 Jan 24 08:50	25°♂11'56			3490 Jun 19 03:16	0°♂	
direct	3488 Feb 08 13:05	20°♂39'16			3490 Jul 13 12:46	0°♂	
greatest brilliancy	3488 Feb 20 01:22	23°♂07'16	-4.7m	evening rise	3490 Jul 22 12:00	11°♂01'03	
	3488 Mar 03 05:58	0°≈			3490 Aug 06 23:07	0°♂	
morning max el	3488 Mar 29 18:04	23°≈06'58	46°44'43		3490 Aug 31 10:42	0°♂	
	3488 Apr 05 12:22	0°♂			3490 Sep 25 00:40	0°III	
desc. node	3488 Apr 22 06:55	17°♂59'10		desc. node	3490 Oct 08 02:01	15°III51'42	
	3488 May 03 01:02	0°♀			3490 Oct 19 18:19	0°♂	
	3488 May 29 02:34	0°♂			3490 Nov 13 17:20	0°♂	
	3488 Jun 23 13:32	0°II			3490 Dec 09 02:01	0°≈	
	3488 Jul 18 16:19	0°♂			3491 Jan 04 09:41	0°♂	
	3488 Aug 12 12:26	0°♂		evening max el	3491 Jan 20 21:17	17°♂33'13	47°12'43
asc. node	3488 Aug 13 09:40	1°♂04'29		asc. node	3491 Jan 29 04:43	25°♂45'47	
	3488 Sep 06 02:00	0°♂			3491 Feb 02 17:43	0°♀	
morning set	3488 Sep 25 14:27	24°♂03'19		greatest brilliancy	3491 Feb 27 15:10	17°♀55'52	-4.7m
	3488 Sep 30 09:41	0°♂		retrograde	3491 Mar 12 18:52	21°♀09'01	
	3488 Oct 24 12:59	0°III		evening set	3491 Mar 30 17:34	14°♀54'47	
max. Earth dist.	3488 Oct 29 20:08	6°III36'24	1.72076 AU	inferior conj	3491 Apr 02 17:14	13°♀03'50	8°39'31
				minimum elong	3491 Apr 02 22:08	12°♀56'11	8°39'10

min. Earth dist.	3491 Apr 02 08:11	13°♈17'58	0.27725 AU			3493 Nov 02 12:18	0°♏	
morning rise	3491 Apr 06 02:54	10°♈58'12		desc. node		3493 Nov 04 13:50	2°♏33'18	
direct	3491 Apr 23 12:36	5°♈07'45				3493 Nov 26 18:12	0°♏	
greatest brilliancy	3491 May 04 16:44	7°♈25'13	-4.6m			3493 Dec 21 01:15	0°♏	
desc. node	3491 May 20 18:33	16°♈45'26				3494 Jan 14 11:51	0°♏	
	3491 Jun 05 13:49	0°♏				3494 Feb 08 07:51	0°♈	
morning max el	3491 Jun 11 20:50	5°♏56'11	46°00'22	asc. node		3494 Feb 25 16:34	20°♈24'19	
	3491 Jul 05 06:34	0°♏				3494 Mar 06 01:46	0°♏	
	3491 Aug 01 06:45	0°♏		evening max el		3494 Apr 02 15:22	29°♏33'53	46°22'45
	3491 Aug 27 03:41	0°♏				3494 Apr 03 01:53	0°♏	
asc. node	3491 Sep 10 21:37	17°♏30'03		greatest brilliancy		3494 May 07 19:10	27°♏27'56	-4.5m
	3491 Sep 21 07:21	0°♏				3494 May 14 05:50	0°♏	
	3491 Oct 15 22:20	0°♏		retrograde		3494 May 22 08:44	1°♏14'08	
	3491 Nov 09 04:25	0°♏				3494 May 30 05:01	30°♏♏	
	3491 Dec 03 05:03	0°♏		evening set		3494 Jun 06 13:21	26°♏44'10	
morning set	3491 Dec 06 18:56	4°♏28'57		inferior conj		3494 Jun 12 17:31	23°♏00'16	1°05'09
	3491 Dec 27 02:49	0°♏		minimum elong		3494 Jun 12 19:55	22°♏56'30	1°04'27
desc. node	3491 Dec 31 11:27	5°♏28'50		min. Earth dist.		3494 Jun 12 13:28	23°♏06'38	0.28625 AU
				desc. node		3494 Jun 17 06:21	20°♏13'10	
superior conj	3492 Jan 16 12:21	25°♏39'00	0°-37'-22	morning rise		3494 Jun 19 02:56	19°♏10'04	
minimum elong	3492 Jan 16 03:11	25°♏10'11	0°36'58	direct		3494 Jul 04 03:45	14°♏49'29	
max. Earth dist.	3492 Jan 16 12:47	25°♏40'21	1.71111 AU	greatest brilliancy		3494 Jul 16 20:26	17°♏39'52	-4.5m
	3492 Jan 19 23:19	0°♏				3494 Aug 05 09:35	0°♏	
	3492 Feb 12 19:44	0°♏		morning max el		3494 Aug 21 19:26	14°♏27'22	45°42'58
evening rise	3492 Feb 26 16:45	17°♏25'35				3494 Sep 06 07:55	0°♏	
	3492 Mar 07 17:37	0°♈				3494 Oct 03 16:52	0°♏	
	3492 Mar 31 19:03	0°♏		asc. node		3494 Oct 08 09:26	5°♏22'02	
asc. node	3492 Apr 22 14:23	26°♏56'04				3494 Oct 29 09:29	0°♏	
	3492 Apr 25 02:18	0°♏				3494 Nov 23 04:40	0°♏	
	3492 May 19 17:42	0°♏				3494 Dec 17 11:57	0°♏	
	3492 Jun 13 20:20	0°♏				3495 Jan 10 13:03	0°♏	
	3492 Jul 09 16:30	0°♏		desc. node		3495 Jan 27 23:23	21°♏50'46	
	3492 Aug 05 21:43	0°♏				3495 Feb 03 11:22	0°♏	
desc. node	3492 Aug 12 04:13	6°♏32'55		morning set		3495 Feb 21 07:15	22°♏22'54	
evening max el	3492 Aug 24 23:26	19°♏17'21	45°44'00			3495 Feb 27 08:55	0°♏	
	3492 Sep 05 19:08	0°♏				3495 Mar 23 07:21	0°♈	
greatest brilliancy	3492 Oct 01 18:43	16°♏56'19	-4.5m					
retrograde	3492 Oct 12 19:02	19°♏06'05		superior conj		3495 Apr 03 00:33	13°♈23'49	-1°-24'-10
evening set	3492 Oct 29 10:09	13°♏51'39		minimum elong		3495 Apr 03 05:45	13°♈40'02	1°24'07
inferior conj	3492 Nov 02 17:38	11°♏16'00	-6°-44'-54	max. Earth dist.		3495 Apr 07 02:52	18°♈30'35	1.71924 AU
minimum elong	3492 Nov 03 03:54	11°♏00'12	6°42'53			3495 Apr 16 08:07	0°♏	
min. Earth dist.	3492 Nov 03 16:33	10°♏40'44	0.27666 AU			3495 May 10 12:24	0°♏	
morning rise	3492 Nov 07 21:11	8°♏10'59		evening rise		3495 May 12 10:37	2°♏22'50	
direct	3492 Nov 23 19:39	3°♏15'50		asc. node		3495 May 21 02:13	13°♏03'32	
asc. node	3492 Dec 03 06:54	4°♏58'09				3495 Jun 03 20:46	0°♏	
greatest brilliancy	3492 Dec 07 21:42	6°♏53'39	-4.6m			3495 Jun 28 09:37	0°♏	
	3493 Jan 06 21:53	0°♏				3495 Jul 23 03:53	0°♏	
morning max el	3493 Jan 13 12:08	6°♏32'59	46°54'12			3495 Aug 17 05:53	0°♏	
	3493 Feb 04 07:14	0°♏		desc. node		3495 Sep 09 16:03	27°♏29'46	
	3493 Mar 02 06:39	0°♏				3495 Sep 11 19:55	0°♏	
desc. node	3493 Mar 24 21:05	26°♏58'14				3495 Oct 08 06:24	0°♏	
	3493 Mar 27 09:27	0°♏				3495 Nov 05 13:52	0°♏	
	3493 Apr 21 03:37	0°♈		evening max el		3495 Nov 06 21:00	1°♏17'11	46°45'12
	3493 May 15 18:26	0°♏				3495 Dec 13 04:12	0°♏	
	3493 Jun 09 08:12	0°♏		greatest brilliancy		3495 Dec 15 15:38	1°♏05'34	-4.6m
	3493 Jul 03 21:18	0°♏		retrograde		3495 Dec 27 01:49	3°♏31'59	
asc. node	3493 Jul 15 23:53	14°♏49'31		asc. node		3495 Dec 31 18:53	3°♏04'46	
morning set	3493 Jul 17 04:13	16°♏16'19				3496 Jan 09 09:22	30°♏♏	
	3493 Jul 28 08:51	0°♏		evening set		3496 Jan 10 14:28	29°♏22'10	
max. Earth dist.	3493 Aug 20 11:28	28°♏25'41	1.73332 AU	inferior conj		3496 Jan 16 15:39	25°♏49'47	3°59'58
	3493 Aug 21 18:05	0°♏		minimum elong		3496 Jan 16 07:15	26°♏02'38	3°57'29
				min. Earth dist.		3496 Jan 16 06:55	26°♏03'08	0.26543 AU
superior conj	3493 Aug 22 15:54	1°♏07'14	1°14'08	morning rise		3496 Jan 22 00:02	22°♏40'01	
minimum elong	3493 Aug 22 08:15	0°♏43'38	1°13'58	direct		3496 Feb 06 00:55	18°♏10'54	
	3493 Sep 15 01:05	0°♏		greatest brilliancy		3496 Feb 17 16:57	20°♏42'45	-4.7m
evening rise	3493 Sep 27 21:56	15°♏55'15				3496 Mar 04 03:38	0°♏	
	3493 Oct 09 06:49	0°♏		morning max el		3496 Mar 27 06:58	20°♏41'41	46°46'03

	3496 Apr 05 08:47	0° H			3498 Sep 24 12:03	0° M		
desc. node	3496 Apr 21 08:55	17° H 17'59		desc. node	3498 Oct 07 04:00	15° M 22'19		
	3496 May 02 16:29	0° Y			3498 Oct 19 06:19	0° Z		
	3496 May 28 15:54	0° B			3498 Nov 13 06:18	0° Z		
	3496 Jun 23 01:42	0° II			3498 Dec 08 16:38	0° \approx		
	3496 Jul 18 03:46	0° S			3499 Jan 04 03:42	0° H		
	3496 Aug 11 23:26	0° Q		evening max el	3499 Jan 18 12:45	15° H 14'01	47°13'10	
asc. node	3496 Aug 12 11:47	0° Q 37'31		asc. node	3499 Jan 28 06:47	24° H 48'14		
	3496 Sep 05 12:46	0° M			3499 Feb 02 23:37	0° Y		
morning set	3496 Sep 23 07:25	21° M 54'20		greatest brilliancy	3499 Feb 25 06:44	15° Y 35'39	-4.7m	
	3496 Sep 29 20:22	0° A		retrograde	3499 Mar 10 09:51	18° Y 47'31		
	3496 Oct 23 23:41	0° M		evening set	3499 Mar 28 09:16	12° Y 31'19		
max. Earth dist.	3496 Oct 27 13:20	4° M 26'55	1.72127 AU	inferior conj	3499 Mar 31 07:17	10° Y 42'51	8°44'51	
				minimum elong	3499 Mar 31 11:24	10° Y 36'25	8°44'36	
superior conj	3496 Oct 30 11:22	8° M 05'19	1°07'44	min. Earth dist.	3499 Mar 30 21:07	10° Y 58'44	0.27683 AU	
minimum elong	3496 Oct 30 21:03	8° M 35'32	1°07'27	morning rise	3499 Apr 03 13:45	8° Y 42'08		
	3496 Nov 17 00:27	0° Z		direct	3499 Apr 21 02:48	2° Y 47'44		
desc. node	3496 Dec 02 01:46	18° Z 49'58		greatest brilliancy	3499 May 02 04:03	5° Y 03'01	-4.6m	
evening rise	3496 Dec 08 19:32	27° Z 16'11		desc. node	3499 May 19 20:35	15° Y 34'26		
	3496 Dec 10 23:53	0° Z			3499 Jun 05 14:59	0° B		
	3497 Jan 03 22:47	0° \approx		morning max el	3499 Jun 09 11:42	3° B 41'08	46°01'37	
	3497 Jan 27 22:21	0° H			3499 Jul 04 23:01	0° II		
	3497 Feb 21 00:55	0° Y			3499 Jul 31 20:19	0° S		
	3497 Mar 17 10:20	0° B			3499 Aug 26 15:53	0° Q		
asc. node	3497 Mar 25 04:28	9° B 25'17		asc. node	3499 Sep 09 23:31	17° Q 00'44		
	3497 Apr 11 08:21	0° II			3499 Sep 20 18:49	0° M		
	3497 May 07 04:29	0° S			3499 Oct 15 09:24	0° A		
	3497 Jun 03 21:54	0° Q			3499 Nov 08 15:17	0° M		
evening max el	3497 Jun 12 03:49	8° Q 11'38	45°32'12		3499 Dec 02 15:50	0° Z		
	3497 Jul 08 09:01	0° M		morning set	3499 Dec 04 08:06	2° Z 06'07		
desc. node	3497 Jul 14 18:30	3° M 43'22			3499 Dec 26 13:36	0° Z		
greatest brilliancy	3497 Jul 17 02:20	4° M 50'44	-4.5m	desc. node	3499 Dec 30 13:37	5° Z 01'46		
retrograde	3497 Jul 30 22:31	8° M 11'58						
evening set	3497 Aug 16 16:08	2° M 53'03		superior conj	3500 Jan 13 22:46	23° Z 06'53	0°-33'-44	
inferior conj	3497 Aug 21 10:27	29° Q 59'03	-7°-23'-30	minimum elong	3500 Jan 13 14:23	22° Z 40'28	0°33'21	
minimum elong	3497 Aug 21 01:37	0° M 12'50	7°22'11	max. Earth dist.	3500 Jan 13 19:12	22° Z 55'38	1.71118 AU	
	3497 Aug 21 09:51	30° R Q			3500 Jan 19 10:07	0° \approx		
min. Earth dist.	3497 Aug 21 10:12	29° Q 59'27	0.29062 AU		3500 Feb 12 06:34	0° H		
morning rise	3497 Aug 25 11:01	27° Q 30'41		evening rise	3500 Feb 24 03:13	14° H 53'42		
direct	3497 Sep 12 00:58	21° Q 40'48			3500 Mar 08 04:31	0° Y		
greatest brilliancy	3497 Sep 26 07:28	25° Q 14'47	-4.5m		3500 Apr 01 06:03	0° B		
	3497 Oct 04 17:06	0° M		asc. node	3500 Apr 22 16:23	26° B 27'48		
morning max el	3497 Oct 31 14:27	22° M 45'05	46°12'49		3500 Apr 25 13:32	0° II		
asc. node	3497 Nov 04 21:10	27° M 02'02			3500 May 20 05:19	0° S		
	3497 Nov 07 18:36	0° A			3500 Jun 14 08:43	0° Q		
	3497 Dec 05 01:42	0° M			3500 Jul 10 06:27	0° M		
	3497 Dec 30 12:23	0° Z			3500 Aug 06 15:17	0° A		
	3498 Jan 24 04:19	0° Z		desc. node	3500 Aug 12 06:13	5° A 49'27		
	3498 Feb 17 11:50	0° \approx		evening max el	3500 Aug 23 13:19	17° A 01'00	45°42'21	
desc. node	3498 Feb 24 11:14	8° \approx 38'50			3500 Sep 07 02:21	0° M		
	3498 Mar 13 15:52	0° H		greatest brilliancy	3500 Sep 30 08:25	14° M 38'48	-4.5m	
	3498 Apr 06 19:09	0° Y		retrograde	3500 Oct 11 07:54	16° M 47'52		
	3498 Apr 30 23:27	0° B		evening set	3500 Oct 28 03:03	11° M 28'54		
morning set	3498 May 06 20:29	7° B 16'36		inferior conj	3500 Nov 01 07:38	8° M 57'12	-6°-58'-27	
	3498 May 25 05:41	0° II		minimum elong	3500 Nov 01 17:42	8° M 41'41	6°56'35	
				min. Earth dist.	3500 Nov 02 06:50	8° M 21'26	0.27732 AU	
superior conj	3498 Jun 13 15:08	23° II 54'30	0°-9'-27	morning rise	3500 Nov 06 07:52	5° M 56'24		
minimum elong	3498 Jun 13 17:11	24° II 00'49	0°09'22	direct	3500 Nov 22 10:00	0° M 56'05		
behind sun begin	3498 Jun 12 22:14	23° II 02'28		asc. node	3500 Dec 03 09:00	3° M 10'46		
behind sun end	3498 Jun 14 12:07	24° II 59'09		greatest brilliancy	3500 Dec 06 13:03	4° M 34'09	-4.6m	
max. Earth dist.	3498 Jun 15 01:51	25° II 41'25	1.73307 AU		3501 Jan 07 22:15	0° Z		
asc. node	3498 Jun 17 14:06	28° II 46'51		morning max el	3501 Jan 12 01:10	4° Z 07'57	46°53'31	
	3498 Jun 18 13:52	0° S			3501 Feb 04 23:52	0° Z		
	3498 Jul 12 23:24	0° Q			3501 Mar 02 20:37	0° \approx		
evening rise	3498 Jul 20 06:32	8° Q 57'55		desc. node	3501 Mar 24 23:03	26° \approx 25'45		
	3498 Aug 06 09:52	0° M			3501 Mar 27 22:06	0° H		
	3498 Aug 30 21:41	0° A			3501 Apr 21 15:30	0° Y		

	3501 May 16 05:48	0°♄		retrograde	3503 Dec 25 14:20	1°≈03'22	
	3501 Jun 09 19:13	0°♂		asc. node	3503 Dec 31 20:58	0°≈14'46	
	3501 Jul 04 08:03	0°♄			3504 Jan 01 18:23	30°♄♂	
morning set	3501 Jul 15 21:54	14°♄10'49		evening set	3504 Jan 09 01:05	26°♂55'26	
asc. node	3501 Jul 16 01:58	14°♄23'17		inferior conj	3504 Jan 15 03:52	23°♂21'21	3°37'31
	3501 Jul 28 19:27	0°♂		minimum elong	3504 Jan 14 20:06	23°♂33'11	3°35'11
max. Earth dist.	3501 Aug 19 05:36	26°♂21'09	1.73359 AU	min. Earth dist.	3504 Jan 14 20:18	23°♂32'53	0.26534 AU
				morning rise	3504 Jan 20 15:05	20°♂08'05	
superior conj	3501 Aug 21 10:03	29°♂02'43	1°12'32	direct	3504 Feb 04 13:13	15°♂42'09	
minimum elong	3501 Aug 21 02:04	28°♂038'09	1°12'20	greatest brilliancy	3504 Feb 16 07:55	18°♂17'18	-4.7m
	3501 Aug 22 04:38	0°♄			3504 Mar 05 19:51	0°≈	
	3501 Sep 15 11:44	0°♂		morning max el	3504 Mar 25 20:56	18°≈18'57	46°47'30
evening rise	3501 Sep 26 14:43	13°♂45'29			3504 Apr 06 04:35	0°♄	
	3501 Oct 09 17:39	0°♄		desc. node	3504 Apr 21 10:58	16°♄37'30	
	3501 Nov 02 23:25	0°♄			3504 May 03 07:42	0°♄	
desc. node	3501 Nov 04 15:54	2°♄05'16			3504 May 29 05:06	0°♄	
	3501 Nov 27 05:37	0°♂			3504 Jun 23 13:48	0°♂	
	3501 Dec 21 13:04	0°≈			3504 Jul 18 15:13	0°♄	
	3502 Jan 15 00:17	0°♄			3504 Aug 12 10:31	0°♂	
	3502 Feb 08 21:20	0°♄		asc. node	3504 Aug 12 13:42	0°♂09'43	
asc. node	3502 Feb 25 18:31	19°♄47'24			3504 Sep 05 23:39	0°♄	
	3502 Mar 06 17:28	0°♄		morning set	3504 Sep 22 00:25	19°♄45'08	
evening max el	3502 Apr 01 05:20	27°♄15'26	46°24'52		3504 Sep 30 07:10	0°♂	
	3502 Apr 04 00:02	0°♂			3504 Oct 24 10:31	0°♄	
greatest brilliancy	3502 May 06 12:17	25°♂17'48	-4.6m	max. Earth dist.	3504 Oct 26 05:56	2°♄15'15	1.72175 AU
retrograde	3502 May 21 00:35	29°♂03'27					
evening set	3502 Jun 05 06:48	24°♂31'35		superior conj	3504 Oct 29 02:26	5°♄48'45	1°09'48
inferior conj	3502 Jun 11 09:37	20°♂49'48	1°25'27	minimum elong	3504 Oct 29 11:49	6°♄18'03	1°09'32
minimum elong	3502 Jun 11 12:45	20°♂44'53	1°24'30		3504 Nov 17 11:22	0°♄	
min. Earth dist.	3502 Jun 11 06:14	20°♂55'09	0.28601 AU	desc. node	3504 Dec 02 03:52	18°♄22'01	
desc. node	3502 Jun 17 08:32	17°♂13'51		evening rise	3504 Dec 07 07:44	24°♄49'35	
morning rise	3502 Jun 17 19:03	16°♂59'22			3504 Dec 11 10:57	0°♂	
direct	3502 Jul 02 18:54	12°♂39'15			3505 Jan 04 10:03	0°≈	
greatest brilliancy	3502 Jul 15 11:45	15°♂29'17	-4.5m		3505 Jan 28 09:50	0°♄	
	3502 Aug 06 17:26	0°♄			3505 Feb 21 12:40	0°♄	
morning max el	3502 Aug 20 10:17	12°♄15'08	45°42'46		3505 Mar 17 22:31	0°♄	
	3502 Sep 07 01:25	0°♂		asc. node	3505 Mar 25 06:30	8°♄53'59	
	3502 Oct 04 06:50	0°♄			3505 Apr 11 21:21	0°♂	
asc. node	3502 Oct 08 11:29	4°♄48'42			3505 May 07 19:16	0°♄	
	3502 Oct 29 22:00	0°♂			3505 Jun 04 17:28	0°♂	
	3502 Nov 23 16:29	0°♄		evening max el	3505 Jun 10 20:28	6°♂02'57	45°33'09
	3502 Dec 17 23:24	0°♄			3505 Jul 10 13:13	0°♄	
	3503 Jan 11 00:17	0°♂		desc. node	3505 Jul 14 20:26	2°♄16'20	
desc. node	3503 Jan 28 01:23	21°♂22'12		greatest brilliancy	3505 Jul 15 16:23	2°♄39'35	-4.5m
	3503 Feb 03 22:25	0°≈		retrograde	3505 Jul 29 15:10	6°♄03'08	
morning set	3503 Feb 19 17:17	19°≈49'17		evening set	3505 Aug 15 05:21	0°♄48'30	
	3503 Feb 27 19:51	0°♄			3505 Aug 16 14:15	30°♄♂	
	3503 Mar 23 18:11	0°♄		inferior conj	3505 Aug 20 02:46	27°♂49'42	-7°-12'-58
				minimum elong	3505 Aug 19 17:39	28°♂03'57	7°11'32
superior conj	3503 Apr 01 13:11	10°♄59'44	-1°-24'-59	min. Earth dist.	3505 Aug 20 01:16	27°♂52'02	0.29071 AU
minimum elong	3503 Apr 01 17:30	11°♄13'12	1°24'57	morning rise	3505 Aug 24 05:55	25°♂17'34	
max. Earth dist.	3503 Apr 05 12:53	15°♄58'30	1.71869 AU	direct	3505 Sep 10 18:01	19°♂31'34	
	3503 Apr 16 18:53	0°♄		greatest brilliancy	3505 Sep 24 22:41	23°♂03'54	-4.5m
	3503 May 10 23:09	0°♂			3505 Oct 06 13:29	0°♄	
evening rise	3503 May 11 01:26	0°♂07'01		morning max el	3505 Oct 30 06:34	20°♄32'44	46°11'09
asc. node	3503 May 21 04:21	12°♂36'50		asc. node	3505 Nov 04 23:17	26°♄15'53	
	3503 Jun 04 07:37	0°♄			3505 Nov 08 13:56	0°♂	
	3503 Jun 28 20:42	0°♂			3505 Dec 05 16:40	0°♄	
	3503 Jul 23 15:26	0°♄			3505 Dec 31 01:40	0°♄	
	3503 Aug 17 18:13	0°♂			3506 Jan 24 16:44	0°♂	
desc. node	3503 Sep 09 18:01	26°♂56'15			3506 Feb 17 23:45	0°≈	
	3503 Sep 12 09:37	0°♄		desc. node	3506 Feb 24 13:10	8°≈08'13	
	3503 Oct 08 22:48	0°♄			3506 Mar 14 03:27	0°♄	
evening max el	3503 Nov 05 09:50	28°♄52'37	46°43'08		3506 Apr 07 06:28	0°♄	
	3503 Nov 06 13:18	0°♂			3506 May 01 10:32	0°♄	
greatest brilliancy	3503 Dec 14 04:27	28°♂37'13	-4.6m	morning set	3506 May 05 11:33	5°♄00'27	
	3503 Dec 18 05:06	0°≈			3506 May 25 16:36	0°♂	

superior conj	3506 Jun 12 07:59	21°II45'12	0°-12'-44	min. Earth dist.	3508 Oct 30 21:27	6°ML02'19	0.27803 AU
minimum elong	3506 Jun 12 10:45	21°II53'41	0°12'36	morning rise	3508 Nov 03 18:52	3°ML42'13	
behind sun begin	3506 Jun 11 20:24	21°II09'30			3508 Nov 11 17:09	30°RL	
behind sun end	3506 Jun 13 01:05	22°II37'53		direct	3508 Nov 20 00:21	28°ML36'14	
max. Earth dist.	3506 Jun 14 00:19	23°II49'25	1.73273 AU		3508 Nov 28 14:27	0°ML	
asc. node	3506 Jun 17 16:10	28°II19'53		asc. node	3508 Dec 02 11:03	1°ML27'00	
	3506 Jun 19 00:41	0°S		greatest brilliancy	3508 Dec 04 05:44	2°ML16'01	-4.6m
	3506 Jul 13 10:14	0°Q			3509 Jan 07 21:57	0°X	
evening rise	3506 Jul 19 01:19	6°Q54'53		morning max el	3509 Jan 09 14:39	1°X42'51	46°52'36
	3506 Aug 06 20:49	0°M			3509 Feb 04 16:40	0°Z	
	3506 Aug 31 08:55	0°L			3509 Mar 02 10:55	0°≈	
	3506 Sep 24 23:44	0°ML		desc. node	3509 Mar 24 01:12	25°≈52'36	
desc. node	3506 Oct 07 06:03	14°ML52'06			3509 Mar 27 11:07	0°X	
	3506 Oct 19 18:42	0°X			3509 Apr 21 03:43	0°Y	
	3506 Nov 13 19:44	0°Z			3509 May 15 17:30	0°X	
	3506 Dec 09 07:48	0°≈			3509 Jun 09 06:34	0°II	
	3507 Jan 04 22:34	0°X			3509 Jul 03 19:08	0°S	
evening max el	3507 Jan 17 03:51	12°X52'42	47°13'31	morning set	3509 Jul 13 15:36	12°S04'15	
asc. node	3507 Jan 28 08:43	23°X48'02		asc. node	3509 Jul 15 03:54	13°S55'29	
	3507 Feb 04 08:22	0°Y			3509 Jul 28 06:22	0°Q	
greatest brilliancy	3507 Feb 23 23:09	13°Y15'18	-4.7m	max. Earth dist.	3509 Aug 17 01:02	24°Q19'40	1.73381 AU
retrograde	3507 Mar 09 00:21	16°Y24'31					
evening set	3507 Mar 27 00:35	10°Y07'10		superior conj	3509 Aug 19 04:26	26°Q58'00	1°10'50
inferior conj	3507 Mar 29 21:16	8°Y20'34	8°49'17	minimum elong	3509 Aug 18 20:11	26°Q32'33	1°10'37
minimum elong	3507 Mar 30 00:34	8°Y15'24	8°49'08		3509 Aug 21 15:30	0°M	
min. Earth dist.	3507 Mar 29 10:13	8°Y37'50	0.27639 AU		3509 Sep 14 22:39	0°L	
morning rise	3507 Apr 02 00:45	6°Y24'15		evening rise	3509 Sep 24 07:59	11°L36'30	
direct	3507 Apr 19 16:48	0°Y26'29			3509 Oct 09 04:45	0°ML	
greatest brilliancy	3507 Apr 30 15:30	2°Y39'30	-4.6m		3509 Nov 02 10:47	0°X	
desc. node	3507 May 19 22:43	14°Y24'32		desc. node	3509 Nov 03 18:02	1°X36'38	
	3507 Jun 06 15:22	0°X			3509 Nov 26 17:20	0°Z	
morning max el	3507 Jun 08 01:42	1°X22'45	46°03'02		3509 Dec 21 01:17	0°≈	
	3507 Jul 05 15:31	0°II			3510 Jan 14 13:11	0°X	
	3507 Aug 01 10:03	0°S			3510 Feb 08 11:25	0°Y	
	3507 Aug 27 04:17	0°Q		asc. node	3510 Feb 24 20:35	19°Y09'06	
asc. node	3507 Sep 10 01:38	16°Q31'23			3510 Mar 06 09:57	0°X	
	3507 Sep 21 06:31	0°M		evening max el	3510 Mar 29 19:06	24°X55'00	46°27'11
	3507 Oct 15 20:44	0°L			3510 Apr 03 23:46	0°II	
	3507 Nov 09 02:28	0°ML		greatest brilliancy	3510 May 04 04:20	23°II04'39	-4.6m
greatest brilliancy	3507 Nov 14 00:44	6°ML08'10	-3.9m	retrograde	3510 May 18 16:39	26°II51'06	
morning set	3507 Dec 02 21:09	29°ML41'44		evening set	3510 Jun 03 00:11	22°II16'53	
	3507 Dec 03 03:00	0°X		inferior conj	3510 Jun 09 01:30	18°II37'33	1°45'44
	3507 Dec 27 00:46	0°Z		minimum elong	3510 Jun 09 05:21	18°II31'30	1°44'35
desc. node	3507 Dec 30 15:36	4°Z32'51		min. Earth dist.	3510 Jun 08 22:36	18°II42'06	0.28575 AU
				morning rise	3510 Jun 15 10:49	14°II47'20	
superior conj	3508 Jan 12 08:59	20°Z32'54	0°-30'-1	desc. node	3510 Jun 16 10:30	14°II15'43	
minimum elong	3508 Jan 12 01:24	20°Z09'04	0°29'40	direct	3510 Jun 30 09:50	10°II27'07	
max. Earth dist.	3508 Jan 11 22:23	19°Z59'34	1.71128 AU	greatest brilliancy	3510 Jul 13 03:22	13°II17'42	-4.5m
	3508 Jan 19 21:19	0°≈			3510 Aug 06 23:28	0°S	
	3508 Feb 12 17:47	0°X		morning max el	3510 Aug 18 01:55	10°S03'47	45°42'46
evening rise	3508 Feb 22 13:21	12°X19'38			3510 Sep 06 18:51	0°Q	
	3508 Mar 07 15:46	0°Y			3510 Oct 03 20:54	0°M	
	3508 Mar 31 17:26	0°X		asc. node	3510 Oct 07 13:33	4°M14'59	
asc. node	3508 Apr 21 18:31	25°X58'48			3510 Oct 29 10:38	0°L	
	3508 Apr 25 01:09	0°II			3510 Nov 23 04:25	0°ML	
	3508 May 19 17:21	0°S			3510 Dec 17 10:58	0°X	
	3508 Jun 13 21:32	0°Q			3511 Jan 10 11:39	0°Z	
	3508 Jul 09 20:52	0°M		desc. node	3511 Jan 27 03:22	20°Z52'59	
	3508 Aug 06 09:32	0°L			3511 Feb 03 09:41	0°≈	
desc. node	3508 Aug 11 08:14	5°L04'47		morning set	3511 Feb 17 03:04	17°≈14'03	
evening max el	3508 Aug 21 02:36	14°L42'47	45°40'54		3511 Feb 27 07:02	0°X	
	3508 Sep 07 12:29	0°ML			3511 Mar 23 05:18	0°Y	
greatest brilliancy	3508 Sep 27 21:38	12°ML20'44	-4.5m				
retrograde	3508 Oct 08 21:00	14°ML30'05		superior conj	3511 Mar 30 01:12	8°Y32'39	-1°-25'-38
evening set	3508 Oct 25 20:07	9°ML06'17		minimum elong	3511 Mar 30 04:35	8°Y43'13	1°25'38
inferior conj	3508 Oct 29 21:56	6°ML38'36	-7°-11'-3	max. Earth dist.	3511 Apr 02 20:56	13°Y19'12	1.71818 AU
minimum elong	3508 Oct 30 07:44	6°ML23'28	7°09'19		3511 Apr 16 05:57	0°X	

evening rise	3511 May 08 15:35	27°♄48'18		asc. node	3513 Nov 04 01:18	25°♍30'19	
	3511 May 10 10:12	0°♈			3513 Nov 08 08:41	0°♈	
asc. node	3511 May 20 06:20	12°♈08'48			3513 Dec 05 07:21	0°♈	
	3511 Jun 03 18:44	0°♈			3513 Dec 30 14:41	0°♈	
	3511 Jun 28 08:04	0°♈			3514 Jan 24 04:55	0°♈	
	3511 Jul 23 03:15	0°♈			3514 Feb 17 11:25	0°♈	
	3511 Aug 17 06:50	0°♈		desc. node	3514 Feb 23 15:20	7°♈39'02	
desc. node	3511 Sep 08 20:09	26°♈22'29			3514 Mar 13 14:46	0°♈	
	3511 Sep 11 23:38	0°♈			3514 Apr 06 17:31	0°♈	
	3511 Oct 08 15:37	0°♈			3514 Apr 30 21:23	0°♈	
evening max el	3511 Nov 02 23:43	26°♈30'54	46°41'12	morning set	3514 May 03 02:32	2°♈44'38	
	3511 Nov 06 13:48	0°♈			3514 May 25 03:20	0°♈	
greatest brilliancy	3511 Dec 11 16:50	26°♈09'03	-4.6m				
retrograde	3511 Dec 23 03:21	28°♈35'17		superior conj	3514 Jun 10 00:31	19°♈35'20	0°-16'-1
asc. node	3511 Dec 30 22:51	27°♈19'51		minimum elong	3514 Jun 10 03:59	19°♈46'00	0°15'52
evening set	3512 Jan 06 12:11	24°♈29'03		behind sun begin	3514 Jun 10 02:24	19°♈41'08	
inferior conj	3512 Jan 12 16:13	20°♈53'22	3°14'43	behind sun end	3514 Jun 10 05:34	19°♈50'52	
minimum elong	3512 Jan 12 09:08	21°♈04'08	3°12'34	max. Earth dist.	3514 Jun 11 21:43	21°♈54'34	1.73242 AU
min. Earth dist.	3512 Jan 12 09:32	21°♈03'32	0.26531 AU	asc. node	3514 Jun 16 18:07	27°♈52'58	
morning rise	3512 Jan 18 06:08	17°♈36'51			3514 Jun 18 11:23	0°♈	
direct	3512 Feb 02 02:14	13°♈14'04			3514 Jul 12 20:57	0°♈	
greatest brilliancy	3512 Feb 13 22:05	15°♈51'10	-4.7m	evening rise	3514 Jul 16 19:35	4°♈50'38	
	3512 Mar 06 07:59	0°♈			3514 Aug 06 07:39	0°♈	
morning max el	3512 Mar 23 11:21	15°♈57'06	46°48'31		3514 Aug 30 20:01	0°♈	
	3512 Apr 05 23:57	0°♈			3514 Sep 24 11:18	0°♈	
desc. node	3512 Apr 20 13:02	15°♈56'56		desc. node	3514 Oct 06 08:07	14°♈22'27	
	3512 May 02 22:54	0°♈			3514 Oct 19 06:58	0°♈	
	3512 May 28 18:25	0°♈			3514 Nov 13 09:05	0°♈	
	3512 Jun 23 02:02	0°♈			3514 Dec 08 22:56	0°♈	
	3512 Jul 18 02:47	0°♈			3515 Jan 04 17:38	0°♈	
asc. node	3512 Aug 11 15:47	29°♈42'06		evening max el	3515 Jan 14 18:15	10°♈30'26	47°13'54
	3512 Aug 11 21:40	0°♈		asc. node	3515 Jan 27 10:51	22°♈48'01	
	3512 Sep 05 10:35	0°♈			3515 Feb 04 19:35	0°♈	
morning set	3512 Sep 19 17:16	17°♈35'22		greatest brilliancy	3515 Feb 21 16:21	10°♈57'03	-4.7m
	3512 Sep 29 18:02	0°♈		retrograde	3515 Mar 06 14:35	14°♈02'56	
	3512 Oct 23 21:24	0°♈		evening set	3515 Mar 24 15:37	7°♈45'15	
max. Earth dist.	3512 Oct 23 20:25	29°♈56'59	1.72218 AU	inferior conj	3515 Mar 27 11:24	5°♈59'55	8°52'45
				minimum elong	3515 Mar 27 13:50	5°♈56'06	8°52'40
superior conj	3512 Oct 26 17:39	3°♈32'40	1°11'45	min. Earth dist.	3515 Mar 26 23:45	6°♈18'09	0.27592 AU
minimum elong	3512 Oct 27 02:41	4°♈00'50	1°11'30	morning rise	3515 Mar 30 12:15	4°♈07'25	
	3512 Nov 16 22:19	0°♈			3515 Apr 07 14:17	30°♈	
desc. node	3512 Dec 01 05:49	17°♈53'41		direct	3515 Apr 17 06:17	28°♈06'50	
evening rise	3512 Dec 04 20:13	22°♈23'56			3515 Apr 27 08:03	0°♈	
	3512 Dec 10 22:00	0°♈		greatest brilliancy	3515 Apr 28 03:36	0°♈18'08	-4.6m
	3513 Jan 03 21:15	0°♈		desc. node	3515 May 19 00:41	13°♈17'41	
	3513 Jan 27 21:13	0°♈		morning max el	3515 Jun 05 15:01	29°♈03'42	46°04'19
	3513 Feb 21 00:20	0°♈			3515 Jun 06 14:10	0°♈	
	3513 Mar 17 10:41	0°♈			3515 Jul 05 07:22	0°♈	
asc. node	3513 Mar 24 08:35	8°♈22'51			3515 Jul 31 23:23	0°♈	
	3513 Apr 11 10:27	0°♈			3515 Aug 26 16:23	0°♈	
	3513 May 07 10:19	0°♈		asc. node	3515 Sep 09 03:43	16°♈02'41	
	3513 Jun 04 13:49	0°♈			3515 Sep 20 17:56	0°♈	
evening max el	3513 Jun 08 13:02	3°♈53'33	45°34'06		3515 Oct 15 07:47	0°♈	
	3513 Jul 12 06:44	0°♈			3515 Nov 08 13:21	0°♈	
greatest brilliancy	3513 Jul 13 07:26	0°♈29'02	-4.5m	greatest brilliancy	3515 Nov 19 16:06	13°♈51'18	-3.9m
desc. node	3513 Jul 13 22:26	0°♈45'51		morning set	3515 Nov 30 10:08	27°♈18'06	
retrograde	3513 Jul 27 07:20	3°♈53'25			3515 Dec 02 13:50	0°♈	
	3513 Aug 10 10:52	30°♈			3515 Dec 26 11:38	0°♈	
evening set	3513 Aug 12 18:26	28°♈43'22		desc. node	3515 Dec 29 17:35	4°♈04'58	
inferior conj	3513 Aug 17 18:53	25°♈39'47	-7°-1'-45	max. Earth dist.	3516 Jan 09 01:18	17°♈03'41	1.71141 AU
minimum elong	3513 Aug 17 09:31	25°♈54'27	7°00'12				
min. Earth dist.	3513 Aug 17 16:28	25°♈43'34	0.29074 AU	superior conj	3516 Jan 09 19:15	18°♈00'08	0°-26'-14
morning rise	3513 Aug 22 00:36	23°♈03'40		minimum elong	3516 Jan 09 12:33	17°♈39'04	0°25'56
direct	3513 Sep 08 10:41	17°♈21'56			3516 Jan 19 08:11	0°♈	
greatest brilliancy	3513 Sep 22 12:30	20°♈51'01	-4.5m		3516 Feb 12 04:40	0°♈	
	3513 Oct 07 04:40	0°♈		evening rise	3516 Feb 19 23:39	9°♈47'04	
morning max el	3513 Oct 27 21:44	18°♈18'15	46°09'33		3516 Mar 07 02:41	0°♈	

	3516 Mar 31 04:26	0°♄		asc. node	3518 Oct 06 15:32	3°♎42'17	
asc. node	3516 Apr 20 20:29	25°♄30'39			3518 Oct 28 22:54	0°♊	
	3516 Apr 24 12:20	0°♈			3518 Nov 22 16:04	0°♌	
	3516 May 19 04:57	0°♌			3518 Dec 16 22:16	0°♏	
	3516 Jun 13 10:00	0°♍			3519 Jan 09 22:44	0°♐	
	3516 Jul 09 11:04	0°♎		desc. node	3519 Jan 26 05:31	20°♐25'12	
	3516 Aug 06 03:56	0°♊			3519 Feb 02 20:38	0°♑	
desc. node	3516 Aug 10 10:21	4°♊20'36		morning set	3519 Feb 14 12:45	14°♑39'28	
evening max el	3516 Aug 18 15:43	12°♊25'00	45°39'26		3519 Feb 26 17:54	0°♒	
	3516 Sep 08 01:45	0°♌			3519 Mar 22 16:05	0°♓	
greatest brilliancy	3516 Sep 25 09:54	10°♌02'16	-4.5m				
retrograde	3516 Oct 06 10:23	12°♌13'05		superior conj	3519 Mar 27 13:03	6°♓05'59	-1°-26'-8
evening set	3516 Oct 23 12:58	6°♌44'15		minimum elong	3519 Mar 27 15:29	6°♓13'34	1°26'08
inferior conj	3516 Oct 27 12:08	4°♌20'37	-7°-22'-45	max. Earth dist.	3519 Mar 31 06:25	10°♓45'21	1.71770 AU
minimum elong	3516 Oct 27 21:36	4°♌06'00	7°21'13		3519 Apr 15 16:41	0°♈	
min. Earth dist.	3516 Oct 28 11:50	3°♌44'04	0.27875 AU	evening rise	3519 May 06 05:47	25°♄30'36	
morning rise	3516 Nov 01 05:43	1°♌28'58			3519 May 09 20:55	0°♈	
	3516 Nov 03 22:37	30°♌		asc. node	3519 May 19 08:19	11°♈41'49	
direct	3516 Nov 17 14:39	26°♌16'55			3519 Jun 03 05:32	0°♌	
asc. node	3516 Dec 01 12:59	29°♌47'41			3519 Jun 27 19:05	0°♍	
	3516 Dec 01 23:15	0°♌			3519 Jul 22 14:43	0°♎	
greatest brilliancy	3516 Dec 01 22:49	29°♌59'28	-4.6m		3519 Aug 16 19:07	0°♏	
morning max el	3517 Jan 07 04:55	29°♌20'55	46°51'44	desc. node	3519 Sep 07 22:09	25°♏49'16	
	3517 Jan 07 20:16	0°♏			3519 Sep 11 13:26	0°♐	
	3517 Feb 04 08:46	0°♐			3519 Oct 08 08:29	0°♑	
	3517 Mar 02 00:40	0°♑		evening max el	3519 Oct 31 14:20	24°♑11'36	46°38'54
desc. node	3517 Mar 23 03:10	25°♑20'19			3519 Nov 06 15:26	0°♒	
	3517 Mar 26 23:38	0°♒		greatest brilliancy	3519 Dec 09 05:32	23°♒41'15	-4.6m
	3517 Apr 20 15:29	0°♓		retrograde	3519 Dec 20 16:02	26°♒06'36	
	3517 May 15 04:45	0°♈		asc. node	3519 Dec 30 01:00	24°♒18'28	
	3517 Jun 08 17:25	0°♈		evening set	3520 Jan 03 23:18	22°♒02'09	
	3517 Jul 03 05:44	0°♌		inferior conj	3520 Jan 10 04:18	18°♒24'59	2°51'23
morning set	3517 Jul 11 09:29	9°♌59'35		minimum elong	3520 Jan 09 21:58	18°♒34'36	2°49'25
asc. node	3517 Jul 14 06:00	13°♌29'38		min. Earth dist.	3520 Jan 09 22:38	18°♒33'35	0.26527 AU
	3517 Jul 27 16:51	0°♍		morning rise	3520 Jan 15 20:43	15°♒05'15	
max. Earth dist.	3517 Aug 14 22:18	22°♍25'04	1.73409 AU	direct	3520 Jan 30 15:09	10°♒45'48	
				greatest brilliancy	3520 Feb 11 11:25	13°♒23'50	-4.7m
superior conj	3517 Aug 16 22:48	24°♍54'26	1°09'02		3520 Mar 06 16:53	0°♑	
minimum elong	3517 Aug 16 14:19	24°♍28'19	1°08'48	morning max el	3520 Mar 21 01:08	13°♑34'02	46°49'37
	3517 Aug 21 01:59	0°♎			3520 Apr 05 18:36	0°♒	
	3517 Sep 14 09:15	0°♊		desc. node	3520 Apr 19 15:02	15°♒17'16	
evening rise	3517 Sep 22 01:12	9°♊28'26			3520 May 02 13:40	0°♓	
	3517 Oct 08 15:33	0°♌			3520 May 28 07:22	0°♈	
	3517 Nov 01 21:51	0°♏			3520 Jun 22 13:58	0°♈	
desc. node	3517 Nov 02 19:56	1°♏08'17			3520 Jul 17 14:05	0°♌	
	3517 Nov 26 04:45	0°♐		asc. node	3520 Aug 10 17:53	29°♌15'19	
	3517 Dec 20 13:11	0°♑			3520 Aug 11 08:34	0°♍	
	3518 Jan 14 01:47	0°♒			3520 Sep 04 21:17	0°♎	
	3518 Feb 08 01:14	0°♓		morning set	3520 Sep 17 10:36	15°♎27'57	
asc. node	3518 Feb 23 22:39	18°♓31'42			3520 Sep 29 04:39	0°♏	
	3518 Mar 06 02:17	0°♈		max. Earth dist.	3520 Oct 21 10:03	27°♏36'48	1.72268 AU
evening max el	3518 Mar 27 09:56	22°♈38'29	46°29'36		3520 Oct 23 08:03	0°♐	
	3518 Apr 04 00:03	0°♈					
greatest brilliancy	3518 May 01 20:13	20°♈52'45	-4.6m	superior conj	3520 Oct 24 09:20	1°♐18'45	1°13'32
retrograde	3518 May 16 09:18	24°♈40'24		minimum elong	3520 Oct 24 17:58	1°♐45'37	1°13'19
evening set	3518 May 31 17:51	20°♈03'37			3520 Nov 16 09:06	0°♑	
inferior conj	3518 Jun 06 17:30	16°♈26'50	2°05'44	desc. node	3520 Nov 30 07:53	17°♑26'02	
minimum elong	3518 Jun 06 22:03	16°♈19'42	2°04'25	evening rise	3520 Dec 02 08:47	19°♑58'54	
min. Earth dist.	3518 Jun 06 14:44	16°♈31'10	0.28548 AU		3520 Dec 10 08:59	0°♒	
morning rise	3518 Jun 13 02:34	12°♈37'20			3521 Jan 03 08:26	0°♓	
desc. node	3518 Jun 15 12:28	11°♈22'51			3521 Jan 27 08:37	0°♈	
direct	3518 Jun 28 01:15	8°♈16'41			3521 Feb 20 12:01	0°♓	
greatest brilliancy	3518 Jul 10 18:26	11°♈07'19	-4.5m		3521 Mar 16 22:51	0°♈	
	3518 Aug 07 02:50	0°♌		asc. node	3521 Mar 23 10:32	7°♈51'25	
morning max el	3518 Aug 15 18:24	7°♌56'10	45°42'39		3521 Apr 10 23:34	0°♈	
	3518 Sep 06 11:25	0°♍			3521 May 07 01:29	0°♌	
	3518 Oct 03 10:26	0°♎			3521 Jun 04 10:41	0°♍	

evening max el	3521 Jun 06 05:17	1°Ω43'47	45°35'09	greatest brilliancy	3523 Nov 26 11:25	23°ℳ02'22	-3.9m
greatest brilliancy	3521 Jul 10 23:12	28°Ω20'07	-4.5m	morning set	3523 Nov 27 23:49	24°ℳ56'17	
desc. node	3521 Jul 13 00:37	29°Ω13'18			3523 Dec 02 00:49	0°♂	
	3521 Jul 15 02:49	0°♂			3523 Dec 25 22:37	0°♂	
retrograde	3521 Jul 24 23:18	1°♂44'58		desc. node	3523 Dec 28 19:44	3°♂37'10	
	3521 Aug 03 09:21	30°℞Ω		max. Earth dist.	3524 Jan 06 08:00	14°♂19'17	1.71160 AU
evening set	3521 Aug 10 07:53	26°Ω39'27					
inferior conj	3521 Aug 15 11:19	23°Ω31'19	-6°-50'-5	superior conj	3524 Jan 07 06:03	15°♂28'36	0°-22'-28
minimum elong	3521 Aug 15 01:44	23°Ω46'21	6°48'24	minimum elong	3524 Jan 07 00:16	15°♂10'24	0°22'11
min. Earth dist.	3521 Aug 15 08:21	23°Ω35'59	0.29073 AU		3524 Jan 18 19:12	0°≈	
morning rise	3521 Aug 19 19:36	20°Ω51'07			3524 Feb 11 15:45	0°♂	
direct	3521 Sep 06 03:10	15°Ω13'43		evening rise	3524 Feb 17 10:08	7°♂14'30	
greatest brilliancy	3521 Sep 20 02:21	18°Ω39'13	-4.5m		3524 Mar 06 13:52	0°♀	
	3521 Oct 07 15:32	0°♂			3524 Mar 30 15:45	0°♂	
morning max el	3521 Oct 25 12:12	16°♂02'50	46°07'58	asc. node	3524 Apr 19 22:28	25°♂01'27	
asc. node	3521 Nov 03 03:17	24°♂46'00			3524 Apr 23 23:54	0°♂	
	3521 Nov 08 02:42	0°♂			3524 May 18 16:58	0°♂	
	3521 Dec 04 21:43	0°ℳ			3524 Jun 12 22:53	0°Ω	
	3521 Dec 30 03:36	0°♂			3524 Jul 09 01:46	0°♂	
	3522 Jan 23 17:06	0°♂			3524 Aug 05 23:11	0°♂	
	3522 Feb 16 23:10	0°≈		desc. node	3524 Aug 09 12:20	3°♂34'35	
desc. node	3522 Feb 22 17:20	7°≈09'05		evening max el	3524 Aug 16 05:26	10°♂08'06	45°38'14
	3522 Mar 13 02:11	0°♂			3524 Sep 08 19:54	0°ℳ	
	3522 Apr 06 04:40	0°♀		greatest brilliancy	3524 Sep 22 21:10	7°ℳ42'32	-4.5m
	3522 Apr 30 08:19	0°♂		retrograde	3524 Oct 04 00:26	9°ℳ56'06	
morning set	3522 Apr 30 17:04	0°♂27'08		evening set	3524 Oct 21 05:55	4°ℳ22'11	
	3522 May 24 14:08	0°♂		inferior conj	3524 Oct 25 02:28	2°ℳ02'27	-7°-33'-41
				minimum elong	3524 Oct 25 11:33	1°ℳ48'26	7°32'19
superior conj	3522 Jun 07 16:55	17°♂24'53	0°-19'-18	min. Earth dist.	3524 Oct 26 01:59	1°ℳ26'14	0.27945 AU
minimum elong	3522 Jun 07 21:05	17°♂37'42	0°19'08		3524 Oct 28 10:41	30°℞♂	
max. Earth dist.	3522 Jun 09 18:03	19°♂56'16	1.73205 AU	morning rise	3524 Oct 29 16:44	29°♂15'47	
asc. node	3522 Jun 15 20:12	27°♂26'22		direct	3524 Nov 15 05:40	23°♂57'32	
	3522 Jun 17 22:07	0°♂		greatest brilliancy	3524 Nov 29 15:55	27°♂42'51	-4.6m
	3522 Jul 12 07:42	0°Ω		asc. node	3524 Nov 30 15:06	28°♂11'50	
evening rise	3522 Jul 14 13:54	2°Ω46'27			3524 Dec 03 21:19	0°ℳ	
	3522 Aug 05 18:32	0°♂		morning max el	3525 Jan 04 20:13	27°ℳ01'18	46°50'55
	3522 Aug 30 07:11	0°♂			3525 Jan 07 17:56	0°♂	
	3522 Sep 23 22:55	0°ℳ			3525 Feb 04 00:47	0°♂	
desc. node	3522 Oct 05 10:05	13°ℳ52'25			3525 Mar 01 14:30	0°≈	
	3522 Oct 18 19:18	0°♂		desc. node	3525 Mar 22 05:09	24°≈47'25	
	3522 Nov 12 22:31	0°♂			3525 Mar 26 12:21	0°♂	
	3522 Dec 08 14:19	0°≈			3525 Apr 20 03:31	0°♀	
	3523 Jan 04 13:23	0°♂			3525 May 14 16:20	0°♂	
evening max el	3523 Jan 12 07:38	8°♂04'55	47°13'52		3525 Jun 08 04:40	0°♂	
asc. node	3523 Jan 26 12:52	21°♂45'27			3525 Jul 02 16:44	0°♂	
	3523 Feb 05 11:09	0°♀		morning set	3525 Jul 09 03:02	7°♂52'43	
greatest brilliancy	3523 Feb 19 09:06	8°♀36'37	-4.7m	asc. node	3525 Jul 13 08:03	13°♂02'22	
retrograde	3523 Mar 04 04:15	11°♀39'34			3525 Jul 27 03:42	0°Ω	
evening set	3523 Mar 22 05:53	5°♀22'11		max. Earth dist.	3525 Aug 12 20:41	20°Ω32'49	1.73429 AU
min. Earth dist.	3523 Mar 24 13:24	3°♀56'04	0.27548 AU				
inferior conj	3523 Mar 25 01:16	3°♀37'29	8°55'18	superior conj	3525 Aug 14 16:56	22°Ω49'04	1°07'08
minimum elong	3523 Mar 25 02:48	3°♀35'05	8°55'17	minimum elong	3525 Aug 14 08:16	22°Ω22'24	1°06'52
morning rise	3523 Mar 27 23:52	1°♀48'16			3525 Aug 20 12:49	0°♂	
	3523 Mar 31 02:47	30°℞♂			3525 Sep 13 20:11	0°♂	
direct	3523 Apr 14 19:03	25°♂45'02		evening rise	3525 Sep 19 18:29	7°♂19'40	
greatest brilliancy	3523 Apr 25 16:45	27°♂56'10	-4.6m		3525 Oct 08 02:41	0°ℳ	
	3523 Apr 30 07:28	0°♀			3525 Nov 01 09:15	0°♂	
desc. node	3523 May 18 02:43	12°♀11'33		desc. node	3525 Nov 01 22:01	0°♂39'25	
morning max el	3523 Jun 03 04:03	26°♀42'46	46°05'51		3525 Nov 25 16:31	0°♂	
	3523 Jun 06 12:27	0°♂			3525 Dec 20 01:25	0°≈	
	3523 Jul 04 23:13	0°♂			3526 Jan 13 14:44	0°♂	
	3523 Jul 31 12:48	0°♂			3526 Feb 07 15:25	0°♀	
	3523 Aug 26 04:35	0°Ω		asc. node	3526 Feb 23 00:37	17°♀52'57	
asc. node	3523 Sep 08 05:36	15°Ω33'00			3526 Mar 05 19:12	0°♂	
	3523 Sep 20 05:28	0°♂		evening max el	3526 Mar 25 01:34	20°♂23'05	46°31'48
	3523 Oct 14 18:58	0°♂			3526 Apr 04 02:02	0°♂	
	3523 Nov 08 00:23	0°ℳ		greatest brilliancy	3526 Apr 29 12:19	18°♂39'55	-4.6m

retrograde	3526 May 14 02:02	22°II27'55			3528 Oct 22 19:01	0°ML	
evening set	3526 May 29 11:32	17°II48'33			3528 Nov 15 20:10	0°X	
inferior conj	3526 Jun 04 09:21	14°II14'17	2°25'46	desc. node	3528 Nov 29 09:59	16°X57'42	
minimum elong	3526 Jun 04 14:34	14°II06'06	2°24'15	evening rise	3528 Nov 29 21:19	17°X33'07	
min. Earth dist.	3526 Jun 04 06:31	14°II18'43	0.28525 AU		3528 Dec 09 20:12	0°Z	
morning rise	3526 Jun 10 18:00	10°II25'44			3529 Jan 02 19:51	0°≈	
desc. node	3526 Jun 14 14:39	8°II31'38			3529 Jan 26 20:15	0°X	
direct	3526 Jun 25 17:03	6°II04'29			3529 Feb 19 23:57	0°Y	
greatest brilliancy	3526 Jul 08 08:43	8°II54'15	-4.5m		3529 Mar 16 11:18	0°X	
	3526 Aug 07 05:20	0°S		asc. node	3529 Mar 22 12:36	7°X19'29	
morning max el	3526 Aug 13 11:14	5°S47'51	45°42'35		3529 Apr 10 13:00	0°II	
	3526 Sep 06 04:10	0°Q			3529 May 06 17:04	0°S	
	3526 Oct 03 00:16	0°M		evening max el	3529 Jun 03 20:35	29°S31'02	45°36'11
asc. node	3526 Oct 05 17:35	3°M08'48			3529 Jun 04 08:34	0°Q	
	3526 Oct 28 11:27	0°A		greatest brilliancy	3529 Jul 08 14:14	26°Q09'32	-4.5m
	3526 Nov 22 03:59	0°ML		desc. node	3529 Jul 12 02:31	27°Q36'28	
	3526 Dec 16 09:51	0°X		retrograde	3529 Jul 22 14:54	29°Q35'53	
	3527 Jan 09 10:08	0°Z		evening set	3529 Aug 07 21:19	24°Q34'28	
desc. node	3527 Jan 25 07:28	19°Z55'49		inferior conj	3529 Aug 13 03:42	21°Q22'08	-6°-37'-48
	3527 Feb 02 07:54	0°≈		minimum elong	3529 Aug 12 17:59	21°Q37'24	6°36'00
morning set	3527 Feb 11 22:44	12°≈04'52		min. Earth dist.	3529 Aug 13 00:29	21°Q27'12	0.29076 AU
	3527 Feb 26 05:04	0°X		morning rise	3529 Aug 17 14:35	18°Q37'49	
	3527 Mar 22 03:10	0°Y		direct	3529 Sep 03 19:11	13°Q04'31	
				greatest brilliancy	3529 Sep 17 17:19	16°Q27'51	-4.5m
superior conj	3527 Mar 25 01:04	3°Y38'46	-1°-26'-28		3529 Oct 07 23:56	0°M	
minimum elong	3527 Mar 25 02:29	3°Y43'13	1°26'28	morning max el	3529 Oct 23 02:24	13°M45'49	46°06'29
max. Earth dist.	3527 Mar 28 18:46	8°Y19'19	1.71721 AU	asc. node	3529 Nov 02 05:24	24°M01'40	
	3527 Apr 15 03:42	0°X			3529 Nov 07 20:39	0°A	
evening rise	3527 May 03 20:02	23°X12'03			3529 Dec 04 12:12	0°ML	
	3527 May 09 07:56	0°II			3529 Dec 29 16:38	0°X	
asc. node	3527 May 18 10:27	11°II14'16			3530 Jan 23 05:24	0°Z	
	3527 Jun 02 16:41	0°S			3530 Feb 16 11:00	0°≈	
	3527 Jun 27 06:31	0°Q		desc. node	3530 Feb 21 19:18	6°≈38'41	
	3527 Jul 22 02:39	0°M			3530 Mar 12 13:42	0°X	
	3527 Aug 16 07:55	0°A			3530 Apr 05 15:55	0°Y	
desc. node	3527 Sep 07 00:08	25°A14'35		morning set	3530 Apr 28 07:29	28°Y08'41	
	3527 Sep 11 03:47	0°ML			3530 Apr 29 19:23	0°X	
	3527 Oct 08 02:06	0°X			3530 May 24 01:02	0°II	
evening max el	3527 Oct 29 04:54	21°X51'19	46°36'40				
	3527 Nov 06 18:56	0°Z		superior conj	3530 Jun 05 09:23	15°II14'18	0°-22'-34
greatest brilliancy	3527 Dec 06 19:05	21°Z13'58	-4.6m	minimum elong	3530 Jun 05 14:13	15°II29'12	0°22'20
retrograde	3527 Dec 18 04:23	23°Z37'17		max. Earth dist.	3530 Jun 07 12:49	17°II52'46	1.73165 AU
asc. node	3527 Dec 29 03:02	21°Z11'22		asc. node	3530 Jun 14 22:15	26°II59'19	
evening set	3528 Jan 01 10:51	19°Z34'33			3530 Jun 17 08:57	0°S	
inferior conj	3528 Jan 07 16:31	15°Z56'12	2°27'48		3530 Jul 11 18:32	0°Q	
minimum elong	3528 Jan 07 11:00	16°Z04'36	2°26'03	evening rise	3530 Jul 12 08:21	0°Q42'24	
min. Earth dist.	3528 Jan 07 12:10	16°Z02'49	0.26526 AU		3530 Aug 05 05:31	0°M	
morning rise	3528 Jan 13 11:13	12°Z33'11			3530 Aug 29 18:29	0°A	
direct	3528 Jan 28 03:56	8°Z17'04			3530 Sep 23 10:44	0°ML	
greatest brilliancy	3528 Feb 09 01:08	10°Z56'02	-4.7m	desc. node	3530 Oct 04 12:10	13°ML22'11	
	3528 Mar 06 23:39	0°≈			3530 Oct 18 07:53	0°X	
morning max el	3528 Mar 18 14:14	11°≈08'16	46°50'42		3530 Nov 12 12:15	0°Z	
	3528 Apr 05 13:04	0°X			3530 Dec 08 06:04	0°≈	
desc. node	3528 Apr 18 17:06	14°X37'25			3531 Jan 04 09:51	0°X	
	3528 May 02 04:28	0°Y		evening max el	3531 Jan 09 20:37	5°X38'13	47°14'02
	3528 May 27 20:27	0°X		asc. node	3531 Jan 25 14:49	20°X40'59	
	3528 Jun 22 02:05	0°II			3531 Feb 06 08:06	0°Y	
	3528 Jul 17 01:37	0°S		greatest brilliancy	3531 Feb 17 00:44	6°Y14'35	-4.7m
asc. node	3528 Aug 09 19:47	28°S47'00		retrograde	3531 Mar 01 17:59	9°Y16'16	
	3528 Aug 10 19:46	0°Q		evening set	3531 Mar 19 19:40	2°Y59'30	
	3528 Sep 04 08:18	0°M		min. Earth dist.	3531 Mar 22 02:57	1°Y33'57	0.27505 AU
morning set	3528 Sep 15 03:43	13°M18'49		inferior conj	3531 Mar 22 15:08	1°Y14'55	8°56'55
	3528 Sep 28 15:36	0°A		minimum elong	3531 Mar 22 15:46	1°Y13'56	8°56'54
max. Earth dist.	3528 Oct 18 22:24	25°A11'43	1.72316 AU		3531 Mar 24 15:20	30°R	
				morning rise	3531 Mar 25 12:00	29°X28'26	
superior conj	3528 Oct 22 00:58	29°A03'48	1°15'12	direct	3531 Apr 12 07:47	23°X22'54	
minimum elong	3528 Oct 22 09:09	29°A29'15	1°15'01	greatest brilliancy	3531 Apr 23 06:30	25°X34'50	-4.6m

	3531 May 02 02:23	0°Υ		desc. node	3533 Nov 01 00:09	0°♄11'32	
desc. node	3531 May 17 04:51	11°Υ07'18			3533 Nov 25 04:04	0°♅	
morning max el	3531 May 31 17:52	24°Υ23'35	46°07'27		3533 Dec 19 13:30	0°≈	
	3531 Jun 06 09:53	0°♄			3534 Jan 13 03:36	0°♁	
	3531 Jul 04 14:48	0°♂			3534 Feb 07 05:37	0°Υ	
	3531 Jul 31 02:05	0°♄		asc. node	3534 Feb 22 02:42	17°Υ14'33	
	3531 Aug 25 16:41	0°♂			3534 Mar 05 12:19	0°♄	
asc. node	3531 Sep 07 07:45	15°♂04'15		evening max el	3534 Mar 22 17:47	18°♄09'23	46°34'07
	3531 Sep 19 16:55	0°♁			3534 Apr 04 05:20	0°♂	
	3531 Oct 14 06:07	0°♄		greatest brilliancy	3534 Apr 27 05:33	16°♂29'02	-4.6m
	3531 Nov 07 11:25	0°♂		retrograde	3534 May 11 18:38	20°♂15'44	
morning set	3531 Nov 25 13:23	22°♂34'06		evening set	3534 May 27 05:22	15°♂33'57	
	3531 Dec 01 11:51	0°♄		inferior conj	3534 Jun 02 01:08	12°♂02'14	2°45'41
	3531 Dec 25 09:39	0°♅		minimum elong	3534 Jun 02 07:00	11°♂53'01	2°43'59
desc. node	3531 Dec 27 21:43	3°♅08'43		min. Earth dist.	3534 Jun 01 22:09	12°♂06'54	0.28496 AU
max. Earth dist.	3532 Jan 03 16:10	11°♅39'21	1.71179 AU	morning rise	3534 Jun 08 09:09	8°♂14'45	
				desc. node	3534 Jun 13 16:35	5°♂45'19	
superior conj	3532 Jan 04 16:28	12°♅55'44	0°-18'-36	direct	3534 Jun 23 09:02	3°♂53'02	
minimum elong	3532 Jan 04 11:39	12°♅40'33	0°18'22	greatest brilliancy	3534 Jul 05 21:54	6°♂40'34	-4.5m
	3532 Jan 18 06:15	0°≈			3534 Aug 07 06:03	0°♄	
	3532 Feb 11 02:48	0°♁		morning max el	3534 Aug 11 03:30	3°♄39'09	45°42'31
evening rise	3532 Feb 14 20:20	4°♁41'06			3534 Sep 05 20:15	0°♂	
	3532 Mar 06 00:59	0°Υ			3534 Oct 02 13:38	0°♁	
	3532 Mar 30 03:00	0°♄		asc. node	3534 Oct 04 19:39	2°♁36'29	
asc. node	3532 Apr 19 00:37	24°♄32'57			3534 Oct 27 23:36	0°♄	
	3532 Apr 23 11:23	0°♂			3534 Nov 21 15:31	0°♂	
	3532 May 18 04:55	0°♄			3534 Dec 15 21:04	0°♄	
	3532 Jun 12 11:45	0°♂			3535 Jan 08 21:11	0°♅	
	3532 Jul 08 16:32	0°♁		desc. node	3535 Jan 24 09:29	19°♅27'38	
	3532 Aug 05 18:49	0°♄			3535 Feb 01 18:52	0°≈	
desc. node	3532 Aug 08 14:22	2°♄48'32		morning set	3535 Feb 09 08:34	9°≈30'40	
evening max el	3532 Aug 13 20:06	7°♄54'11	45°37'06		3535 Feb 25 15:58	0°♁	
	3532 Sep 09 20:03	0°♂			3535 Mar 21 14:00	0°Υ	
greatest brilliancy	3532 Sep 20 07:42	5°♂23'03	-4.5m				
retrograde	3532 Oct 01 14:51	7°♂39'56		superior conj	3535 Mar 22 12:34	1°Υ10'39	-1°-26'-37
evening set	3532 Oct 18 22:49	2°♂01'15		minimum elong	3535 Mar 22 12:57	1°Υ11'49	1°26'38
	3532 Oct 22 07:10	30°♂♄		max. Earth dist.	3535 Mar 26 07:00	5°Υ53'37	1.71673 AU
inferior conj	3532 Oct 22 16:52	29°♄45'03	-7°-43'-48		3535 Apr 14 14:28	0°♄	
minimum elong	3532 Oct 23 01:31	29°♄31'44	7°42'35	evening rise	3535 May 01 09:38	20°♄52'10	
min. Earth dist.	3532 Oct 23 15:43	29°♄09'52	0.28017 AU		3535 May 08 18:42	0°♂	
morning rise	3532 Oct 27 03:48	27°♄03'21		asc. node	3535 May 17 12:25	10°♂47'04	
direct	3532 Nov 12 21:14	21°♄39'11			3535 Jun 02 03:33	0°♄	
greatest brilliancy	3532 Nov 27 08:26	25°♄26'15	-4.6m		3535 Jun 26 17:38	0°♂	
asc. node	3532 Nov 29 17:08	26°♄39'49			3535 Jul 21 14:16	0°♁	
	3532 Dec 05 04:11	0°♂			3535 Aug 15 20:25	0°♄	
morning max el	3533 Jan 02 12:02	24°♄43'18	46°49'49	desc. node	3535 Sep 06 02:15	24°♄41'08	
	3533 Jan 07 14:46	0°♄			3535 Sep 10 17:55	0°♂	
	3533 Feb 03 16:30	0°♅			3535 Oct 07 19:41	0°♄	
	3533 Mar 01 04:10	0°≈		evening max el	3535 Oct 26 18:49	19°♄30'53	46°34'26
desc. node	3533 Mar 21 07:19	24°≈15'23			3535 Nov 06 23:33	0°♅	
	3533 Mar 26 00:54	0°♁		greatest brilliancy	3535 Dec 04 09:26	18°♅49'26	-4.6m
	3533 Apr 19 15:22	0°Υ		retrograde	3535 Dec 15 16:17	21°♅10'04	
	3533 May 14 03:42	0°♄		asc. node	3535 Dec 28 04:56	18°♅01'43	
	3533 Jun 07 15:41	0°♂		evening set	3535 Dec 29 22:49	17°♅08'37	
	3533 Jul 02 03:31	0°♄		inferior conj	3536 Jan 05 04:57	13°♅29'37	2°04'00
morning set	3533 Jul 06 20:42	5°♄46'48		minimum elong	3536 Jan 05 00:17	13°♅36'44	2°02'31
asc. node	3533 Jul 12 10:00	12°♄35'27		min. Earth dist.	3536 Jan 05 02:13	13°♅33'47	0.26529 AU
	3533 Jul 26 14:21	0°♂		morning rise	3536 Jan 11 01:42	10°♅03'27	
max. Earth dist.	3533 Aug 10 19:08	18°♂41'27	1.73445 AU	direct	3536 Jan 25 16:30	5°♅50'20	
				greatest brilliancy	3536 Feb 06 15:52	8°♅31'08	-4.7m
superior conj	3533 Aug 12 11:14	20°♂44'55	1°05'09		3536 Mar 07 03:48	0°≈	
minimum elong	3533 Aug 12 02:27	20°♂17'50	1°04'52	morning max el	3536 Mar 16 02:27	8°≈41'17	46°51'33
	3533 Aug 19 23:27	0°♁			3536 Apr 05 06:42	0°♁	
	3533 Sep 13 06:53	0°♄		desc. node	3536 Apr 17 19:10	13°♁58'52	
evening rise	3533 Sep 17 12:05	5°♄12'35			3536 May 01 18:49	0°Υ	
	3533 Oct 07 13:34	0°♂			3536 May 27 09:11	0°♄	
	3533 Oct 31 20:25	0°♄			3536 Jun 21 13:52	0°♂	

	3536 Jul 16 12:49	0°☿		greatest brilliancy	3539 Feb 14 15:32	3°☿52'16	-4.7m
asc. node	3536 Aug 08 21:55	28°☿20'27		retrograde	3539 Feb 27 08:13	6°☿53'55	
	3536 Aug 10 06:36	0°♌		evening set	3539 Mar 17 08:54	0°☿38'21	
	3536 Sep 03 18:57	0°♍			3539 Mar 18 09:56	30°♌	
morning set	3536 Sep 12 20:50	11°♍10'53		min. Earth dist.	3539 Mar 19 16:12	29°♌13'03	0.27461 AU
	3536 Sep 28 02:11	0°♎		inferior conj	3539 Mar 20 05:01	28°♌53'05	8°57'27
max. Earth dist.	3536 Oct 16 12:18	22°♎52'39	1.72367 AU	minimum elong	3539 Mar 20 04:44	28°♌53'32	8°57'27
				morning rise	3539 Mar 23 00:41	27°♌08'40	
superior conj	3536 Oct 19 16:52	26°♎50'52	1°16'45	direct	3539 Apr 09 20:50	21°♌01'34	
minimum elong	3536 Oct 20 00:33	27°♎14'45	1°16'35	greatest brilliancy	3539 Apr 20 19:50	23°♌14'05	-4.6m
	3536 Oct 22 05:39	0°♏			3539 May 03 07:21	0°☿	
	3536 Nov 15 06:54	0°♐		desc. node	3539 May 16 06:48	10°☿05'14	
evening rise	3536 Nov 27 10:15	15°♐09'48		morning max el	3539 May 29 08:30	22°☿07'13	46°09'00
desc. node	3536 Nov 28 11:56	16°♐30'02			3539 Jun 06 06:15	0°♑	
	3536 Dec 09 07:05	0°♑			3539 Jul 04 05:55	0°♒	
	3537 Jan 02 06:53	0°♒			3539 Jul 30 15:04	0°☿	
	3537 Jan 26 07:30	0°♓			3539 Aug 25 04:34	0°♌	
	3537 Feb 19 11:31	0°☿		asc. node	3539 Sep 06 09:48	14°♌35'42	
asc. node	3537 Mar 15 23:26	0°♑			3539 Sep 19 04:13	0°♍	
	3537 Mar 21 14:41	6°♑48'39			3539 Oct 13 17:06	0°♎	
	3537 Apr 10 02:13	0°♒			3539 Nov 06 22:17	0°♏	
	3537 May 06 08:36	0°☿		morning set	3539 Nov 23 03:07	20°♏13'05	
evening max el	3537 Jun 01 11:19	27°☿17'36	45°37'21		3539 Nov 30 22:41	0°♐	
	3537 Jun 04 07:02	0°♌			3539 Dec 24 20:31	0°♑	
greatest brilliancy	3537 Jul 06 04:38	23°♌58'52	-4.5m	desc. node	3539 Dec 26 23:43	2°♑40'49	
desc. node	3537 Jul 11 04:34	25°♌57'05		max. Earth dist.	3540 Jan 01 02:01	9°♑05'09	1.71201 AU
retrograde	3537 Jul 20 06:49	27°♌27'55					
evening set	3537 Aug 05 10:52	22°♌30'09		superior conj	3540 Jan 02 02:59	10°♑23'36	0°-14'-42
inferior conj	3537 Aug 10 20:08	19°♌13'57	-6°-24'-54	minimum elong	3540 Jan 01 23:08	10°♑11'32	0°14'32
minimum elong	3537 Aug 10 10:19	19°♌29'21	6°23'00	behind sun begin	3540 Jan 01 11:09	9°♑33'50	
min. Earth dist.	3537 Aug 10 16:41	19°♌19'21	0.29075 AU	behind sun end	3540 Jan 02 11:08	10°♑49'14	
morning rise	3537 Aug 15 09:40	16°♌25'41			3540 Jan 17 17:10	0°♒	
direct	3537 Sep 01 11:02	10°♌56'15			3540 Feb 10 13:47	0°♓	
greatest brilliancy	3537 Sep 15 09:16	14°♌18'56	-4.5m	evening rise	3540 Feb 12 06:40	2°♓08'22	
	3537 Oct 08 05:27	0°♍			3540 Mar 05 12:02	0°☿	
morning max el	3537 Oct 20 16:55	11°♍30'50	46°05'03		3540 Mar 29 14:09	0°♑	
asc. node	3537 Nov 01 07:25	23°♍18'46		asc. node	3540 Apr 18 02:35	24°♑04'18	
	3537 Nov 07 13:48	0°♎			3540 Apr 22 22:46	0°♒	
	3537 Dec 04 02:10	0°♏			3540 May 17 16:46	0°☿	
	3537 Dec 29 05:16	0°♐			3540 Jun 12 00:34	0°♌	
	3538 Jan 22 17:19	0°♑			3540 Jul 08 07:24	0°♍	
	3538 Feb 15 22:28	0°♒			3540 Aug 05 15:02	0°♎	
desc. node	3538 Feb 20 21:27	6°♒09'58		desc. node	3540 Aug 07 16:29	2°♎02'02	
	3538 Mar 12 00:49	0°♓		evening max el	3540 Aug 11 11:32	5°♎42'17	45°35'56
	3538 Apr 05 02:48	0°☿			3540 Sep 11 05:50	0°♏	
morning set	3538 Apr 25 21:55	25°☿51'15		greatest brilliancy	3540 Sep 17 19:16	3°♏05'05	-4.5m
	3538 Apr 29 06:06	0°♑		retrograde	3540 Sep 29 05:21	5°♏24'04	
	3538 May 23 11:40	0°♒			3540 Oct 16 02:52	30°♏	
				evening set	3540 Oct 16 15:47	29°♎41'09	
superior conj	3538 Jun 03 01:48	13°♒04'19	0°-25'-47	inferior conj	3540 Oct 20 07:24	27°♎28'13	-7°-53'-3
minimum elong	3538 Jun 03 07:17	13°♒21'14	0°25'32	minimum elong	3540 Oct 20 15:34	27°♎15'38	7°52'00
max. Earth dist.	3538 Jun 05 06:10	15°♒45'46	1.73130 AU	min. Earth dist.	3540 Oct 21 05:22	26°♎54'22	0.28084 AU
asc. node	3538 Jun 14 00:13	26°♒32'48		morning rise	3540 Oct 24 15:01	24°♎51'17	
	3538 Jun 16 19:31	0°☿		direct	3540 Nov 10 13:04	19°♎21'40	
evening rise	3538 Jul 10 02:38	28°☿38'39		greatest brilliancy	3540 Nov 24 23:53	23°♎08'41	-4.6m
	3538 Jul 11 05:09	0°♌		asc. node	3540 Nov 28 19:06	25°♎11'07	
	3538 Aug 04 16:16	0°♍			3540 Dec 06 02:16	0°♏	
	3538 Aug 29 05:32	0°♎		morning max el	3540 Dec 31 03:27	22°♏24'45	46°48'33
	3538 Sep 22 22:18	0°♏			3541 Jan 07 10:50	0°♐	
desc. node	3538 Oct 03 14:13	12°♏52'38			3541 Feb 03 07:56	0°♑	
	3538 Oct 17 20:14	0°♐			3541 Feb 28 17:42	0°♒	
	3538 Nov 12 01:50	0°♑		desc. node	3541 Mar 20 09:16	23°♒42'51	
	3538 Dec 07 21:49	0°♒			3541 Mar 25 13:24	0°♓	
	3539 Jan 04 06:43	0°♓			3541 Apr 19 03:13	0°☿	
evening max el	3539 Jan 07 10:11	3°♓13'46	47°14'10		3541 May 13 15:04	0°♑	
asc. node	3539 Jan 24 16:59	19°♓36'04			3541 Jun 07 02:42	0°♒	
	3539 Feb 07 12:19	0°☿			3541 Jul 01 14:17	0°☿	

morning set	3541 Jul 04 14:33	3° $\overline{54}$ 1'27		minimum elong	3544 Jan 02 13:27	11° $\overline{30}$ 7'10	1°38'38
asc. node	3541 Jul 11 12:07	12° $\overline{50}$ 9'02		min. Earth dist.	3544 Jan 02 16:23	11° $\overline{30}$ 2'43	0.26538 AU
	3541 Jul 26 01:01	0° Ω		morning rise	3544 Jan 08 15:54	7° $\overline{3}$ 32'21	
max. Earth dist.	3541 Aug 08 17:03	16° Ω 48'22	1.73462 AU	direct	3544 Jan 23 04:33	3° $\overline{3}$ 21'39	
				greatest brilliancy	3544 Feb 04 07:29	6° $\overline{30}$ 5'41	-4.7m
superior conj	3541 Aug 10 05:38	18° Ω 40'55	1°03'04		3544 Mar 07 06:51	0° \approx	
minimum elong	3541 Aug 09 20:46	18° Ω 13'37	1°02'47	morning max el	3544 Mar 13 14:18	6° \approx 11'56	46°52'30
	3541 Aug 19 10:08	0° $\overline{\eta}$			3544 Apr 05 00:22	0° $\overline{\chi}$	
	3541 Sep 12 17:41	0° $\underline{\Delta}$		desc. node	3544 Apr 16 21:10	13° $\overline{\chi}$ 19'21	
evening rise	3541 Sep 15 05:41	3° $\underline{\Delta}$ 05'16			3544 May 01 09:21	0° $\overline{\gamma}$	
	3541 Oct 07 00:34	0° $\overline{\mu}$			3544 May 26 22:12	0° $\overline{\delta}$	
desc. node	3541 Oct 31 02:03	29° $\overline{\mu}$ 42'34			3544 Jun 21 01:59	0° $\overline{\Pi}$	
	3541 Oct 31 07:42	0° $\overline{\pi}$			3544 Jul 16 00:23	0° $\overline{\Theta}$	
	3541 Nov 24 15:46	0° $\overline{\Sigma}$		asc. node	3544 Aug 07 23:59	27° $\overline{\Theta}$ 52'35	
	3541 Dec 19 01:45	0° \approx			3544 Aug 09 17:49	0° Ω	
	3542 Jan 12 16:40	0° $\overline{\chi}$			3544 Sep 03 05:56	0° $\overline{\eta}$	
	3542 Feb 06 20:07	0° $\overline{\gamma}$		morning set	3544 Sep 10 14:07	9° $\overline{\eta}$ 02'25	
asc. node	3542 Feb 21 04:46	16° $\overline{\gamma}$ 35'13			3544 Sep 27 13:06	0° $\underline{\Delta}$	
	3542 Mar 05 06:00	0° $\overline{\delta}$		max. Earth dist.	3544 Oct 14 05:14	20° $\underline{\Delta}$ 41'59	1.72417 AU
evening max el	3542 Mar 20 09:42	15° $\overline{\delta}$ 54'09	46°36'15				
	3542 Apr 04 10:46	0° $\overline{\Pi}$		superior conj	3544 Oct 17 08:59	24° $\underline{\Delta}$ 37'35	1°18'09
greatest brilliancy	3542 Apr 24 23:53	14° $\overline{\Pi}$ 18'37	-4.6m	minimum elong	3544 Oct 17 16:07	24° $\underline{\Delta}$ 59'46	1°18'01
retrograde	3542 May 09 10:43	18° $\overline{\Pi}$ 02'22			3544 Oct 21 16:36	0° $\overline{\mu}$	
evening set	3542 May 24 23:14	13° $\overline{\Pi}$ 18'17			3544 Nov 14 18:00	0° $\overline{\pi}$	
inferior conj	3542 May 30 16:49	9° $\overline{\Pi}$ 49'17	3°05'23	evening rise	3544 Nov 24 23:21	12° $\overline{\pi}$ 45'54	
minimum elong	3542 May 30 23:18	9° $\overline{\Pi}$ 39'05	3°03'32	desc. node	3544 Nov 27 14:01	16° $\overline{\pi}$ 01'37	
min. Earth dist.	3542 May 30 13:52	9° $\overline{\Pi}$ 53'54	0.28464 AU		3544 Dec 08 18:22	0° $\overline{\Sigma}$	
morning rise	3542 Jun 05 23:56	6° $\overline{\Pi}$ 02'56			3545 Jan 01 18:22	0° \approx	
desc. node	3542 Jun 12 18:36	3° $\overline{\Pi}$ 02'15			3545 Jan 25 19:13	0° $\overline{\chi}$	
direct	3542 Jun 21 00:45	1° $\overline{\Pi}$ 40'49			3545 Feb 18 23:34	0° $\overline{\gamma}$	
greatest brilliancy	3542 Jul 03 10:32	4° $\overline{\Pi}$ 25'23	-4.5m		3545 Mar 15 12:05	0° $\overline{\delta}$	
	3542 Aug 07 05:48	0° $\overline{\Theta}$		asc. node	3545 Mar 20 16:38	6° $\overline{\delta}$ 15'56	
morning max el	3542 Aug 08 18:43	1° $\overline{\Theta}$ 27'25	45°42'35		3545 Apr 09 15:59	0° $\overline{\Pi}$	
	3542 Sep 05 12:15	0° Ω			3545 May 06 00:52	0° $\overline{\Theta}$	
	3542 Oct 02 03:06	0° $\overline{\eta}$		evening max el	3545 May 30 01:59	25° $\overline{\Theta}$ 02'41	45°38'39
asc. node	3542 Oct 03 21:38	2° $\overline{\eta}$ 03'30			3545 Jun 04 07:05	0° Ω	
	3542 Oct 27 11:56	0° $\underline{\Delta}$		greatest brilliancy	3545 Jul 03 18:11	21° Ω 45'42	-4.5m
	3542 Nov 21 03:18	0° $\overline{\mu}$		desc. node	3545 Jul 10 06:43	24° Ω 12'38	
	3542 Dec 15 08:32	0° $\overline{\pi}$		retrograde	3545 Jul 17 23:10	25° Ω 18'30	
	3543 Jan 08 08:28	0° $\overline{\Sigma}$		evening set	3545 Aug 03 00:22	20° Ω 24'03	
desc. node	3543 Jan 23 11:38	18° $\overline{\Sigma}$ 59'06		inferior conj	3545 Aug 08 12:26	17° Ω 04'09	-6°-11'-22
	3543 Feb 01 06:04	0° \approx		minimum elong	3545 Aug 08 02:34	17° Ω 19'36	6°09'23
morning set	3543 Feb 06 18:16	6° \approx 55'19		min. Earth dist.	3545 Aug 08 08:33	17° Ω 10'13	0.29072 AU
	3543 Feb 25 03:06	0° $\overline{\chi}$		morning rise	3545 Aug 13 04:39	14° Ω 12'08	
				direct	3545 Aug 30 02:51	8° Ω 46'21	
superior conj	3543 Mar 19 23:59	28° $\overline{\chi}$ 41'26	-1°-26'-36	greatest brilliancy	3545 Sep 13 01:55	12° Ω 09'39	-4.5m
minimum elong	3543 Mar 19 23:18	28° $\overline{\chi}$ 39'21	1°26'38		3545 Oct 08 09:34	0° $\overline{\eta}$	
	3543 Mar 21 01:04	0° $\overline{\gamma}$		morning max el	3545 Oct 18 08:11	9° $\overline{\eta}$ 16'46	46°03'48
max. Earth dist.	3543 Mar 23 18:53	3° $\overline{\gamma}$ 26'01	1.71626 AU	asc. node	3545 Oct 31 09:24	22° $\overline{\eta}$ 35'16	
	3543 Apr 14 01:30	0° $\overline{\delta}$			3545 Nov 07 06:58	0° $\underline{\Delta}$	
evening rise	3543 Apr 28 23:05	18° $\overline{\delta}$ 30'47			3545 Dec 03 16:21	0° $\overline{\mu}$	
	3543 May 08 05:46	0° $\overline{\Pi}$			3545 Dec 28 18:11	0° $\overline{\pi}$	
asc. node	3543 May 16 14:27	10° $\overline{\Pi}$ 19'07			3546 Jan 22 05:35	0° $\overline{\Sigma}$	
	3543 Jun 01 14:44	0° $\overline{\Theta}$			3546 Feb 15 10:20	0° \approx	
	3543 Jun 26 05:05	0° Ω		desc. node	3546 Feb 19 23:27	5° \approx 39'27	
	3543 Jul 21 02:13	0° $\overline{\eta}$			3546 Mar 11 12:23	0° $\overline{\chi}$	
	3543 Aug 15 09:17	0° $\underline{\Delta}$			3546 Apr 04 14:08	0° $\overline{\gamma}$	
desc. node	3543 Sep 05 04:16	24° $\underline{\Delta}$ 06'19		morning set	3546 Apr 23 11:46	23° $\overline{\gamma}$ 30'29	
	3543 Sep 10 08:31	0° $\overline{\mu}$			3546 Apr 28 17:15	0° $\overline{\delta}$	
	3543 Oct 07 14:02	0° $\overline{\pi}$			3546 May 22 22:41	0° $\overline{\Pi}$	
evening max el	3543 Oct 24 07:37	17° $\overline{\pi}$ 06'39	46°32'02				
	3543 Nov 07 06:51	0° $\overline{\Sigma}$		superior conj	3546 May 31 17:45	10° $\overline{\Pi}$ 51'39	0°-29'00
greatest brilliancy	3543 Dec 01 23:49	16° $\overline{\Sigma}$ 23'22	-4.6m	minimum elong	3546 May 31 23:54	11° $\overline{\Pi}$ 10'35	0°28'45
retrograde	3543 Dec 13 03:43	18° $\overline{\Sigma}$ 41'21		max. Earth dist.	3546 Jun 02 23:48	13° $\overline{\Pi}$ 38'21	1.73093 AU
evening set	3543 Dec 27 10:50	14° $\overline{\Sigma}$ 40'30		asc. node	3546 Jun 13 02:20	26° $\overline{\Pi}$ 05'35	
asc. node	3543 Dec 27 07:07	14° $\overline{\Sigma}$ 45'23			3546 Jun 16 06:29	0° $\overline{\Theta}$	
inferior conj	3544 Jan 02 17:15	11° $\overline{\Sigma}$ 01'23	1°39'51	evening rise	3546 Jul 07 20:43	26° $\overline{\Theta}$ 33'04	

	3546 Jul 10 16:09	0°♌		asc. node	3548 Nov 27 21:14	23°♎44'51	
	3546 Aug 04 03:26	0°♍			3548 Dec 06 18:56	0°♌	
	3546 Aug 28 17:01	0°♊		morning max el	3548 Dec 28 18:00	20°♌03'33	46°47'29
	3546 Sep 22 10:18	0°♋			3549 Jan 07 06:27	0°♏	
desc. node	3546 Oct 02 16:11	12°♌21'39			3549 Feb 02 23:13	0°♐	
	3546 Oct 17 09:00	0°♏			3549 Feb 28 07:09	0°♑	
	3546 Nov 11 15:49	0°♐		desc. node	3549 Mar 19 11:17	23°♑10'33	
	3546 Dec 07 14:06	0°♑			3549 Mar 25 01:52	0°♒	
	3547 Jan 04 04:44	0°♓			3549 Apr 18 15:04	0°♑	
evening max el	3547 Jan 05 00:21	0°♓49'57	47°14'03		3549 May 13 02:29	0°♒	
asc. node	3547 Jan 23 18:58	18°♓37'41			3549 Jun 06 13:48	0°♓	
	3547 Feb 09 06:14	0°♑			3549 Jul 01 01:11	0°♐	
greatest brilliancy	3547 Feb 12 05:27	1°♑27'12	-4.7m	morning set	3549 Jul 02 08:08	1°♐34'55	
retrograde	3547 Feb 24 22:38	4°♑29'20		asc. node	3549 Jul 10 14:10	11°♐42'05	
	3547 Mar 11 21:44	30°♒♓			3549 Jul 25 11:47	0°♌	
evening set	3547 Mar 14 21:17	28°♓15'40		max. Earth dist.	3549 Aug 06 13:19	14°♌49'59	1.73475 AU
min. Earth dist.	3547 Mar 17 04:49	26°♓50'14	0.27419 AU				
inferior conj	3547 Mar 17 18:34	26°♓28'52	8°57'00	superior conj	3549 Aug 07 23:46	16°♌35'58	1°00'54
minimum elong	3547 Mar 17 17:21	26°♓30'45	8°56'59	minimum elong	3549 Aug 07 14:53	16°♌08'37	1°00'36
morning rise	3547 Mar 20 13:33	24°♓45'46			3549 Aug 18 20:53	0°♍	
direct	3547 Apr 07 10:09	18°♓37'58			3549 Sep 12 04:34	0°♊	
greatest brilliancy	3547 Apr 18 08:21	20°♓50'23	-4.6m	evening rise	3549 Sep 12 23:08	0°♊57'21	
	3547 May 04 05:17	0°♑			3549 Oct 06 11:39	0°♋	
desc. node	3547 May 15 08:52	9°♑03'18		desc. node	3549 Oct 30 04:09	29°♋13'55	
morning max el	3547 May 26 23:24	19°♑50'00	46°10'34		3549 Oct 30 19:06	0°♏	
	3547 Jun 06 02:30	0°♒			3549 Nov 24 03:34	0°♐	
	3547 Jul 03 21:13	0°♓			3549 Dec 18 14:05	0°♑	
	3547 Jul 30 04:18	0°♐			3550 Jan 12 05:48	0°♓	
	3547 Aug 24 16:44	0°♌			3550 Feb 06 10:40	0°♑	
asc. node	3547 Sep 05 11:43	14°♌05'50		asc. node	3550 Feb 20 06:43	15°♑55'37	
	3547 Sep 18 15:48	0°♍			3550 Mar 04 23:53	0°♒	
	3547 Oct 13 04:23	0°♊		evening max el	3550 Mar 18 00:40	13°♒36'51	46°38'20
	3547 Nov 06 09:25	0°♋			3550 Apr 04 18:08	0°♓	
morning set	3547 Nov 20 17:13	17°♋52'29		greatest brilliancy	3550 Apr 22 18:26	12°♓09'00	-4.6m
	3547 Nov 30 09:46	0°♏		retrograde	3550 May 07 02:27	15°♓49'43	
	3547 Dec 24 07:36	0°♐		evening set	3550 May 22 17:20	11°♓03'06	
desc. node	3547 Dec 26 01:52	2°♐12'46		inferior conj	3550 May 28 08:40	7°♓37'04	3°24'44
max. Earth dist.	3547 Dec 29 12:25	6°♐32'08	1.71219 AU	minimum elong	3550 May 28 15:43	7°♓25'58	3°22'46
				min. Earth dist.	3550 May 28 05:59	7°♓41'15	0.28435 AU
superior conj	3547 Dec 30 13:56	7°♐52'17	0°-10'-49	morning rise	3550 Jun 03 14:39	3°♓51'55	
minimum elong	3547 Dec 30 11:06	7°♐43'24	0°10'42	desc. node	3550 Jun 11 20:45	0°♓24'24	
behind sun begin	3547 Dec 29 15:14	6°♐40'58			3550 Jun 13 13:59	30°♒♓	
behind sun end	3547 Dec 31 06:58	8°♐45'51		direct	3550 Jun 18 16:15	29°♒29'11	
	3548 Jan 17 04:15	0°♑			3550 Jun 23 21:28	0°♓	
evening rise	3548 Feb 09 17:14	29°♑35'46		greatest brilliancy	3550 Jul 01 00:02	2°♓11'27	-4.5m
	3548 Feb 10 00:57	0°♓		morning max el	3550 Aug 06 09:20	29°♓14'16	45°42'37
	3548 Mar 04 23:17	0°♑			3550 Aug 07 04:29	0°♐	
	3548 Mar 29 01:34	0°♒			3550 Sep 05 03:55	0°♌	
asc. node	3548 Apr 17 04:35	23°♒34'55			3550 Oct 01 16:22	0°♍	
	3548 Apr 22 10:26	0°♓		asc. node	3550 Oct 02 23:42	1°♍31'11	
	3548 May 17 04:57	0°♐			3550 Oct 27 00:07	0°♊	
	3548 Jun 11 13:46	0°♌			3550 Nov 20 14:54	0°♋	
	3548 Jul 07 22:47	0°♍			3550 Dec 14 19:51	0°♏	
	3548 Aug 05 12:17	0°♊			3551 Jan 07 19:39	0°♐	
desc. node	3548 Aug 06 18:26	1°♊13'31		desc. node	3551 Jan 22 13:34	18°♐30'17	
evening max el	3548 Aug 09 02:48	3°♊29'10	45°34'47		3551 Jan 31 17:08	0°♑	
	3548 Sep 13 09:44	0°♋		morning set	3551 Feb 04 04:03	4°♑20'32	
greatest brilliancy	3548 Sep 15 07:50	0°♋47'30	-4.5m		3551 Feb 24 14:03	0°♓	
retrograde	3548 Sep 26 19:20	3°♋07'21					
	3548 Oct 09 10:47	30°♒♊		superior conj	3551 Mar 17 11:38	26°♓13'37	-1°-26'-26
evening set	3548 Oct 14 08:33	27°♊20'41		minimum elong	3551 Mar 17 09:55	26°♓08'15	1°26'26
inferior conj	3548 Oct 17 21:54	25°♊10'44	-8°-1'-32		3551 Mar 20 11:55	0°♑	
minimum elong	3548 Oct 18 05:29	24°♊59'00	8°00'39	max. Earth dist.	3551 Mar 21 04:49	0°♑52'55	1.71573 AU
min. Earth dist.	3548 Oct 18 19:05	24°♊37'59	0.28148 AU		3551 Apr 13 12:17	0°♒	
morning rise	3548 Oct 22 02:09	22°♊38'25		evening rise	3551 Apr 26 12:43	16°♒10'46	
direct	3548 Nov 08 04:40	17°♊03'33			3551 May 07 16:34	0°♓	
greatest brilliancy	3548 Nov 22 14:32	20°♊49'23	-4.6m	asc. node	3551 May 15 16:34	9°♓52'19	

	3551 Jun 01 01:40	0°☿			3554 Feb 14 21:46	0°♊		
	3551 Jun 25 16:18	0°♈		desc. node	3554 Feb 19 01:25	5°♊10'07		
	3551 Jul 20 13:58	0°♎			3554 Mar 10 23:32	0°♋		
	3551 Aug 14 22:00	0°♊			3554 Apr 04 01:04	0°♌		
desc. node	3551 Sep 04 06:15	23°♊31'48		morning set	3554 Apr 21 01:31	21°♌10'28		
	3551 Sep 09 23:03	0°♍			3554 Apr 28 04:01	0°♍		
	3551 Oct 07 08:39	0°♌			3554 May 22 09:19	0°♎		
evening max el	3551 Oct 21 19:39	14°♌41'27	46°29'42					
	3551 Nov 07 16:26	0°♎		superior conj	3554 May 29 09:45	8°♎40'14	0°-32'-11	
greatest brilliancy	3551 Nov 29 13:38	13°♎57'28	-4.6m	minimum elong	3554 May 29 16:31	9°♎01'06	0°31'54	
retrograde	3551 Dec 10 15:24	16°♎13'43		max. Earth dist.	3554 May 31 18:28	11°♎35'14	1.73051 AU	
evening set	3551 Dec 24 23:01	12°♎12'39		asc. node	3554 Jun 12 04:21	25°♎39'17		
asc. node	3551 Dec 26 09:07	11°♎26'20			3554 Jun 15 17:02	0°☿		
inferior conj	3551 Dec 31 05:32	8°♎33'54	1°15'34	evening rise	3554 Jul 05 15:02	24°☿29'33		
minimum elong	3551 Dec 31 02:38	8°♎38'19	1°14'38		3554 Jul 10 02:42	0°♈		
min. Earth dist.	3551 Dec 31 06:31	8°♎32'24	0.26554 AU		3554 Aug 03 14:09	0°♎		
morning rise	3552 Jan 06 05:55	5°♎02'28			3554 Aug 28 04:05	0°♊		
direct	3552 Jan 20 16:29	0°♎53'24			3554 Sep 21 21:55	0°♍		
greatest brilliancy	3552 Feb 01 23:43	3°♎41'42	-4.7m	desc. node	3554 Oct 01 18:17	11°♍52'11		
	3552 Mar 07 08:09	0°♊			3554 Oct 16 21:27	0°♌		
morning max el	3552 Mar 11 03:05	3°♊45'34	46°53'36		3554 Nov 11 05:37	0°♎		
	3552 Apr 04 17:21	0°♋			3554 Dec 07 06:20	0°♊		
desc. node	3552 Apr 15 23:13	12°♋41'15		evening max el	3555 Jan 02 15:23	28°♊29'19	47°13'54	
	3552 Apr 30 23:23	0°♌			3555 Jan 04 03:16	0°♋		
	3552 May 26 10:44	0°♍		asc. node	3555 Jan 22 20:56	17°♋18'18		
	3552 Jun 20 13:39	0°♎		greatest brilliancy	3555 Feb 09 19:46	29°♋03'33	-4.7m	
	3552 Jul 15 11:31	0°☿			3555 Feb 12 02:11	0°♌		
asc. node	3552 Aug 07 01:53	27°☿25'22		retrograde	3555 Feb 22 13:10	2°♌05'20		
	3552 Aug 09 04:38	0°♈			3555 Mar 04 13:34	30°♌		
	3552 Sep 02 16:35	0°♎		evening set	3555 Mar 12 09:12	25°♌54'29		
morning set	3552 Sep 08 07:28	6°♎55'08		min. Earth dist.	3555 Mar 14 17:10	24°♌28'26	0.27373 AU	
	3552 Sep 26 23:42	0°♊		inferior conj	3555 Mar 15 08:02	24°♌05'22	8°55'41	
max. Earth dist.	3552 Oct 11 23:19	18°♊35'54	1.72468 AU	minimum elong	3555 Mar 15 05:55	24°♌08'39	8°55'37	
				morning rise	3555 Mar 18 02:49	22°♌22'46		
superior conj	3552 Oct 15 01:05	22°♊25'15	1°19'25	direct	3555 Apr 04 23:47	16°♌15'21		
minimum elong	3552 Oct 15 07:39	22°♊45'40	1°19'19	greatest brilliancy	3555 Apr 15 19:49	18°♌26'22	-4.6m	
	3552 Oct 21 03:15	0°♍			3555 May 04 21:05	0°♌		
	3552 Nov 14 04:47	0°♌		desc. node	3555 May 14 10:59	8°♌03'58		
evening rise	3552 Nov 22 12:29	10°♌23'14		morning max el	3555 May 24 14:14	17°♌33'40	46°12'07	
desc. node	3552 Nov 26 16:05	15°♌34'09			3555 Jun 05 21:43	0°♍		
	3552 Dec 08 05:20	0°♎			3555 Jul 03 11:54	0°♎		
	3553 Jan 01 05:32	0°♊			3555 Jul 29 17:01	0°☿		
	3553 Jan 25 06:38	0°♋			3555 Aug 24 04:24	0°♈		
	3553 Feb 18 11:21	0°♌		asc. node	3555 Sep 04 13:50	13°♈38'01		
	3553 Mar 15 00:27	0°♍			3555 Sep 18 02:54	0°♎		
asc. node	3553 Mar 19 18:41	5°♍44'27			3555 Oct 12 15:13	0°♊		
	3553 Apr 09 05:29	0°♎			3555 Nov 05 20:10	0°♍		
	3553 May 05 16:54	0°☿		morning set	3555 Nov 18 07:30	15°♍33'35		
evening max el	3553 May 27 17:31	22°☿51'32	45°40'10		3555 Nov 29 20:32	0°♌		
	3553 Jun 04 07:36	0°♈			3555 Dec 23 18:24	0°♎		
greatest brilliancy	3553 Jul 01 07:42	19°♈34'31	-4.5m	desc. node	3555 Dec 25 03:49	1°♎44'58		
desc. node	3553 Jul 09 08:36	22°♈26'16		max. Earth dist.	3555 Dec 26 19:43	3°♎50'17	1.71243 AU	
retrograde	3553 Jul 15 16:11	23°♈11'16						
evening set	3553 Jul 31 14:17	18°♈19'53		superior conj	3555 Dec 28 00:49	5°♎21'42	0°-6'-56	
inferior conj	3553 Aug 06 04:57	14°♈56'25	-5°-57'-29	minimum elong	3555 Dec 27 23:01	5°♎16'02	0°06'50	
minimum elong	3553 Aug 05 19:06	15°♈11'49	5°55'25	behind sun begin	3555 Dec 26 23:14	4°♎01'20		
min. Earth dist.	3553 Aug 06 00:20	15°♈03'38	0.29071 AU	behind sun end	3555 Dec 28 22:48	6°♎30'45		
morning rise	3553 Aug 10 23:52	12°♈00'47			3556 Jan 16 15:07	0°♊		
direct	3553 Aug 27 19:19	6°♈38'36		evening rise	3556 Feb 07 03:23	27°♊02'37		
greatest brilliancy	3553 Sep 10 18:30	10°♈02'15	-4.5m		3556 Feb 09 11:52	0°♋		
	3553 Oct 08 11:28	0°♌			3556 Mar 04 10:17	0°♌		
morning max el	3553 Oct 16 00:34	7°♌06'55	46°02'21		3556 Mar 28 12:42	0°♍		
asc. node	3553 Oct 30 11:31	21°♌53'45		asc. node	3556 Apr 16 06:42	23°♌06'42		
	3553 Nov 06 23:23	0°♊			3556 Apr 21 21:51	0°♎		
	3553 Dec 03 06:03	0°♍			3556 May 16 16:54	0°☿		
	3553 Dec 28 06:41	0°♌			3556 Jun 11 02:47	0°♈		
	3554 Jan 21 17:26	0°♎			3556 Jul 07 14:02	0°♎		

	3556 Aug 05 09:50	0°♄			3559 Jan 07 06:43	0°♄	
desc. node	3556 Aug 05 20:30	0°♄25'42		desc. node	3559 Jan 21 15:36	18°♄02'05	
evening max el	3556 Aug 06 17:48	1°♄16'41	45°33'49		3559 Jan 31 04:08	0°≈	
greatest brilliancy	3556 Sep 12 21:16	28°♄32'54	-4.5m	morning set	3559 Feb 01 13:54	1°≈46'05	
	3556 Sep 17 10:29	0°♄			3559 Feb 24 01:01	0°✕	
retrograde	3556 Sep 24 09:14	0°♄53'06					
	3556 Oct 01 02:21	30°♄		superior conj	3559 Mar 14 22:52	23°✕44'13	-1°-26'-4
evening set	3556 Oct 12 01:27	25°♄03'06		minimum elong	3559 Mar 14 20:05	23°✕35'29	1°26'04
inferior conj	3556 Oct 15 12:47	22°♄55'50	-8°-9'-5	max. Earth dist.	3559 Mar 18 10:24	28°✕05'54	1.71530 AU
minimum elong	3556 Oct 15 19:45	22°♄45'02	8°08'22		3559 Mar 19 22:51	0°Υ	
min. Earth dist.	3556 Oct 16 09:24	22°♄23'53	0.28211 AU		3559 Apr 12 23:12	0°♄	
morning rise	3556 Oct 19 13:46	20°♄27'54		evening rise	3559 Apr 24 01:37	13°♄48'00	
direct	3556 Nov 05 20:07	14°♄47'57			3559 May 07 03:31	0°♄	
greatest brilliancy	3556 Nov 20 05:26	18°♄32'16	-4.6m	asc. node	3559 May 14 18:30	9°♄24'32	
asc. node	3556 Nov 26 23:13	22°♄22'45			3559 May 31 12:45	0°♄	
	3556 Dec 07 06:43	0°♄			3559 Jun 25 03:41	0°♄	
morning max el	3556 Dec 26 07:55	17°♄41'43	46°46'05		3559 Jul 20 01:54	0°♄	
	3557 Jan 07 01:13	0°♄			3559 Aug 14 10:56	0°♄	
	3557 Feb 02 14:07	0°♄		desc. node	3559 Sep 03 08:22	22°♄57'05	
	3557 Feb 27 20:23	0°≈			3559 Sep 09 13:55	0°♄	
desc. node	3557 Mar 18 13:24	22°≈39'02			3559 Oct 07 03:50	0°♄	
	3557 Mar 24 14:10	0°✕		evening max el	3559 Oct 19 08:17	12°♄18'00	46°27'37
	3557 Apr 18 02:45	0°Υ			3559 Nov 08 05:12	0°♄	
	3557 May 12 13:42	0°♄		greatest brilliancy	3559 Nov 27 02:42	11°♄31'25	-4.6m
	3557 Jun 06 00:42	0°♄		retrograde	3559 Dec 08 03:48	13°♄47'09	
morning set	3557 Jun 30 01:36	29°♄28'32		evening set	3559 Dec 22 11:41	9°♄45'19	
	3557 Jun 30 11:52	0°♄		asc. node	3559 Dec 25 11:02	8°♄05'47	
asc. node	3557 Jul 09 16:05	11°♄15'19		inferior conj	3559 Dec 28 18:01	6°♄07'16	0°51'17
	3557 Jul 24 22:23	0°♄		minimum elong	3559 Dec 28 16:03	6°♄10'16	0°50'38
max. Earth dist.	3557 Aug 04 08:15	12°♄48'05	1.73484 AU	min. Earth dist.	3559 Dec 28 20:33	6°♄03'25	0.26571 AU
				morning rise	3560 Jan 03 20:01	2°♄33'55	
superior conj	3557 Aug 05 18:05	14°♄32'07	0°58'40		3560 Jan 09 12:01	30°♄	
minimum elong	3557 Aug 05 09:12	14°♄04'48	0°58'20	direct	3560 Jan 18 05:03	28°♄26'00	
	3557 Aug 18 07:29	0°♄			3560 Jan 27 06:29	0°♄	
evening rise	3557 Sep 10 16:59	28°♄51'20		greatest brilliancy	3560 Jan 30 15:41	1°♄18'14	-4.7m
	3557 Sep 11 15:14	0°♄			3560 Mar 07 08:11	0°≈	
	3557 Oct 05 22:30	0°♄		morning max el	3560 Mar 08 16:58	1°≈22'04	46°54'22
desc. node	3557 Oct 29 06:14	28°♄46'03			3560 Apr 04 10:04	0°✕	
	3557 Oct 30 06:15	0°♄		desc. node	3560 Apr 15 01:17	12°✕03'09	
	3557 Nov 23 15:09	0°♄			3560 Apr 30 13:27	0°Υ	
	3557 Dec 18 02:17	0°≈			3560 May 25 23:27	0°♄	
	3558 Jan 11 18:54	0°✕			3560 Jun 20 01:34	0°♄	
	3558 Feb 06 01:21	0°Υ			3560 Jul 14 22:54	0°♄	
asc. node	3558 Feb 19 08:48	15°Υ15'52		asc. node	3560 Aug 06 04:02	26°♄58'12	
	3558 Mar 04 18:15	0°♄			3560 Aug 08 15:40	0°♄	
evening max el	3558 Mar 15 14:40	11°♄16'46	46°40'25		3560 Sep 02 03:27	0°♄	
	3558 Apr 05 04:28	0°♄		morning set	3560 Sep 06 00:39	4°♄46'47	
greatest brilliancy	3558 Apr 20 12:22	9°♄57'47	-4.6m		3560 Sep 26 10:31	0°♄	
retrograde	3558 May 04 17:50	13°♄36'18		max. Earth dist.	3560 Oct 09 17:38	16°♄29'53	1.72514 AU
evening set	3558 May 20 11:17	8°♄46'45					
inferior conj	3558 May 26 00:18	5°♄24'05	3°43'59	superior conj	3560 Oct 12 17:13	20°♄12'23	1°20'35
minimum elong	3558 May 26 07:54	5°♄12'08	3°41'53	minimum elong	3560 Oct 12 23:11	20°♄30'54	1°20'30
min. Earth dist.	3558 May 25 22:08	5°♄27'29	0.28405 AU		3560 Oct 20 14:08	0°♄	
morning rise	3558 Jun 01 04:56	1°♄40'27			3560 Nov 13 15:48	0°♄	
	3558 Jun 04 12:43	30°♄		evening rise	3560 Nov 20 01:52	8°♄00'45	
desc. node	3558 Jun 10 22:40	27°♄50'31		desc. node	3560 Nov 25 18:02	15°♄05'42	
direct	3558 Jun 16 07:00	27°♄16'38			3560 Dec 07 16:29	0°♄	
greatest brilliancy	3558 Jun 28 14:09	29°♄57'44	-4.5m		3560 Dec 31 16:52	0°≈	
	3558 Jun 28 16:20	0°♄			3561 Jan 24 18:11	0°✕	
morning max el	3558 Aug 03 23:43	27°♄00'23	45°42'51		3561 Feb 17 23:17	0°Υ	
	3558 Aug 07 02:16	0°♄			3561 Mar 14 13:02	0°♄	
	3558 Sep 04 19:19	0°♄		asc. node	3561 Mar 18 20:46	5°♄12'23	
	3558 Oct 01 05:29	0°♄			3561 Apr 08 19:19	0°♄	
asc. node	3558 Oct 02 01:44	0°♄59'02			3561 May 05 09:36	0°♄	
	3558 Oct 26 12:09	0°♄		evening max el	3561 May 25 09:52	20°♄41'05	45°41'34
	3558 Nov 20 02:23	0°♄			3561 Jun 04 10:03	0°♄	
	3558 Dec 14 07:03	0°♄		greatest brilliancy	3561 Jun 28 22:01	17°♄22'41	-4.5m

desc. node	3561 Jul 08 10:41	20°Ω34'15		superior conj	3563 Dec 25 11:46	2°☾50'19	0°-3'-1
retrograde	3561 Jul 13 09:03	21°Ω01'55		minimum elong	3563 Dec 25 11:00	2°☾47'52	0°02'59
evening set	3561 Jul 29 04:08	16°Ω13'45		behind sun begin	3563 Dec 24 09:29	1°☾27'46	
inferior conj	3561 Aug 03 21:12	12°Ω46'43	-5°-42'-55	behind sun end	3563 Dec 26 12:30	4°☾07'59	
minimum elong	3561 Aug 03 11:27	13°Ω01'58	5°40'47		3564 Jan 16 02:19	0°≈	
min. Earth dist.	3561 Aug 03 15:47	12°Ω55'11	0.29064 AU	evening rise	3564 Feb 04 13:35	24°≈28'27	
morning rise	3561 Aug 08 18:49	9°Ω47'24			3564 Feb 08 23:08	0°✕	
direct	3561 Aug 25 11:56	4°Ω29'04			3564 Mar 03 21:38	0°Υ	
greatest brilliancy	3561 Sep 08 09:44	7°Ω51'44	-4.5m		3564 Mar 28 00:09	0°♄	
	3561 Oct 08 12:32	0°♍		asc. node	3564 Apr 15 08:39	22°♄37'00	
morning max el	3561 Oct 13 16:53	4°♍56'00	46°00'58		3564 Apr 21 09:33	0°♅	
asc. node	3561 Oct 29 13:32	21°♍11'28			3564 May 16 05:11	0°☿	
	3561 Nov 06 15:53	0°♁			3564 Jun 10 16:11	0°♁	
	3561 Dec 02 19:56	0°♂			3564 Jul 07 05:54	0°♍	
	3561 Dec 27 19:25	0°♂		evening max el	3564 Aug 04 07:55	29°♍00'50	45°32'39
	3562 Jan 21 05:31	0°☾		desc. node	3564 Aug 04 22:36	29°♍35'50	
	3562 Feb 14 09:25	0°≈			3564 Aug 05 08:47	0°♁	
desc. node	3562 Feb 18 03:35	4°≈40'42		greatest brilliancy	3564 Sep 10 10:39	26°♁16'35	-4.5m
	3562 Mar 10 10:53	0°✕		retrograde	3564 Sep 21 22:50	28°♁37'24	
	3562 Apr 03 12:13	0°Υ		evening set	3564 Oct 09 18:01	22°♁44'10	
morning set	3562 Apr 18 15:27	18°Υ50'17		inferior conj	3564 Oct 13 03:35	20°♁39'28	-8°-15'-50
	3562 Apr 27 15:01	0°♄		minimum elong	3564 Oct 13 09:53	20°♁29'41	8°15'15
	3562 May 21 20:13	0°♅		min. Earth dist.	3564 Oct 13 23:59	20°♁07'48	0.28274 AU
				morning rise	3564 Oct 17 01:27	18°♁15'48	
superior conj	3562 May 27 01:40	6°♅27'32	0°-35'-20	direct	3564 Nov 03 10:58	12°♁30'39	
minimum elong	3562 May 27 09:00	6°♅50'11	0°35'01	greatest brilliancy	3564 Nov 17 21:02	16°♁14'41	-4.6m
max. Earth dist.	3562 May 29 14:35	9°♅35'35	1.73015 AU	asc. node	3564 Nov 26 01:12	21°♁01'41	
asc. node	3562 Jun 11 06:20	25°♅11'56			3564 Dec 07 16:02	0°♂	
	3562 Jun 15 03:54	0°☿		morning max el	3564 Dec 23 21:23	15°♂17'33	46°44'51
evening rise	3562 Jul 03 09:05	22°☿24'04			3565 Jan 06 19:56	0°♂	
	3562 Jul 09 13:38	0°♁			3565 Feb 02 05:11	0°☾	
	3562 Aug 03 01:17	0°♍			3565 Feb 27 09:50	0°≈	
	3562 Aug 27 15:34	0°♁		desc. node	3565 Mar 17 15:23	22°≈06'17	
	3562 Sep 21 09:58	0°♂			3565 Mar 24 02:42	0°✕	
desc. node	3562 Sep 30 20:19	11°♂21'15			3565 Apr 17 14:40	0°Υ	
	3562 Oct 16 10:22	0°♂			3565 May 12 01:11	0°♄	
	3562 Nov 10 19:55	0°☾			3565 Jun 05 11:51	0°♅	
	3562 Dec 06 23:16	0°≈		morning set	3565 Jun 27 19:20	27°♅22'12	
evening max el	3562 Dec 31 06:45	26°≈08'27	47°13'39		3565 Jun 29 22:47	0°☿	
	3563 Jan 04 03:12	0°✕		asc. node	3565 Jul 08 18:14	10°☿48'35	
asc. node	3563 Jan 21 23:06	16°✕06'25			3565 Jul 24 09:13	0°♁	
greatest brilliancy	3563 Feb 07 11:15	26°✕40'33	-4.7m	max. Earth dist.	3565 Aug 02 03:50	10°♁47'26	1.73499 AU
retrograde	3563 Feb 20 03:35	29°✕40'25					
evening set	3563 Mar 09 20:48	23°✕33'29		superior conj	3565 Aug 03 12:36	12°♁28'13	0°56'20
min. Earth dist.	3563 Mar 12 05:51	22°✕05'43	0.27322 AU	minimum elong	3565 Aug 03 03:47	12°♁01'05	0°56'01
inferior conj	3563 Mar 12 21:36	21°✕41'16	8°53'24		3565 Aug 17 18:20	0°♍	
minimum elong	3563 Mar 12 18:36	21°✕45'55	8°53'16	evening rise	3565 Sep 08 11:00	26°♍45'00	
morning rise	3563 Mar 15 16:37	19°✕58'20			3565 Sep 11 02:13	0°♁	
direct	3563 Apr 02 13:24	13°✕52'24			3565 Oct 05 09:43	0°♂	
greatest brilliancy	3563 Apr 13 06:55	16°✕01'18	-4.6m	desc. node	3565 Oct 28 08:10	28°♂16'27	
	3563 May 05 09:05	0°Υ			3565 Oct 29 17:47	0°♂	
desc. node	3563 May 13 12:56	7°Υ05'05			3565 Nov 23 03:09	0°☾	
morning max el	3563 May 22 04:18	15°Υ14'45	46°13'34		3565 Dec 17 14:52	0°≈	
	3563 Jun 05 16:38	0°♄			3566 Jan 11 08:23	0°✕	
	3563 Jul 03 02:41	0°♅			3566 Feb 05 16:30	0°Υ	
	3563 Jul 29 06:00	0°☿		asc. node	3566 Feb 18 10:51	14°Υ34'49	
	3563 Aug 23 16:27	0°♁			3566 Mar 04 13:23	0°♄	
asc. node	3563 Sep 03 15:53	13°♁08'44		evening max el	3566 Mar 13 04:23	8°♄55'07	46°42'34
	3563 Sep 17 14:26	0°♍			3566 Apr 05 18:43	0°♅	
	3563 Oct 12 02:29	0°♁		greatest brilliancy	3566 Apr 18 05:28	7°♅44'49	-4.6m
	3563 Nov 05 07:19	0°♂		retrograde	3566 May 02 09:32	11°♅22'37	
morning set	3563 Nov 15 21:39	13°♂13'11		evening set	3566 May 18 05:26	6°♅29'40	
	3563 Nov 29 07:38	0°♂		inferior conj	3566 May 23 16:02	3°♅10'43	4°02'51
	3563 Dec 23 05:32	0°☾		minimum elong	3566 May 24 00:09	2°♅57'59	4°00'40
max. Earth dist.	3563 Dec 24 01:03	1°☾01'16	1.71268 AU	min. Earth dist.	3566 May 23 14:22	3°♅13'21	0.28375 AU
desc. node	3563 Dec 24 05:52	1°☾16'22			3566 May 28 21:10	30°♄	
				morning rise	3566 May 29 19:12	29°♄29'02	

desc. node	3566 Jun 10 00:45	25°♄21'16		desc. node	3568 Nov 24 20:09	14°♄37'52	
direct	3566 Jun 13 21:32	25°♄03'34			3568 Dec 07 03:38	0°♄	
greatest brilliancy	3566 Jun 26 04:57	27°♄44'30	-4.5m		3568 Dec 31 04:14	0°≈	
	3566 Jun 30 23:11	0°♄			3569 Jan 24 05:50	0°♄	
morning max el	3566 Aug 01 14:55	24°♄48'08	45°43'14		3569 Feb 17 11:20	0°♄	
	3566 Aug 06 23:23	0°♄			3569 Mar 14 01:45	0°♄	
	3566 Sep 04 10:37	0°♄		asc. node	3569 Mar 17 22:43	4°♄39'39	
	3566 Sep 30 18:40	0°♄			3569 Apr 08 09:18	0°♄	
asc. node	3566 Oct 01 03:44	0°♄26'30			3569 May 05 02:34	0°♄	
	3566 Oct 26 00:20	0°♄		evening max el	3569 May 23 02:46	18°♄32'13	45°43'06
	3566 Nov 19 14:06	0°♄			3569 Jun 04 13:59	0°♄	
	3566 Dec 13 18:31	0°♄		greatest brilliancy	3569 Jun 26 13:40	15°♄13'06	-4.5m
	3567 Jan 06 18:03	0°♄		desc. node	3569 Jul 07 12:50	18°♄38'48	
desc. node	3567 Jan 20 17:46	17°♄33'31		retrograde	3569 Jul 11 01:51	18°♄53'10	
morning set	3567 Jan 29 23:34	29°♄10'19		evening set	3569 Jul 26 18:18	14°♄08'22	
	3567 Jan 30 15:22	0°≈		inferior conj	3569 Aug 01 13:35	10°♄37'51	-5°-27'-53
	3567 Feb 23 12:10	0°♄		minimum elong	3569 Aug 01 03:59	10°♄52'53	5°25'44
				min. Earth dist.	3569 Aug 01 07:28	10°♄47'25	0.29052 AU
superior conj	3567 Mar 12 09:54	21°♄13'34	-1°-25'-32	morning rise	3569 Aug 06 13:48	7°♄34'49	
minimum elong	3567 Mar 12 06:03	21°♄01'31	1°25'31	direct	3569 Aug 23 04:50	2°♄20'37	
max. Earth dist.	3567 Mar 15 15:17	25°♄16'06	1.71488 AU	greatest brilliancy	3569 Sep 05 23:51	5°♄40'38	-4.5m
	3567 Mar 19 09:55	0°♄			3569 Oct 08 12:06	0°♄	
	3567 Apr 12 10:15	0°♄		morning max el	3569 Oct 11 08:53	2°♄45'12	45°59'39
evening rise	3567 Apr 21 14:34	11°♄24'51		asc. node	3569 Oct 28 15:31	20°♄30'22	
	3567 May 06 14:37	0°♄			3569 Nov 06 07:48	0°♄	
asc. node	3567 May 13 20:33	8°♄56'36			3569 Dec 02 09:27	0°♄	
	3567 May 30 23:59	0°♄			3569 Dec 27 07:52	0°♄	
	3567 Jun 24 15:11	0°♄			3570 Jan 20 17:23	0°♄	
	3567 Jul 19 13:56	0°♄			3570 Feb 13 20:57	0°≈	
	3567 Aug 14 00:00	0°♄		desc. node	3570 Feb 17 05:32	4°≈11'01	
desc. node	3567 Sep 02 10:22	22°♄21'40			3570 Mar 09 22:10	0°♄	
	3567 Sep 09 05:00	0°♄			3570 Apr 02 23:17	0°♄	
	3567 Oct 06 23:41	0°♄		morning set	3570 Apr 16 04:48	16°♄28'29	
evening max el	3567 Oct 16 21:47	9°♄56'32	46°25'16		3570 Apr 27 01:55	0°♄	
	3567 Nov 08 22:34	0°♄			3570 May 21 06:59	0°♄	
greatest brilliancy	3567 Nov 24 14:45	9°♄03'34	-4.6m				
retrograde	3567 Dec 05 16:22	11°♄19'32		superior conj	3570 May 24 17:10	4°♄13'56	0°-38'-27
evening set	3567 Dec 20 00:26	7°♄16'41		minimum elong	3570 May 25 01:03	4°♄38'16	0°38'07
asc. node	3567 Dec 24 13:13	4°♄41'31		max. Earth dist.	3570 May 27 11:18	7°♄38'11	1.72971 AU
inferior conj	3567 Dec 26 06:18	3°♄39'22	0°26'41	asc. node	3570 Jun 10 08:27	24°♄45'30	
minimum elong	3567 Dec 26 05:16	3°♄40'56	0°26'21		3570 Jun 14 14:36	0°♄	
min. Earth dist.	3567 Dec 26 10:09	3°♄33'31	0.26596 AU	evening rise	3570 Jul 01 02:56	20°♄18'31	
morning rise	3568 Jan 01 09:44	0°♄04'28			3570 Jul 09 00:23	0°♄	
	3568 Jan 01 13:06	30°♄57'27			3570 Aug 02 12:13	0°♄	
direct	3568 Jan 15 18:05	25°♄57'27			3570 Aug 27 02:51	0°♄	
greatest brilliancy	3568 Jan 28 06:59	28°♄52'54	-4.7m		3570 Sep 20 21:46	0°♄	
	3568 Jan 30 15:47	0°♄		desc. node	3570 Sep 29 22:18	10°♄50'55	
morning max el	3568 Mar 06 07:34	28°♄59'44	46°55'11		3570 Oct 15 23:01	0°♄	
	3568 Mar 07 07:26	0°≈			3570 Nov 10 10:00	0°♄	
	3568 Apr 04 02:38	0°♄			3570 Dec 06 16:08	0°≈	
desc. node	3568 Apr 14 03:17	11°♄24'53		evening max el	3570 Dec 28 21:25	23°≈46'45	47°13'01
	3568 Apr 30 03:27	0°♄			3571 Jan 04 03:53	0°♄	
	3568 May 25 12:07	0°♄		asc. node	3571 Jan 21 01:03	14°♄52'39	
	3568 Jun 19 13:26	0°♄		greatest brilliancy	3571 Feb 05 03:07	24°♄18'18	-4.7m
	3568 Jul 14 10:14	0°♄		retrograde	3571 Feb 17 17:15	27°♄15'19	
asc. node	3568 Aug 05 06:04	26°♄30'51		evening set	3571 Mar 07 07:42	21°♄13'17	
	3568 Aug 08 02:40	0°♄		inferior conj	3571 Mar 10 10:59	19°♄17'10	8°49'58
	3568 Sep 01 14:15	0°♄		minimum elong	3571 Mar 10 07:07	19°♄23'13	8°49'45
morning set	3568 Sep 03 18:21	2°♄40'19		min. Earth dist.	3571 Mar 09 18:50	19°♄42'19	0.27276 AU
	3568 Sep 25 21:15	0°♄		morning rise	3571 Mar 13 06:44	17°♄33'00	
max. Earth dist.	3568 Oct 07 11:53	14°♄24'03	1.72559 AU	direct	3571 Mar 31 02:31	11°♄29'16	
				greatest brilliancy	3571 Apr 10 19:05	13°♄37'02	-4.6m
superior conj	3568 Oct 10 09:53	18°♄01'29	1°21'36		3571 May 05 17:57	0°♄	
minimum elong	3568 Oct 10 15:11	18°♄17'59	1°21'31	desc. node	3571 May 12 15:00	6°♄07'56	
	3568 Oct 20 00:56	0°♄		morning max el	3571 May 19 17:24	12°♄53'24	46°15'05
	3568 Nov 13 02:45	0°♄			3571 Jun 05 10:56	0°♄	
evening rise	3568 Nov 17 15:36	5°♄39'31			3571 Jul 02 17:06	0°♄	

	3571 Jul 28 18:38	0°☿		asc. node	3574 Feb 17 12:50	13°♊54'32	
	3571 Aug 23 04:09	0°♌			3574 Mar 04 08:32	0°♋	
asc. node	3571 Sep 02 17:48	12°♌40'04		evening max el	3574 Mar 10 18:22	6°♋35'29	46°44'41
	3571 Sep 17 01:37	0°♍			3574 Apr 06 13:07	0°♌	
	3571 Oct 11 13:24	0°♎		greatest brilliancy	3574 Apr 15 21:12	5°♌31'08	-4.6m
	3571 Nov 04 18:06	0°♏		retrograde	3574 Apr 30 01:26	9°♌09'48	
morning set	3571 Nov 13 12:15	10°♏55'17		evening set	3574 May 15 23:31	4°♌12'59	
	3571 Nov 28 18:23	0°♐		inferior conj	3574 May 21 07:38	0°♌57'56	4°21'20
max. Earth dist.	3571 Dec 21 07:04	28°♐15'40	1.71294 AU	minimum elong	3574 May 21 16:12	0°♌44'30	4°19'04
				min. Earth dist.	3574 May 21 06:12	1°♌00'12	0.28352 AU
superior conj	3571 Dec 22 23:22	0°♑22'11	0°00'53		3574 May 22 20:38	30°♌	
minimum elong	3571 Dec 22 23:35	0°♑22'54	0°00'52	morning rise	3574 May 27 09:10	27°♌18'40	
behind sun begin	3571 Dec 21 21:54	29°♐02'16		desc. node	3574 Jun 09 02:52	22°♌57'40	
behind sun end	3571 Dec 24 01:16	1°♑43'32		direct	3574 Jun 11 12:15	22°♌50'53	
	3571 Dec 22 16:18	0°♒		greatest brilliancy	3574 Jun 23 19:57	25°♌32'11	-4.5m
desc. node	3571 Dec 23 08:03	0°♒49'31			3574 Jul 02 10:20	0°♌	
	3572 Jan 15 13:08	0°♓		morning max el	3574 Jul 30 06:57	22°♌38'33	45°43'35
evening rise	3572 Feb 02 00:12	21°♓56'52			3574 Aug 06 19:32	0°♍	
	3572 Feb 08 10:02	0°♈			3574 Sep 04 01:27	0°♌	
	3572 Mar 03 08:38	0°♉		asc. node	3574 Sep 30 05:49	29°♌55'10	
	3572 Mar 27 11:20	0°♊			3574 Sep 30 07:28	0°♍	
asc. node	3572 Apr 14 10:42	22°♊08'21			3574 Oct 25 12:10	0°♎	
	3572 Apr 20 21:03	0°♋			3574 Nov 19 01:25	0°♏	
	3572 May 15 17:16	0°♌			3574 Dec 13 05:36	0°♐	
	3572 Jun 10 05:26	0°♍			3575 Jan 06 05:01	0°♑	
	3572 Jul 06 21:43	0°♎		desc. node	3575 Jan 19 19:41	17°♑05'15	
evening max el	3572 Aug 01 21:30	26°♎44'49	45°31'49	morning set	3575 Jan 27 09:25	26°♑36'12	
desc. node	3572 Aug 04 00:34	28°♎45'45			3575 Jan 30 02:16	0°♓	
	3572 Aug 05 08:21	0°♏			3575 Feb 22 22:58	0°♈	
greatest brilliancy	3572 Sep 07 23:11	24°♏00'50	-4.5m				
retrograde	3572 Sep 19 12:47	26°♏23'40		superior conj	3575 Mar 09 21:01	18°♈44'09	-1°-24'-49
evening set	3572 Oct 07 10:29	20°♏27'14		minimum elong	3575 Mar 09 16:10	18°♈28'56	1°24'47
inferior conj	3572 Oct 10 18:33	18°♏24'52	-8°-21'-41	max. Earth dist.	3575 Mar 12 22:09	22°♈33'30	1.71446 AU
minimum elong	3572 Oct 11 00:10	18°♏16'10	8°21'14		3575 Mar 18 20:39	0°♉	
min. Earth dist.	3572 Oct 11 14:42	17°♏53'36	0.28335 AU		3575 Apr 11 20:57	0°♊	
morning rise	3572 Oct 14 13:31	16°♏05'26		evening rise	3575 Apr 19 03:39	9°♊03'14	
direct	3572 Nov 01 01:55	10°♏14'58			3575 May 06 01:21	0°♋	
greatest brilliancy	3572 Nov 15 13:48	14°♏00'19	-4.6m	asc. node	3575 May 12 22:41	8°♋30'00	
asc. node	3572 Nov 25 03:21	19°♏44'49			3575 May 30 10:52	0°♌	
	3572 Dec 07 22:12	0°♎			3575 Jun 24 02:24	0°♍	
morning max el	3572 Dec 21 11:31	12°♎56'33	46°43'45		3575 Jul 19 01:46	0°♎	
	3573 Jan 06 13:40	0°♐			3575 Aug 13 12:57	0°♏	
	3573 Feb 01 19:34	0°♑		desc. node	3575 Sep 01 12:22	21°♏46'33	
	3573 Feb 26 22:42	0°♒			3575 Sep 08 20:07	0°♎	
desc. node	3573 Mar 16 17:23	21°♒35'12			3575 Oct 06 19:56	0°♐	
	3573 Mar 23 14:43	0°♈		evening max el	3575 Oct 14 12:03	7°♐37'53	46°23'06
	3573 Apr 17 02:09	0°♉			3575 Nov 09 21:27	0°♑	
	3573 May 11 12:16	0°♊		greatest brilliancy	3575 Nov 22 02:45	6°♑36'53	-4.6m
	3573 Jun 04 22:39	0°♋		retrograde	3575 Dec 03 05:05	8°♑52'50	
morning set	3573 Jun 25 12:39	25°♋15'22		evening set	3575 Dec 17 13:30	4°♑49'00	
	3573 Jun 29 09:25	0°♌		inferior conj	3575 Dec 23 18:37	1°♑12'26	0°02'13
asc. node	3573 Jul 07 20:15	10°♌22'19		minimum elong	3575 Dec 23 18:32	1°♑12'34	0°02'12
	3573 Jul 23 19:45	0°♍		transit middle	3575 Dec 23 18:32	1°♑12'34	0°02'12
max. Earth dist.	3573 Jul 30 23:36	8°♍48'18	1.73509 AU	transit begin	3575 Dec 23 14:29	1°♑18'43	
				transit end	3575 Dec 23 22:34	1°♑06'26	
superior conj	3573 Aug 01 06:44	10°♍24'02	0°53'55	asc. node	3575 Dec 23 15:12	1°♑17'38	
minimum elong	3573 Jul 31 22:01	9°♍57'14	0°53'36	min. Earth dist.	3575 Dec 23 23:34	1°♑04'55	0.26621 AU
	3573 Aug 17 04:52	0°♎			3575 Dec 25 18:31	30°♒	
evening rise	3573 Sep 06 04:51	24°♎39'20		morning rise	3575 Dec 29 23:14	27°♒36'11	
	3573 Sep 10 12:51	0°♏		direct	3576 Jan 13 07:31	23°♒30'06	
	3573 Oct 04 20:34	0°♐		greatest brilliancy	3576 Jan 25 21:27	26°♒27'25	-4.7m
desc. node	3573 Oct 27 10:16	27°♐48'33			3576 Feb 01 13:49	0°♑	
	3573 Oct 29 04:59	0°♐		morning max el	3576 Mar 03 22:06	26°♑37'58	46°55'51
	3573 Nov 22 14:48	0°♑			3576 Mar 07 05:26	0°♒	
	3573 Dec 17 03:08	0°♓			3576 Apr 03 18:37	0°♈	
	3574 Jan 10 21:34	0°♈		desc. node	3576 Apr 13 05:21	10°♈47'53	
	3574 Feb 05 07:22	0°♉			3576 Apr 29 17:03	0°♊	

	3576 May 25 00:27	0°♄		asc. node	3579 Jan 20 03:03	13°♄35'59	
	3576 Jun 19 01:00	0°♂		greatest brilliancy	3579 Feb 02 19:11	21°♄55'24	-4.7m
	3576 Jul 13 21:19	0°♂		retrograde	3579 Feb 15 06:23	24°♄49'26	
asc. node	3576 Aug 04 08:00	26°♂03'47		evening set	3579 Mar 04 18:09	18°♄52'51	
	3576 Aug 07 13:28	0°♂		min. Earth dist.	3579 Mar 07 08:01	17°♄17'46	0.27228 AU
morning set	3576 Sep 01 11:50	0°♄33'36		inferior conj	3579 Mar 08 00:19	16°♄52'24	8°45'41
	3576 Sep 01 00:54	0°♄		minimum elong	3579 Mar 07 19:33	16°♄59'49	8°45'20
	3576 Sep 25 07:54	0°♂		morning rise	3579 Mar 10 21:10	15°♄06'28	
max. Earth dist.	3576 Oct 05 03:20	12°♂09'53	1.72604 AU	direct	3579 Mar 28 15:01	9°♄05'16	
				greatest brilliancy	3579 Apr 08 08:06	11°♄13'03	-4.6m
superior conj	3576 Oct 08 02:19	15°♂50'17	1°22'29		3579 May 06 00:30	0°♄	
minimum elong	3576 Oct 08 06:57	16°♂04'40	1°22'26	desc. node	3579 May 11 17:07	5°♄11'42	
	3576 Oct 19 11:40	0°♄		morning max el	3579 May 17 05:58	10°♄30'06	46°16'41
	3576 Nov 12 13:36	0°♄			3579 Jun 05 04:57	0°♄	
evening rise	3576 Nov 15 05:01	3°♄17'46			3579 Jul 02 07:30	0°♂	
desc. node	3576 Nov 23 22:12	14°♄10'12			3579 Jul 28 07:22	0°♂	
	3576 Dec 06 14:39	0°♂			3579 Aug 22 15:58	0°♂	
	3576 Dec 30 15:28	0°♄		asc. node	3579 Sep 01 19:58	12°♂11'43	
	3577 Jan 23 17:22	0°♄			3579 Sep 16 12:56	0°♄	
	3577 Feb 16 23:17	0°♄			3579 Oct 11 00:29	0°♂	
	3577 Mar 13 14:24	0°♄			3579 Nov 04 05:06	0°♄	
asc. node	3577 Mar 17 00:47	4°♄07'28		morning set	3579 Nov 11 02:45	8°♄36'22	
	3577 Apr 07 23:18	0°♂			3579 Nov 28 05:24	0°♄	
	3577 May 04 19:44	0°♂		max. Earth dist.	3579 Dec 18 13:45	25°♄31'13	1.71328 AU
evening max el	3577 May 20 19:22	16°♂22'53	45°44'39				
	3577 Jun 04 19:37	0°♂		superior conj	3579 Dec 20 10:38	27°♄52'07	0°04'46
greatest brilliancy	3577 Jun 24 06:02	13°♂04'50	-4.5m	minimum elong	3579 Dec 20 11:52	27°♄55'58	0°04'43
desc. node	3577 Jul 06 14:43	16°♂03'28		behind sun begin	3579 Dec 19 11:04	26°♄38'09	
retrograde	3577 Jul 08 18:13	16°♂04'45		behind sun end	3579 Dec 21 12:39	29°♄13'48	
evening set	3577 Jul 24 08:39	12°♂03'16		desc. node	3579 Dec 22 09:56	0°♂20'37	
inferior conj	3577 Jul 30 06:00	8°♂02'27	-5°-12'-31		3579 Dec 22 03:22	0°♂	
minimum elong	3577 Jul 29 20:35	8°♂04'13	5°10'19		3580 Jan 15 00:17	0°♄	
min. Earth dist.	3577 Jul 29 23:28	8°♂03'43	0.29040 AU	evening rise	3580 Jan 30 10:23	19°♄22'55	
morning rise	3577 Aug 04 08:42	5°♂02'35			3580 Feb 07 21:15	0°♄	
direct	3577 Aug 20 21:32	0°♂12'37			3580 Mar 02 19:56	0°♄	
greatest brilliancy	3577 Sep 03 13:27	3°♂02'03	-4.5m		3580 Mar 26 22:47	0°♄	
	3577 Oct 08 10:41	0°♄		asc. node	3580 Apr 13 12:48	21°♄39'00	
morning max el	3577 Oct 09 00:00	0°♄32'14	45°58'12		3580 Apr 20 08:49	0°♂	
asc. node	3577 Oct 27 17:39	19°♄49'59			3580 May 15 05:41	0°♂	
	3577 Nov 05 23:33	0°♂			3580 Jun 09 19:06	0°♂	
	3577 Dec 01 22:57	0°♄			3580 Jul 06 14:07	0°♄	
	3577 Dec 26 20:18	0°♄		evening max el	3580 Jul 30 11:21	24°♄28'47	45°31'10
	3578 Jan 20 05:15	0°♂		desc. node	3580 Aug 03 02:38	27°♄54'19	
	3578 Feb 13 08:26	0°♄			3580 Aug 05 09:23	0°♂	
desc. node	3578 Feb 16 07:34	3°♄41'39		greatest brilliancy	3580 Sep 05 10:34	21°♄43'27	-4.5m
	3578 Mar 09 09:24	0°♄		retrograde	3580 Sep 17 03:18	24°♄09'46	
	3578 Apr 02 10:21	0°♄		evening set	3580 Oct 05 02:42	18°♄10'18	
morning set	3578 Apr 13 18:02	14°♄06'13		inferior conj	3580 Oct 08 09:36	16°♄09'49	-8°-26'-38
	3578 Apr 26 12:50	0°♄		minimum elong	3580 Oct 08 14:28	16°♄02'16	8°26'19
	3578 May 20 17:47	0°♂		min. Earth dist.	3580 Oct 09 05:05	15°♄39'37	0.28398 AU
				morning rise	3580 Oct 12 01:56	13°♄54'26	
superior conj	3578 May 22 08:41	2°♂00'13	0°-41'-31	direct	3580 Oct 29 17:15	7°♄58'53	
minimum elong	3578 May 22 17:04	2°♂26'07	0°41'10	greatest brilliancy	3580 Nov 13 07:06	11°♄46'21	-4.6m
max. Earth dist.	3578 May 25 07:17	5°♂38'20	1.72924 AU	asc. node	3580 Nov 24 05:19	18°♄29'18	
asc. node	3578 Jun 09 10:27	24°♂18'35			3580 Dec 08 02:43	0°♄	
	3578 Jun 14 01:21	0°♂		morning max el	3580 Dec 19 02:27	10°♄36'50	46°42'24
evening rise	3578 Jun 28 20:46	18°♄12'45			3581 Jan 06 07:25	0°♄	
	3578 Jul 08 11:11	0°♂			3581 Feb 01 10:15	0°♂	
	3578 Aug 01 23:13	0°♄			3581 Feb 26 11:58	0°♄	
	3578 Aug 26 14:12	0°♂		desc. node	3581 Mar 15 19:31	21°♄03'14	
	3578 Sep 20 09:45	0°♄			3581 Mar 23 03:09	0°♄	
desc. node	3578 Sep 29 00:24	10°♄20'27			3581 Apr 16 13:59	0°♄	
	3578 Oct 15 11:56	0°♄			3581 May 10 23:41	0°♄	
	3578 Nov 10 00:28	0°♂			3581 Jun 04 09:47	0°♂	
	3578 Dec 06 09:38	0°♄		morning set	3581 Jun 23 05:53	23°♂07'14	
evening max el	3578 Dec 26 11:09	21°♄21'50	47°12'27		3581 Jun 28 20:22	0°♂	
	3579 Jan 04 06:14	0°♄		asc. node	3581 Jul 06 22:11	9°♄54'47	

	3581 Jul 23 06:37	0°♈		minimum elong	3583 Dec 21 07:59	28°♏44'14	0°21'47
max. Earth dist.	3581 Jul 28 20:50	6°♈52'37	1.73519 AU	min. Earth dist.	3583 Dec 21 13:15	28°♏36'13	0.26647 AU
				asc. node	3583 Dec 22 17:09	27°♏53'54	
superior conj	3581 Jul 30 00:55	8°♈18'57	0°51'27	morning rise	3583 Dec 27 12:39	25°♏07'58	
minimum elong	3581 Jul 29 16:21	7°♈52'37	0°51'05	direct	3584 Jan 10 21:03	21°♏02'54	
	3581 Aug 16 15:45	0°♐		greatest brilliancy	3584 Jan 23 11:36	24°♏01'10	-4.7m
evening rise	3581 Sep 03 22:59	22°♐33'32			3584 Feb 02 21:16	0°♑	
	3581 Sep 09 23:50	0°♑		morning max el	3584 Mar 01 11:42	24°♑13'11	46°56'19
	3581 Oct 04 07:46	0°♒			3584 Mar 07 02:53	0°♒	
desc. node	3581 Oct 26 12:20	27°♒19'28			3584 Apr 03 10:39	0°♓	
	3581 Oct 28 16:32	0°♓		desc. node	3584 Apr 12 07:24	10°♓10'14	
	3581 Nov 22 02:50	0°♑			3584 Apr 29 06:53	0°♑	
	3581 Dec 16 15:49	0°♒			3584 May 24 13:06	0°♓	
	3582 Jan 10 11:16	0°♓			3584 Jun 18 12:54	0°♑	
	3582 Feb 04 22:58	0°♑			3584 Jul 13 08:43	0°♒	
asc. node	3582 Feb 16 14:55	13°♑12'27		asc. node	3584 Aug 03 10:08	25°♑36'27	
	3582 Mar 04 04:54	0°♓			3584 Aug 07 00:32	0°♈	
evening max el	3582 Mar 08 09:17	4°♓16'31	46°46'50	morning set	3584 Aug 30 05:17	28°♈26'09	
	3582 Apr 07 15:30	0°♑			3584 Aug 31 11:48	0°♐	
greatest brilliancy	3582 Apr 13 12:55	3°♑15'37	-4.6m		3584 Sep 24 18:47	0°♑	
retrograde	3582 Apr 27 17:38	6°♑54'56		max. Earth dist.	3584 Oct 02 18:11	9°♑53'15	1.72650 AU
evening set	3582 May 13 17:35	1°♑54'10					
	3582 May 16 21:47	30°♒♓		superior conj	3584 Oct 05 18:59	13°♑39'08	1°23'15
inferior conj	3582 May 18 23:04	28°♒43'05	4°39'36	minimum elong	3584 Oct 05 22:57	13°♑51'25	1°23'13
minimum elong	3582 May 19 08:02	28°♒29'02	4°37'18		3584 Oct 18 22:38	0°♒	
min. Earth dist.	3582 May 18 21:30	28°♒45'33	0.28324 AU		3584 Nov 12 00:43	0°♓	
morning rise	3582 May 24 22:48	25°♒06'43		evening rise	3584 Nov 12 18:46	0°♓56'17	
desc. node	3582 Jun 08 04:46	20°♒37'27		desc. node	3584 Nov 23 00:08	13°♓41'21	
direct	3582 Jun 09 03:22	20°♒36'24			3584 Dec 06 01:56	0°♑	
greatest brilliancy	3582 Jun 21 10:02	23°♒17'22	-4.5m		3584 Dec 30 02:57	0°♒	
	3582 Jul 03 11:58	0°♑			3585 Jan 23 05:07	0°♓	
morning max el	3582 Jul 27 23:23	20°♑28'51	45°43'58		3585 Feb 16 11:27	0°♑	
	3582 Aug 06 15:28	0°♒			3585 Mar 13 03:17	0°♓	
	3582 Sep 03 16:28	0°♈		asc. node	3585 Mar 16 02:51	3°♓34'40	
asc. node	3582 Sep 29 07:50	29°♈22'47			3585 Apr 07 13:37	0°♑	
	3582 Sep 29 20:32	0°♐			3585 May 04 13:31	0°♒	
	3582 Oct 25 00:17	0°♑		evening max el	3585 May 18 11:13	14°♒10'50	45°46'07
	3582 Nov 18 13:04	0°♒			3585 Jun 05 04:01	0°♈	
	3582 Dec 12 17:01	0°♓		greatest brilliancy	3585 Jun 21 22:45	10°♈55'59	-4.5m
desc. node	3583 Jan 05 16:18	0°♑		desc. node	3585 Jul 05 16:48	14°♈35'01	
morning set	3583 Jan 18 21:44	16°♑36'26		retrograde	3585 Jul 06 10:12	14°♈35'37	
	3583 Jan 24 19:34	24°♑01'59		evening set	3585 Jul 21 23:10	9°♈57'11	
	3583 Jan 29 13:29	0°♒		inferior conj	3585 Jul 27 22:29	6°♈20'31	-4°-56'-39
	3583 Feb 22 10:09	0°♓		minimum elong	3585 Jul 27 13:19	6°♈34'54	4°54'27
				min. Earth dist.	3585 Jul 27 15:53	6°♈30'52	0.29025 AU
superior conj	3583 Mar 07 07:50	16°♓12'27	-1°-23'-56	morning rise	3585 Aug 02 03:36	3°♈09'50	
minimum elong	3583 Mar 07 01:59	15°♓54'07	1°23'52		3585 Aug 08 15:22	30°♒♓	
max. Earth dist.	3583 Mar 10 06:50	19°♓55'13	1.71412 AU	direct	3585 Aug 18 13:47	28°♓04'03	
	3583 Mar 18 07:47	0°♑			3585 Aug 28 22:36	0°♈	
	3583 Apr 11 08:05	0°♓		greatest brilliancy	3585 Sep 01 03:40	1°♈17'36	-4.5m
evening rise	3583 Apr 16 16:13	6°♓38'36		morning max el	3585 Oct 06 14:12	28°♈16'42	45°56'52
	3583 May 05 12:32	0°♑			3585 Oct 08 08:33	0°♐	
asc. node	3583 May 12 00:36	8°♑01'25		asc. node	3585 Oct 26 19:38	19°♐09'19	
	3583 May 29 22:11	0°♒			3585 Nov 05 15:10	0°♑	
	3583 Jun 23 14:01	0°♈			3585 Dec 01 12:26	0°♒	
	3583 Jul 18 14:00	0°♐			3585 Dec 26 08:48	0°♓	
	3583 Aug 13 02:21	0°♑			3586 Jan 19 17:10	0°♑	
desc. node	3583 Aug 31 14:29	21°♑10'30			3586 Feb 12 20:00	0°♒	
	3583 Sep 08 11:49	0°♒		desc. node	3586 Feb 15 09:40	3°♒12'18	
	3583 Oct 06 17:16	0°♓			3586 Mar 08 20:42	0°♓	
evening max el	3583 Oct 12 02:49	5°♓19'41	46°20'51		3586 Apr 01 21:27	0°♑	
	3583 Nov 11 05:30	0°♑		morning set	3586 Apr 11 07:24	11°♑44'08	
greatest brilliancy	3583 Nov 19 15:38	4°♑11'00	-4.6m		3586 Apr 25 23:46	0°♓	
retrograde	3583 Nov 30 17:42	6°♑25'53					
evening set	3583 Dec 15 03:01	2°♑21'10		superior conj	3586 May 20 00:17	29°♓46'37	0°-44'-31
	3583 Dec 19 05:56	30°♒♓		minimum elong	3586 May 20 09:07	0°♑13'55	0°44'09
inferior conj	3583 Dec 21 07:08	28°♓45'32	0°-22'-2		3586 May 20 04:37	0°♑	

max. Earth dist.	3586 May 23 02:20	3° Π 35'28	1.72878 AU	asc. node	3588 Nov 23 07:17	17° Ω 16'37	
asc. node	3586 Jun 08 12:26	23° Π 51'25			3588 Dec 08 05:15	0° \mathbb{M}	
	3586 Jun 13 12:09	0° \mathfrak{S}		morning max el	3588 Dec 16 18:08	8° \mathbb{M} 19'52	46°41'02
evening rise	3586 Jun 26 14:29	16° \mathfrak{S} 06'26			3589 Jan 06 00:31	0° \mathcal{A}	
	3586 Jul 07 22:04	0° Ω			3589 Feb 01 00:30	0° \mathfrak{C}	
	3586 Aug 01 10:17	0° \mathbb{M}			3589 Feb 26 00:52	0° \approx	
	3586 Aug 26 01:39	0° $\underline{\Delta}$		desc. node	3589 Mar 14 21:28	20° \approx 31'36	
	3586 Sep 19 21:47	0° \mathbb{M}			3589 Mar 22 15:16	0° \mathcal{H}	
desc. node	3586 Sep 28 02:24	9° \mathbb{M} 49'31			3589 Apr 16 01:33	0° Υ	
	3586 Oct 15 00:57	0° \mathcal{A}			3589 May 10 10:51	0° \mathcal{B}	
	3586 Nov 09 15:06	0° \mathfrak{C}			3589 Jun 03 20:39	0° Π	
	3586 Dec 06 03:32	0° \approx		morning set	3589 Jun 20 23:17	21° Π 00'26	
evening max el	3586 Dec 24 00:02	18° \approx 54'44	47°11'44		3589 Jun 28 07:03	0° \mathfrak{S}	
	3587 Jan 04 10:10	0° \mathcal{H}		asc. node	3589 Jul 06 00:21	9° \mathfrak{S} 28'51	
asc. node	3587 Jan 19 05:12	12° \mathcal{H} 17'09			3589 Jul 22 17:11	0° Ω	
greatest brilliancy	3587 Jan 31 10:53	19° \mathcal{H} 31'45	-4.7m	max. Earth dist.	3589 Jul 26 19:55	5° Ω 03'30	1.73526 AU
retrograde	3587 Feb 12 19:26	22° \mathcal{H} 23'36					
evening set	3587 Mar 02 04:12	16° \mathcal{H} 32'43		superior conj	3589 Jul 27 19:13	6° Ω 15'11	0°48'53
min. Earth dist.	3587 Mar 04 21:22	14° \mathcal{H} 52'53	0.27180 AU	minimum elong	3589 Jul 27 10:51	5° Ω 49'26	0°48'33
inferior conj	3587 Mar 05 13:37	14° \mathcal{H} 27'38	8°40'20		3589 Aug 16 02:19	0° \mathbb{M}	
minimum elong	3587 Mar 05 08:02	14° \mathcal{H} 36'20	8°39'51	evening rise	3589 Sep 01 17:19	20° \mathbb{M} 29'14	
morning rise	3587 Mar 08 12:01	12° \mathcal{H} 39'24			3589 Sep 09 10:32	0° $\underline{\Delta}$	
direct	3587 Mar 26 03:14	6° \mathcal{H} 41'03			3589 Oct 03 18:43	0° \mathbb{M}	
greatest brilliancy	3587 Apr 05 21:58	8° \mathcal{Y} 50'06	-4.6m	desc. node	3589 Oct 25 14:16	26° \mathbb{M} 50'42	
	3587 May 06 04:52	0° Υ			3589 Oct 28 03:52	0° \mathcal{A}	
desc. node	3587 May 10 19:02	4° Υ 16'34			3589 Nov 21 14:38	0° \mathfrak{C}	
morning max el	3587 May 14 18:44	8° Υ 07'29	46°18'26		3589 Dec 16 04:17	0° \approx	
	3587 Jun 04 22:24	0° \mathcal{B}			3590 Jan 10 00:45	0° \mathcal{H}	
	3587 Jul 01 21:37	0° Π			3590 Feb 04 14:27	0° Υ	
	3587 Jul 27 19:55	0° \mathfrak{S}		asc. node	3590 Feb 15 16:56	12° Υ 30'46	
	3587 Aug 22 03:41	0° Ω			3590 Mar 04 01:35	0° \mathcal{B}	
asc. node	3587 Aug 31 21:57	11° Ω 43'09		evening max el	3590 Mar 06 00:53	2° \mathcal{B} 00'07	46°48'50
	3587 Sep 16 00:11	0° \mathbb{M}			3590 Apr 09 04:32	0° Π	
	3587 Oct 10 11:28	0° $\underline{\Delta}$		greatest brilliancy	3590 Apr 11 05:31	1° Π 01'58	-4.6m
	3587 Nov 03 15:59	0° \mathbb{M}		retrograde	3590 Apr 25 09:56	4° Π 40'27	
morning set	3587 Nov 08 17:28	6° \mathbb{M} 18'34			3590 May 10 18:47	30° \mathcal{R} \mathcal{B}	
	3587 Nov 27 16:16	0° \mathcal{A}		evening set	3590 May 11 11:43	29° \mathcal{B} 35'53	
max. Earth dist.	3587 Dec 16 00:14	22° \mathcal{A} 59'11	1.71364 AU	inferior conj	3590 May 16 14:24	26° \mathcal{B} 28'42	4°57'35
				minimum elong	3590 May 16 23:44	26° \mathcal{B} 14'05	4°55'14
superior conj	3587 Dec 17 22:06	25° \mathcal{A} 23'10	0°08'37	min. Earth dist.	3590 May 16 12:27	26° \mathcal{B} 31'45	0.28294 AU
minimum elong	3587 Dec 18 00:18	25° \mathcal{A} 30'04	0°08'31	morning rise	3590 May 22 12:08	22° \mathcal{B} 55'28	
behind sun begin	3587 Dec 17 02:12	24° \mathcal{A} 20'42		direct	3590 Jun 06 18:45	18° \mathcal{B} 22'37	
behind sun end	3587 Dec 18 22:24	26° \mathcal{A} 39'26		desc. node	3590 Jun 07 06:52	18° \mathcal{B} 22'55	
desc. node	3587 Dec 21 11:59	29° \mathcal{A} 52'45		greatest brilliancy	3590 Jun 18 23:06	21° \mathcal{B} 02'02	-4.5m
	3587 Dec 21 14:18	0° \mathfrak{C}			3590 Jul 04 06:21	0° Π	
	3588 Jan 14 11:18	0° \approx		morning max el	3590 Jul 25 15:41	18° Π 19'52	45°44'26
evening rise	3588 Jan 27 20:47	16° \approx 50'07			3590 Aug 06 10:24	0° \mathfrak{S}	
	3588 Feb 07 08:21	0° \mathcal{H}			3590 Sep 03 06:52	0° Ω	
	3588 Mar 02 07:07	0° Υ		asc. node	3590 Sep 28 09:49	28° Ω 51'37	
	3588 Mar 26 10:07	0° \mathcal{B}			3590 Sep 29 09:07	0° \mathbb{M}	
asc. node	3588 Apr 12 14:44	21° \mathcal{B} 09'35			3590 Oct 24 12:01	0° $\underline{\Delta}$	
	3588 Apr 19 20:28	0° Π			3590 Nov 18 00:23	0° \mathbb{M}	
	3588 May 14 17:57	0° \mathfrak{S}			3590 Dec 12 04:08	0° \mathcal{A}	
	3588 Jun 09 08:38	0° Ω			3591 Jan 05 03:19	0° \mathfrak{C}	
	3588 Jul 06 06:33	0° \mathbb{M}		desc. node	3591 Jan 17 23:53	16° \mathfrak{C} 08'50	
evening max el	3588 Jul 28 01:57	22° \mathbb{M} 15'17	45°30'29	morning set	3591 Jan 22 05:36	21° \mathfrak{C} 28'23	
desc. node	3588 Aug 02 04:43	27° \mathbb{M} 02'31			3591 Jan 29 00:24	0° \approx	
	3588 Aug 05 11:32	0° $\underline{\Delta}$			3591 Feb 21 20:59	0° \mathcal{H}	
greatest brilliancy	3588 Sep 02 21:32	19° $\underline{\Delta}$ 26'20	-4.5m				
retrograde	3588 Sep 14 18:28	21° $\underline{\Delta}$ 56'34		superior conj	3591 Mar 04 18:23	13° \mathcal{H} 40'56	-1°-22'-52
evening set	3588 Oct 02 18:44	15° $\underline{\Delta}$ 54'31		minimum elong	3591 Mar 04 11:35	13° \mathcal{H} 19'34	1°22'47
inferior conj	3588 Oct 06 00:41	13° $\underline{\Delta}$ 55'27	-8°-30'-50	max. Earth dist.	3591 Mar 07 17:41	17° \mathcal{H} 24'43	1.71376 AU
minimum elong	3588 Oct 06 04:48	13° $\underline{\Delta}$ 49'03	8°30'36		3591 Mar 17 18:36	0° Υ	
min. Earth dist.	3588 Oct 06 19:09	13° $\underline{\Delta}$ 26'50	0.28459 AU		3591 Apr 10 18:54	0° \mathcal{B}	
morning rise	3588 Oct 09 14:38	11° $\underline{\Delta}$ 43'47		evening rise	3591 Apr 14 04:34	4° \mathcal{B} 14'08	
direct	3588 Oct 27 09:04	5° $\underline{\Delta}$ 43'41			3591 May 04 23:25	0° Π	
greatest brilliancy	3588 Nov 11 00:08	9° $\underline{\Delta}$ 32'57	-4.6m	asc. node	3591 May 11 02:39	7° Π 34'12	

	3591 May 29 09:12	0°☿			3593 Nov 05 06:16	0°♊	
	3591 Jun 23 01:22	0°♈			3593 Dec 01 01:31	0°♌	
	3591 Jul 18 01:58	0°♊			3593 Dec 25 20:56	0°♎	
	3591 Aug 12 15:30	0°♊			3594 Jan 19 04:48	0°♏	
desc. node	3591 Aug 30 16:29	20°♊35'02			3594 Feb 12 07:20	0°♐	
	3591 Sep 08 03:21	0°♌		desc. node	3594 Feb 14 11:39	2°♐43'11	
	3591 Oct 06 14:56	0°♎			3594 Mar 08 07:50	0°♑	
evening max el	3591 Oct 09 16:49	3°♎00'48	46°18'25		3594 Apr 01 08:24	0°♒	
	3591 Nov 13 04:00	0°♏		morning set	3594 Apr 08 20:05	9°♒20'13	
greatest brilliancy	3591 Nov 17 05:12	1°♏46'46	-4.6m		3594 Apr 25 10:33	0°♓	
retrograde	3591 Nov 28 05:37	3°♏59'33					
	3591 Dec 12 11:53	30°♐♎		superior conj	3594 May 17 15:24	27°♓31'55	0°-47'-28
evening set	3591 Dec 12 16:38	29°♎53'42		minimum elong	3594 May 18 00:37	28°♓00'28	0°47'06
inferior conj	3591 Dec 18 19:33	26°♎19'20	0°-46'-24		3594 May 19 15:17	0°♊	
minimum elong	3591 Dec 18 21:20	26°♎16'37	0°45'50	max. Earth dist.	3594 May 20 19:09	1°♊26'09	1.72828 AU
min. Earth dist.	3591 Dec 19 03:09	26°♎07'46	0.26678 AU	asc. node	3594 Jun 07 14:33	23°♊25'06	
asc. node	3591 Dec 21 19:19	24°♎31'03			3594 Jun 12 22:48	0°☿	
morning rise	3591 Dec 25 01:42	22°♎40'31		evening rise	3594 Jun 24 07:53	13°☿59'38	
direct	3592 Jan 08 10:04	18°♎36'14			3594 Jul 07 08:48	0°♈	
greatest brilliancy	3592 Jan 21 02:12	21°♎35'52	-4.7m		3594 Jul 31 21:15	0°♊	
	3592 Feb 03 19:45	0°♏			3594 Aug 25 13:00	0°♌	
morning max el	3592 Feb 28 00:18	21°♏46'19	46°56'48		3594 Sep 19 09:44	0°♍	
	3592 Mar 06 23:21	0°♐		desc. node	3594 Sep 27 04:24	9°♍18'54	
	3592 Apr 03 02:08	0°♑			3594 Oct 14 13:52	0°♎	
desc. node	3592 Apr 11 09:24	9°♑33'42			3594 Nov 09 05:41	0°♏	
	3592 Apr 28 20:16	0°♒			3594 Dec 05 21:34	0°♐	
	3592 May 24 01:20	0°♓		evening max el	3594 Dec 21 12:47	16°♐28'17	47°11'01
	3592 Jun 18 00:26	0°♊			3595 Jan 04 15:38	0°♑	
	3592 Jul 12 19:46	0°☿		asc. node	3595 Jan 18 07:08	10°♑56'12	
asc. node	3592 Aug 02 12:09	25°☿09'41		greatest brilliancy	3595 Jan 29 01:22	17°♑07'11	-4.7m
	3592 Aug 06 11:17	0°♈		retrograde	3595 Feb 10 08:43	19°♑58'24	
morning set	3592 Aug 27 22:54	26°♈20'06		evening set	3595 Feb 27 13:51	14°♑13'10	
	3592 Aug 30 22:24	0°♊		min. Earth dist.	3595 Mar 02 10:27	12°♑28'33	0.27138 AU
	3592 Sep 24 05:21	0°♌		inferior conj	3595 Mar 03 02:54	12°♑03'04	8°33'49
max. Earth dist.	3592 Sep 30 09:42	7°♌39'48	1.72695 AU	minimum elong	3595 Mar 02 20:31	12°♑12'58	8°33'12
				morning rise	3595 Mar 06 03:19	10°♑12'02	
superior conj	3592 Oct 03 12:00	11°♌30'14	1°23'53	direct	3595 Mar 23 15:40	4°♑16'50	
minimum elong	3592 Oct 03 15:15	11°♌40'18	1°23'51	greatest brilliancy	3595 Apr 03 12:03	6°♑27'34	-4.6m
	3592 Oct 18 09:16	0°♍			3595 May 06 07:32	0°♒	
evening rise	3592 Nov 10 08:53	28°♍37'05		desc. node	3595 May 09 21:10	3°♒23'08	
	3592 Nov 11 11:30	0°♎		morning max el	3595 May 12 08:21	5°♒46'50	46°20'06
desc. node	3592 Nov 22 02:16	13°♎14'07			3595 Jun 04 15:28	0°♓	
	3592 Dec 05 12:55	0°♏			3595 Jul 01 11:33	0°♊	
	3592 Dec 29 14:11	0°♐			3595 Jul 27 08:21	0°☿	
	3593 Jan 22 16:40	0°♑			3595 Aug 21 15:18	0°♈	
	3593 Feb 15 23:27	0°♒		asc. node	3595 Aug 30 23:54	11°♈14'41	
	3593 Mar 12 16:02	0°♓			3595 Sep 15 11:21	0°♊	
asc. node	3593 Mar 15 04:47	3°♓01'58			3595 Oct 09 22:25	0°♌	
	3593 Apr 07 03:51	0°♊			3595 Nov 03 02:50	0°♍	
	3593 May 04 07:29	0°☿		morning set	3595 Nov 06 08:24	4°♍01'42	
evening max el	3593 May 16 01:58	11°☿56'37	45°47'44		3595 Nov 27 03:06	0°♎	
	3593 Jun 05 15:06	0°♈		max. Earth dist.	3595 Dec 13 12:51	20°♎34'04	1.71393 AU
greatest brilliancy	3593 Jun 19 14:38	8°♈46'32	-4.5m				
retrograde	3593 Jul 04 02:03	12°♈27'05		superior conj	3595 Dec 15 09:57	22°♎55'35	0°12'25
desc. node	3593 Jul 04 18:55	12°♈26'30		minimum elong	3595 Dec 15 13:05	23°♎05'26	0°12'16
evening set	3593 Jul 19 13:40	7°♈51'08		behind sun begin	3595 Dec 14 20:05	22°♎12'04	
inferior conj	3593 Jul 25 14:51	4°♈12'01	-4°-40'-13	behind sun end	3595 Dec 16 06:05	23°♎58'49	
minimum elong	3593 Jul 25 05:59	4°♈25'56	4°38'02	desc. node	3595 Dec 20 14:06	29°♎25'18	
min. Earth dist.	3593 Jul 25 08:25	4°♈22'06	0.29010 AU		3595 Dec 21 01:09	0°♏	
morning rise	3593 Jul 30 22:22	0°♉57'41			3596 Jan 13 22:13	0°♐	
	3593 Aug 01 16:06	30°♉☿		evening rise	3596 Jan 25 07:38	14°♐19'06	
direct	3593 Aug 16 05:33	25°☿55'41			3596 Feb 06 19:20	0°♑	
greatest brilliancy	3593 Aug 29 18:55	29°☿07'56	-4.5m		3596 Mar 01 18:13	0°♒	
	3593 Aug 31 15:20	0°♊			3596 Mar 25 21:25	0°♓	
morning max el	3593 Oct 04 04:26	26°♊01'58	45°55'49	asc. node	3596 Apr 11 16:47	20°♓40'29	
	3593 Oct 08 05:21	0°♋			3596 Apr 19 08:09	0°♊	
asc. node	3593 Oct 25 21:38	18°♋30'01			3596 May 14 06:20	0°☿	

	3596 Jun 08 22:23	0°♈			3599 Jan 04 14:32	0°♈	
	3596 Jul 05 23:26	0°♍		desc. node	3599 Jan 17 01:46	15°♈39'38	
evening max el	3596 Jul 25 17:18	20°♍03'26	45°29'57	morning set	3599 Jan 19 15:40	18°♈54'06	
desc. node	3596 Aug 01 06:41	26°♍09'14			3599 Jan 28 11:33	0°♍	
	3596 Aug 05 15:25	0°♊			3599 Feb 21 08:04	0°♋	
greatest brilliancy	3596 Aug 31 08:43	17°♊09'23	-4.5m				
retrograde	3596 Sep 12 09:38	19°♊42'59		superior conj	3599 Mar 02 05:04	11°♋08'58	-1°-21'-37
evening set	3596 Sep 30 10:26	13°♊39'01		minimum elong	3599 Mar 01 21:22	10°♋44'50	1°21'31
inferior conj	3596 Oct 03 15:43	11°♊40'47	-8°-34'-14	max. Earth dist.	3599 Mar 05 03:07	14°♋48'55	1.71335 AU
minimum elong	3596 Oct 03 19:05	11°♊35'34	8°34'05		3599 Mar 17 05:38	0°♌	
min. Earth dist.	3596 Oct 04 08:53	11°♊14'11	0.28516 AU		3599 Apr 10 05:55	0°♍	
morning rise	3596 Oct 07 03:32	9°♊32'21		evening rise	3599 Apr 11 17:02	1°♍49'19	
direct	3596 Oct 25 01:11	3°♊28'22			3599 May 04 10:28	0°♎	
greatest brilliancy	3596 Nov 08 16:12	7°♊18'05	-4.6m	asc. node	3599 May 10 04:46	7°♎06'33	
asc. node	3596 Nov 22 09:28	16°♊06'05			3599 May 28 20:25	0°♏	
	3596 Dec 08 06:32	0°♎			3599 Jun 22 12:56	0°♈	
morning max el	3596 Dec 14 10:02	6°♎03'23	46°39'43		3599 Jul 17 14:15	0°♍	
	3597 Jan 05 17:23	0°♌			3599 Aug 12 05:04	0°♊	
	3597 Jan 31 14:39	0°♈		desc. node	3599 Aug 29 18:29	19°♊58'26	
	3597 Feb 25 13:42	0°♍			3599 Sep 07 19:29	0°♎	
desc. node	3597 Mar 13 23:31	20°♍00'25			3599 Oct 06 13:52	0°♌	
	3597 Mar 22 03:18	0°♋		evening max el	3599 Oct 07 06:00	0°♌39'06	46°16'03
	3597 Apr 15 13:05	0°♌		greatest brilliancy	3599 Nov 14 19:30	29°♌22'47	-4.6m
	3597 May 09 22:02	0°♍			3599 Nov 16 13:37	0°♈	
	3597 Jun 03 07:36	0°♎		retrograde	3599 Nov 25 17:16	1°♈33'02	
morning set	3597 Jun 18 16:33	18°♎52'52			3599 Dec 04 12:30	30°♌♌	
	3597 Jun 27 17:50	0°♏		evening set	3599 Dec 10 06:34	27°♌25'30	
asc. node	3597 Jul 05 02:20	9°♏01'57		inferior conj	3599 Dec 16 08:10	23°♌52'54	-1°-10'-24
	3597 Jul 22 03:54	0°♈		minimum elong	3599 Dec 16 10:51	23°♌48'48	1°09'33
max. Earth dist.	3597 Jul 24 18:36	3°♈12'45	1.73530 AU	min. Earth dist.	3599 Dec 16 17:31	23°♌38'38	0.26713 AU
				asc. node	3599 Dec 20 21:15	21°♌10'07	
superior conj	3597 Jul 25 13:16	4°♈10'08	0°46'14	morning rise	3599 Dec 22 14:41	20°♌13'03	
minimum elong	3597 Jul 25 05:08	3°♈45'09	0°45'54	direct	3600 Jan 05 22:45	16°♌09'00	
	3597 Aug 15 13:03	0°♍		greatest brilliancy	3600 Jan 18 17:48	19°♌11'08	-4.7m
evening rise	3597 Aug 30 11:25	18°♍23'50			3600 Feb 04 12:48	0°♈	
	3597 Sep 08 21:24	0°♊		morning max el	3600 Feb 25 12:36	19°♈17'36	46°57'17
	3597 Oct 03 05:51	0°♎			3600 Mar 06 19:31	0°♍	
desc. node	3597 Oct 24 16:23	26°♎21'57			3600 Apr 02 17:44	0°♋	
	3597 Oct 27 15:23	0°♌		desc. node	3600 Apr 10 11:28	8°♋56'43	
	3597 Nov 21 02:40	0°♈			3600 Apr 28 09:51	0°♌	
	3597 Dec 15 16:59	0°♍			3600 May 23 13:47	0°♍	
	3598 Jan 09 14:30	0°♋			3600 Jun 17 12:10	0°♎	
	3598 Feb 04 06:16	0°♌			3600 Jul 12 07:02	0°♏	
asc. node	3598 Feb 14 18:56	11°♌48'20		asc. node	3600 Aug 01 14:06	24°♏42'01	
evening max el	3598 Mar 03 16:47	29°♌44'16	46°50'53		3600 Aug 05 22:16	0°♈	
	3598 Mar 03 23:02	0°♍		morning set	3600 Aug 25 16:39	24°♈13'36	
greatest brilliancy	3598 Apr 08 23:07	28°♍49'48	-4.6m		3600 Aug 30 09:17	0°♍	
	3598 Apr 11 14:48	0°♎			3600 Sep 23 16:14	0°♊	
retrograde	3598 Apr 23 02:12	2°♎26'09		max. Earth dist.	3600 Sep 28 02:19	5°♎28'41	1.72744 AU
	3598 May 04 00:20	30°♌♌					
evening set	3598 May 09 06:09	27°♌17'57		superior conj	3600 Oct 01 05:07	9°♎20'37	1°24'23
inferior conj	3598 May 14 05:56	24°♌14'37	5°14'57	minimum elong	3600 Oct 01 07:39	9°♎28'27	1°24'22
minimum elong	3598 May 14 15:34	23°♌59'31	5°12'35		3600 Oct 17 20:15	0°♎	
min. Earth dist.	3598 May 14 03:33	24°♌18'21	0.28265 AU	evening rise	3600 Nov 07 23:02	26°♎17'05	
morning rise	3598 May 20 01:27	20°♌44'33			3600 Nov 10 22:37	0°♌	
direct	3598 Jun 04 10:27	16°♌09'15		desc. node	3600 Nov 21 04:18	12°♌45'32	
desc. node	3598 Jun 06 08:58	16°♌13'39			3600 Dec 05 00:13	0°♈	
greatest brilliancy	3598 Jun 16 11:41	18°♌46'00	-4.5m		3600 Dec 29 01:45	0°♍	
	3598 Jul 04 20:08	0°♎					
morning max el	3598 Jul 23 07:29	16°♎09'05	45°44'45				
	3598 Aug 06 05:03	0°♏					
	3598 Sep 02 21:21	0°♈					
asc. node	3598 Sep 27 11:54	28°♈20'07					
	3598 Sep 28 21:53	0°♍					
	3598 Oct 23 23:57	0°♊					
	3598 Nov 17 11:54	0°♎					
	3598 Dec 11 15:27	0°♌					

superior conj	3600 Oct 01 05:07	9°♄20'37	1°24'23	minimum elong	3603 Feb 28 08:48	9°♄47'44	8°25'32
minimum elong	3600 Oct 01 07:39	9°♄28'27	1°24'22	morning rise	3603 Mar 03 18:42	7°♄42'29	
	3600 Oct 17 20:15	0°♄		direct	3603 Mar 21 04:17	1°♄50'57	
evening rise	3600 Nov 07 23:02	26°♄17'05		greatest brilliancy	3603 Apr 01 01:03	4°♄02'31	-4.6m
	3600 Nov 10 22:37	0°♄			3603 May 06 09:11	0°♄	
desc. node	3600 Nov 21 04:18	12°♄45'32		desc. node	3603 May 08 23:14	2°♄29'42	
	3600 Dec 05 00:13	0°♄		morning max el	3603 May 09 22:44	3°♄27'06	46°21'47
	3600 Dec 29 01:45	0°♄			3603 Jun 04 08:30	0°♄	
	3601 Jan 22 04:35	0°♄			3603 Jul 01 01:38	0°♄	
	3601 Feb 15 11:50	0°♄			3603 Jul 26 20:58	0°♄	
	3601 Mar 12 05:13	0°♄			3603 Aug 21 03:06	0°♄	
asc. node	3601 Mar 14 06:53	2°♄28'30		asc. node	3603 Aug 30 02:04	10°♄46'17	
	3601 Apr 06 18:37	0°♄			3603 Sep 14 22:41	0°♄	
	3601 May 04 02:15	0°♄			3603 Oct 09 09:30	0°♄	
evening max el	3601 May 13 16:32	9°♄41'09	45°49'34		3603 Nov 02 13:50	0°♄	
	3601 Jun 06 06:22	0°♄		morning set	3603 Nov 03 23:40	1°♄45'24	
greatest brilliancy	3601 Jun 17 05:39	6°♄35'34	-4.5m		3603 Nov 26 14:08	0°♄	
retrograde	3601 Jul 01 18:31	10°♄18'40		max. Earth dist.	3603 Dec 11 00:47	18°♄06'06	1.71430 AU
desc. node	3601 Jul 03 20:48	10°♄13'29					
evening set	3601 Jul 17 04:34	5°♄44'41		superior conj	3603 Dec 12 21:49	20°♄27'23	0°16'11
inferior conj	3601 Jul 23 07:27	2°♄03'30	-4°-23'-32	minimum elong	3603 Dec 13 01:51	20°♄40'03	0°15'59
minimum elong	3601 Jul 22 22:55	2°♄16'53	4°21'24	behind sun begin	3603 Dec 12 21:19	20°♄25'49	
min. Earth dist.	3601 Jul 23 01:05	2°♄13'29	0.28996 AU	behind sun end	3603 Dec 13 06:23	20°♄54'17	
	3601 Jul 26 15:01	30°♄		desc. node	3603 Dec 19 16:04	28°♄56'33	
morning rise	3601 Jul 28 17:18	28°♄45'51			3603 Dec 20 12:17	0°♄	
direct	3601 Aug 13 21:22	23°♄47'14			3604 Jan 13 09:26	0°♄	
greatest brilliancy	3601 Aug 27 11:07	26°♄59'17	-4.5m	evening rise	3604 Jan 22 18:07	11°♄45'57	
	3601 Sep 02 07:15	0°♄			3604 Feb 06 06:38	0°♄	
morning max el	3601 Oct 01 19:37	23°♄48'57	45°54'38		3604 Mar 01 05:36	0°♄	
	3601 Oct 08 01:45	0°♄			3604 Mar 25 09:01	0°♄	
asc. node	3601 Oct 24 23:46	17°♄50'32		asc. node	3604 Apr 10 18:53	20°♄10'43	
	3601 Nov 04 21:31	0°♄			3604 Apr 18 20:08	0°♄	
	3601 Nov 30 14:53	0°♄			3604 May 13 19:02	0°♄	
	3601 Dec 25 09:23	0°♄			3604 Jun 08 12:30	0°♄	
	3602 Jan 18 16:45	0°♄			3604 Jul 05 16:51	0°♄	
	3602 Feb 11 18:58	0°♄		evening max el	3604 Jul 23 09:24	17°♄53'02	45°29'33
desc. node	3602 Feb 13 13:41	2°♄13'19		desc. node	3604 Jul 31 08:46	25°♄14'52	
	3602 Mar 07 19:15	0°♄			3604 Aug 05 21:18	0°♄	
	3602 Mar 31 19:39	0°♄		greatest brilliancy	3604 Aug 28 21:14	14°♄54'17	-4.5m
morning set	3602 Apr 06 08:33	6°♄54'30		retrograde	3604 Sep 10 00:50	17°♄29'59	
	3602 Apr 24 21:40	0°♄		evening set	3604 Sep 28 02:06	11°♄25'01	
				inferior conj	3604 Oct 01 07:02	9°♄27'02	-8°-36'-47
superior conj	3602 May 15 06:30	25°♄16'08	0°-50'-21	minimum elong	3604 Oct 01 09:37	9°♄23'01	8°36'43
minimum elong	3602 May 15 16:07	25°♄45'50	0°49'59	min. Earth dist.	3604 Oct 01 22:51	9°♄02'29	0.28566 AU
max. Earth dist.	3602 May 18 10:13	29°♄10'18	1.72777 AU	morning rise	3604 Oct 04 16:59	7°♄21'15	
	3602 May 19 02:17	0°♄		direct	3604 Oct 22 17:33	1°♄14'16	
asc. node	3602 Jun 06 16:32	22°♄57'25		greatest brilliancy	3604 Nov 06 06:55	5°♄02'09	-4.6m
	3602 Jun 12 09:45	0°♄		asc. node	3604 Nov 21 11:24	14°♄57'27	
evening rise	3602 Jun 22 01:26	11°♄52'22			3604 Dec 08 06:32	0°♄	
	3602 Jul 06 19:49	0°♄		morning max el	3604 Dec 12 01:29	3°♄46'03	46°38'06
	3602 Jul 31 08:28	0°♄			3605 Jan 05 09:58	0°♄	
	3602 Aug 25 00:36	0°♄			3605 Jan 31 04:47	0°♄	
	3602 Sep 18 21:59	0°♄			3605 Feb 25 02:38	0°♄	
desc. node	3602 Sep 26 06:31	8°♄47'49		desc. node	3605 Mar 13 01:38	19°♄28'58	
	3602 Oct 14 03:10	0°♄			3605 Mar 21 15:30	0°♄	
	3602 Nov 08 20:50	0°♄			3605 Apr 15 00:46	0°♄	
	3602 Dec 05 16:31	0°♄			3605 May 09 09:21	0°♄	
evening max el	3602 Dec 19 02:21	14°♄02'47	47°10'13		3605 Jun 02 18:40	0°♄	
	3603 Jan 04 23:59	0°♄		morning set	3605 Jun 16 09:35	16°♄44'14	
asc. node	3603 Jan 17 09:09	9°♄31'16			3605 Jun 27 04:44	0°♄	
greatest brilliancy	3603 Jan 26 15:03	14°♄40'08	-4.7m	asc. node	3605 Jul 04 04:18	8°♄34'42	
retrograde	3603 Feb 07 22:28	17°♄31'30			3605 Jul 21 14:42	0°♄	
evening set	3603 Feb 24 23:05	11°♄52'08		max. Earth dist.	3605 Jul 22 16:28	1°♄19'12	1.73529 AU
min. Earth dist.	3603 Feb 27 23:01	10°♄02'50	0.27095 AU				
inferior conj	3603 Feb 28 15:57	9°♄36'41	8°26'19	superior conj	3605 Jul 23 07:14	2°♄04'35	0°43'32

minimum elong	3605 Jul 22 23:24	1°Ω40'31	0°43'12			3608 Feb 05 00:59	0°☾		
	3605 Aug 14 23:51	0°♍			morning max el	3608 Feb 23 01:20	16°☾51'09	46°57'44	
evening rise	3605 Aug 28 05:39	16°♍18'36				3608 Mar 06 14:39	0°≈		
	3605 Sep 08 08:19	0°♊				3608 Apr 02 08:45	0°♋		
	3605 Oct 02 17:00	0°♌			desc. node	3608 Apr 09 13:31	8°♋20'57		
desc. node	3605 Oct 23 18:26	25°♌53'06				3608 Apr 27 23:02	0°♍		
	3605 Oct 27 02:53	0°♎				3608 May 23 01:58	0°♌		
	3605 Nov 20 14:39	0°☾				3608 Jun 16 23:41	0°♍		
	3605 Dec 15 05:41	0°≈				3608 Jul 11 18:06	0°☾		
	3606 Jan 09 04:23	0°♋			asc. node	3608 Jul 31 16:16	24°☾15'33		
	3606 Feb 03 22:27	0°♍				3608 Aug 05 09:04	0°♌		
asc. node	3606 Feb 13 21:01	11°♍05'13			morning set	3608 Aug 23 10:00	22°♌06'34		
evening max el	3606 Mar 01 08:06	27°♍26'03	46°52'36			3608 Aug 29 19:56	0°♍		
	3606 Mar 03 21:36	0°♌				3608 Sep 23 02:53	0°♊		
greatest brilliancy	3606 Apr 06 17:22	26°♌37'01	-4.6m		max. Earth dist.	3608 Sep 25 20:47	3°♊24'12	1.72791 AU	
	3606 Apr 17 20:14	0°♍							
retrograde	3606 Apr 20 17:39	0°♍09'54			superior conj	3608 Sep 28 21:58	7°♊11'00	1°24'45	
	3606 Apr 23 14:03	30°♌♌			minimum elong	3608 Sep 28 23:47	7°♊16'38	1°24'45	
evening set	3606 May 07 00:17	24°♌58'14				3608 Oct 17 06:58	0°♌		
inferior conj	3606 May 11 21:06	21°♌58'55	5°32'01		evening rise	3608 Nov 05 13:13	23°♌58'06		
minimum elong	3606 May 12 06:57	21°♌43'27	5°29'41			3608 Nov 10 09:29	0°♎		
min. Earth dist.	3606 May 11 18:35	22°♌02'52	0.28233 AU		desc. node	3608 Nov 20 06:15	12°♎17'25		
morning rise	3606 May 17 14:06	18°♌32'09				3608 Dec 04 11:16	0°☾		
direct	3606 Jun 02 01:27	13°♌54'22				3608 Dec 28 13:01	0°≈		
desc. node	3606 Jun 05 10:52	14°♌07'40				3609 Jan 21 16:08	0°♋		
greatest brilliancy	3606 Jun 13 23:55	16°♌28'20	-4.5m			3609 Feb 14 23:51	0°♍		
	3606 Jul 05 06:41	0°♍				3609 Mar 11 18:02	0°♌		
morning max el	3606 Jul 20 22:05	13°♍54'59	45°45'14		asc. node	3609 Mar 13 08:56	1°♌56'08		
	3606 Aug 05 23:17	0°☾				3609 Apr 06 09:07	0°♍		
	3606 Sep 02 11:39	0°♌				3609 May 03 21:09	0°☾		
asc. node	3606 Sep 26 13:56	27°♌48'44			evening max el	3609 May 11 07:31	7°☾27'33	45°51'15	
	3606 Sep 28 10:31	0°♍				3609 Jun 07 02:39	0°♌		
	3606 Oct 23 11:45	0°♊			greatest brilliancy	3609 Jun 14 19:46	4°♌23'45	-4.5m	
	3606 Nov 16 23:16	0°♌			retrograde	3609 Jun 29 11:09	8°♌10'12		
	3606 Dec 11 02:36	0°♎			desc. node	3609 Jul 02 22:55	7°♌55'38		
	3607 Jan 04 01:34	0°☾			evening set	3609 Jul 14 19:20	3°♌37'50		
desc. node	3607 Jan 16 03:53	15°☾11'45			inferior conj	3609 Jul 20 23:46	29°☾54'48	-4°-6'-18	
morning set	3607 Jan 17 02:09	16°☾21'45			minimum elong	3609 Jul 20 15:37	0°♌07'33	4°04'12	
	3607 Jan 27 22:30	0°≈			min. Earth dist.	3609 Jul 20 17:19	0°♌04'53	0.28983 AU	
	3607 Feb 20 19:00	0°♋				3609 Jul 20 20:27	30°♌☾		
					morning rise	3609 Jul 26 11:58	26°☾34'04		
superior conj	3607 Feb 27 15:46	8°♋37'36	-1°-20'-13		direct	3609 Aug 11 13:07	21°☾38'34		
minimum elong	3607 Feb 27 07:17	8°♋10'55	1°20'04		greatest brilliancy	3609 Aug 25 03:27	24°☾51'10	-4.5m	
max. Earth dist.	3607 Mar 02 09:47	12°♋04'50	1.71304 AU			3609 Sep 03 10:43	0°♌		
	3607 Mar 16 16:33	0°♍			morning max el	3609 Sep 29 11:28	21°♌38'25	45°53'33	
evening rise	3607 Apr 09 05:02	29°♍23'11				3609 Oct 07 21:14	0°♍		
	3607 Apr 09 16:52	0°♌			asc. node	3609 Oct 24 01:45	17°♍12'01		
	3607 May 03 21:28	0°♍				3609 Nov 04 12:14	0°♊		
asc. node	3607 May 09 06:42	6°♍38'29				3609 Nov 30 03:48	0°♌		
	3607 May 28 07:35	0°☾				3609 Dec 24 21:26	0°♎		
	3607 Jun 22 00:28	0°♌				3610 Jan 18 04:18	0°☾		
	3607 Jul 17 02:29	0°♍				3610 Feb 11 06:12	0°≈		
	3607 Aug 11 18:38	0°♊			desc. node	3610 Feb 12 15:47	1°≈44'51		
desc. node	3607 Aug 28 20:36	19°♊22'11				3610 Mar 07 06:15	0°♋		
	3607 Sep 07 11:46	0°♌				3610 Mar 31 06:26	0°♍		
evening max el	3607 Oct 04 18:35	28°♌16'37	46°13'51		morning set	3610 Apr 03 21:14	4°♍30'50		
	3607 Oct 06 13:37	0°♎				3610 Apr 24 08:18	0°♌		
greatest brilliancy	3607 Nov 12 09:40	26°♎59'38	-4.6m						
retrograde	3607 Nov 23 05:06	29°♎08'02			superior conj	3610 May 12 21:43	23°♎01'56	0°-53'-9	
evening set	3607 Dec 07 20:45	24°♎58'12			minimum elong	3610 May 13 07:38	23°♎32'37	0°52'47	
inferior conj	3607 Dec 13 20:54	21°♎27'53	-1°-34'-5		max. Earth dist.	3610 May 16 02:21	26°♎59'06	1.72732 AU	
minimum elong	3607 Dec 14 00:29	21°♎22'25	1°32'58			3610 May 18 12:50	0°♍		
min. Earth dist.	3607 Dec 14 08:04	21°♎10'51	0.26749 AU		asc. node	3610 Jun 05 18:33	22°♍31'05		
asc. node	3607 Dec 19 23:15	17°♎53'18				3610 Jun 11 20:19	0°☾		
morning rise	3607 Dec 20 03:35	17°♎47'30			evening rise	3610 Jun 19 18:56	9°☾46'11		
direct	3608 Jan 03 11:15	13°♎43'00				3610 Jul 06 06:29	0°♌		
greatest brilliancy	3608 Jan 16 10:03	16°♎48'43	-4.7m			3610 Jul 30 19:22	0°♍		

	3610 Aug 24 11:54	0°♄			3613 Jan 30 18:33	0°♄		
	3610 Sep 18 09:57	0°♌			3613 Feb 24 15:14	0°♌		
desc. node	3610 Sep 25 08:30	8°♌17'11		desc. node	3613 Mar 12 03:34	18°♌57'51		
	3610 Oct 13 16:15	0°♌			3613 Mar 21 03:23	0°♌		
	3610 Nov 08 11:49	0°♄			3613 Apr 14 12:10	0°♌		
	3610 Dec 05 11:36	0°♌			3613 May 08 20:24	0°♌		
evening max el	3610 Dec 16 16:51	11°♌40'48	47°09'22		3613 Jun 02 05:26	0°♌		
	3611 Jan 05 10:43	0°♌		morning set	3613 Jun 14 02:54	14°♌37'17		
asc. node	3611 Jan 16 11:19	8°♌04'46			3613 Jun 26 15:19	0°♌		
greatest brilliancy	3611 Jan 24 04:38	12°♌14'00	-4.7m	asc. node	3613 Jul 03 06:27	8°♌08'52		
retrograde	3611 Feb 05 12:31	15°♌05'21		max. Earth dist.	3613 Jul 20 13:58	29°♌25'29	1.73526 AU	
evening set	3611 Feb 22 08:08	9°♌32'09						
min. Earth dist.	3611 Feb 25 11:23	7°♌38'08	0.27048 AU	superior conj	3613 Jul 21 01:30	0°♌00'57	0°40'48	
inferior conj	3611 Feb 26 04:53	7°♌11'08	8°17'54	minimum elong	3613 Jul 20 18:01	29°♌37'55	0°40'28	
minimum elong	3611 Feb 25 21:04	7°♌23'13	8°16'56		3613 Jul 21 01:12	0°♌		
morning rise	3611 Mar 01 10:13	5°♌13'24			3613 Aug 14 10:23	0°♌		
	3611 Mar 13 11:45	30°♌		evening rise	3613 Aug 26 00:08	14°♌15'02		
direct	3611 Mar 18 17:15	29°♌26'08			3613 Sep 07 19:01	0°♌		
	3611 Mar 24 02:10	0°♌			3613 Oct 02 04:00	0°♌		
greatest brilliancy	3611 Mar 29 13:03	1°♌37'26	-4.6m	desc. node	3613 Oct 22 20:22	25°♌24'14		
	3611 May 06 08:58	0°♌			3613 Oct 26 14:18	0°♌		
morning max el	3611 May 07 13:19	1°♌09'19	46°23'30		3613 Nov 20 02:36	0°♄		
desc. node	3611 May 08 01:10	1°♌38'26			3613 Dec 14 18:23	0°♌		
	3611 Jun 04 00:40	0°♌			3614 Jan 08 18:17	0°♌		
	3611 Jun 30 15:05	0°♌			3614 Feb 03 14:48	0°♌		
	3611 Jul 26 09:06	0°♌		asc. node	3614 Feb 12 23:02	10°♌21'49		
	3611 Aug 20 14:30	0°♌		evening max el	3614 Feb 26 22:25	25°♌05'35	46°54'21	
asc. node	3611 Aug 29 04:03	10°♌18'25			3614 Mar 03 20:57	0°♌		
	3611 Sep 14 09:41	0°♌		greatest brilliancy	3614 Apr 04 11:40	24°♌24'36	-4.6m	
	3611 Oct 08 20:17	0°♌		retrograde	3614 Apr 18 08:45	27°♌54'12		
morning set	3611 Nov 01 14:46	29°♌29'34		evening set	3614 May 04 18:32	22°♌38'51		
	3611 Nov 02 00:32	0°♌		inferior conj	3614 May 09 12:20	19°♌43'50	5°48'42	
	3611 Nov 26 00:51	0°♌		minimum elong	3614 May 09 22:21	19°♌28'04	5°46'23	
max. Earth dist.	3611 Dec 08 10:42	15°♌32'59	1.71464 AU	min. Earth dist.	3614 May 09 09:59	19°♌47'31	0.28198 AU	
				morning rise	3614 May 15 02:37	16°♌20'33		
superior conj	3611 Dec 10 09:37	18°♌00'06	0°19'55	direct	3614 May 30 15:56	11°♌39'55		
minimum elong	3611 Dec 10 14:31	18°♌15'27	0°19'42	desc. node	3614 Jun 04 12:59	12°♌07'00		
desc. node	3611 Dec 18 18:07	28°♌29'07		greatest brilliancy	3614 Jun 11 12:53	14°♌11'54	-4.5m	
	3611 Dec 19 23:04	0°♄			3614 Jul 05 14:08	0°♌		
	3612 Jan 12 20:19	0°♌		morning max el	3614 Jul 18 12:22	11°♌40'33	45°45'57	
evening rise	3612 Jan 20 04:31	9°♌13'34			3614 Aug 05 16:49	0°♌		
	3612 Feb 05 17:36	0°♌			3614 Sep 02 01:34	0°♌		
	3612 Feb 29 16:41	0°♌		asc. node	3614 Sep 25 15:54	27°♌17'52		
	3612 Mar 24 20:17	0°♌			3614 Sep 27 22:54	0°♌		
asc. node	3612 Apr 09 20:49	19°♌41'33			3614 Oct 22 23:24	0°♌		
	3612 Apr 18 07:45	0°♌			3614 Nov 16 10:35	0°♌		
	3612 May 13 07:21	0°♌			3614 Dec 10 13:46	0°♌		
	3612 Jun 08 02:16	0°♌			3615 Jan 03 12:38	0°♄		
	3612 Jul 05 10:11	0°♌		morning set	3615 Jan 14 12:18	13°♌48'04		
evening max el	3612 Jul 21 01:10	15°♌42'51	45°28'58	desc. node	3615 Jan 15 05:58	14°♌43'37		
desc. node	3612 Jul 30 10:50	24°♌20'23			3615 Jan 27 09:30	0°♌		
	3612 Aug 06 05:04	0°♌			3615 Feb 20 05:57	0°♌		
greatest brilliancy	3612 Aug 26 10:30	12°♌40'48	-4.5m					
retrograde	3612 Sep 07 15:26	15°♌17'37		superior conj	3615 Feb 25 02:06	6°♌04'55	-1°-18'-37	
evening set	3612 Sep 25 17:24	9°♌12'21		minimum elong	3615 Feb 24 16:50	5°♌35'47	1°18'26	
inferior conj	3612 Sep 28 22:22	7°♌14'02	-8°-38'-34	max. Earth dist.	3615 Feb 27 13:27	9°♌11'19	1.71270 AU	
minimum elong	3612 Sep 29 00:07	7°♌11'17	8°38'33		3615 Mar 16 03:30	0°♌		
min. Earth dist.	3612 Sep 29 13:10	6°♌51'00	0.28617 AU	evening rise	3615 Apr 06 16:47	26°♌56'12		
morning rise	3612 Oct 02 06:42	5°♌10'21			3615 Apr 09 03:48	0°♌		
	3612 Oct 13 09:29	30°♌			3615 May 03 08:28	0°♌		
direct	3612 Oct 20 09:39	29°♌00'50		asc. node	3615 May 08 08:45	6°♌10'50		
	3612 Oct 27 14:35	0°♌			3615 May 27 18:46	0°♌		
greatest brilliancy	3612 Nov 03 21:14	2°♌46'09	-4.6m		3615 Jun 21 12:01	0°♌		
asc. node	3612 Nov 20 13:25	13°♌51'16			3615 Jul 16 14:45	0°♌		
	3612 Dec 08 05:20	0°♌			3615 Aug 11 08:15	0°♌		
morning max el	3612 Dec 09 16:00	1°♌26'53	46°36'32	desc. node	3615 Aug 27 22:34	18°♌45'34		
	3613 Jan 05 02:04	0°♌			3615 Sep 07 04:15	0°♌		

evening max el	3615 Oct 02 06:58	25° \mathbb{M} 54'09	46°11'34	morning set	3618 Apr 01 09:19	2° Υ 03'50	
	3615 Oct 06 14:27	0° \mathcal{X}			3618 Apr 23 19:21	0° \mathcal{B}	
greatest brilliancy	3615 Nov 09 22:29	24° \mathcal{X} 35'05	-4.6m				
retrograde	3615 Nov 20 17:10	26° \mathcal{X} 43'03		superior conj	3618 May 10 12:17	20° \mathcal{B} 44'17	0°-55'-54
evening set	3615 Dec 05 11:03	22° \mathcal{X} 30'11		minimum elong	3618 May 10 22:26	21° \mathcal{B} 15'45	0°55'32
inferior conj	3615 Dec 11 09:35	19° \mathcal{X} 02'23	-1°-57'-36	max. Earth dist.	3618 May 13 18:54	24° \mathcal{B} 47'48	1.72682 AU
minimum elong	3615 Dec 11 14:01	18° \mathcal{X} 55'38	1°56'13		3618 May 17 23:48	0° \mathbb{I}	
min. Earth dist.	3615 Dec 11 22:23	18° \mathcal{X} 42'53	0.26797 AU	asc. node	3618 Jun 04 20:39	22° \mathbb{I} 03'48	
morning rise	3615 Dec 17 16:16	15° \mathcal{X} 21'58			3618 Jun 11 07:16	0° \mathcal{E}	
asc. node	3615 Dec 19 01:24	14° \mathcal{X} 39'11		evening rise	3618 Jun 17 12:01	7° \mathcal{E} 37'32	
direct	3616 Jan 01 00:05	11° \mathcal{X} 16'12			3618 Jul 05 17:31	0° \mathcal{O}	
greatest brilliancy	3616 Jan 14 02:55	14° \mathcal{X} 26'23	-4.7m		3618 Jul 30 06:38	0° \mathbb{M}	
	3616 Feb 05 10:24	0° \mathcal{E}			3618 Aug 23 23:35	0° \mathcal{L}	
morning max el	3616 Feb 20 15:09	14° \mathcal{E} 26'33	46°58'09		3618 Sep 17 22:19	0° \mathbb{M}	
	3616 Mar 06 09:36	0° \approx		desc. node	3618 Sep 24 10:29	7° \mathbb{M} 45'34	
	3616 Apr 01 23:50	0° \mathcal{H}			3618 Oct 13 05:43	0° \mathcal{X}	
desc. node	3616 Apr 08 15:30	7° \mathcal{H} 44'31			3618 Nov 08 03:17	0° \mathcal{E}	
	3616 Apr 27 12:21	0° Υ			3618 Dec 05 07:28	0° \approx	
	3616 May 22 14:14	0° \mathcal{B}		evening max el	3618 Dec 14 08:01	9° \approx 20'01	47°08'20
	3616 Jun 16 11:17	0° \mathbb{I}			3619 Jan 06 01:26	0° \mathcal{H}	
	3616 Jul 11 05:17	0° \mathcal{E}		asc. node	3619 Jan 15 13:12	6° \mathcal{H} 34'03	
asc. node	3616 Jul 30 18:13	23° \mathcal{E} 48'06		greatest brilliancy	3619 Jan 21 18:25	9° \mathcal{H} 47'27	-4.7m
	3616 Aug 04 19:58	0° \mathcal{O}		retrograde	3619 Feb 03 02:17	12° \mathcal{H} 38'02	
morning set	3616 Aug 21 03:45	20° \mathcal{O} 00'25		evening set	3619 Feb 19 17:05	7° \mathcal{H} 11'23	
	3616 Aug 29 06:42	0° \mathbb{M}		min. Earth dist.	3619 Feb 22 23:51	5° \mathcal{H} 12'12	0.27006 AU
	3616 Sep 22 13:38	0° \mathcal{L}		inferior conj	3619 Feb 23 17:49	4° \mathcal{H} 44'28	8°08'25
max. Earth dist.	3616 Sep 23 17:02	1° \mathcal{L} 24'52	1.72833 AU	minimum elong	3619 Feb 23 09:23	4° \mathcal{H} 57'29	8°07'16
				morning rise	3619 Feb 27 01:58	2° \mathcal{H} 42'41	
superior conj	3616 Sep 26 15:20	5° \mathcal{L} 02'42	1°25'00		3619 Mar 04 02:39	30° \mathcal{R} \approx	
minimum elong	3616 Sep 26 16:26	5° \mathcal{L} 06'07	1°25'00	direct	3619 Mar 16 06:33	27° \approx 00'18	
	3616 Oct 16 17:48	0° \mathbb{M}		greatest brilliancy	3619 Mar 27 00:57	29° \approx 10'43	-4.6m
evening rise	3616 Nov 03 04:01	21° \mathbb{M} 40'43			3619 Mar 29 00:40	0° \mathcal{H}	
	3616 Nov 09 20:28	0° \mathcal{X}		morning max el	3619 May 05 03:28	28° \mathcal{H} 48'45	46°25'00
desc. node	3616 Nov 19 08:22	11° \mathcal{X} 49'31			3619 May 06 08:20	0° Υ	
	3616 Dec 03 22:30	0° \mathcal{E}		desc. node	3619 May 07 03:17	0° Υ 47'04	
	3616 Dec 28 00:33	0° \approx			3619 Jun 03 17:07	0° \mathcal{B}	
	3617 Jan 21 04:02	0° \mathcal{H}			3619 Jun 30 04:56	0° \mathbb{I}	
	3617 Feb 14 12:16	0° Υ			3619 Jul 25 21:38	0° \mathcal{E}	
	3617 Mar 11 07:18	0° \mathcal{B}			3619 Aug 20 02:16	0° \mathcal{O}	
asc. node	3617 Mar 12 10:52	1° \mathcal{B} 22'07		asc. node	3619 Aug 28 06:00	9° \mathcal{O} 49'24	
	3617 Apr 06 00:11	0° \mathbb{I}			3619 Sep 13 21:01	0° \mathbb{M}	
	3617 May 03 16:59	0° \mathcal{E}			3619 Oct 08 07:24	0° \mathcal{L}	
evening max el	3617 May 08 23:19	5° \mathcal{E} 15'05	45°53'15	morning set	3619 Oct 30 06:10	27° \mathcal{L} 13'43	
	3617 Jun 08 07:12	0° \mathcal{O}			3619 Nov 01 11:34	0° \mathbb{M}	
greatest brilliancy	3617 Jun 12 10:25	2° \mathcal{O} 11'59	-4.5m		3619 Nov 25 11:54	0° \mathcal{X}	
retrograde	3617 Jun 27 04:09	6° \mathcal{O} 01'04		max. Earth dist.	3619 Dec 05 18:31	12° \mathcal{X} 52'23	1.71496 AU
desc. node	3617 Jul 02 01:00	5° \mathcal{O} 32'34					
evening set	3617 Jul 12 10:23	1° \mathcal{O} 30'13		superior conj	3619 Dec 07 22:05	15° \mathcal{X} 34'00	0°23'34
	3617 Jul 15 00:53	30° \mathcal{R} \mathcal{E}		minimum elong	3619 Dec 08 03:47	15° \mathcal{X} 51'50	0°23'18
inferior conj	3617 Jul 18 16:08	27° \mathcal{E} 45'25	-3°-48'-41	desc. node	3619 Dec 17 20:13	28° \mathcal{X} 00'51	
minimum elong	3617 Jul 18 08:26	27° \mathcal{E} 57'28	3°46'40		3619 Dec 19 10:10	0° \mathcal{E}	
min. Earth dist.	3617 Jul 18 09:21	27° \mathcal{E} 56'02	0.28965 AU		3620 Jan 12 07:28	0° \approx	
morning rise	3617 Jul 24 06:37	24° \mathcal{E} 21'48		evening rise	3620 Jan 17 15:27	6° \approx 41'58	
direct	3617 Aug 09 05:26	19° \mathcal{E} 29'21			3620 Feb 05 04:50	0° \mathcal{H}	
greatest brilliancy	3617 Aug 22 19:09	22° \mathcal{E} 41'46	-4.5m		3620 Feb 29 04:04	0° Υ	
	3617 Sep 04 07:00	0° \mathcal{O}			3620 Mar 24 07:55	0° \mathcal{B}	
morning max el	3617 Sep 27 04:10	19° \mathcal{O} 29'36	45°52'36	asc. node	3620 Apr 08 22:53	19° \mathcal{B} 11'32	
	3617 Oct 07 16:22	0° \mathbb{M}			3620 Apr 17 19:49	0° \mathbb{I}	
asc. node	3617 Oct 23 03:44	16° \mathbb{M} 33'20			3620 May 12 20:12	0° \mathcal{E}	
	3617 Nov 04 02:57	0° \mathcal{L}			3620 Jun 07 16:43	0° \mathcal{O}	
	3617 Nov 29 16:48	0° \mathbb{M}			3620 Jul 05 04:29	0° \mathbb{M}	
	3617 Dec 24 09:38	0° \mathcal{X}		evening max el	3620 Jul 18 16:11	13° \mathbb{M} 29'27	45°28'36
	3618 Jan 17 16:05	0° \mathcal{E}		desc. node	3620 Jul 29 12:47	23° \mathbb{M} 23'07	
	3618 Feb 10 17:44	0° \approx			3620 Aug 06 16:25	0° \mathcal{L}	
desc. node	3618 Feb 11 17:44	1° \approx 14'56		greatest brilliancy	3620 Aug 24 00:08	10° \mathcal{L} 26'39	-4.5m
	3618 Mar 06 17:37	0° \mathcal{H}		retrograde	3620 Sep 05 05:47	13° \mathcal{L} 04'32	
	3618 Mar 30 17:39	0° Υ		evening set	3620 Sep 23 08:28	6° \mathcal{L} 59'27	

inferior conj	3620 Sep 26 13:47	5°♊00'24	-8°-39'-36	max. Earth dist.	3623 Feb 24 16:05	6°♋13'59	1.71241 AU
minimum elong	3620 Sep 26 14:44	4°♊58'56	8°39'36		3623 Mar 15 14:34	0°♌	
min. Earth dist.	3620 Sep 27 03:50	4°♊38'29	0.28664 AU	evening rise	3623 Apr 04 04:39	24°♌29'10	
morning rise	3620 Sep 29 20:51	2°♊58'22			3623 Apr 08 14:51	0°♍	
	3620 Oct 05 06:05	30°♋			3623 May 02 19:34	0°♎	
direct	3620 Oct 18 01:19	26°♋46'41		asc. node	3623 May 07 10:51	5°♏43'00	
	3620 Oct 31 10:26	0°♌			3623 May 27 06:03	0°♐	
greatest brilliancy	3620 Nov 01 12:08	0°♌30'08	-4.6m		3623 Jun 20 23:43	0°♑	
asc. node	3620 Nov 19 15:34	12°♌46'11			3623 Jul 16 03:14	0°♒	
morning max el	3620 Dec 07 05:51	29°♌05'11	46°35'02		3623 Aug 10 22:12	0°♓	
	3620 Dec 08 03:34	0°♍		desc. node	3623 Aug 27 00:35	18°♓08'09	
	3621 Jan 04 18:12	0°♎			3623 Sep 06 21:19	0°♐	
	3621 Jan 30 08:28	0°♏		evening max el	3623 Sep 29 20:04	23°♐33'01	46°09'28
	3621 Feb 24 04:00	0°♑			3623 Oct 06 16:52	0°♑	
desc. node	3621 Mar 11 05:37	18°♑26'22		greatest brilliancy	3623 Nov 07 10:24	22°♑09'26	-4.6m
	3621 Mar 20 15:28	0°♒		retrograde	3623 Nov 18 05:46	24°♑18'02	
	3621 Apr 13 23:47	0°♓		evening set	3623 Dec 03 01:34	20°♑01'53	
	3621 May 08 07:43	0°♐		inferior conj	3623 Dec 08 22:16	16°♑36'44	-2°-20'-48
	3621 Jun 01 16:32	0°♑		minimum elong	3623 Dec 09 03:31	16°♑28'44	2°19'10
morning set	3621 Jun 11 19:51	12°♑28'03		min. Earth dist.	3623 Dec 09 12:19	16°♑15'21	0.26845 AU
	3621 Jun 26 02:16	0°♒		morning rise	3623 Dec 15 04:46	12°♑56'48	
asc. node	3621 Jul 02 08:25	7°♒41'20		asc. node	3623 Dec 18 03:19	11°♑29'29	
				direct	3623 Dec 29 13:34	8°♒49'28	
superior conj	3621 Jul 18 19:25	27°♒55'04	0°37'57	greatest brilliancy	3624 Jan 11 19:14	12°♒03'33	-4.7m
minimum elong	3621 Jul 18 12:18	27°♒33'12	0°37'39		3624 Feb 05 17:16	0°♓	
max. Earth dist.	3621 Jul 18 09:09	27°♒23'31	1.73523 AU	morning max el	3624 Feb 18 05:45	12°♓04'00	46°58'24
	3621 Jul 20 12:04	0°♑			3624 Mar 06 04:04	0°♐	
	3621 Aug 13 21:16	0°♒			3624 Apr 01 14:44	0°♑	
evening rise	3621 Aug 23 18:20	12°♒09'33		desc. node	3624 Apr 07 17:35	7°♑08'40	
	3621 Sep 07 06:03	0°♓			3624 Apr 27 01:32	0°♒	
	3621 Oct 01 15:19	0°♐			3624 May 22 02:25	0°♓	
desc. node	3621 Oct 21 22:30	24°♐55'04			3624 Jun 15 22:49	0°♏	
	3621 Oct 26 02:01	0°♑			3624 Jul 10 16:23	0°♐	
	3621 Nov 19 14:51	0°♒		asc. node	3624 Jul 29 20:12	23°♐20'49	
	3621 Dec 14 07:24	0°♓			3624 Aug 04 06:50	0°♑	
	3622 Jan 08 08:34	0°♐		morning set	3624 Aug 18 21:28	17°♑54'18	
	3622 Feb 03 07:38	0°♒			3624 Aug 28 17:28	0°♒	
asc. node	3622 Feb 12 01:02	9°♒37'19		max. Earth dist.	3624 Sep 21 12:34	29°♒23'19	1.72877 AU
evening max el	3622 Feb 24 12:03	22°♒42'51	46°56'08		3624 Sep 22 00:25	0°♓	
	3622 Mar 03 21:36	0°♐					
greatest brilliancy	3622 Apr 02 04:58	22°♐10'26	-4.6m	superior conj	3624 Sep 24 08:33	2°♓53'52	1°25'07
retrograde	3622 Apr 15 23:51	25°♐38'23		minimum elong	3624 Sep 24 08:55	2°♓55'00	1°25'07
evening set	3622 May 02 12:52	20°♐18'57			3624 Oct 16 04:40	0°♐	
inferior conj	3622 May 07 03:41	17°♐28'29	6°04'40	evening rise	3624 Oct 31 18:35	19°♐22'33	
minimum elong	3622 May 07 13:49	17°♐12'33	6°02'24		3624 Nov 09 07:29	0°♑	
min. Earth dist.	3622 May 07 01:37	17°♐31'44	0.28169 AU	desc. node	3624 Nov 18 10:24	11°♑21'14	
morning rise	3622 May 12 15:05	14°♐09'00			3624 Dec 03 09:44	0°♓	
direct	3622 May 28 06:10	9°♐24'56			3624 Dec 27 12:03	0°♐	
desc. node	3622 Jun 03 15:03	10°♐10'31			3625 Jan 20 15:53	0°♑	
greatest brilliancy	3622 Jun 09 03:00	11°♐56'17	-4.5m		3625 Feb 14 00:37	0°♒	
	3622 Jul 05 19:38	0°♑			3625 Mar 10 20:35	0°♓	
morning max el	3622 Jul 16 02:55	9°♑25'54	45°46'35	asc. node	3625 Mar 11 12:57	0°♓48'42	
	3622 Aug 05 10:17	0°♒			3625 Apr 05 15:21	0°♏	
	3622 Sep 01 15:40	0°♑			3625 May 03 13:19	0°♐	
asc. node	3622 Sep 24 18:00	26°♑46'35		evening max el	3625 May 06 15:52	3°♐04'45	45°55'14
	3622 Sep 27 11:30	0°♒		greatest brilliancy	3625 Jun 10 02:14	0°♑02'13	-4.5m
	3622 Oct 22 11:16	0°♓			3625 Jun 10 00:24	0°♑	
	3622 Nov 15 22:04	0°♐		retrograde	3625 Jun 24 21:12	3°♑52'16	
	3622 Dec 10 01:03	0°♑		desc. node	3625 Jul 01 02:54	3°♑05'22	
	3623 Jan 02 23:49	0°♒			3625 Jul 08 22:10	30°♒	
morning set	3623 Jan 11 22:36	11°♒14'27		evening set	3625 Jul 10 01:40	29°♒23'03	
desc. node	3623 Jan 14 07:53	14°♒14'29		inferior conj	3625 Jul 16 08:29	25°♒36'30	-3°-30'-43
	3623 Jan 26 20:39	0°♓		minimum elong	3625 Jul 16 01:16	25°♒47'46	3°28'48
	3623 Feb 19 17:04	0°♑		min. Earth dist.	3625 Jul 16 01:14	25°♒47'50	0.28946 AU
				morning rise	3625 Jul 22 01:08	22°♒10'05	
superior conj	3623 Feb 22 12:30	3°♑31'58	-1°-16'-51	direct	3625 Aug 06 22:08	17°♒20'50	
minimum elong	3623 Feb 22 02:32	3°♑00'38	1°16'39	greatest brilliancy	3625 Aug 20 09:39	20°♒31'31	-4.5m

	3625 Sep 04 21:47	0°♌			3628 Mar 23 19:18	0°♋		
morning max el	3625 Sep 24 20:35	17°♌20'38	45°51'26	asc. node	3628 Apr 08 00:57	18°♋42'27		
	3625 Oct 07 10:52	0°♍			3628 Apr 17 07:37	0°♌		
asc. node	3625 Oct 22 05:52	15°♍55'40			3628 May 12 08:48	0°♍		
	3625 Nov 03 17:25	0°♎			3628 Jun 07 06:57	0°♌		
	3625 Nov 29 05:41	0°♏			3628 Jul 04 22:50	0°♍		
	3625 Dec 23 21:43	0°♐		evening max el	3628 Jul 16 06:31	11°♍15'28	45°28'18	
	3626 Jan 17 03:44	0°♑		desc. node	3628 Jul 28 14:54	22°♍26'06		
	3626 Feb 10 05:06	0°♒			3628 Aug 07 06:54	0°♎		
desc. node	3626 Feb 10 19:49	0°♒46'00		greatest brilliancy	3628 Aug 21 13:28	8°♎13'32	-4.5m	
	3626 Mar 06 04:45	0°♓		retrograde	3628 Sep 02 20:22	10°♎53'23		
morning set	3626 Mar 29 21:16	29°♓37'06		evening set	3628 Sep 20 23:14	4°♎48'52		
	3626 Mar 30 04:36	0°♈		inferior conj	3628 Sep 24 05:23	2°♎48'37	-8°-39'-41	
	3626 Apr 23 06:11	0°♉		minimum elong	3628 Sep 24 05:31	2°♎48'25	8°39'42	
				min. Earth dist.	3628 Sep 24 18:48	2°♎27'40	0.28709 AU	
superior conj	3626 May 08 02:45	18°♉26'56	0°-58'-34	morning rise	3628 Sep 27 11:35	0°♎47'44		
minimum elong	3626 May 08 13:05	18°♉58'59	0°58'13		3628 Sep 28 19:38	30°♏♍		
max. Earth dist.	3626 May 11 12:55	22°♉41'33	1.72633 AU	direct	3628 Oct 15 16:45	24°♏34'16		
	3626 May 17 10:33	0°♊		greatest brilliancy	3628 Oct 30 04:02	28°♏17'08	-4.6m	
asc. node	3626 Jun 03 22:37	21°♊36'43			3628 Nov 02 10:36	0°♏		
	3626 Jun 10 18:00	0°♋		asc. node	3628 Nov 18 17:29	11°♏43'40		
evening rise	3626 Jun 15 05:05	5°♋29'23		morning max el	3628 Dec 04 19:38	26°♏44'42	46°33'29	
	3626 Jul 05 04:21	0°♌			3628 Dec 08 00:30	0°♏		
	3626 Jul 29 17:40	0°♍			3629 Jan 04 09:43	0°♐		
	3626 Aug 23 11:02	0°♎			3629 Jan 29 21:58	0°♑		
	3626 Sep 17 10:30	0°♏			3629 Feb 23 16:28	0°♒		
desc. node	3626 Sep 23 12:37	7°♏14'56		desc. node	3629 Mar 10 07:44	17°♒55'51		
	3626 Oct 12 19:07	0°♐			3629 Mar 20 03:17	0°♓		
	3626 Nov 07 18:51	0°♑			3629 Apr 13 11:09	0°♈		
	3626 Dec 05 03:53	0°♒			3629 May 07 18:44	0°♉		
evening max el	3626 Dec 11 22:56	6°♒58'42	47°07'07		3629 Jun 01 03:18	0°♊		
	3627 Jan 06 21:01	0°♓		morning set	3629 Jun 09 12:39	10°♊19'18		
asc. node	3627 Jan 14 15:15	5°♓00'21			3629 Jun 25 12:51	0°♋		
greatest brilliancy	3627 Jan 19 09:13	7°♓22'11	-4.7m	asc. node	3629 Jul 01 10:24	7°♋14'56		
retrograde	3627 Jan 31 15:34	10°♓10'29		max. Earth dist.	3629 Jul 16 04:15	25°♋22'23	1.73520 AU	
evening set	3627 Feb 17 01:52	4°♓50'55						
min. Earth dist.	3627 Feb 20 12:30	2°♓45'57	0.26958 AU	superior conj	3629 Jul 16 13:23	25°♋50'26	0°35'05	
inferior conj	3627 Feb 21 06:37	2°♓17'59	7°57'57	minimum elong	3629 Jul 16 06:41	25°♋29'51	0°34'46	
minimum elong	3627 Feb 20 21:38	2°♓31'52	7°56'37		3629 Jul 19 22:35	0°♌		
morning rise	3627 Feb 24 17:42	0°♓11'49			3629 Aug 13 07:50	0°♍		
	3627 Feb 25 01:46	30°♒♓		evening rise	3629 Aug 21 12:50	10°♍06'06		
direct	3627 Mar 13 19:24	24°♒34'49			3629 Sep 06 16:47	0°♎		
greatest brilliancy	3627 Mar 24 13:01	26°♒44'30	-4.6m		3629 Oct 01 02:19	0°♏		
	3627 Mar 31 08:36	0°♓		desc. node	3629 Oct 21 00:32	24°♏26'45		
morning max el	3627 May 02 16:28	26°♓26'07	46°26'31		3629 Oct 25 13:23	0°♐		
desc. node	3627 May 06 05:22	29°♓57'25			3629 Nov 19 02:46	0°♑		
	3627 May 06 06:23	0°♈			3629 Dec 13 20:08	0°♒		
	3627 Jun 03 08:55	0°♉			3630 Jan 07 22:40	0°♓		
	3627 Jun 29 18:19	0°♊			3630 Feb 03 00:33	0°♈		
	3627 Jul 25 09:46	0°♋		asc. node	3630 Feb 11 03:07	8°♈53'07		
	3627 Aug 19 13:41	0°♌		evening max el	3630 Feb 22 01:36	20°♈20'23	46°57'47	
asc. node	3627 Aug 27 08:09	9°♌21'55			3630 Mar 03 23:20	0°♉		
	3627 Sep 13 08:00	0°♍		greatest brilliancy	3630 Mar 30 21:23	19°♉55'08	-4.6m	
	3627 Oct 07 18:10	0°♎		retrograde	3630 Apr 13 15:01	23°♉22'34		
morning set	3627 Oct 27 21:43	24°♎59'22		evening set	3630 Apr 30 07:02	17°♉58'41		
	3627 Oct 31 22:18	0°♏		inferior conj	3630 May 04 18:49	15°♉13'00	6°20'06	
	3627 Nov 24 22:41	0°♐		minimum elong	3630 May 05 05:00	14°♉57'01	6°17'57	
max. Earth dist.	3627 Dec 03 01:36	10°♐10'22	1.71539 AU	min. Earth dist.	3630 May 04 16:52	15°♉16'05	0.28139 AU	
				morning rise	3630 May 10 03:14	11°♉57'50		
superior conj	3627 Dec 05 10:35	13°♐08'54	0°27'10	direct	3630 May 25 20:14	7°♉09'44		
minimum elong	3627 Dec 05 17:01	13°♐29'03	0°26'51	desc. node	3630 Jun 02 16:58	8°♉18'28		
desc. node	3627 Dec 16 22:10	27°♐32'54		greatest brilliancy	3630 Jun 06 17:28	9°♉41'23	-4.5m	
	3627 Dec 18 21:03	0°♑			3630 Jul 05 22:57	0°♊		
	3628 Jan 11 18:25	0°♒		morning max el	3630 Jul 13 18:01	7°♊13'17	45°47'24	
evening rise	3628 Jan 15 02:00	4°♒09'55			3630 Aug 05 03:01	0°♋		
	3628 Feb 04 15:52	0°♓			3630 Sep 01 05:16	0°♌		
	3628 Feb 28 15:14	0°♈		asc. node	3630 Sep 23 19:59	26°♌16'05		

	3630 Sep 26 23:42	0°♍		greatest brilliancy	3633 Jun 07 19:16	27°♌54'01	-4.5m
	3630 Oct 21 22:47	0°♊			3633 Jun 12 21:08	0°♊	
	3630 Nov 15 09:13	0°♍		retrograde	3633 Jun 22 13:58	1°♊43'16	
	3630 Dec 09 12:00	0°♊		desc. node	3633 Jun 30 05:01	0°♊33'16	
	3631 Jan 02 10:40	0°♊			3633 Jul 01 20:27	30°♌	
morning set	3631 Jan 09 09:28	8°♊43'44		evening set	3633 Jul 07 17:09	27°♌15'46	
desc. node	3631 Jan 13 10:00	13°♊47'04		min. Earth dist.	3633 Jul 13 17:20	23°♌39'20	0.28925 AU
	3631 Jan 26 07:27	0°♌		inferior conj	3633 Jul 14 00:50	23°♌27'35	-3°-12'-28
	3631 Feb 19 03:52	0°♌		minimum elong	3633 Jul 13 18:10	23°♌38'03	3°10'39
				morning rise	3633 Jul 19 19:31	19°♌58'19	
superior conj	3631 Feb 19 22:58	1°♌00'04	-1°-14'-56	direct	3633 Aug 04 14:55	15°♌12'28	
minimum elong	3631 Feb 19 12:25	0°♌26'53	1°14'42	greatest brilliancy	3633 Aug 17 23:31	18°♌20'23	-4.5m
max. Earth dist.	3631 Feb 21 21:14	3°♌25'28	1.71221 AU		3633 Sep 05 08:46	0°♊	
	3631 Mar 15 01:22	0°♌		morning max el	3633 Sep 22 12:11	15°♊09'46	45°50'22
evening rise	3631 Apr 01 16:20	22°♌02'16			3633 Oct 07 04:51	0°♌	
	3631 Apr 08 01:41	0°♌		asc. node	3633 Oct 21 07:50	15°♌18'01	
	3631 May 02 06:28	0°♌			3633 Nov 03 07:39	0°♊	
asc. node	3631 May 06 12:46	5°♌15'14			3633 Nov 28 18:24	0°♌	
	3631 May 26 17:09	0°♌			3633 Dec 23 09:43	0°♊	
	3631 Jun 20 11:15	0°♊			3634 Jan 16 15:19	0°♊	
	3631 Jul 15 15:33	0°♌		desc. node	3634 Feb 09 21:53	0°♌17'05	
	3631 Aug 10 12:02	0°♊			3634 Feb 09 16:26	0°♌	
desc. node	3631 Aug 26 02:42	17°♊31'26			3634 Mar 05 15:52	0°♌	
	3631 Sep 06 14:25	0°♌		morning set	3634 Mar 27 09:27	27°♌11'04	
evening max el	3631 Sep 27 10:11	21°♌15'26	46°07'23		3634 Mar 29 15:32	0°♌	
	3631 Oct 06 20:30	0°♊			3634 Apr 22 16:59	0°♌	
greatest brilliancy	3631 Nov 04 22:06	19°♊44'59	-4.6m				
retrograde	3631 Nov 15 18:50	21°♊54'24		superior conj	3634 May 05 17:27	16°♌10'20	-1°-1'-8
evening set	3631 Nov 30 16:28	17°♊35'01		minimum elong	3634 May 06 03:55	16°♌42'45	1°00'47
inferior conj	3631 Dec 06 11:06	14°♊12'25	-2°-43'-30	max. Earth dist.	3634 May 09 08:36	20°♌40'29	1.72582 AU
minimum elong	3631 Dec 06 17:08	14°♊03'14	2°41'40		3634 May 16 21:17	0°♌	
min. Earth dist.	3631 Dec 07 02:00	13°♊49'45	0.26893 AU	asc. node	3634 Jun 03 00:40	21°♌09'58	
morning rise	3631 Dec 12 17:10	10°♊33'20			3634 Jun 10 04:46	0°♌	
asc. node	3631 Dec 17 05:21	8°♊25'52		evening rise	3634 Jun 12 22:13	3°♌21'21	
direct	3631 Dec 27 03:35	6°♊24'24			3634 Jul 04 15:13	0°♊	
greatest brilliancy	3632 Jan 09 10:42	9°♊40'58	-4.7m		3634 Jul 29 04:48	0°♌	
	3632 Feb 05 21:36	0°♊			3634 Aug 22 22:36	0°♊	
morning max el	3632 Feb 15 20:39	9°♊43'16	46°58'36		3634 Sep 16 22:50	0°♌	
	3632 Mar 05 21:45	0°♌		desc. node	3634 Sep 22 14:35	6°♌43'30	
	3632 Apr 01 05:09	0°♌			3634 Oct 12 08:42	0°♊	
desc. node	3632 Apr 06 19:36	6°♌33'37			3634 Nov 07 10:42	0°♊	
	3632 Apr 26 14:24	0°♌			3634 Dec 05 01:03	0°♌	
	3632 May 21 14:23	0°♌		evening max el	3634 Dec 09 12:49	4°♌34'43	47°05'46
	3632 Jun 15 10:11	0°♌			3635 Jan 07 23:45	0°♌	
	3632 Jul 10 03:21	0°♌		asc. node	3635 Jan 13 17:24	3°♌22'59	
asc. node	3632 Jul 28 22:21	22°♌54'27		greatest brilliancy	3635 Jan 17 00:44	4°♌57'27	-4.7m
	3632 Aug 03 17:33	0°♊		retrograde	3635 Jan 29 04:20	7°♌42'40	
morning set	3632 Aug 16 15:11	15°♊48'39		evening set	3635 Feb 14 10:40	2°♌30'11	
	3632 Aug 28 04:05	0°♌		min. Earth dist.	3635 Feb 18 01:40	0°♌18'50	0.26913 AU
max. Earth dist.	3632 Sep 19 07:38	27°♌20'55	1.72917 AU	inferior conj	3635 Feb 18 19:28	29°♌51'19	7°46'34
	3632 Sep 21 11:02	0°♊		minimum elong	3635 Feb 18 09:59	0°♌05'59	7°45'02
					3635 Feb 18 13:51	30°♌	
superior conj	3632 Sep 22 01:51	0°♊45'55	1°25'06	morning rise	3635 Feb 22 09:35	27°♌40'32	
minimum elong	3632 Sep 22 01:30	0°♊44'50	1°25'07	direct	3635 Mar 11 07:47	22°♌08'53	
	3632 Oct 15 15:23	0°♌		greatest brilliancy	3635 Mar 22 02:17	24°♌19'02	-4.6m
evening rise	3632 Oct 29 09:22	17°♌05'34			3635 Apr 01 21:04	0°♌	
	3632 Nov 08 18:23	0°♊		morning max el	3635 Apr 30 04:36	24°♌00'45	46°28'13
desc. node	3632 Nov 17 12:21	10°♊53'09		desc. node	3635 May 05 07:17	29°♌07'55	
	3632 Dec 02 20:51	0°♊			3635 May 06 03:45	0°♌	
	3632 Dec 26 23:26	0°♌			3635 Jun 03 00:35	0°♌	
	3633 Jan 20 03:37	0°♌			3635 Jun 29 07:42	0°♌	
	3633 Feb 13 12:51	0°♌			3635 Jul 24 21:58	0°♌	
	3633 Mar 10 09:45	0°♌			3635 Aug 19 01:14	0°♊	
asc. node	3633 Mar 10 15:01	0°♌15'36		asc. node	3635 Aug 26 10:08	8°♊53'27	
	3633 Apr 05 06:34	0°♌			3635 Sep 12 19:10	0°♌	
	3633 May 03 10:14	0°♌			3635 Oct 07 05:09	0°♊	
evening max el	3633 May 04 08:36	0°♌55'05	45°57'02	morning set	3635 Oct 25 13:16	22°♊44'24	

	3635 Oct 31 09:13	0°♌		inferior conj	3638 May 02 09:46	12°♏55'36	6°35'08
	3635 Nov 24 09:38	0°♏		minimum elong	3638 May 02 19:56	12°♏39'41	6°33'03
max. Earth dist.	3635 Nov 30 11:26	7°♏36'29	1.71581 AU	min. Earth dist.	3638 May 02 07:33	12°♏59'06	0.28110 AU
				morning rise	3638 May 07 15:04	9°♏45'14	
superior conj	3635 Dec 02 23:12	10°♏43'40	0°30'41	direct	3638 May 23 10:33	4°♏52'36	
minimum elong	3635 Dec 03 06:19	11°♏05'58	0°30'21	desc. node	3638 Jun 01 19:08	6°♏29'07	
desc. node	3635 Dec 16 00:16	27°♏04'55		greatest brilliancy	3638 Jun 04 07:29	7°♏24'27	-4.5m
	3635 Dec 18 08:05	0°♐			3638 Jul 06 01:17	0°♐	
	3636 Jan 11 05:33	0°♑		morning max el	3638 Jul 11 09:50	5°♐01'10	45°48'20
evening rise	3636 Jan 12 12:43	1°♑37'49			3638 Aug 04 19:51	0°♑	
	3636 Feb 04 03:07	0°♒			3638 Aug 31 19:06	0°♒	
	3636 Feb 28 02:39	0°♓		asc. node	3638 Sep 22 22:01	25°♒44'46	
	3636 Mar 23 06:58	0°♈			3638 Sep 26 12:12	0°♑	
asc. node	3636 Apr 07 02:54	18°♈12'08			3638 Oct 21 10:36	0°♈	
	3636 Apr 16 19:42	0°♐			3638 Nov 14 20:43	0°♌	
	3636 May 11 21:41	0°♑			3638 Dec 08 23:21	0°♏	
	3636 Jun 06 21:34	0°♒			3639 Jan 01 21:56	0°♐	
	3636 Jul 04 17:55	0°♑		morning set	3639 Jan 06 20:08	6°♐11'06	
evening max el	3636 Jul 13 20:26	8°♑59'58	45°28'05	desc. node	3639 Jan 12 12:05	13°♐18'14	
desc. node	3636 Jul 27 16:56	21°♑26'55			3639 Jan 25 18:41	0°♑	
	3636 Aug 08 02:50	0°♈					
greatest brilliancy	3636 Aug 19 01:41	5°♈58'28	-4.5m	superior conj	3639 Feb 17 08:59	28°♑25'26	-1°-12'-51
retrograde	3636 Aug 31 11:21	8°♈41'45		minimum elong	3639 Feb 16 21:55	27°♑50'39	1°12'33
evening set	3636 Sep 18 13:39	2°♈38'00			3639 Feb 18 15:04	0°♒	
inferior conj	3636 Sep 21 21:00	0°♈36'05	-8°-39'00	max. Earth dist.	3639 Feb 19 04:39	0°♒42'42	1.71199 AU
minimum elong	3636 Sep 21 20:18	0°♈37'10	8°39'01		3639 Mar 14 12:33	0°♓	
min. Earth dist.	3636 Sep 22 09:41	0°♈16'19	0.28756 AU	evening rise	3639 Mar 30 03:46	19°♓33'22	
	3636 Sep 22 20:10	30°♒♑			3639 Apr 07 12:52	0°♈	
morning rise	3636 Sep 25 02:45	28°♒35'57			3639 May 01 17:45	0°♐	
direct	3636 Oct 13 08:17	22°♒20'57		asc. node	3639 May 05 14:52	4°♐46'51	
greatest brilliancy	3636 Oct 27 21:09	26°♒05'00	-4.6m		3639 May 26 04:40	0°♑	
	3636 Nov 03 19:14	0°♈			3639 Jun 19 23:12	0°♒	
asc. node	3636 Nov 17 19:32	10°♈41'55			3639 Jul 15 04:20	0°♑	
morning max el	3636 Dec 02 10:10	24°♈25'17	46°32'02		3639 Aug 10 02:22	0°♈	
	3636 Dec 07 21:07	0°♌		desc. node	3639 Aug 25 04:41	16°♈53'02	
	3637 Jan 04 01:20	0°♏			3639 Sep 06 08:15	0°♌	
	3637 Jan 29 11:37	0°♐		evening max el	3639 Sep 25 00:41	18°♌58'07	46°05'17
	3637 Feb 23 05:07	0°♑			3639 Oct 07 02:23	0°♏	
desc. node	3637 Mar 09 09:41	17°♑24'12		greatest brilliancy	3639 Nov 02 10:08	17°♏20'19	-4.6m
	3637 Mar 19 15:19	0°♒		retrograde	3639 Nov 13 07:46	19°♏29'42	
	3637 Apr 12 22:47	0°♓		evening set	3639 Nov 28 07:32	15°♏07'12	
	3637 May 07 06:04	0°♈		inferior conj	3639 Dec 03 23:55	11°♏47'09	-3°-5'-50
	3637 May 31 14:23	0°♐		minimum elong	3639 Dec 04 06:41	11°♏36'51	3°03'49
morning set	3637 Jun 07 05:26	8°♐09'25		min. Earth dist.	3639 Dec 04 15:33	11°♏23'21	0.26946 AU
	3637 Jun 24 23:45	0°♑		morning rise	3639 Dec 10 05:17	8°♏08'59	
asc. node	3637 Jun 30 12:33	6°♑48'08		asc. node	3639 Dec 16 07:30	5°♏26'00	
				direct	3639 Dec 24 17:40	3°♏58'27	
superior conj	3637 Jul 14 07:26	23°♑45'05	0°32'09	greatest brilliancy	3640 Jan 07 01:26	7°♏16'08	-4.7m
minimum elong	3637 Jul 14 01:10	23°♑25'52	0°31'52		3640 Feb 06 00:51	0°♐	
max. Earth dist.	3637 Jul 14 00:27	23°♑23'39	1.73514 AU	morning max el	3640 Feb 13 11:04	7°♐19'55	46°58'34
	3637 Jul 19 09:24	0°♒			3640 Mar 05 15:34	0°♑	
	3637 Aug 12 18:42	0°♑			3640 Mar 31 19:52	0°♒	
evening rise	3637 Aug 19 07:31	8°♑02'22		desc. node	3640 Apr 05 21:37	5°♒57'29	
	3637 Sep 06 03:50	0°♈			3640 Apr 26 03:35	0°♓	
	3637 Sep 30 13:40	0°♌			3640 May 21 02:38	0°♈	
desc. node	3637 Oct 20 02:29	23°♌56'58			3640 Jun 14 21:51	0°♐	
	3637 Oct 25 01:10	0°♏			3640 Jul 09 14:38	0°♑	
	3637 Nov 18 15:07	0°♐		asc. node	3640 Jul 28 00:19	22°♑26'31	
	3637 Dec 13 09:20	0°♑			3640 Aug 03 04:36	0°♒	
	3638 Jan 07 13:19	0°♒		morning set	3640 Aug 14 08:56	13°♒42'13	
	3638 Feb 02 18:13	0°♓			3640 Aug 27 15:01	0°♑	
asc. node	3638 Feb 10 05:08	8°♓06'56		max. Earth dist.	3640 Sep 17 01:08	25°♑12'51	1.72952 AU
evening max el	3638 Feb 19 15:30	17°♓57'39	46°59'29				
	3638 Mar 04 03:05	0°♈		superior conj	3640 Sep 19 19:24	28°♑37'52	1°24'59
greatest brilliancy	3638 Mar 28 12:56	17°♈37'19	-4.6m	minimum elong	3640 Sep 19 18:21	28°♑34'38	1°24'59
retrograde	3638 Apr 11 06:28	21°♈05'07			3640 Sep 20 21:56	0°♈	
evening set	3638 Apr 28 01:03	15°♈36'29			3640 Oct 15 02:21	0°♌	

evening rise	3640 Oct 27 00:24	14° \mathbb{M} 48'42		desc. node	3643 May 04 09:26	28° \mathbb{H} 19'39	
	3640 Nov 08 05:31	0° \mathbb{X}			3643 May 06 00:25	0° \mathbb{Y}	
desc. node	3640 Nov 16 14:29	10° \mathbb{X} 24'55			3643 Jun 02 16:04	0° \mathbb{B}	
	3640 Dec 02 08:14	0° \mathbb{C}			3643 Jun 28 21:02	0° \mathbb{H}	
	3640 Dec 26 11:08	0° \approx			3643 Jul 24 10:09	0° \mathbb{S}	
	3641 Jan 19 15:42	0° \mathbb{H}			3643 Aug 18 12:43	0° \mathbb{Q}	
	3641 Feb 13 01:30	0° \mathbb{Y}		asc. node	3643 Aug 25 12:06	8° \mathbb{Q} 25'04	
asc. node	3641 Mar 09 16:57	29° \mathbb{Y} 40'51			3643 Sep 12 06:16	0° \mathbb{M}	
	3641 Mar 09 23:25	0° \mathbb{B}			3643 Oct 06 16:04	0° \mathbb{L}	
	3641 Apr 04 22:24	0° \mathbb{H}		morning set	3643 Oct 23 04:46	20° \mathbb{L} 29'29	
evening max el	3641 May 02 00:32	28° \mathbb{H} 42'13	45°58'57		3643 Oct 30 20:06	0° \mathbb{M}	
	3641 May 03 08:22	0° \mathbb{S}			3643 Nov 23 20:33	0° \mathbb{X}	
greatest brilliancy	3641 Jun 05 12:48	25° \mathbb{S} 45'16	-4.5m	max. Earth dist.	3643 Nov 27 23:12	5° \mathbb{X} 08'51	1.71622 AU
retrograde	3641 Jun 20 06:10	29° \mathbb{S} 33'01					
desc. node	3641 Jun 29 07:05	27° \mathbb{S} 55'11		superior conj	3643 Nov 30 11:58	8° \mathbb{X} 19'08	0°34'08
evening set	3641 Jul 05 08:41	25° \mathbb{S} 07'04		minimum elong	3643 Nov 30 19:43	8° \mathbb{X} 43'26	0°33'47
inferior conj	3641 Jul 11 17:05	21° \mathbb{S} 17'34	-2°-53'-51	desc. node	3643 Dec 15 02:19	26° \mathbb{X} 37'02	
minimum elong	3641 Jul 11 10:59	21° \mathbb{S} 27'09	2°52'09		3643 Dec 17 19:02	0° \mathbb{C}	
min. Earth dist.	3641 Jul 11 09:38	21° \mathbb{S} 29'15	0.28901 AU	evening rise	3644 Jan 09 23:45	29° \mathbb{C} 07'14	
morning rise	3641 Jul 17 13:38	17° \mathbb{S} 45'25			3644 Jan 10 16:33	0° \approx	
direct	3641 Aug 02 07:09	13° \mathbb{S} 02'59			3644 Feb 03 14:13	0° \mathbb{H}	
greatest brilliancy	3641 Aug 15 13:12	16° \mathbb{S} 07'55	-4.5m		3644 Feb 27 13:53	0° \mathbb{Y}	
	3641 Sep 05 17:14	0° \mathbb{Q}			3644 Mar 22 18:28	0° \mathbb{B}	
morning max el	3641 Sep 20 02:56	12° \mathbb{Q} 56'06	45°49'27	asc. node	3644 Apr 06 04:59	17° \mathbb{B} 42'45	
	3641 Oct 06 22:40	0° \mathbb{M}			3644 Apr 16 07:39	0° \mathbb{H}	
asc. node	3641 Oct 20 09:52	14° \mathbb{M} 40'17			3644 May 11 10:31	0° \mathbb{S}	
	3641 Nov 02 21:54	0° \mathbb{L}			3644 Jun 06 12:15	0° \mathbb{Q}	
	3641 Nov 28 07:12	0° \mathbb{M}			3644 Jul 04 13:28	0° \mathbb{M}	
	3641 Dec 22 21:47	0° \mathbb{X}		evening max el	3644 Jul 11 10:57	6° \mathbb{M} 46'16	45°28'04
	3642 Jan 16 03:00	0° \mathbb{C}		desc. node	3644 Jul 26 18:53	20° \mathbb{M} 26'24	
desc. node	3642 Feb 08 23:50	29° \mathbb{C} 47'22			3644 Aug 09 05:59	0° \mathbb{L}	
	3642 Feb 09 03:52	0° \approx		greatest brilliancy	3644 Aug 16 13:01	3° \mathbb{L} 42'49	-4.5m
	3642 Mar 05 03:08	0° \mathbb{H}		retrograde	3644 Aug 29 02:53	6° \mathbb{L} 30'34	
morning set	3642 Mar 24 21:04	24° \mathbb{H} 42'39		evening set	3644 Sep 16 03:44	0° \mathbb{L} 27'58	
	3642 Mar 29 02:39	0° \mathbb{Y}			3644 Sep 16 22:18	30° \mathbb{R} \mathbb{M}	
	3642 Apr 22 03:59	0° \mathbb{B}		inferior conj	3644 Sep 19 12:35	28° \mathbb{M} 23'54	-8°-37'-35
superior conj	3642 May 03 07:37	13° \mathbb{B} 51'22	-1°-3'-38	minimum elong	3644 Sep 19 11:05	28° \mathbb{M} 26'14	8°37'34
minimum elong	3642 May 03 18:06	14° \mathbb{B} 23'53	1°03'17	min. Earth dist.	3644 Sep 20 00:11	28° \mathbb{M} 05'51	0.28801 AU
max. Earth dist.	3642 May 07 02:27	18° \mathbb{B} 33'05	1.72528 AU	morning rise	3644 Sep 22 18:15	26° \mathbb{M} 24'03	
	3642 May 16 08:13	0° \mathbb{H}		direct	3644 Oct 11 00:06	20° \mathbb{M} 08'06	
asc. node	3642 Jun 02 02:45	20° \mathbb{H} 42'48		greatest brilliancy	3644 Oct 25 14:23	23° \mathbb{M} 53'46	-4.6m
	3642 Jun 09 15:41	0° \mathbb{S}			3644 Nov 04 18:19	0° \mathbb{L}	
evening rise	3642 Jun 10 14:45	1° \mathbb{S} 10'58		asc. node	3644 Nov 16 21:41	9° \mathbb{L} 42'18	
	3642 Jul 04 02:14	0° \mathbb{Q}		morning max el	3644 Nov 30 01:40	22° \mathbb{L} 09'00	46°30'32
	3642 Jul 28 16:04	0° \mathbb{M}			3644 Dec 07 16:54	0° \mathbb{M}	
	3642 Aug 22 10:21	0° \mathbb{L}			3645 Jan 03 16:30	0° \mathbb{X}	
	3642 Sep 16 11:21	0° \mathbb{M}			3645 Jan 29 00:56	0° \mathbb{C}	
desc. node	3642 Sep 21 16:35	6° \mathbb{M} 11'42		desc. node	3645 Feb 22 17:26	0° \approx	
	3642 Oct 11 22:30	0° \mathbb{X}			3645 Mar 08 11:43	16° \approx 53'40	
	3642 Nov 07 02:52	0° \mathbb{C}			3645 Mar 19 03:00	0° \mathbb{H}	
	3642 Dec 04 22:56	0° \approx			3645 Apr 12 10:03	0° \mathbb{Y}	
evening max el	3642 Dec 07 01:45	2° \approx 08'29	47°04'28		3645 May 06 17:02	0° \mathbb{B}	
	3643 Jan 09 13:27	0° \mathbb{H}			3645 May 31 01:08	0° \mathbb{H}	
asc. node	3643 Jan 12 19:18	1° \mathbb{H} 41'49		morning set	3645 Jun 04 22:14	6° \mathbb{H} 00'27	
greatest brilliancy	3643 Jan 14 15:59	2° \mathbb{H} 32'35	-4.7m	asc. node	3645 Jun 24 10:21	0° \mathbb{S}	
retrograde	3643 Jan 26 16:48	5° \mathbb{H} 15'16			3645 Jun 29 14:30	6° \mathbb{S} 21'32	
evening set	3643 Feb 11 19:30	0° \mathbb{H} 09'26		superior conj	3645 Jul 12 01:18	21° \mathbb{S} 40'02	0°29'10
	3643 Feb 12 02:01	30° \mathbb{R} \approx		minimum elong	3645 Jul 11 19:32	21° \mathbb{S} 22'17	0°28'54
min. Earth dist.	3643 Feb 15 15:04	27° \approx 51'39	0.26873 AU	max. Earth dist.	3645 Jul 11 21:29	21° \mathbb{S} 28'17	1.73511 AU
inferior conj	3643 Feb 16 08:21	27° \approx 24'57	7°34'14		3645 Jul 18 19:58	0° \mathbb{Q}	
minimum elong	3643 Feb 15 22:27	27° \approx 40'15	7°32'30		3645 Aug 12 05:19	0° \mathbb{M}	
morning rise	3643 Feb 20 01:39	25° \approx 09'26		evening rise	3645 Aug 17 02:03	5° \mathbb{M} 59'04	
direct	3643 Mar 08 19:48	19° \approx 42'57			3645 Sep 05 14:37	0° \mathbb{L}	
greatest brilliancy	3643 Mar 19 16:30	21° \approx 54'44	-4.6m		3645 Sep 30 00:44	0° \mathbb{M}	
	3643 Apr 02 22:51	0° \mathbb{H}		desc. node	3645 Oct 19 04:36	23° \mathbb{M} 28'36	
morning max el	3643 Apr 27 16:44	21° \mathbb{H} 35'04	46°29'47		3645 Oct 24 12:40	0° \mathbb{X}	

	3645 Nov 18 03:15	0°☾		asc. node	3648 Jul 27 02:18	22°☾00'09	
	3645 Dec 12 22:22	0°≈			3648 Aug 02 15:11	0°♈	
	3646 Jan 07 03:50	0°✠		morning set	3648 Aug 12 02:55	11°♈37'54	
	3646 Feb 02 11:54	0°♍			3648 Aug 27 01:30	0°♍	
asc. node	3646 Feb 09 07:09	7°♍21'12		max. Earth dist.	3648 Sep 14 17:50	23°♍03'38	1.72994 AU
evening max el	3646 Feb 17 06:34	15°♍39'04	47°01'15				
	3646 Mar 04 08:06	0°♄		superior conj	3648 Sep 17 13:08	26°♍31'46	1°24'44
greatest brilliancy	3646 Mar 26 04:43	15°♄21'24	-4.6m	minimum elong	3648 Sep 17 11:23	26°♍26'22	1°24'43
retrograde	3646 Apr 08 22:33	18°♄49'18			3648 Sep 20 08:26	0°♊	
evening set	3646 Apr 25 19:17	13°♄16'01			3648 Oct 14 12:58	0°♌	
inferior conj	3646 Apr 30 00:51	10°♄39'52	6°49'29	evening rise	3648 Oct 24 15:31	12°♌33'13	
minimum elong	3646 Apr 30 10:57	10°♄24'04	6°47'30		3648 Nov 07 16:19	0°♈	
min. Earth dist.	3646 Apr 29 21:57	10°♄44'24	0.28078 AU	desc. node	3648 Nov 15 16:29	9°♈57'17	
morning rise	3646 May 05 02:54	7°♄34'32			3648 Dec 01 19:18	0°☾	
direct	3646 May 21 01:27	2°♄37'27			3648 Dec 25 22:30	0°≈	
desc. node	3646 May 31 21:08	4°♄45'28			3649 Jan 19 03:27	0°✠	
greatest brilliancy	3646 Jun 01 20:30	5°♄08'10	-4.5m		3649 Feb 12 13:51	0°♍	
	3646 Jul 06 01:36	0°♊		asc. node	3649 Mar 08 19:02	29°♍07'19	
morning max el	3646 Jul 09 02:05	2°♊51'32	45°49'06		3649 Mar 09 12:51	0°♄	
	3646 Aug 04 11:54	0°☾			3649 Apr 04 14:08	0°♊	
	3646 Aug 31 08:25	0°♈		evening max el	3649 Apr 29 15:48	26°♊28'37	46°00'58
asc. node	3646 Sep 22 00:05	25°♈14'47			3649 May 03 06:58	0°☾	
	3646 Sep 26 00:15	0°♍		greatest brilliancy	3649 Jun 03 06:12	23°☾37'36	-4.5m
	3646 Oct 20 22:02	0°♊		retrograde	3649 Jun 17 22:17	27°☾24'32	
	3646 Nov 14 07:49	0°♌		desc. node	3649 Jun 28 08:59	25°☾14'38	
	3646 Dec 08 10:17	0°♈		evening set	3649 Jul 03 00:33	22°☾59'45	
	3647 Jan 01 08:49	0°☾		inferior conj	3649 Jul 09 09:33	19°☾09'26	-2°-35'-2
morning set	3647 Jan 04 06:55	3°☾40'05		minimum elong	3649 Jul 09 04:02	19°☾18'06	2°33'30
desc. node	3647 Jan 11 13:58	12°☾49'58		min. Earth dist.	3649 Jul 09 02:28	19°☾20'34	0.28874 AU
	3647 Jan 25 05:32	0°≈		morning rise	3649 Jul 15 07:50	15°☾34'31	
				direct	3649 Jul 30 23:02	10°☾55'18	
superior conj	3647 Feb 14 18:58	25°≈51'49	-1°-10'-35	greatest brilliancy	3649 Aug 13 03:28	13°☾57'49	-4.5m
minimum elong	3647 Feb 14 07:29	25°≈15'43	1°10'16		3649 Sep 05 22:34	0°♈	
max. Earth dist.	3647 Feb 16 12:34	28°≈02'38	1.71178 AU	morning max el	3649 Sep 17 17:18	10°♈42'59	45°48'32
	3647 Feb 18 01:54	0°✠			3649 Oct 06 15:36	0°♍	
	3647 Mar 13 23:21	0°♍		asc. node	3649 Oct 19 11:57	14°♍04'09	
evening rise	3647 Mar 27 15:12	17°♍05'34			3649 Nov 02 11:39	0°♊	
	3647 Apr 06 23:40	0°♄			3649 Nov 27 19:38	0°♌	
	3647 May 01 04:36	0°♊			3649 Dec 22 09:34	0°♈	
asc. node	3647 May 04 16:57	4°♊19'49			3650 Jan 15 14:26	0°☾	
	3647 May 25 15:43	0°☾		desc. node	3650 Feb 08 01:55	29°☾18'54	
	3647 Jun 19 10:42	0°♈			3650 Feb 08 15:04	0°≈	
	3647 Jul 14 16:41	0°♍			3650 Mar 04 14:08	0°✠	
	3647 Aug 09 16:24	0°♊		morning set	3650 Mar 22 08:22	22°✠13'52	
desc. node	3647 Aug 24 06:42	16°♊15'37			3650 Mar 28 13:30	0°♍	
	3647 Sep 06 02:03	0°♌			3650 Apr 21 14:44	0°♄	
evening max el	3647 Sep 22 15:16	16°♌42'11	46°03'05				
	3647 Oct 07 10:00	0°♈		superior conj	3650 Apr 30 21:39	11°♄32'41	-1°-6'-2
greatest brilliancy	3647 Oct 30 23:18	14°♄58'23	-4.6m	minimum elong	3650 May 01 08:05	12°♄05'04	1°05'43
retrograde	3647 Nov 10 20:19	17°♄06'31		max. Earth dist.	3650 May 04 18:00	16°♄19'13	1.72472 AU
evening set	3647 Nov 25 22:52	12°♄40'58			3650 May 15 18:55	0°♊	
inferior conj	3647 Dec 01 12:54	9°♄23'41	-3°-27'-39	asc. node	3650 Jun 01 04:42	20°♊15'54	
minimum elong	3647 Dec 01 20:19	9°♄12'21	3°25'28	evening rise	3650 Jun 08 07:13	29°♊01'03	
min. Earth dist.	3647 Dec 02 05:28	8°♄58'23	0.27000 AU		3650 Jun 09 02:23	0°☾	
morning rise	3647 Dec 07 17:14	5°♄46'27			3650 Jul 03 13:01	0°♈	
asc. node	3647 Dec 15 09:23	2°♄33'18			3650 Jul 28 03:04	0°♍	
direct	3647 Dec 22 07:35	1°♄34'17			3650 Aug 21 21:49	0°♊	
greatest brilliancy	3648 Jan 04 15:58	4°♄52'29	-4.7m		3650 Sep 15 23:38	0°♌	
	3648 Feb 06 02:07	0°☾		desc. node	3650 Sep 20 18:42	5°♌41'01	
morning max el	3648 Feb 11 00:35	4°☾55'27	46°58'24		3650 Oct 11 12:11	0°♈	
	3648 Mar 05 08:34	0°≈			3650 Nov 06 19:06	0°☾	
	3648 Mar 31 10:01	0°✠		evening max el	3650 Dec 04 14:12	29°☾41'23	47°02'57
desc. node	3648 Apr 04 23:41	5°✠22'52			3650 Dec 04 21:37	0°≈	
	3648 Apr 25 16:16	0°♍		asc. node	3651 Jan 11 21:21	29°≈56'29	
	3648 May 20 14:25	0°♄			3651 Jan 12 00:35	0°✠	
	3648 Jun 14 09:02	0°♊		greatest brilliancy	3651 Jan 12 06:34	0°✠06'26	-4.7m
	3648 Jul 09 01:26	0°☾		retrograde	3651 Jan 24 05:18	2°✠47'26	

	3651 Feb 04 22:29	30° \approx		superior conj	3653 Jul 09 18:48	19° \approx 33'09	0°26'06
evening set	3651 Feb 09 04:04	27° \approx 47'50		minimum elong	3653 Jul 09 13:33	19° \approx 17'01	0°25'52
min. Earth dist.	3651 Feb 13 04:16	25° \approx 23'44	0.26835 AU	max. Earth dist.	3653 Jul 09 19:52	19° \approx 36'27	1.73502 AU
inferior conj	3651 Feb 13 21:00	24° \approx 57'58	7°20'44		3653 Jul 18 06:43	0° Ω	
minimum elong	3651 Feb 13 10:45	25° \approx 13'46	7°18'50		3653 Aug 11 16:09	0° \cap	
morning rise	3651 Feb 17 17:38	22° \approx 37'42		evening rise	3653 Aug 14 20:32	3° \cap 54'55	
direct	3651 Mar 06 07:31	17° \approx 16'11			3653 Sep 05 01:37	0° $\underline{\Delta}$	
greatest brilliancy	3651 Mar 17 06:53	19° \approx 30'22	-4.6m		3653 Sep 29 12:01	0° \cap	
	3651 Apr 03 17:51	0° \times		desc. node	3653 Oct 18 06:36	22° \cap 59'21	
morning max el	3651 Apr 25 05:31	19° \times 11'01	46°31'27		3653 Oct 24 00:21	0° \times	
desc. node	3651 May 03 11:28	27° \times 32'02			3653 Nov 17 15:32	0° $\overline{\Delta}$	
	3651 May 05 20:22	0° γ			3653 Dec 12 11:35	0° \approx	
	3651 Jun 02 07:15	0° δ			3654 Jan 06 18:39	0° \times	
	3651 Jun 28 10:10	0° Π			3654 Feb 02 06:15	0° γ	
	3651 Jul 23 22:09	0° $\overline{\Delta}$		asc. node	3654 Feb 08 09:13	6° γ 34'04	
asc. node	3651 Aug 18 00:03	0° Ω		evening max el	3654 Feb 14 22:14	13° γ 20'59	47°02'37
	3651 Aug 24 14:14	7° Ω 57'35			3654 Mar 04 15:52	0° δ	
	3651 Sep 11 17:13	0° \cap		greatest brilliancy	3654 Mar 23 21:06	13° δ 04'27	-4.6m
	3651 Oct 06 02:50	0° $\underline{\Delta}$		retrograde	3654 Apr 06 14:16	16° δ 30'56	
morning set	3651 Oct 20 20:49	18° $\underline{\Delta}$ 16'50		evening set	3654 Apr 23 13:13	10° δ 53'17	
	3651 Oct 30 06:50	0° \cap		inferior conj	3654 Apr 27 15:35	8° δ 21'44	7°03'15
	3651 Nov 23 07:20	0° \times		minimum elong	3654 Apr 28 01:32	8° δ 06'09	7°01'25
max. Earth dist.	3651 Nov 25 13:39	2° \times 49'59	1.71668 AU	min. Earth dist.	3654 Apr 27 11:55	8° δ 27'27	0.28046 AU
				morning rise	3654 May 02 14:12	5° δ 21'32	
superior conj	3651 Nov 28 01:06	5° \times 56'07	0°37'29	direct	3654 May 18 16:16	0° δ 20'04	
minimum elong	3651 Nov 28 09:25	6° \times 22'09	0°37'07	greatest brilliancy	3654 May 30 08:20	2° δ 48'27	-4.5m
desc. node	3651 Dec 14 04:16	26° \times 09'05		desc. node	3654 May 30 23:05	3° δ 03'31	
	3651 Dec 17 05:55	0° $\overline{\Delta}$			3654 Jul 06 01:23	0° Π	
evening rise	3652 Jan 07 10:51	26° $\overline{\Delta}$ 36'52		morning max el	3654 Jul 06 17:43	0° Π 39'01	45°49'55
	3652 Jan 10 03:34	0° \approx			3654 Aug 04 04:04	0° $\overline{\Delta}$	
	3652 Feb 03 01:22	0° \times			3654 Aug 30 21:58	0° Ω	
	3652 Feb 27 01:13	0° γ		asc. node	3654 Sep 21 02:04	24° Ω 43'42	
asc. node	3652 Mar 22 06:03	0° δ			3654 Sep 25 12:35	0° \cap	
	3652 Apr 05 07:01	17° δ 12'57			3654 Oct 20 09:44	0° $\underline{\Delta}$	
	3652 Apr 15 19:43	0° Π			3654 Nov 13 19:11	0° \cap	
	3652 May 10 23:30	0° $\overline{\Delta}$			3654 Dec 07 21:28	0° \times	
	3652 Jun 06 03:12	0° Ω			3654 Dec 31 19:54	0° $\overline{\Delta}$	
	3652 Jul 04 09:43	0° \cap		morning set	3655 Jan 01 18:19	1° $\overline{\Delta}$ 10'22	
evening max el	3652 Jul 09 02:30	4° \cap 34'59	45°28'12	desc. node	3655 Jan 10 16:07	12° $\overline{\Delta}$ 21'54	
desc. node	3652 Jul 25 21:00	19° \cap 24'38			3655 Jan 24 16:36	0° \approx	
	3652 Aug 10 20:53	0° $\underline{\Delta}$					
greatest brilliancy	3652 Aug 14 00:37	1° $\underline{\Delta}$ 27'46	-4.5m	superior conj	3655 Feb 12 05:19	23° \approx 18'37	-1°-8'-12
retrograde	3652 Aug 26 18:54	4° $\underline{\Delta}$ 19'44		minimum elong	3655 Feb 11 17:33	22° \approx 41'38	1°07'51
	3652 Sep 10 18:53	30° \cap		max. Earth dist.	3655 Feb 13 21:24	25° \approx 24'40	1.71161 AU
evening set	3652 Sep 13 17:41	28° \cap 18'53			3655 Feb 17 12:58	0° \times	
inferior conj	3652 Sep 17 04:17	26° \cap 12'11	-8°-35'-23		3655 Mar 13 10:26	0° γ	
minimum elong	3652 Sep 17 02:01	26° \cap 15'42	8°35'19	evening rise	3655 Mar 25 02:32	14° γ 36'21	
min. Earth dist.	3652 Sep 17 14:30	25° \cap 56'17	0.28837 AU		3655 Apr 06 10:47	0° δ	
morning rise	3652 Sep 20 10:13	24° \cap 12'03			3655 Apr 30 15:50	0° Π	
direct	3652 Oct 08 16:23	17° \cap 55'58		asc. node	3655 May 03 18:50	3° Π 50'58	
greatest brilliancy	3652 Oct 23 06:33	21° \cap 41'50	-4.6m		3655 May 25 03:13	0° $\overline{\Delta}$	
	3652 Nov 05 11:08	0° $\underline{\Delta}$			3655 Jun 18 22:42	0° Ω	
asc. node	3652 Nov 15 23:34	8° $\underline{\Delta}$ 43'48			3655 Jul 14 05:35	0° \cap	
morning max el	3652 Nov 27 17:49	19° $\underline{\Delta}$ 54'56	46°28'58		3655 Aug 09 07:03	0° $\underline{\Delta}$	
	3652 Dec 07 12:01	0° \cap		desc. node	3655 Aug 23 08:48	15° $\underline{\Delta}$ 36'41	
	3653 Jan 03 07:27	0° \times			3655 Sep 05 20:48	0° \cap	
	3653 Jan 28 14:13	0° $\overline{\Delta}$		evening max el	3655 Sep 20 05:05	14° \cap 23'10	46°00'57
	3653 Feb 22 05:50	0° \approx			3655 Oct 07 21:05	0° \times	
desc. node	3653 Mar 07 13:50	16° \approx 22'55		greatest brilliancy	3655 Oct 28 13:11	12° \times 36'12	-4.6m
	3653 Mar 18 14:53	0° \times		retrograde	3655 Nov 08 08:19	14° \times 42'28	
	3653 Apr 11 21:32	0° γ		evening set	3655 Nov 23 14:21	10° \times 13'35	
	3653 May 06 04:13	0° δ		inferior conj	3655 Nov 29 01:55	6° \times 59'28	-3°-49'00
	3653 May 30 12:05	0° Π		minimum elong	3655 Nov 29 09:57	6° \times 47'11	3°46'41
morning set	3653 Jun 02 14:33	3° Π 49'17		min. Earth dist.	3655 Nov 29 19:45	6° \times 32'12	0.27051 AU
	3653 Jun 23 21:09	0° $\overline{\Delta}$		morning rise	3655 Dec 05 04:56	3° \times 23'25	
asc. node	3653 Jun 28 16:29	5° $\overline{\Delta}$ 54'30			3655 Dec 13 10:31	30° \cap	
				asc. node	3655 Dec 14 11:27	29° \cap 44'56	

direct	3655 Dec 19 21:00	29° \mathbb{M} 09'13		3658 Jul 27 14:27	0° \mathbb{M}	
	3655 Dec 26 11:18	0° \mathbb{A}		3658 Aug 21 09:44	0° \mathbb{L}	
greatest brilliancy	3656 Jan 02 07:00	2° \mathbb{A} 28'33	-4.7m	3658 Sep 15 12:24	0° \mathbb{M}	
	3656 Feb 06 02:29	0° \mathbb{C}		3658 Sep 19 20:39	5° \mathbb{M} 08'29	
morning max el	3656 Feb 08 13:23	2° \mathbb{C} 28'18	46°58'26	3658 Oct 11 02:22	0° \mathbb{A}	
	3656 Mar 05 01:28	0° \approx		3658 Nov 06 12:02	0° \mathbb{C}	
	3656 Mar 31 00:15	0° \mathbb{H}		3658 Dec 02 03:06	27° \mathbb{C} 14'43	47°01'32
desc. node	3656 Apr 04 01:42	4° \mathbb{H} 47'37		3658 Dec 04 21:42	0° \approx	
	3656 Apr 25 05:10	0° \mathbb{Y}		3659 Jan 09 20:10	27° \approx 38'11	-4.7m
	3656 May 20 02:31	0° \mathbb{B}		3659 Jan 10 23:28	28° \approx 06'02	
	3656 Jun 13 20:37	0° \mathbb{I}		3659 Jan 17 19:32	0° \mathbb{H}	
	3656 Jul 08 12:41	0° \mathbb{S}		3659 Jan 21 18:14	0° \mathbb{H} 18'44	
asc. node	3656 Jul 26 04:27	21° \mathbb{S} 32'52		3659 Jan 25 15:23	30° \mathbb{R} \approx	
	3656 Aug 02 02:12	0° \mathbb{Q}		3659 Feb 06 12:39	25° \approx 24'54	
morning set	3656 Aug 09 20:30	9° \mathbb{Q} 30'57		3659 Feb 10 17:13	22° \approx 55'00	0.26798 AU
	3656 Aug 26 12:25	0° \mathbb{M}		3659 Feb 11 09:34	22° \approx 29'52	7°06'22
max. Earth dist.	3656 Sep 12 10:44	20° \mathbb{M} 53'49	1.73034 AU	3659 Feb 10 23:02	22° \approx 46'03	7°04'17
				3659 Feb 15 09:37	20° \approx 04'59	
superior conj	3656 Sep 15 06:38	24° \mathbb{M} 23'43	1°24'21	3659 Mar 03 19:33	14° \approx 48'17	
minimum elong	3656 Sep 15 04:12	24° \mathbb{M} 16'11	1°24'21	3659 Mar 14 20:56	17° \approx 04'45	-4.6m
	3656 Sep 19 19:21	0° \mathbb{L}		3659 Apr 04 08:22	0° \mathbb{H}	
	3656 Oct 14 00:00	0° \mathbb{M}		3659 Apr 22 19:21	16° \mathbb{H} 48'56	46°33'16
evening rise	3656 Oct 22 06:38	10° \mathbb{M} 16'36		3659 May 02 13:24	26° \mathbb{H} 44'23	
	3656 Nov 07 03:33	0° \mathbb{A}		3659 May 05 15:54	0° \mathbb{Y}	
desc. node	3656 Nov 14 18:26	9° \mathbb{A} 28'15		3659 Jun 01 22:21	0° \mathbb{B}	
	3656 Dec 01 06:47	0° \mathbb{C}		3659 Jun 27 23:20	0° \mathbb{I}	
	3656 Dec 25 10:16	0° \approx		3659 Jul 23 10:16	0° \mathbb{S}	
	3657 Jan 18 15:34	0° \mathbb{H}		3659 Aug 17 11:34	0° \mathbb{Q}	
	3657 Feb 12 02:33	0° \mathbb{Y}		3659 Aug 23 16:12	7° \mathbb{Q} 28'56	
asc. node	3657 Mar 07 21:05	28° \mathbb{Y} 32'42		3659 Sep 11 04:24	0° \mathbb{M}	
	3657 Mar 09 02:39	0° \mathbb{B}		3659 Oct 05 13:52	0° \mathbb{L}	
	3657 Apr 04 06:24	0° \mathbb{I}		3659 Oct 18 12:43	16° \mathbb{L} 02'58	
evening max el	3657 Apr 27 06:19	24° \mathbb{I} 12'12	46°02'51	3659 Oct 29 17:50	0° \mathbb{M}	
	3657 May 03 07:00	0° \mathbb{S}		3659 Nov 22 18:22	0° \mathbb{A}	
greatest brilliancy	3657 May 31 22:16	21° \mathbb{S} 26'47	-4.5m	3659 Nov 23 03:39	0° \mathbb{A} 29'02	1.71709 AU
retrograde	3657 Jun 15 14:15	25° \mathbb{S} 14'36				
desc. node	3657 Jun 27 11:08	22° \mathbb{S} 27'47		3659 Nov 25 14:06	3° \mathbb{A} 31'56	0°40'47
evening set	3657 Jun 30 16:25	20° \mathbb{S} 50'21		3659 Nov 25 22:54	3° \mathbb{A} 59'28	0°40'23
inferior conj	3657 Jul 07 01:54	16° \mathbb{S} 59'38	-2°-15'-52	3659 Dec 13 06:23	25° \mathbb{A} 40'56	
minimum elong	3657 Jul 06 21:01	17° \mathbb{S} 07'18	2°14'29	3659 Dec 16 17:02	0° \mathbb{C}	
min. Earth dist.	3657 Jul 06 19:22	17° \mathbb{S} 09'54	0.28854 AU	3660 Jan 04 21:50	24° \mathbb{C} 05'37	
morning rise	3657 Jul 13 01:50	13° \mathbb{S} 22'12		3660 Jan 09 14:47	0° \approx	
direct	3657 Jul 28 14:33	8° \mathbb{S} 45'38		3660 Feb 02 12:42	0° \mathbb{H}	
greatest brilliancy	3657 Aug 10 18:58	11° \mathbb{S} 47'28	-4.5m	3660 Feb 26 12:44	0° \mathbb{Y}	
	3657 Sep 06 02:44	0° \mathbb{Q}		3660 Mar 21 17:49	0° \mathbb{B}	
morning max el	3657 Sep 15 08:03	8° \mathbb{Q} 29'11	45°47'45	3660 Apr 04 08:57	16° \mathbb{B} 42'17	
	3657 Oct 06 08:43	0° \mathbb{M}		3660 Apr 15 07:57	0° \mathbb{I}	
asc. node	3657 Oct 18 13:56	13° \mathbb{M} 26'37		3660 May 10 12:40	0° \mathbb{S}	
	3657 Nov 02 01:42	0° \mathbb{L}		3660 Jun 05 18:25	0° \mathbb{Q}	
	3657 Nov 27 08:23	0° \mathbb{M}		3660 Jul 04 06:41	0° \mathbb{M}	
	3657 Dec 21 21:41	0° \mathbb{A}		3660 Jul 06 18:46	2° \mathbb{M} 25'27	45°28'17
	3658 Jan 15 02:11	0° \mathbb{C}		3660 Jul 24 23:02	18° \mathbb{M} 21'04	
desc. node	3658 Feb 07 03:58	28° \mathbb{C} 49'20		3660 Aug 11 12:46	29° \mathbb{M} 13'21	-4.5m
	3658 Feb 08 02:34	0° \approx		3660 Aug 13 11:30	0° \mathbb{L}	
	3658 Mar 04 01:25	0° \mathbb{H}		3660 Aug 24 10:43	2° \mathbb{L} 08'38	
morning set	3658 Mar 19 19:50	19° \mathbb{H} 44'37		3660 Sep 03 20:45	30° \mathbb{R} \mathbb{M}	
	3658 Mar 28 00:37	0° \mathbb{Y}		3660 Sep 11 07:21	26° \mathbb{M} 10'16	
	3658 Apr 21 01:44	0° \mathbb{B}		3660 Sep 14 20:02	24° \mathbb{M} 00'17	-8°-32'-22
				3660 Sep 14 17:00	24° \mathbb{M} 05'00	8°32'16
superior conj	3658 Apr 28 11:58	9° \mathbb{B} 14'05	-1°-8'-17	3660 Sep 15 04:46	23° \mathbb{M} 46'41	0.28876 AU
minimum elong	3658 Apr 28 22:18	9° \mathbb{B} 46'11	1°08'00	3660 Sep 18 02:32	21° \mathbb{M} 59'16	
max. Earth dist.	3658 May 02 08:25	14° \mathbb{B} 01'04	1.72416 AU	3660 Oct 06 09:05	15° \mathbb{M} 43'46	
	3658 May 15 05:52	0° \mathbb{I}		3660 Oct 20 21:53	19° \mathbb{M} 28'25	-4.6m
asc. node	3658 May 31 06:45	19° \mathbb{I} 48'34		3660 Nov 05 23:56	0° \mathbb{L}	
evening rise	3658 Jun 05 23:52	26° \mathbb{I} 50'50		3660 Nov 15 01:38	7° \mathbb{L} 46'16	
	3658 Jun 08 13:20	0° \mathbb{S}		3660 Nov 25 09:52	17° \mathbb{L} 40'08	46°27'18
	3658 Jul 03 00:06	0° \mathbb{Q}		3660 Dec 07 06:51	0° \mathbb{M}	

	3661 Jan 02 22:24	0°♊			3663 Aug 08 21:34	0°♎	
	3661 Jan 28 03:32	0°♋		desc. node	3663 Aug 22 10:47	14°♎58'02	
	3661 Feb 21 18:16	0°♌			3663 Sep 05 15:38	0°♏	
desc. node	3661 Mar 06 15:47	15°♌51'37		evening max el	3663 Sep 17 18:09	12°♏03'37	45°58'51
	3661 Mar 18 02:45	0°♍			3663 Oct 08 11:06	0°♐	
	3661 Apr 11 09:02	0°♎		greatest brilliancy	3663 Oct 26 02:55	10°♐15'31	-4.6m
	3661 May 05 15:24	0°♏		retrograde	3663 Nov 05 20:23	12°♐20'33	
	3661 May 29 23:01	0°♐		evening set	3663 Nov 21 06:07	7°♐47'45	
morning set	3661 May 31 07:07	1°♐38'50		inferior conj	3663 Nov 26 15:13	4°♐37'07	-4°-9'-30
	3661 Jun 23 07:56	0°♑		minimum elong	3663 Nov 26 23:47	4°♐24'00	4°07'07
asc. node	3661 Jun 27 18:39	5°♑28'04		min. Earth dist.	3663 Nov 27 10:24	4°♐07'44	0.27113 AU
				morning rise	3663 Dec 02 16:44	1°♐02'35	
superior conj	3661 Jul 07 12:37	17°♑27'20	0°23'02		3663 Dec 04 17:14	30°♑	
minimum elong	3661 Jul 07 07:55	17°♑12'54	0°22'48	asc. node	3663 Dec 13 13:34	27°♑03'55	
max. Earth dist.	3661 Jul 07 19:16	17°♑47'48	1.73488 AU	direct	3663 Dec 17 10:23	26°♑45'37	
	3661 Jul 17 17:26	0°♒			3663 Dec 30 16:52	0°♑	
	3661 Aug 11 02:55	0°♓		greatest brilliancy	3663 Dec 30 23:25	0°♑07'37	-4.7m
evening rise	3661 Aug 12 15:21	1°♓52'03		morning max el	3664 Feb 06 02:23	0°♋02'03	46°58'14
	3661 Sep 04 12:34	0°♎			3664 Feb 06 01:35	0°♋	
	3661 Sep 28 23:18	0°♏			3664 Mar 04 17:58	0°♌	
desc. node	3661 Oct 17 08:36	22°♏29'56			3664 Mar 30 14:14	0°♍	
	3661 Oct 23 12:06	0°♐		desc. node	3664 Apr 03 03:43	4°♍12'55	
	3661 Nov 17 03:56	0°♑			3664 Apr 24 17:48	0°♎	
	3661 Dec 12 00:58	0°♒			3664 May 19 14:20	0°♏	
	3662 Jan 06 09:44	0°♓			3664 Jun 13 07:54	0°♐	
	3662 Feb 02 01:05	0°♎			3664 Jul 07 23:36	0°♑	
asc. node	3662 Feb 07 11:12	5°♎45'58		asc. node	3664 Jul 25 06:23	21°♑05'58	
evening max el	3662 Feb 12 13:47	11°♎02'29	47°04'02		3664 Aug 01 12:54	0°♒	
	3662 Mar 05 02:20	0°♏		morning set	3664 Aug 07 14:18	7°♒25'41	
greatest brilliancy	3662 Mar 21 14:29	10°♏48'59	-4.6m		3664 Aug 25 23:00	0°♓	
retrograde	3662 Apr 04 05:42	14°♏12'41		max. Earth dist.	3664 Sep 10 05:08	18°♓49'42	1.73071 AU
evening set	3662 Apr 21 07:15	8°♏31'01					
inferior conj	3662 Apr 25 06:23	6°♏04'01	7°16'26	superior conj	3664 Sep 13 00:35	22°♓18'10	1°23'52
minimum elong	3662 Apr 25 16:07	5°♏48'46	7°14'44	minimum elong	3664 Sep 12 21:30	22°♓08'38	1°23'51
min. Earth dist.	3662 Apr 25 02:08	6°♏10'42	0.28009 AU		3664 Sep 19 05:55	0°♎	
morning rise	3662 Apr 30 01:21	3°♏08'58			3664 Oct 13 10:40	0°♏	
	3662 May 06 11:02	30°♑		evening rise	3664 Oct 19 22:25	8°♏03'17	
direct	3662 May 16 07:03	28°♎03'14			3664 Nov 06 14:25	0°♐	
	3662 May 26 13:45	0°♏		desc. node	3664 Nov 13 20:36	9°♐01'03	
greatest brilliancy	3662 May 27 19:54	0°♏28'39	-4.5m		3664 Nov 30 17:54	0°♋	
desc. node	3662 May 30 01:15	1°♏25'50			3664 Dec 24 21:43	0°♌	
morning max el	3662 Jul 04 08:46	28°♏25'29	45°50'51		3665 Jan 18 03:27	0°♍	
	3662 Jul 05 23:57	0°♐			3665 Feb 11 15:07	0°♎	
	3662 Aug 03 19:46	0°♑		asc. node	3665 Mar 06 23:01	27°♎58'04	
	3662 Aug 30 11:12	0°♒			3665 Mar 08 16:25	0°♏	
asc. node	3662 Sep 20 04:05	24°♒13'25			3665 Apr 03 22:48	0°♐	
	3662 Sep 25 00:39	0°♓		evening max el	3665 Apr 24 20:45	21°♐56'04	46°05'01
	3662 Oct 19 21:12	0°♎			3665 May 03 07:59	0°♑	
	3662 Nov 13 06:22	0°♏		greatest brilliancy	3665 May 29 13:36	19°♑15'41	-4.5m
	3662 Dec 07 08:32	0°♐		retrograde	3665 Jun 13 06:37	23°♑05'32	
morning set	3662 Dec 30 05:30	28°♐40'06		desc. node	3665 Jun 26 13:09	19°♑37'59	
	3662 Dec 31 06:57	0°♋		evening set	3665 Jun 28 08:24	18°♑41'20	
desc. node	3663 Jan 09 18:12	11°♋53'47		inferior conj	3665 Jul 04 18:11	14°♑50'34	-1°-56'-32
	3663 Jan 24 03:38	0°♌		minimum elong	3665 Jul 04 13:58	14°♑57'12	1°55'19
				min. Earth dist.	3665 Jul 04 12:03	15°♑00'13	0.28831 AU
superior conj	3663 Feb 09 15:15	20°♌44'22	-1°-5'-38	morning rise	3665 Jul 10 19:42	11°♑11'00	
minimum elong	3663 Feb 09 03:19	20°♌06'50	1°05'16	direct	3665 Jul 26 05:56	6°♑36'39	
max. Earth dist.	3663 Feb 11 02:35	22°♌35'27	1.71142 AU	greatest brilliancy	3665 Aug 08 10:58	9°♑38'47	-4.5m
	3663 Feb 16 23:58	0°♍			3665 Sep 06 04:46	0°♒	
	3663 Mar 12 21:24	0°♎		morning max el	3665 Sep 12 23:44	6°♒18'57	45°47'08
evening rise	3663 Mar 22 13:26	12°♎06'06			3665 Oct 06 01:02	0°♓	
	3663 Apr 05 21:46	0°♏		asc. node	3665 Oct 17 15:58	12°♓50'50	
	3663 Apr 30 02:56	0°♐			3665 Nov 01 15:11	0°♎	
asc. node	3663 May 02 20:58	3°♐23'20			3665 Nov 26 20:38	0°♏	
	3663 May 24 14:34	0°♑			3665 Dec 21 09:19	0°♐	
	3663 Jun 18 10:31	0°♒			3666 Jan 14 13:30	0°♋	
	3663 Jul 13 18:18	0°♓		desc. node	3666 Feb 06 05:56	28°♋20'45	

	3666 Feb 07 13:39	0°♊		inferior conj	3668 Sep 12 11:48	21°♎49'13	-8°-28'-46
	3666 Mar 03 12:22	0°♋		minimum elong	3668 Sep 12 08:01	21°♎55'06	8°28'35
morning set	3666 Mar 17 06:50	17°♋14'47		min. Earth dist.	3668 Sep 12 19:11	21°♎37'41	0.28907 AU
	3666 Mar 27 11:27	0°♌		morning rise	3668 Sep 15 19:06	19°♎46'50	
	3666 Apr 20 12:29	0°♍		direct	3668 Oct 04 01:45	13°♎32'38	
				greatest brilliancy	3668 Oct 18 12:07	17°♎14'29	-4.5m
superior conj	3666 Apr 26 01:40	6°♍54'13	-1°-10'-28		3668 Nov 06 09:02	0°♎	
minimum elong	3666 Apr 26 11:50	7°♍25'49	1°10'12	asc. node	3668 Nov 14 03:48	6°♎51'01	
max. Earth dist.	3666 Apr 29 20:10	11°♍35'20	1.72362 AU	morning max el	3668 Nov 23 01:03	15°♎24'10	46°25'36
	3666 May 14 16:33	0°♎			3668 Dec 07 00:53	0°♏	
asc. node	3666 May 30 08:50	19°♎22'08			3669 Jan 02 12:52	0°♏	
evening rise	3666 Jun 03 15:58	24°♎39'49			3669 Jan 27 16:27	0°♐	
	3666 Jun 08 00:01	0°♏			3669 Feb 21 06:20	0°♐	
	3666 Jul 02 10:53	0°♐		desc. node	3669 Mar 05 17:50	15°♐21'39	
	3666 Jul 27 01:32	0°♑			3669 Mar 17 14:18	0°♑	
	3666 Aug 20 21:19	0°♑			3669 Apr 10 20:12	0°♑	
	3666 Sep 15 00:51	0°♒			3669 May 05 02:17	0°♒	
desc. node	3666 Sep 18 22:41	4°♒37'11		morning set	3669 May 28 23:39	29°♒28'57	
	3666 Oct 10 16:17	0°♒			3669 May 29 09:43	0°♒	
	3666 Nov 06 04:46	0°♓			3669 Jun 22 18:32	0°♓	
evening max el	3666 Nov 29 17:13	24°♓52'55	47°00'11	asc. node	3669 Jun 26 20:35	5°♓01'29	
	3666 Dec 04 22:14	0°♓					
greatest brilliancy	3667 Jan 07 08:56	25°♓11'02	-4.7m	superior conj	3669 Jul 05 06:12	15°♓21'19	0°19'55
asc. node	3667 Jan 10 01:22	26°♓12'56		minimum elong	3669 Jul 05 02:06	15°♓08'42	0°19'42
retrograde	3667 Jan 19 07:43	27°♓52'05		max. Earth dist.	3669 Jul 05 17:12	15°♓55'06	1.73476 AU
evening set	3667 Feb 03 21:37	23°♓03'40			3669 Jul 17 04:01	0°♓	
inferior conj	3667 Feb 08 22:17	20°♓03'39	6°51'13	evening rise	3669 Aug 10 09:50	29°♓48'32	
minimum elong	3667 Feb 08 11:36	20°♓20'02	6°48'58		3669 Aug 10 13:34	0°♑	
min. Earth dist.	3667 Feb 08 06:00	20°♓28'36	0.26766 AU		3669 Sep 03 23:24	0°♑	
morning rise	3667 Feb 13 01:49	17°♓34'09			3669 Sep 28 10:26	0°♒	
direct	3667 Mar 01 08:26	12°♓22'23		desc. node	3669 Oct 16 10:43	22°♒01'20	
greatest brilliancy	3667 Mar 12 10:23	14°♓40'06	-4.6m		3669 Oct 22 23:43	0°♒	
	3667 Apr 04 18:37	0°♑			3669 Nov 16 16:15	0°♓	
morning max el	3667 Apr 20 09:57	14°♑29'49	46°34'41		3669 Dec 11 14:18	0°♓	
desc. node	3667 May 01 15:34	25°♑58'59			3670 Jan 06 00:50	0°♑	
	3667 May 05 10:35	0°♑			3670 Feb 01 20:14	0°♑	
	3667 Jun 01 13:02	0°♒		asc. node	3670 Feb 06 13:16	4°♑57'49	
	3667 Jun 27 12:10	0°♒		evening max el	3670 Feb 10 04:42	8°♑42'43	47°05'22
	3667 Jul 22 22:05	0°♓			3670 Mar 05 16:05	0°♒	
	3667 Aug 16 22:45	0°♓		greatest brilliancy	3670 Mar 19 08:19	8°♒34'33	-4.6m
asc. node	3667 Aug 22 18:13	7°♓01'28		retrograde	3670 Apr 01 20:36	11°♒55'00	
	3667 Sep 10 15:14	0°♑		evening set	3670 Apr 19 01:16	6°♒09'28	
	3667 Oct 05 00:34	0°♑		inferior conj	3670 Apr 22 21:16	3°♒47'01	7°28'54
morning set	3667 Oct 16 04:45	13°♑50'40		minimum elong	3670 Apr 23 06:41	3°♒32'13	7°27'20
	3667 Oct 29 04:30	0°♒		min. Earth dist.	3670 Apr 22 16:40	3°♒54'14	0.27973 AU
max. Earth dist.	3667 Nov 20 15:45	28°♒03'14	1.71748 AU	morning rise	3670 Apr 27 12:26	0°♒57'10	
	3667 Nov 22 05:05	0°♒			3670 Apr 29 05:11	30°♒♑	
				direct	3670 May 13 21:28	25°♑47'03	
superior conj	3667 Nov 23 03:28	1°♒10'03	0°43'58	greatest brilliancy	3670 May 25 08:09	28°♑10'05	-4.5m
minimum elong	3667 Nov 23 12:41	1°♒38'52	0°43'35	desc. node	3670 May 29 03:15	29°♑52'01	
desc. node	3667 Dec 12 08:25	25°♒13'36			3670 May 29 09:37	0°♒	
	3667 Dec 16 03:48	0°♓		morning max el	3670 Jul 01 22:56	26°♒09'59	45°51'42
evening rise	3668 Jan 02 09:11	21°♓36'36			3670 Jul 05 21:29	0°♒	
	3668 Jan 09 01:38	0°♓			3670 Aug 03 11:10	0°♓	
	3668 Feb 01 23:41	0°♑			3670 Aug 30 00:20	0°♓	
	3668 Feb 25 23:53	0°♑		asc. node	3670 Sep 19 06:11	23°♓43'27	
	3668 Mar 21 05:16	0°♒			3670 Sep 24 12:42	0°♑	
asc. node	3668 Apr 03 11:05	16°♒13'05			3670 Oct 19 08:40	0°♑	
	3668 Apr 14 19:56	0°♒			3670 Nov 12 17:32	0°♒	
	3668 May 10 01:41	0°♓			3670 Dec 06 19:33	0°♒	
	3668 Jun 05 09:39	0°♓		morning set	3670 Dec 27 16:38	26°♒09'56	
	3668 Jul 04 04:16	0°♑			3670 Dec 30 17:55	0°♓	
evening max el	3668 Jul 04 11:13	0°♑16'42	45°28'25	desc. node	3671 Jan 08 20:05	11°♓25'16	
desc. node	3668 Jul 24 01:01	17°♑16'11			3671 Jan 23 14:36	0°♓	
greatest brilliancy	3668 Aug 09 02:19	27°♑01'07	-4.5m				
retrograde	3668 Aug 22 02:13	29°♑58'06		superior conj	3671 Feb 07 01:13	18°♓10'19	-1°-2'-57
evening set	3668 Sep 08 20:52	24°♑02'53		minimum elong	3671 Feb 06 13:11	17°♓32'29	1°02'32

max. Earth dist.	3671 Feb 08 04:46	19°36'57	1.71127 AU	greatest brilliancy	3673 Aug 06 02:41	7°29'14	-4.5m
	3671 Feb 16 10:55	0°			3673 Sep 06 05:43	0°	
	3671 Mar 12 08:21	0°		morning max el	3673 Sep 10 16:01	4°09'38	45°46'28
evening rise	3671 Mar 20 00:20	9°35'50			3673 Oct 05 17:20	0°	
	3671 Apr 05 08:44	0°		asc. node	3673 Oct 16 18:04	12°14'40	
	3671 Apr 29 14:00	0°			3673 Nov 01 04:52	0°	
asc. node	3671 May 01 23:01	2°55'33			3673 Nov 26 09:12	0°	
	3671 May 24 01:53	0°			3673 Dec 20 21:20	0°	
	3671 Jun 17 22:22	0°			3674 Jan 14 01:10	0°	
	3671 Jul 13 07:07	0°		desc. node	3674 Feb 05 08:02	27°51'32	
	3671 Aug 08 12:21	0°			3674 Feb 07 01:05	0°	
desc. node	3671 Aug 21 12:49	14°18'44			3674 Mar 02 23:37	0°	
	3671 Sep 05 11:12	0°		morning set	3674 Mar 14 17:37	14°43'12	
evening max el	3671 Sep 15 06:41	9°42'26	45°56'48		3674 Mar 26 22:35	0°	
	3671 Oct 09 06:19	0°			3674 Apr 19 23:32	0°	
greatest brilliancy	3671 Oct 23 15:54	7°53'26	-4.6m				
retrograde	3671 Nov 03 08:39	9°58'16		superior conj	3674 Apr 23 15:13	4°32'49	-1°-12'-32
evening set	3671 Nov 18 21:53	5°21'01		minimum elong	3674 Apr 24 01:07	5°03'38	1°12'17
inferior conj	3671 Nov 24 04:26	2°14'10	-4°-29'-35	max. Earth dist.	3674 Apr 27 09:28	9°13'23	1.72311 AU
minimum elong	3671 Nov 24 13:28	2°00'20	4°27'08		3674 May 14 03:33	0°	
min. Earth dist.	3671 Nov 25 00:52	1°42'54	0.27175 AU	asc. node	3674 May 29 10:47	18°54'16	
	3671 Nov 27 21:10	30°		evening rise	3674 Jun 01 08:05	22°27'48	
morning rise	3671 Nov 30 04:16	28°41'44			3674 Jun 07 11:02	0°	
asc. node	3671 Dec 12 15:28	24°28'02			3674 Jul 01 22:01	0°	
direct	3671 Dec 14 23:44	24°21'19			3674 Jul 26 12:56	0°	
greatest brilliancy	3671 Dec 28 16:29	27°47'15	-4.6m		3674 Aug 20 09:16	0°	
	3672 Jan 01 21:14	0°			3674 Sep 14 13:43	0°	
morning max el	3672 Feb 03 15:50	27°36'40	46°58'03	desc. node	3674 Sep 18 00:48	4°05'01	
	3672 Feb 05 23:51	0°			3674 Oct 10 06:43	0°	
	3672 Mar 04 10:14	0°			3674 Nov 05 22:20	0°	
	3672 Mar 30 04:09	0°		evening max el	3674 Nov 27 07:51	22°30'54	46°58'29
desc. node	3672 Apr 02 05:48	3°38'22			3674 Dec 05 00:49	0°	
	3672 Apr 24 06:28	0°		greatest brilliancy	3675 Jan 04 21:51	22°41'52	-4.7m
	3672 May 19 02:14	0°		asc. node	3675 Jan 09 03:27	24°12'55	
	3672 Jun 12 19:16	0°		retrograde	3675 Jan 16 20:56	25°22'32	
	3672 Jul 07 10:38	0°		evening set	3675 Feb 01 06:23	20°39'44	
asc. node	3672 Jul 24 08:25	20°38'58		inferior conj	3675 Feb 06 10:38	17°34'43	6°34'58
	3672 Jul 31 23:44	0°		minimum elong	3675 Feb 05 23:53	17°51'11	6°32'35
morning set	3672 Aug 05 08:10	5°20'08		min. Earth dist.	3675 Feb 05 18:29	17°59'27	0.26731 AU
	3672 Aug 25 09:44	0°		morning rise	3675 Feb 10 17:41	15°00'29	
max. Earth dist.	3672 Sep 08 01:19	16°50'28	1.73113 AU	direct	3675 Feb 26 21:19	9°54'04	
				greatest brilliancy	3675 Mar 09 22:54	12°12'06	-4.6m
superior conj	3672 Sep 10 18:27	20°11'44	1°23'15		3675 Apr 05 02:49	0°	
minimum elong	3672 Sep 10 14:44	20°00'15	1°23'13	morning max el	3675 Apr 17 23:54	12°07'36	46°36'11
	3672 Sep 18 16:42	0°		desc. node	3675 Apr 30 17:34	25°12'34	
	3672 Oct 12 21:36	0°			3675 May 05 05:14	0°	
evening rise	3672 Oct 17 14:02	5°48'49			3675 Jun 01 03:54	0°	
	3672 Nov 06 01:34	0°			3675 Jun 27 01:16	0°	
desc. node	3672 Nov 12 22:34	8°32'23			3675 Jul 22 10:12	0°	
	3672 Nov 30 05:19	0°			3675 Aug 16 10:17	0°	
	3672 Dec 24 09:26	0°		asc. node	3675 Aug 21 20:20	6°33'15	
	3673 Jan 17 15:36	0°			3675 Sep 10 02:25	0°	
	3673 Feb 11 03:57	0°			3675 Oct 04 11:35	0°	
asc. node	3673 Mar 06 01:08	27°23'05		morning set	3675 Oct 13 21:07	11°38'26	
	3673 Mar 08 06:32	0°			3675 Oct 28 15:30	0°	
	3673 Apr 03 15:45	0°		max. Earth dist.	3675 Nov 18 02:51	25°33'21	1.71794 AU
evening max el	3673 Apr 22 11:48	19°40'47	46°07'15				
	3673 May 03 10:41	0°		superior conj	3675 Nov 20 17:08	28°48'05	0°47'03
greatest brilliancy	3673 May 27 04:48	17°03'40	-4.5m	minimum elong	3675 Nov 21 02:41	29°17'55	0°46'39
retrograde	3673 Jun 10 23:24	20°55'42			3675 Nov 21 16:08	0°	
desc. node	3673 Jun 25 15:05	16°44'07		desc. node	3675 Dec 11 10:23	24°44'49	
evening set	3673 Jun 26 00:33	16°31'17			3675 Dec 15 14:58	0°	
inferior conj	3673 Jul 02 10:26	12°40'38	-1°-36'-52	evening rise	3675 Dec 30 20:23	19°05'47	
minimum elong	3673 Jul 02 06:54	12°46'11	1°35'51		3676 Jan 08 12:57	0°	
min. Earth dist.	3673 Jul 02 04:23	12°50'06	0.28807 AU		3676 Feb 01 11:09	0°	
morning rise	3673 Jul 08 13:28	8°59'19			3676 Feb 25 11:32	0°	
direct	3673 Jul 23 21:43	4°26'52			3676 Mar 20 17:12	0°	

asc. node	3676 Apr 02 13:06	15°♄42'10			3678 Oct 18 20:15	0°♊	
	3676 Apr 14 08:23	0°♈			3678 Nov 12 04:49	0°♌	
	3676 May 09 15:12	0°♊			3678 Dec 06 06:42	0°♍	
	3676 Jun 05 01:32	0°♋		morning set	3678 Dec 25 04:23	23°♌41'18	
evening max el	3676 Jul 02 03:02	28°♋05'19	45°28'37		3678 Dec 30 05:00	0°♎	
	3676 Jul 04 03:10	0°♌		desc. node	3679 Jan 07 22:14	10°♎57'18	
desc. node	3676 Jul 23 03:07	16°♌08'54			3679 Jan 23 01:40	0°♏	
greatest brilliancy	3676 Aug 06 16:53	24°♌49'16	-4.5m				
retrograde	3676 Aug 19 17:30	27°♌47'04		superior conj	3679 Feb 04 11:34	15°♏37'12	-1°00'-8
evening set	3676 Sep 06 10:19	21°♌55'27		minimum elong	3679 Feb 03 23:33	14°♏59'23	0°59'43
inferior conj	3676 Sep 10 03:43	19°♌37'49	-8°-24'-25	max. Earth dist.	3679 Feb 05 07:42	16°♏40'31	1.71119 AU
minimum elong	3676 Sep 09 23:15	19°♌44'49	8°24'08		3679 Feb 15 21:58	0°♐	
min. Earth dist.	3676 Sep 10 10:07	19°♌27'48	0.28932 AU		3679 Mar 11 19:24	0°♑	
morning rise	3676 Sep 13 12:05	17°♌33'34		evening rise	3679 Mar 17 11:23	7°♑05'36	
direct	3676 Oct 01 18:03	11°♌21'09			3679 Apr 04 19:51	0°♒	
greatest brilliancy	3676 Oct 16 02:15	14°♌59'51	-4.5m		3679 Apr 29 01:16	0°♈	
	3676 Nov 06 15:54	0°♉		asc. node	3679 May 01 00:56	2°♈26'45	
asc. node	3676 Nov 13 05:39	5°♉55'32			3679 May 23 13:25	0°♊	
morning max el	3676 Nov 20 15:15	13°♉05'06	46°23'57		3679 Jun 17 10:24	0°♋	
	3676 Dec 06 18:47	0°♌			3679 Jul 12 20:09	0°♌	
	3677 Jan 02 03:27	0°♍			3679 Aug 08 03:26	0°♍	
	3677 Jan 27 05:37	0°♎		desc. node	3679 Aug 20 14:54	13°♍38'55	
	3677 Feb 20 18:46	0°♏			3679 Sep 05 07:27	0°♌	
desc. node	3677 Mar 04 19:55	14°♏50'35		evening max el	3679 Sep 12 19:34	7°♌22'14	45°54'55
	3677 Mar 17 02:14	0°♐			3679 Oct 10 08:19	0°♍	
	3677 Apr 10 07:46	0°♑		greatest brilliancy	3679 Oct 21 03:57	5°♍30'49	-4.6m
	3677 May 04 13:34	0°♒		retrograde	3679 Oct 31 21:37	7°♍36'40	
morning set	3677 May 26 15:48	27°♒16'49		evening set	3679 Nov 16 13:54	2°♍54'36	
	3677 May 28 20:46	0°♈		inferior conj	3679 Nov 21 17:46	29°♌51'37	-4°-49'-3
	3677 Jun 22 05:26	0°♊		minimum elong	3679 Nov 22 03:14	29°♌37'09	4°46'33
asc. node	3677 Jun 25 22:36	4°♊34'13			3679 Nov 21 12:17	30°♌	
				min. Earth dist.	3679 Nov 22 15:04	29°♌19'04	0.27240 AU
superior conj	3677 Jul 02 23:40	13°♊13'59	0°16'44	morning rise	3679 Nov 27 15:47	26°♌21'50	
minimum elong	3677 Jul 02 20:11	13°♊03'16	0°16'35	asc. node	3679 Dec 11 17:33	21°♌58'19	
max. Earth dist.	3677 Jul 03 14:14	13°♊58'46	1.73458 AU	direct	3679 Dec 12 13:39	21°♌57'28	
	3677 Jul 16 14:53	0°♋		greatest brilliancy	3679 Dec 26 09:38	25°♌27'27	-4.6m
evening rise	3677 Aug 08 04:23	27°♋44'21			3680 Jan 03 07:35	0°♍	
	3677 Aug 10 00:31	0°♌		morning max el	3680 Feb 01 06:25	25°♍14'27	46°57'58
	3677 Sep 03 10:32	0°♉			3680 Feb 05 21:14	0°♎	
	3677 Sep 27 21:53	0°♌			3680 Mar 04 02:09	0°♏	
desc. node	3677 Oct 15 12:41	21°♌31'26			3680 Mar 29 17:51	0°♐	
	3677 Oct 22 11:37	0°♍		desc. node	3680 Apr 01 07:47	3°♐04'01	
	3677 Nov 16 04:50	0°♎			3680 Apr 23 19:00	0°♑	
	3677 Dec 11 03:57	0°♏			3680 May 18 14:03	0°♒	
	3678 Jan 05 16:23	0°♐			3680 Jun 12 06:38	0°♈	
	3678 Feb 01 16:16	0°♑			3680 Jul 06 21:40	0°♊	
asc. node	3678 Feb 05 15:18	4°♑07'52		asc. node	3680 Jul 23 10:33	20°♊12'20	
evening max el	3678 Feb 07 18:27	6°♑18'53	47°06'21		3680 Jul 31 10:32	0°♋	
	3678 Mar 06 11:20	0°♒		morning set	3680 Aug 03 01:54	3°♋14'15	
greatest brilliancy	3678 Mar 17 01:51	6°♒17'53	-4.6m		3680 Aug 24 20:26	0°♌	
retrograde	3678 Mar 30 10:59	9°♒35'24		max. Earth dist.	3680 Sep 05 22:47	14°♌55'28	1.73148 AU
evening set	3678 Apr 16 19:00	3°♒45'55					
inferior conj	3678 Apr 20 11:55	1°♒28'07	7°40'40	superior conj	3680 Sep 08 12:13	18°♌05'16	1°22'31
minimum elong	3678 Apr 20 20:59	1°♒13'52	7°39'16	minimum elong	3680 Sep 08 07:53	17°♌51'51	1°22'28
min. Earth dist.	3678 Apr 20 07:16	1°♒35'26	0.27938 AU		3680 Sep 18 03:25	0°♉	
	3678 Apr 22 20:25	30°♒			3680 Oct 12 08:27	0°♌	
morning rise	3678 Apr 24 23:14	28°♒43'41		evening rise	3680 Oct 15 05:49	3°♌35'10	
direct	3678 May 11 11:11	23°♒28'47			3680 Nov 05 12:38	0°♍	
greatest brilliancy	3678 May 22 21:23	25°♒50'54	-4.5m	desc. node	3680 Nov 12 00:32	8°♍03'57	
desc. node	3678 May 28 05:11	28°♒19'52			3680 Nov 29 16:39	0°♎	
	3678 May 31 03:52	0°♒			3680 Dec 23 21:05	0°♏	
morning max el	3678 Jun 29 12:38	23°♒52'07	45°52'48		3681 Jan 17 03:41	0°♐	
	3678 Jul 05 18:39	0°♈			3681 Feb 10 16:43	0°♑	
	3678 Aug 03 02:36	0°♊		asc. node	3681 Mar 05 03:09	26°♑48'11	
	3678 Aug 29 13:33	0°♋			3681 Mar 07 20:35	0°♌	
asc. node	3678 Sep 18 08:09	23°♋12'44			3681 Apr 03 08:47	0°♈	
	3678 Sep 24 00:51	0°♌		evening max el	3681 Apr 20 03:41	17°♈28'13	46°09'24

	3681 May 03 14:44	0°☿		superior conj	3683 Nov 18 06:56	26°♌27'43	0°50'02
greatest brilliancy	3681 May 24 20:37	14°☿53'06	-4.5m	minimum elong	3683 Nov 18 16:43	26°♌58'19	0°49'37
retrograde	3681 Jun 08 16:25	18°☿46'15			3683 Nov 21 02:50	0°♊	
evening set	3681 Jun 23 16:55	14°☿21'37		desc. node	3683 Dec 10 12:30	24°♊17'42	
desc. node	3681 Jun 24 17:13	13°☿47'37			3683 Dec 15 01:46	0°♊	
inferior conj	3681 Jun 30 02:41	10°☿31'02	-1°-17'-1	evening rise	3683 Dec 28 07:40	16°♊36'29	
minimum elong	3681 Jun 29 23:51	10°☿35'28	1°16'12		3684 Jan 07 23:52	0°♊	
min. Earth dist.	3681 Jun 29 20:29	10°☿40'45	0.28784 AU		3684 Jan 31 22:14	0°♋	
morning rise	3681 Jul 06 07:06	6°☿48'12			3684 Feb 24 22:50	0°♋	
direct	3681 Jul 21 14:06	2°☿17'36			3684 Mar 20 04:48	0°♋	
greatest brilliancy	3681 Aug 03 17:56	5°☿19'32	-4.5m	asc. node	3684 Apr 01 15:02	15°♋11'57	
	3681 Sep 06 05:17	0°♌			3684 Apr 13 20:32	0°♌	
morning max el	3681 Sep 08 08:40	2°♌01'46	45°45'46		3684 May 09 04:26	0°☿	
	3681 Oct 05 09:10	0°♍			3684 Jun 04 17:13	0°♌	
asc. node	3681 Oct 15 20:01	11°♍38'58		evening max el	3684 Jun 29 17:57	25°♌53'03	45°28'54
	3681 Oct 31 18:13	0°♎			3684 Jul 04 02:31	0°♍	
	3681 Nov 25 21:27	0°♏		desc. node	3684 Jul 22 05:08	15°♍01'02	
	3681 Dec 20 09:02	0°♐		greatest brilliancy	3684 Aug 04 07:04	22°♍38'15	-4.5m
	3682 Jan 13 12:33	0°♑		retrograde	3684 Aug 17 08:36	25°♍37'38	
desc. node	3682 Feb 04 10:04	27°♑22'51		evening set	3684 Sep 03 23:35	19°♍49'48	
	3682 Feb 06 12:15	0°♒		inferior conj	3684 Sep 07 19:45	17°♍27'58	-8°-19'-16
	3682 Mar 02 10:37	0°♋		minimum elong	3684 Sep 07 14:35	17°♍36'03	8°18'53
morning set	3682 Mar 12 04:31	12°♋12'44		min. Earth dist.	3684 Sep 08 01:25	17°♍19'05	0.28960 AU
	3682 Mar 26 09:27	0°♌		morning rise	3684 Sep 11 05:27	15°♍21'28	
	3682 Apr 19 10:17	0°♍		direct	3684 Sep 29 09:57	9°♍11'01	
				greatest brilliancy	3684 Oct 13 17:30	12°♍47'52	-4.5m
superior conj	3682 Apr 21 04:50	2°♍12'26	-1°-14'-28		3684 Nov 06 20:12	0°♎	
minimum elong	3682 Apr 21 14:25	2°♍42'16	1°14'15	asc. node	3684 Nov 12 07:46	5°♎02'42	
max. Earth dist.	3682 Apr 25 01:08	6°♍59'35	1.72256 AU	morning max el	3684 Nov 18 05:01	10°♎45'59	46°22'18
	3682 May 13 14:13	0°♏			3684 Dec 06 11:56	0°♏	
asc. node	3682 May 28 12:52	18°♏27'46			3685 Jan 01 17:33	0°♐	
evening rise	3682 May 30 00:16	20°♏16'52			3685 Jan 26 18:22	0°♑	
	3682 Jun 06 21:43	0°☿			3685 Feb 20 06:45	0°♒	
	3682 Jul 01 08:51	0°♌		desc. node	3685 Mar 03 21:53	14°♒20'28	
	3682 Jul 26 00:06	0°♍			3685 Mar 16 13:45	0°♋	
	3682 Aug 19 20:59	0°♎			3685 Apr 09 18:57	0°♌	
	3682 Sep 14 02:22	0°♏			3685 May 04 00:28	0°♍	
desc. node	3682 Sep 17 02:43	3°♏32'58		morning set	3685 May 24 07:47	25°♍05'00	
	3682 Oct 09 21:00	0°♐			3685 May 28 07:28	0°♏	
	3682 Nov 05 15:56	0°♑			3685 Jun 21 16:01	0°☿	
evening max el	3682 Nov 24 22:32	20°♑10'07	46°56'43	asc. node	3685 Jun 25 00:44	4°☿08'17	
	3682 Dec 05 04:31	0°♒					
greatest brilliancy	3683 Jan 02 11:33	20°♒14'50	-4.7m	superior conj	3685 Jun 30 17:08	11°☿07'43	0°13'33
asc. node	3683 Jan 08 05:32	22°♒09'03		minimum elong	3685 Jun 30 14:17	10°☿58'58	0°13'25
retrograde	3683 Jan 14 09:51	22°♒53'53		behind sun begin	3685 Jun 30 01:56	10°☿20'59	
evening set	3683 Jan 29 15:23	18°♒16'45		behind sun end	3685 Jul 01 02:38	11°☿36'56	
inferior conj	3683 Feb 03 23:00	15°♒06'50	6°17'54	max. Earth dist.	3685 Jul 01 09:22	11°☿57'39	1.73436 AU
minimum elong	3683 Feb 03 12:15	15°♒23'18	6°15'25		3685 Jul 16 01:25	0°♌	
min. Earth dist.	3683 Feb 03 07:14	15°♒30'59	0.26698 AU	evening rise	3685 Aug 05 23:03	25°♌41'42	
morning rise	3683 Feb 08 09:28	12°♒27'45			3685 Aug 09 11:07	0°♍	
direct	3683 Feb 24 10:08	7°♒26'52			3685 Sep 02 21:19	0°♎	
greatest brilliancy	3683 Mar 07 11:33	9°♒44'59	-4.6m		3685 Sep 27 09:00	0°♏	
	3683 Apr 05 08:18	0°♋		desc. node	3685 Oct 14 14:42	21°♏02'34	
morning max el	3683 Apr 15 12:59	9°♋44'02	46°37'43		3685 Oct 21 23:15	0°♐	
desc. node	3683 Apr 29 19:31	24°♋27'41			3685 Nov 15 17:13	0°♑	
	3683 May 04 23:04	0°♌			3685 Dec 10 17:27	0°♒	
	3683 May 31 18:11	0°♍			3686 Jan 05 07:52	0°♋	
	3683 Jun 26 13:53	0°♏			3686 Feb 01 12:37	0°♌	
	3683 Jul 21 21:51	0°☿		asc. node	3686 Feb 04 17:18	3°♌17'52	
	3683 Aug 15 21:23	0°♌		evening max el	3686 Feb 05 07:23	3°♌53'45	47°07'31
asc. node	3683 Aug 20 22:17	6°♌05'45			3686 Mar 07 12:58	0°♍	
	3683 Sep 09 13:15	0°♍		greatest brilliancy	3686 Mar 14 18:26	4°♍00'46	-4.6m
	3683 Oct 03 22:17	0°♎		retrograde	3686 Mar 28 01:26	7°♍16'43	
morning set	3683 Oct 11 13:25	9°♎27'07		evening set	3686 Apr 14 12:34	1°♍23'05	
	3683 Oct 28 02:10	0°♏			3686 Apr 16 18:35	30°♎♌	
max. Earth dist.	3683 Nov 15 12:51	23°♏01'14	1.71839 AU	inferior conj	3686 Apr 18 02:31	29°♌09'57	7°51'38
				minimum elong	3686 Apr 18 11:09	28°♌56'23	7°50'24

min. Earth dist.	3686 Apr 17 21:43	29° Υ 17'28	0.27904 AU			3688 Oct 11 19:13	0° \mathbb{M}	
morning rise	3686 Apr 22 09:57	26° Υ 31'10		evening rise		3688 Oct 12 21:50	1° \mathbb{M} 22'31	
direct	3686 May 09 00:39	21° Υ 10'59				3688 Nov 04 23:36	0° \mathcal{A}	
greatest brilliancy	3686 May 20 11:20	23° Υ 33'17	-4.5m	desc. node		3688 Nov 11 02:42	7° \mathcal{A} 36'23	
desc. node	3686 May 27 07:23	26° Υ 52'02				3688 Nov 29 03:53	0° \mathcal{Z}	
	3686 Jun 01 08:35	0° \mathcal{B}				3688 Dec 23 08:40	0° \approx	
morning max el	3686 Jun 27 02:49	21° \mathcal{B} 36'09	45°54'00			3689 Jan 16 15:46	0° \mathcal{H}	
	3686 Jul 05 14:47	0° \mathbb{I}				3689 Feb 10 05:34	0° Υ	
	3686 Aug 02 17:30	0° \mathcal{G}		asc. node		3689 Mar 04 05:06	26° Υ 12'40	
	3686 Aug 29 02:22	0° \mathcal{Q}				3689 Mar 07 10:51	0° \mathcal{B}	
asc. node	3686 Sep 17 10:10	22° \mathcal{Q} 43'10				3689 Apr 03 02:19	0° \mathbb{I}	
	3686 Sep 23 12:38	0° \mathbb{P}		evening max el		3689 Apr 17 19:59	15° \mathbb{I} 16'11	46°11'39
	3686 Oct 18 07:30	0° \mathcal{A}				3689 May 03 20:59	0° \mathcal{G}	
	3686 Nov 11 15:48	0° \mathbb{M}		greatest brilliancy		3689 May 22 13:34	12° \mathcal{G} 43'28	-4.5m
	3686 Dec 05 17:36	0° \mathcal{A}		retrograde		3689 Jun 06 09:17	16° \mathcal{G} 35'52	
morning set	3686 Dec 22 16:03	21° \mathcal{A} 13'06		evening set		3689 Jun 21 09:22	12° \mathcal{G} 11'08	
	3686 Dec 29 15:54	0° \mathcal{Z}		desc. node		3689 Jun 23 19:13	10° \mathcal{G} 47'58	
desc. node	3687 Jan 07 00:17	10° \mathcal{Z} 29'32		inferior conj		3689 Jun 27 18:46	8° \mathcal{G} 20'39	0°-57'-1
	3687 Jan 22 12:33	0° \approx		minimum elong		3689 Jun 27 16:40	8° \mathcal{G} 23'57	0°56'24
				min. Earth dist.		3689 Jun 27 12:21	8° \mathcal{G} 30'42	0.28759 AU
superior conj	3687 Feb 01 21:29	13° \approx 03'12	0°-57'-10	morning rise		3689 Jul 04 00:25	4° \mathcal{G} 36'22	
minimum elong	3687 Feb 01 09:35	12° \approx 25'46	0°56'44	direct		3689 Jul 19 06:29	0° \mathcal{G} 07'46	
max. Earth dist.	3687 Feb 02 11:20	13° \approx 46'45	1.71113 AU	greatest brilliancy		3689 Aug 01 07:52	3° \mathcal{G} 07'44	-4.5m
	3687 Feb 15 08:50	0° \mathcal{H}		morning max el		3689 Sep 06 00:52	29° \mathcal{G} 52'32	45°45'06
	3687 Mar 11 06:16	0° Υ				3689 Sep 06 03:59	0° \mathcal{Q}	
evening rise	3687 Mar 14 22:02	4° Υ 34'45				3689 Oct 05 00:50	0° \mathbb{P}	
	3687 Apr 04 06:46	0° \mathcal{B}		asc. node		3689 Oct 14 22:04	11° \mathbb{P} 03'35	
	3687 Apr 28 12:20	0° \mathbb{I}				3689 Oct 31 07:32	0° \mathcal{A}	
asc. node	3687 Apr 30 03:03	1° \mathbb{I} 59'11				3689 Nov 25 09:42	0° \mathbb{M}	
	3687 May 23 00:47	0° \mathcal{G}				3689 Dec 19 20:44	0° \mathcal{A}	
	3687 Jun 16 22:19	0° \mathcal{Q}		desc. node		3690 Jan 12 23:56	0° \mathcal{Z}	
	3687 Jul 12 09:06	0° \mathbb{P}				3690 Feb 03 12:01	26° \mathcal{Z} 53'54	
	3687 Aug 07 18:32	0° \mathcal{A}				3690 Feb 05 23:26	0° \approx	
desc. node	3687 Aug 19 16:53	12° \mathcal{A} 59'05				3690 Mar 01 21:41	0° \mathcal{H}	
	3687 Sep 05 04:07	0° \mathbb{M}		morning set		3690 Mar 09 15:16	9° \mathcal{H} 41'31	
evening max el	3687 Sep 10 09:16	5° \mathbb{M} 04'58	45°53'12			3690 Mar 25 20:26	0° Υ	
	3687 Oct 11 20:22	0° \mathcal{A}						
greatest brilliancy	3687 Oct 18 15:12	3° \mathcal{A} 08'35	-4.6m	superior conj		3690 Apr 18 18:01	29° Υ 50'08	-1°-16'-18
retrograde	3687 Oct 29 11:05	5° \mathcal{A} 16'05		minimum elong		3690 Apr 19 03:12	0° \mathcal{B} 18'42	1°16'06
evening set	3687 Nov 14 06:03	0° \mathcal{A} 29'12				3690 Apr 18 21:12	0° \mathcal{B}	
	3687 Nov 15 02:44	30° \mathbb{R} \mathbb{M}		max. Earth dist.		3690 Apr 22 17:13	4° \mathcal{B} 46'24	1.72204 AU
inferior conj	3687 Nov 19 07:09	27° \mathbb{M} 29'58	-5°-7'-44			3690 May 13 01:05	0° \mathbb{I}	
minimum elong	3687 Nov 19 16:57	27° \mathbb{M} 14'59	5°05'14	evening rise		3690 May 27 15:51	18° \mathbb{I} 03'30	
min. Earth dist.	3687 Nov 20 04:50	26° \mathbb{M} 56'50	0.27308 AU	asc. node		3690 May 27 14:54	18° \mathbb{I} 00'35	
morning rise	3687 Nov 25 03:09	24° \mathbb{M} 03'09				3690 Jun 06 08:36	0° \mathcal{G}	
direct	3687 Dec 10 04:07	19° \mathbb{M} 34'41				3690 Jun 30 19:53	0° \mathcal{Q}	
asc. node	3687 Dec 10 19:38	19° \mathbb{M} 35'12				3690 Jul 25 11:29	0° \mathbb{P}	
greatest brilliancy	3687 Dec 24 01:57	23° \mathbb{M} 07'30	-4.6m			3690 Aug 19 08:58	0° \mathcal{A}	
	3688 Jan 04 07:46	0° \mathcal{A}				3690 Sep 13 15:20	0° \mathbb{M}	
morning max el	3688 Jan 29 21:40	22° \mathcal{A} 54'19	46°57'33	desc. node		3690 Sep 16 04:47	3° \mathbb{M} 00'31	
	3688 Feb 05 17:47	0° \mathcal{Z}				3690 Oct 09 11:40	0° \mathcal{A}	
	3688 Mar 03 17:46	0° \approx				3690 Nov 05 10:08	0° \mathcal{Z}	
	3688 Mar 29 07:25	0° \mathcal{H}		evening max el		3690 Nov 22 12:46	17° \mathcal{Z} 47'55	46°54'59
desc. node	3688 Mar 31 09:48	2° \mathcal{H} 30'03				3690 Dec 05 10:11	0° \approx	
	3688 Apr 23 07:25	0° Υ		greatest brilliancy		3690 Dec 31 02:17	17° \approx 49'08	-4.7m
	3688 May 18 01:45	0° \mathcal{B}		asc. node		3691 Jan 07 07:26	20° \approx 00'11	
	3688 Jun 11 17:52	0° \mathbb{I}		retrograde		3691 Jan 11 22:28	20° \approx 25'27	
	3688 Jul 06 08:34	0° \mathcal{G}		evening set		3691 Jan 27 00:48	15° \approx 53'51	
asc. node	3688 Jul 22 12:27	19° \mathcal{G} 45'14		inferior conj		3691 Feb 01 11:33	12° \approx 39'25	6°00'17
	3688 Jul 30 21:14	0° \mathcal{Q}		minimum elong		3691 Feb 01 00:54	12° \approx 55'45	5°57'42
morning set	3688 Jul 31 19:34	1° \mathcal{Q} 08'25		min. Earth dist.		3691 Jan 31 20:32	13° \approx 02'29	0.26665 AU
	3688 Aug 24 07:04	0° \mathbb{P}		morning rise		3691 Feb 06 01:20	9° \approx 55'27	
max. Earth dist.	3688 Sep 03 19:38	12° \mathbb{P} 58'48	1.73178 AU	direct		3691 Feb 21 22:35	5° \approx 00'03	
				greatest brilliancy		3691 Mar 05 00:52	7° \approx 18'38	-4.7m
superior conj	3688 Sep 06 06:04	15° \mathbb{P} 59'13	1°21'40			3691 Apr 05 12:00	0° \mathcal{H}	
minimum elong	3688 Sep 06 01:09	15° \mathbb{P} 44'01	1°21'36	morning max el		3691 Apr 13 01:17	7° \mathcal{H} 18'01	46°39'03
	3688 Sep 17 14:04	0° \mathcal{A}		desc. node		3691 Apr 28 21:42	23° \mathcal{H} 43'38	

	3691 May 04 16:39	0°♊			3693 Dec 10 07:27	0°♊	
	3691 May 31 08:33	0°♋			3694 Jan 04 23:59	0°♋	
	3691 Jun 26 02:41	0°♌			3694 Feb 01 10:03	0°♌	
	3691 Jul 21 09:45	0°♍		evening max el	3694 Feb 02 20:56	1°♊29'11	47°08'42
	3691 Aug 15 08:45	0°♎		asc. node	3694 Feb 03 19:21	2°♊26'04	
asc. node	3691 Aug 20 00:18	5°♎37'42			3694 Mar 09 02:00	0°♋	
	3691 Sep 09 00:19	0°♏		greatest brilliancy	3694 Mar 12 10:19	1°♋41'51	-4.6m
	3691 Oct 03 09:14	0°♐		retrograde	3694 Mar 25 16:25	4°♋57'31	
morning set	3691 Oct 09 05:37	7°♐14'38			3694 Apr 10 13:07	30°♌♊	
	3691 Oct 27 13:07	0°♑		evening set	3694 Apr 12 06:08	28°♊59'37	
max. Earth dist.	3691 Nov 12 23:20	20°♑29'44	1.71886 AU	inferior conj	3694 Apr 15 17:12	26°♊51'06	8°01'52
				minimum elong	3694 Apr 16 01:21	26°♊38'20	8°00'48
superior conj	3691 Nov 15 20:52	24°♑06'58	0°52'54	min. Earth dist.	3694 Apr 15 11:58	26°♊59'19	0.27867 AU
minimum elong	3691 Nov 16 06:51	24°♑38'10	0°52'31	morning rise	3694 Apr 19 20:47	24°♊18'17	
	3691 Nov 20 13:50	0°♒		direct	3694 May 06 14:23	18°♊52'34	
desc. node	3691 Dec 09 14:31	23°♒49'20		greatest brilliancy	3694 May 18 01:04	21°♊15'03	-4.5m
	3691 Dec 14 12:50	0°♓		desc. node	3694 May 26 09:19	25°♊26'28	
evening rise	3691 Dec 25 19:10	14°♓07'07			3694 Jun 02 05:40	0°♋	
	3692 Jan 07 11:04	0°♌		morning max el	3694 Jun 24 17:54	19°♋21'45	45°55'11
	3692 Jan 31 09:33	0°♌			3694 Jul 05 10:30	0°♌	
	3692 Feb 24 10:19	0°♍			3694 Aug 02 08:29	0°♍	
	3692 Mar 19 16:36	0°♎			3694 Aug 28 15:25	0°♎	
asc. node	3692 Mar 31 17:10	14°♎41'42		asc. node	3694 Sep 16 12:15	22°♎12'59	
	3692 Apr 13 08:56	0°♏			3694 Sep 23 00:42	0°♏	
	3692 May 08 18:02	0°♐			3694 Oct 17 19:03	0°♐	
	3692 Jun 04 09:32	0°♑			3694 Nov 11 03:06	0°♑	
evening max el	3692 Jun 27 08:27	23°♑38'43	45°29'15		3694 Dec 05 04:48	0°♒	
	3692 Jul 04 03:30	0°♒		morning set	3694 Dec 20 03:54	18°♒44'37	
desc. node	3692 Jul 21 07:07	13°♒50'09			3694 Dec 29 03:05	0°♓	
greatest brilliancy	3692 Aug 01 20:27	20°♒25'11	-4.5m	desc. node	3695 Jan 06 02:12	10°♓00'29	
retrograde	3692 Aug 14 23:56	23°♒27'27			3695 Jan 21 23:44	0°♌	
evening set	3692 Sep 01 12:40	17°♒43'21					
inferior conj	3692 Sep 05 11:48	15°♒17'15	-8°-13'-23	superior conj	3695 Jan 30 07:21	10°♌28'01	0°-54'-4
minimum elong	3692 Sep 05 05:58	15°♒26'22	8°12'54	minimum elong	3695 Jan 29 19:40	9°♌51'16	0°53'37
min. Earth dist.	3692 Sep 05 16:49	15°♒09'23	0.28986 AU	max. Earth dist.	3695 Jan 30 18:08	11°♌01'59	1.71112 AU
morning rise	3692 Sep 08 23:06	13°♒08'17			3695 Feb 14 20:01	0°♋	
direct	3692 Sep 27 01:37	6°♒59'52			3695 Mar 10 17:28	0°♌	
greatest brilliancy	3692 Oct 11 09:42	10°♒36'20	-4.5m	evening rise	3695 Mar 12 08:44	2°♊03'00	
	3692 Nov 06 23:14	0°♓			3695 Apr 03 18:00	0°♋	
asc. node	3692 Nov 11 09:52	4°♓09'59			3695 Apr 27 23:41	0°♌	
morning max el	3692 Nov 15 19:16	8°♓27'13	46°20'42	asc. node	3695 Apr 29 05:05	1°♌30'29	
	3692 Dec 06 05:05	0°♑			3695 May 22 12:24	0°♍	
	3693 Jan 01 07:51	0°♒			3695 Jun 16 10:29	0°♎	
	3693 Jan 26 07:21	0°♓			3695 Jul 11 22:22	0°♏	
	3693 Feb 19 19:01	0°♌			3695 Aug 07 10:08	0°♐	
desc. node	3693 Mar 02 23:56	13°♌49'48		desc. node	3695 Aug 18 18:56	12°♐18'09	
	3693 Mar 16 01:31	0°♋			3695 Sep 05 01:54	0°♑	
	3693 Apr 09 06:21	0°♌		evening max el	3695 Sep 08 00:05	2°♑49'35	45°51'20
	3693 May 03 11:35	0°♎			3695 Oct 14 04:43	0°♒	
morning set	3693 May 21 23:57	22°♎52'54		greatest brilliancy	3695 Oct 16 02:49	0°♒46'09	-4.6m
	3693 May 27 18:24	0°♏		retrograde	3695 Oct 27 00:40	2°♒54'45	
	3693 Jun 21 02:51	0°♐			3695 Nov 08 03:57	30°♒♌	
asc. node	3693 Jun 24 02:40	3°♐40'54		evening set	3695 Nov 11 22:25	28°♑03'20	
				inferior conj	3695 Nov 16 20:38	25°♑07'45	-5°-25'-45
superior conj	3693 Jun 28 10:41	9°♐00'49	0°10'22	minimum elong	3695 Nov 17 06:42	24°♑52'21	5°23'17
minimum elong	3693 Jun 28 08:30	8°♐54'05	0°10'14	min. Earth dist.	3695 Nov 17 18:29	24°♑34'20	0.27375 AU
behind sun begin	3693 Jun 27 14:48	7°♐59'39		morning rise	3695 Nov 22 14:22	21°♑44'03	
behind sun end	3693 Jun 29 02:12	9°♐48'31		direct	3695 Dec 07 18:55	17°♑11'36	
max. Earth dist.	3693 Jun 29 03:51	9°♐53'37	1.73420 AU	asc. node	3695 Dec 09 21:32	17°♑16'58	
	3693 Jul 15 12:16	0°♒		greatest brilliancy	3695 Dec 21 17:18	20°♑45'37	-4.6m
evening rise	3693 Aug 03 17:44	23°♒38'09			3696 Jan 05 01:59	0°♒	
	3693 Aug 08 22:02	0°♓		morning max el	3696 Jan 27 12:48	20°♒33'13	46°57'00
	3693 Sep 02 08:26	0°♓			3696 Feb 05 13:58	0°♓	
	3693 Sep 26 20:28	0°♑			3696 Mar 03 09:25	0°♌	
desc. node	3693 Oct 13 16:49	20°♑32'55			3696 Mar 28 21:06	0°♋	
	3693 Oct 21 11:16	0°♒		desc. node	3696 Mar 30 11:55	1°♋55'46	
	3693 Nov 15 06:01	0°♓			3696 Apr 22 20:02	0°♌	

	3696 May 17 13:41	0°♄			3698 Dec 05 18:14	0°♁	
	3696 Jun 11 05:18	0°♂		greatest brilliancy	3698 Dec 28 17:23	15°♁23'05	-4.7m
	3696 Jul 05 19:39	0°♄		asc. node	3699 Jan 06 09:33	17°♁45'14	
asc. node	3696 Jul 21 14:31	19°♄18'09		retrograde	3699 Jan 09 10:28	17°♁56'14	
morning set	3696 Jul 29 13:41	29°♄03'33		evening set	3699 Jan 24 10:11	13°♁29'37	
	3696 Jul 30 08:07	0°♂		inferior conj	3699 Jan 29 23:58	10°♁11'14	5°41'40
	3696 Aug 23 17:51	0°♄		minimum elong	3699 Jan 29 13:30	10°♁27'18	5°39'01
max. Earth dist.	3696 Sep 01 16:20	11°♄01'09	1.73211 AU	min. Earth dist.	3699 Jan 29 10:10	10°♁32'24	0.26639 AU
				morning rise	3699 Feb 03 17:03	7°♁22'21	
superior conj	3696 Sep 04 00:17	13°♄53'50	1°20'43	direct	3699 Feb 19 10:24	2°♁32'05	
minimum elong	3696 Sep 03 18:50	13°♄36'59	1°20'38	greatest brilliancy	3699 Mar 02 15:18	4°♁52'41	-4.7m
	3696 Sep 17 00:56	0°♂			3699 Apr 05 14:18	0°♄	
evening rise	3696 Oct 10 14:05	29°♂09'55		morning max el	3699 Apr 10 13:04	4°♄50'09	46°40'30
	3696 Oct 11 06:14	0°♂		desc. node	3699 Apr 27 23:41	22°♄59'31	
	3696 Nov 04 10:51	0°♄			3699 May 04 09:56	0°♄	
desc. node	3696 Nov 10 04:40	7°♄07'25			3699 May 30 22:46	0°♄	
	3696 Nov 28 15:24	0°♄			3699 Jun 25 15:22	0°♂	
	3696 Dec 22 20:32	0°♁			3699 Jul 20 21:34	0°♄	
	3697 Jan 16 04:07	0°♄			3699 Aug 14 20:02	0°♂	
	3697 Feb 09 18:44	0°♄		asc. node	3699 Aug 19 02:25	5°♂10'10	
asc. node	3697 Mar 03 07:13	25°♄36'46			3699 Sep 08 11:17	0°♄	
	3697 Mar 07 01:30	0°♄			3699 Oct 02 20:02	0°♂	
	3697 Apr 02 20:29	0°♂		morning set	3699 Oct 06 22:15	5°♂04'02	
evening max el	3697 Apr 15 12:20	13°♂03'29	46°13'48		3699 Oct 26 23:53	0°♂	
	3697 May 04 05:59	0°♄		max. Earth dist.	3699 Nov 10 13:22	18°♂09'58	1.71936 AU
greatest brilliancy	3697 May 20 07:38	10°♄34'43	-4.5m				
retrograde	3697 Jun 04 01:57	14°♄25'03		superior conj	3699 Nov 13 11:16	21°♂48'16	0°55'39
evening set	3697 Jun 19 02:06	10°♄00'20		minimum elong	3699 Nov 13 21:23	22°♂19'52	0°55'16
desc. node	3697 Jun 22 21:11	7°♄46'30			3699 Nov 20 00:39	0°♄	
inferior conj	3697 Jun 25 10:58	6°♄10'11	0°-36'-55	desc. node	3699 Dec 08 16:30	23°♄21'18	
minimum elong	3697 Jun 25 09:36	6°♄12'20	0°36'31		3699 Dec 13 23:48	0°♄	
min. Earth dist.	3697 Jun 25 04:38	6°♄20'08	0.28727 AU	evening rise	3699 Dec 23 06:56	11°♄39'02	
morning rise	3697 Jul 01 17:37	2°♄24'26			3700 Jan 06 22:11	0°♁	
	3697 Jul 06 18:59	30°♂♂			3700 Jan 30 20:50	0°♄	
direct	3697 Jul 16 22:44	27°♂♂58'00			3700 Feb 23 21:48	0°♄	
	3697 Jul 27 13:48	0°♄			3700 Mar 20 04:25	0°♄	
greatest brilliancy	3697 Jul 29 21:02	0°♄54'51	-4.5m	asc. node	3700 Mar 31 19:10	14°♄11'02	
morning max el	3697 Sep 03 16:16	27°♄41'22	45°44'31		3700 Apr 13 21:23	0°♂	
	3697 Sep 06 01:48	0°♂			3700 May 09 07:44	0°♄	
	3697 Oct 04 16:18	0°♄			3700 Jun 05 02:04	0°♂	
asc. node	3697 Oct 14 00:09	10°♄28'30		evening max el	3700 Jun 25 23:00	21°♂24'46	45°29'48
	3697 Oct 30 20:50	0°♂			3700 Jul 05 05:44	0°♄	
	3697 Nov 24 22:02	0°♂		desc. node	3700 Jul 21 09:14	12°♄37'52	
	3697 Dec 19 08:35	0°♄		greatest brilliancy	3700 Jul 31 08:50	18°♄11'22	-4.5m
	3698 Jan 12 11:29	0°♄		retrograde	3700 Aug 13 15:46	21°♄17'54	
desc. node	3698 Feb 02 14:10	26°♄25'02		evening set	3700 Aug 31 01:38	15°♄37'28	
	3698 Feb 05 10:47	0°♁		inferior conj	3700 Sep 04 03:50	13°♄07'03	-8°-6'-52
	3698 Mar 01 08:53	0°♄		minimum elong	3700 Sep 03 21:23	13°♄17'08	8°06'15
morning set	3698 Mar 07 01:42	7°♄08'53		min. Earth dist.	3700 Sep 04 08:04	13°♄00'26	0.29007 AU
	3698 Mar 25 07:31	0°♄		morning rise	3700 Sep 07 16:58	10°♄55'27	
				direct	3700 Sep 25 17:20	4°♄49'16	
superior conj	3698 Apr 16 07:03	27°♄26'57	-1°-18'00	greatest brilliancy	3700 Oct 10 02:19	8°♄26'18	-4.5m
minimum elong	3698 Apr 16 15:43	27°♄53'57	1°17'49		3700 Nov 08 00:25	0°♂	
	3698 Apr 18 08:11	0°♄		asc. node	3700 Nov 11 11:46	3°♂18'39	
max. Earth dist.	3698 Apr 20 09:26	2°♄33'19	1.72149 AU	morning max el	3700 Nov 14 10:27	6°♂11'56	46°19'17
	3698 May 12 12:02	0°♂			3700 Dec 06 21:33	0°♂	
evening rise	3698 May 25 07:20	15°♂49'25			3701 Jan 01 21:40	0°♄	
asc. node	3698 May 26 16:52	17°♂32'49			3701 Jan 26 20:00	0°♄	
	3698 Jun 05 19:35	0°♄			3701 Feb 20 07:00	0°♁	
	3698 Jun 30 07:00	0°♂		desc. node	3701 Mar 03 02:01	13°♁19'52	
	3698 Jul 24 22:54	0°♄			3701 Mar 16 13:05	0°♄	
	3698 Aug 18 20:57	0°♂			3701 Apr 09 17:35	0°♄	
	3698 Sep 13 04:17	0°♂			3701 May 03 22:34	0°♄	
desc. node	3698 Sep 15 06:54	2°♂28'21		morning set	3701 May 20 15:32	20°♄39'20	
	3698 Oct 09 02:26	0°♄			3701 May 28 05:11	0°♂	
	3698 Nov 05 04:46	0°♄			3701 Jun 21 13:32	0°♄	
evening max el	3698 Nov 20 01:58	15°♄23'05	46°52'55	asc. node	3701 Jun 24 04:43	3°♄14'25	

superior conj	3701 Jun 27 03:47	6°53'05	0°07'06	minimum elong	3703 Nov 15 20:23	22°M31'00	5°40'50
minimum elong	3701 Jun 27 02:16	6°548'24	0°07'02	min. Earth dist.	3703 Nov 16 08:13	22°M12'53	0.27439 AU
behind sun begin	3701 Jun 26 05:29	5°544'26		morning rise	3703 Nov 21 01:20	19°M26'12	
behind sun end	3701 Jun 27 23:04	7°552'22		direct	3703 Dec 06 09:37	14°M49'47	
max. Earth dist.	3701 Jun 27 23:09	7°552'38	1.73400 AU	asc. node	3703 Dec 09 23:40	15°M05'08	
	3701 Jul 15 22:55	0°Q		greatest brilliancy	3703 Dec 20 07:48	18°M23'39	-4.6m
evening rise	3701 Aug 02 12:17	21°Q34'51			3704 Jan 06 15:06	0°X	
	3701 Aug 09 08:46	0°M		morning max el	3704 Jan 26 03:18	18°X11'43	46°56'33
	3701 Sep 02 19:22	0°A			3704 Feb 06 09:06	0°C	
	3701 Sep 27 07:44	0°M			3704 Mar 04 00:22	0°≈	
desc. node	3701 Oct 13 18:47	20°M03'37			3704 Mar 29 10:13	0°K	
	3701 Oct 21 23:03	0°X		desc. node	3704 Mar 30 13:52	1°K22'42	
	3701 Nov 15 18:32	0°C			3704 Apr 23 08:08	0°Y	
	3701 Dec 10 21:09	0°≈			3704 May 18 01:10	0°B	
	3702 Jan 05 15:55	0°K			3704 Jun 11 16:21	0°II	
evening max el	3702 Feb 01 11:15	29°K07'40	47°09'37		3704 Jul 06 06:26	0°S	
	3702 Feb 02 07:53	0°Y		asc. node	3704 Jul 21 16:38	18°S52'02	
asc. node	3702 Feb 03 21:25	1°Y34'28		morning set	3704 Jul 28 07:26	26°S58'24	
greatest brilliancy	3702 Mar 11 01:12	29°Y21'59	-4.6m		3704 Jul 30 18:42	0°Q	
	3702 Mar 12 11:36	0°B			3704 Aug 24 04:22	0°M	
retrograde	3702 Mar 24 07:37	2°B38'03		max. Earth dist.	3704 Aug 31 10:53	8°M57'50	1.73240 AU
	3702 Apr 04 15:31	30°R Y					
evening set	3702 Apr 10 23:16	26°Y35'56		superior conj	3704 Sep 02 18:09	11°M48'21	1°19'39
inferior conj	3702 Apr 14 07:35	24°Y31'47	8°11'19	minimum elong	3704 Sep 02 12:10	11°M29'54	1°19'32
minimum elong	3702 Apr 14 15:13	24°Y19'52	8°10'24		3704 Sep 17 11:29	0°A	
min. Earth dist.	3702 Apr 14 01:36	24°Y41'08	0.27836 AU	evening rise	3704 Oct 09 06:05	26°A57'36	
morning rise	3702 Apr 18 07:21	22°Y04'56			3704 Oct 11 16:57	0°M	
direct	3702 May 05 04:19	16°Y33'43			3704 Nov 04 21:47	0°X	
greatest brilliancy	3702 May 16 13:57	18°Y55'44	-4.5m	desc. node	3704 Nov 10 06:39	6°X39'27	
desc. node	3702 May 26 11:19	24°Y03'50			3704 Nov 29 02:37	0°C	
	3702 Jun 03 21:18	0°B			3704 Dec 23 08:07	0°≈	
morning max el	3702 Jun 23 09:35	17°B09'06	45°56'24		3705 Jan 16 16:12	0°K	
	3702 Jul 06 05:31	0°II			3705 Feb 10 07:35	0°Y	
	3702 Aug 02 23:03	0°S		asc. node	3705 Mar 03 09:15	25°Y01'41	
	3702 Aug 29 04:07	0°Q			3705 Mar 07 15:52	0°B	
asc. node	3702 Sep 16 14:14	21°Q43'24			3705 Apr 03 14:34	0°II	
	3702 Sep 23 12:27	0°M		evening max el	3705 Apr 14 03:53	10°II50'02	46°15'53
	3702 Oct 18 06:18	0°A			3705 May 05 17:26	0°S	
	3702 Nov 11 14:05	0°M		greatest brilliancy	3705 May 19 01:30	8°S26'46	-4.5m
	3702 Dec 05 15:40	0°X		retrograde	3705 Jun 02 17:57	12°S15'12	
morning set	3702 Dec 18 16:14	16°X18'50		evening set	3705 Jun 17 18:56	7°S50'09	
	3702 Dec 29 13:54	0°C		desc. node	3705 Jun 22 23:19	4°S44'23	
desc. node	3703 Jan 06 04:22	9°C33'20		inferior conj	3705 Jun 24 03:09	4°S00'42	0°-16'-39
	3703 Jan 22 10:30	0°≈		minimum elong	3705 Jun 24 02:32	4°S01'40	0°16'29
				min. Earth dist.	3705 Jun 23 21:14	4°S10'00	0.28702 AU
superior conj	3703 Jan 28 17:36	7°≈55'19	0°-50'-53	morning rise	3705 Jun 30 10:38	0°S13'27	
minimum elong	3703 Jan 28 06:14	7°≈19'36	0°50'26		3705 Jun 30 20:34	30°R II	
max. Earth dist.	3703 Jan 29 04:15	8°≈28'51	1.71109 AU	direct	3705 Jul 15 14:39	25°II49'01	
	3703 Feb 15 06:47	0°K		greatest brilliancy	3705 Jul 28 10:47	28°II43'12	-4.5m
evening rise	3703 Mar 10 19:42	29°K33'11			3705 Jul 31 05:14	0°S	
	3703 Mar 11 04:16	0°Y		morning max el	3705 Sep 02 07:02	25°S29'13	45°43'56
	3703 Apr 04 04:53	0°B			3705 Sep 06 22:36	0°Q	
	3703 Apr 28 10:44	0°II			3705 Oct 05 07:20	0°M	
asc. node	3703 Apr 29 07:01	1°II02'24		asc. node	3705 Oct 14 02:06	9°M53'53	
	3703 May 22 23:46	0°S			3705 Oct 31 09:48	0°A	
	3703 Jun 16 22:26	0°Q			3705 Nov 25 10:04	0°M	
	3703 Jul 12 11:29	0°M			3705 Dec 19 20:06	0°X	
	3703 Aug 08 01:42	0°A		desc. node	3706 Jan 12 22:43	0°C	
desc. node	3703 Aug 18 21:01	11°A37'43			3706 Feb 02 16:08	25°C56'29	
	3703 Sep 06 00:13	0°M			3706 Feb 05 21:51	0°≈	
evening max el	3703 Sep 06 15:02	0°M35'30	45°49'33		3706 Mar 01 19:49	0°K	
greatest brilliancy	3703 Oct 14 15:12	28°M25'43	-4.5m	morning set	3706 Mar 05 12:06	4°K36'51	
	3703 Oct 20 01:04	0°X			3706 Mar 25 18:19	0°Y	
retrograde	3703 Oct 25 13:48	0°X34'22					
	3703 Oct 30 22:39	30°R M		superior conj	3706 Apr 14 20:15	25°Y05'13	-1°-19'-32
evening set	3703 Nov 10 14:53	25°M38'35		minimum elong	3706 Apr 15 04:21	25°Y30'27	1°19'24
inferior conj	3703 Nov 15 10:08	22°M46'44	-5°-43'-16		3706 Apr 18 18:52	0°B	

max. Earth dist.	3706 Apr 19 00:11	0°♄16'34	1.72089 AU	morning max el	3708 Nov 12 02:37	3°♂58'59	46°17'37
	3706 May 12 22:39	0°♂			3708 Dec 06 13:53	0°♂	
evening rise	3706 May 23 22:55	13°♂36'33			3709 Jan 01 11:32	0°♂	
asc. node	3706 May 26 18:58	17°♂06'28			3709 Jan 26 08:43	0°♂	
	3706 Jun 06 06:14	0°♂			3709 Feb 19 19:04	0°♂	
	3706 Jun 30 17:51	0°♂		desc. node	3709 Mar 02 03:59	12°♂49'20	
	3706 Jul 25 10:07	0°♂			3709 Mar 16 00:43	0°♂	
	3706 Aug 19 08:48	0°♂			3709 Apr 09 04:53	0°♂	
	3706 Sep 13 17:12	0°♂			3709 May 03 09:37	0°♂	
desc. node	3706 Sep 15 08:48	1°♂55'50		morning set	3709 May 18 07:08	18°♂25'29	
	3706 Oct 09 17:16	0°♂			3709 May 27 16:04	0°♂	
	3706 Nov 05 23:45	0°♂			3709 Jun 21 00:18	0°♂	
evening max el	3706 Nov 18 14:24	12°♂56'56	46°51'00	asc. node	3709 Jun 23 06:50	2°♂47'50	
	3706 Dec 07 04:55	0°♂					
greatest brilliancy	3706 Dec 27 07:50	12°♂45'41	-4.7m	superior conj	3709 Jun 24 21:02	4°♂45'24	0°03'50
asc. node	3707 Jan 06 11:37	15°♂25'06		minimum elong	3709 Jun 24 20:13	4°♂42'53	0°03'48
retrograde	3707 Jan 07 22:19	15°♂27'37		behind sun begin	3709 Jun 23 21:45	3°♂33'44	
evening set	3707 Jan 22 19:41	11°♂05'12		behind sun end	3709 Jun 25 18:41	5°♂52'02	
min. Earth dist.	3707 Jan 27 23:52	8°♂02'29	0.26616 AU	max. Earth dist.	3709 Jun 25 19:59	5°♂56'02	1.73376 AU
inferior conj	3707 Jan 28 12:19	7°♂43'24	5°22'15		3709 Jul 15 09:38	0°♂	
minimum elong	3707 Jan 28 02:06	7°♂59'03	5°19'35	evening rise	3709 Jul 31 07:08	19°♂32'18	
morning rise	3707 Feb 02 08:40	4°♂49'54			3709 Aug 08 19:33	0°♂	
direct	3707 Feb 17 22:01	0°♂04'08			3709 Sep 02 06:22	0°♂	
greatest brilliancy	3707 Mar 01 06:31	2°♂27'59	-4.7m		3709 Sep 26 19:08	0°♂	
	3707 Apr 06 15:03	0°♂		desc. node	3709 Oct 12 20:48	19°♂34'00	
morning max el	3707 Apr 09 01:29	2°♂24'10	46°42'07		3709 Oct 21 11:02	0°♂	
desc. node	3707 Apr 28 01:38	22°♂16'25			3709 Nov 15 07:23	0°♂	
	3707 May 05 02:39	0°♂			3709 Dec 10 11:17	0°♂	
	3707 May 31 12:37	0°♂			3710 Jan 05 08:29	0°♂	
	3707 Jun 26 03:46	0°♂		evening max el	3710 Jan 30 02:29	26°♂47'25	47°10'33
	3707 Jul 21 09:08	0°♂			3710 Feb 02 07:01	0°♂	
	3707 Aug 15 07:07	0°♂		asc. node	3710 Feb 02 23:23	0°♂40'38	
asc. node	3707 Aug 19 04:22	4°♂42'36		greatest brilliancy	3710 Mar 08 16:22	27°♂01'27	-4.6m
	3707 Sep 08 22:08	0°♂			3710 Mar 18 04:09	0°♂	
	3707 Oct 03 06:48	0°♂		retrograde	3710 Mar 21 22:57	0°♂17'12	
morning set	3707 Oct 05 14:45	2°♂53'11			3710 Mar 25 16:03	30°♂	
	3707 Oct 27 10:38	0°♂		evening set	3710 Apr 08 16:12	24°♂11'18	
max. Earth dist.	3707 Nov 09 04:20	15°♂53'07	1.71985 AU	inferior conj	3710 Apr 11 21:51	22°♂11'13	8°20'00
				minimum elong	3710 Apr 12 04:53	22°♂00'14	8°19'14
superior conj	3707 Nov 12 01:29	19°♂29'00	0°58'19	min. Earth dist.	3710 Apr 11 14:52	22°♂22'06	0.27798 AU
minimum elong	3707 Nov 12 11:39	20°♂00'45	0°57'56	morning rise	3710 Apr 15 17:47	19°♂50'16	
	3707 Nov 20 11:28	0°♂		direct	3710 May 02 18:32	14°♂13'52	
desc. node	3707 Dec 08 18:37	22°♂53'46		greatest brilliancy	3710 May 14 01:44	16°♂34'10	-4.6m
	3707 Dec 14 10:44	0°♂		desc. node	3710 May 25 13:30	22°♂43'26	
evening rise	3707 Dec 21 18:33	9°♂10'40			3710 Jun 04 09:18	0°♂	
	3708 Jan 07 09:16	0°♂		morning max el	3710 Jun 21 01:19	14°♂55'51	45°57'40
	3708 Jan 31 08:06	0°♂			3710 Jul 06 00:15	0°♂	
	3708 Feb 24 09:17	0°♂			3710 Aug 02 13:39	0°♂	
	3708 Mar 19 16:15	0°♂			3710 Aug 28 16:54	0°♂	
asc. node	3708 Mar 30 21:07	13°♂40'14		asc. node	3710 Sep 15 16:15	21°♂13'29	
	3708 Apr 13 09:51	0°♂			3710 Sep 23 00:18	0°♂	
	3708 May 08 21:29	0°♂			3710 Oct 17 17:40	0°♂	
	3708 Jun 04 18:49	0°♂			3710 Nov 11 01:16	0°♂	
evening max el	3708 Jun 23 14:24	19°♂13'27	45°30'32		3710 Dec 05 02:48	0°♂	
	3708 Jul 05 09:20	0°♂		morning set	3710 Dec 16 04:34	13°♂52'14	
desc. node	3708 Jul 20 11:14	11°♂23'52			3710 Dec 29 01:01	0°♂	
greatest brilliancy	3708 Jul 28 20:36	15°♂57'32	-4.5m	desc. node	3711 Jan 05 06:22	9°♂04'40	
retrograde	3708 Aug 11 08:08	19°♂09'07			3711 Jan 21 21:39	0°♂	
evening set	3708 Aug 28 14:40	13°♂32'23					
inferior conj	3708 Sep 01 20:01	10°♂57'27	-7°-59'-34	superior conj	3711 Jan 26 03:29	5°♂20'20	0°-47'-33
minimum elong	3708 Sep 01 13:01	11°♂08'23	7°58'49	minimum elong	3711 Jan 25 16:35	4°♂46'01	0°47'07
min. Earth dist.	3708 Sep 01 23:07	10°♂52'37	0.29031 AU	max. Earth dist.	3711 Jan 26 11:41	5°♂46'07	1.71109 AU
morning rise	3708 Sep 05 11:12	8°♂42'58			3711 Feb 14 17:56	0°♂	
direct	3708 Sep 23 09:44	2°♂39'17		evening rise	3711 Mar 08 06:04	27°♂00'14	
greatest brilliancy	3708 Oct 07 19:07	6°♂16'55	-4.5m		3711 Mar 10 15:27	0°♂	
	3708 Nov 08 00:28	0°♂			3711 Apr 03 16:08	0°♂	
asc. node	3708 Nov 10 13:54	2°♂28'38			3711 Apr 27 22:08	0°♂	

asc. node	3711 Apr 28 09:09	0° Π 33'50			3713 Oct 04 22:30	0° η	
	3711 May 22 11:29	0° \mathfrak{S}		asc. node	3713 Oct 13 04:11	9° η 18'56	
	3711 Jun 16 10:46	0° Ω			3713 Oct 30 23:00	0° $\underline{\Omega}$	
	3711 Jul 12 01:01	0° η			3713 Nov 24 22:19	0° \mathcal{M}	
	3711 Aug 07 17:48	0° $\underline{\Omega}$			3713 Dec 19 07:51	0° \mathfrak{X}	
desc. node	3711 Aug 17 22:59	10° $\underline{\Omega}$ 55'49			3714 Jan 12 10:12	0° \mathfrak{Z}	
evening max el	3711 Sep 04 05:42	28° $\underline{\Omega}$ 20'12	45°47'53	desc. node	3714 Feb 01 18:07	25° \mathfrak{Z} 27'10	
	3711 Sep 05 23:44	0° \mathcal{M}			3714 Feb 05 09:10	0° \approx	
greatest brilliancy	3711 Oct 12 04:27	26° \mathcal{M} 06'29	-4.5m		3714 Mar 01 07:02	0° \mathfrak{H}	
retrograde	3711 Oct 23 02:40	28° \mathcal{M} 14'33		morning set	3714 Mar 02 22:26	2° \mathfrak{H} 03'36	
evening set	3711 Nov 08 07:42	23° \mathcal{M} 14'25			3714 Mar 25 05:28	0° Υ	
inferior conj	3711 Nov 13 00:00	20° \mathcal{M} 26'21	-5°-59'-44				
minimum elong	3711 Nov 13 10:21	20° \mathcal{M} 10'25	5°57'22	superior conj	3714 Apr 12 09:05	22° Υ 41'04	-1°-20'-56
min. Earth dist.	3711 Nov 13 22:27	19° \mathcal{M} 51'50	0.27507 AU	minimum elong	3714 Apr 12 16:33	23° Υ 04'20	1°20'50
morning rise	3711 Nov 18 12:29	17° \mathcal{M} 09'02		max. Earth dist.	3714 Apr 16 11:16	27° Υ 47'05	1.72035 AU
direct	3711 Dec 04 00:18	12° \mathcal{M} 28'30			3714 Apr 18 05:57	0° \mathfrak{B}	
asc. node	3711 Dec 09 01:42	12° \mathcal{M} 58'38			3714 May 12 09:42	0° Π	
greatest brilliancy	3711 Dec 17 22:47	16° \mathcal{M} 02'11	-4.6m	evening rise	3714 May 21 13:52	11° Π 20'23	
	3712 Jan 07 01:06	0° \mathfrak{X}		asc. node	3714 May 25 21:00	16° Π 38'33	
morning max el	3712 Jan 23 16:58	15° \mathfrak{X} 47'02	46°55'44		3714 Jun 05 17:20	0° \mathfrak{S}	
	3712 Feb 06 04:07	0° \mathfrak{Z}			3714 Jun 30 05:07	0° Ω	
	3712 Mar 03 15:36	0° \approx			3714 Jul 24 21:45	0° η	
	3712 Mar 28 23:44	0° \mathfrak{H}			3714 Aug 18 21:03	0° $\underline{\Omega}$	
desc. node	3712 Mar 29 15:54	0° \mathfrak{H} 48'27			3714 Sep 13 06:33	0° \mathcal{M}	
	3712 Apr 22 20:41	0° Υ		desc. node	3714 Sep 14 10:53	1° \mathcal{M} 22'41	
	3712 May 17 13:03	0° \mathfrak{B}			3714 Oct 09 08:36	0° \mathfrak{X}	
	3712 Jun 11 03:48	0° Π			3714 Nov 05 19:34	0° \mathfrak{Z}	
	3712 Jul 05 17:33	0° \mathfrak{S}		evening max el	3714 Nov 16 03:07	10° \mathfrak{Z} 31'09	46°49'12
asc. node	3712 Jul 20 18:32	18° \mathfrak{S} 24'11			3714 Dec 07 19:24	0° \approx	
morning set	3712 Jul 26 01:11	24° \mathfrak{S} 52'08		greatest brilliancy	3714 Dec 24 21:24	10° \approx 29'11	-4.7m
	3712 Jul 30 05:38	0° Ω		retrograde	3715 Jan 05 10:45	12° \approx 59'23	
	3712 Aug 23 15:14	0° η		asc. node	3715 Jan 05 13:32	12° \approx 59'22	
max. Earth dist.	3712 Aug 29 04:15	6° η 49'54	1.73266 AU	evening set	3715 Jan 20 05:34	8° \approx 40'25	
				min. Earth dist.	3715 Jan 25 13:28	5° \approx 33'02	0.26597 AU
superior conj	3712 Aug 31 12:19	9° η 42'48	1°18'28	inferior conj	3715 Jan 26 00:49	5° \approx 15'39	5°02'18
minimum elong	3712 Aug 31 05:52	9° η 22'54	1°18'21	minimum elong	3715 Jan 25 14:57	5° \approx 30'45	4°59'37
	3712 Sep 16 22:24	0° $\underline{\Omega}$		morning rise	3715 Jan 31 00:23	2° \approx 17'55	
evening rise	3712 Oct 06 22:36	24° $\underline{\Omega}$ 46'00			3715 Feb 04 14:22	30° \mathfrak{R} \mathfrak{Z}	
	3712 Oct 11 03:59	0° \mathcal{M}		direct	3715 Feb 15 10:05	27° \mathfrak{Z} 36'12	
	3712 Nov 04 09:01	0° \mathfrak{X}			3715 Feb 26 18:24	0° \approx	
desc. node	3712 Nov 09 08:47	6° \mathfrak{X} 11'05		greatest brilliancy	3715 Feb 26 21:43	0° \approx 03'20	-4.7m
	3712 Nov 28 14:08	0° \mathfrak{Z}		morning max el	3715 Apr 06 14:56	0° \mathfrak{H} 00'15	46°43'28
	3712 Dec 22 20:03	0° \approx			3715 Apr 06 14:50	0° \mathfrak{H}	
	3713 Jan 16 04:42	0° \mathfrak{H}		desc. node	3715 Apr 27 03:49	21° \mathfrak{H} 33'51	
	3713 Feb 09 20:59	0° Υ			3715 May 04 19:19	0° Υ	
asc. node	3713 Mar 02 11:11	24° Υ 24'35			3715 May 31 02:38	0° \mathfrak{B}	
	3713 Mar 07 06:56	0° \mathfrak{B}			3715 Jun 25 16:26	0° Π	
	3713 Apr 03 09:47	0° Π			3715 Jul 20 21:00	0° \mathfrak{S}	
evening max el	3713 Apr 11 18:32	8° Π 32'22	46°18'02		3715 Aug 14 18:29	0° Ω	
	3713 May 06 09:57	0° \mathfrak{S}		asc. node	3715 Aug 18 06:25	4° Ω 14'30	
greatest brilliancy	3713 May 16 19:01	6° \mathfrak{S} 16'20	-4.5m		3715 Sep 08 09:12	0° η	
retrograde	3713 May 31 09:40	10° \mathfrak{S} 03'32			3715 Oct 02 17:44	0° $\underline{\Omega}$	
evening set	3713 Jun 15 11:47	5° \mathfrak{S} 37'44		morning set	3715 Oct 03 07:15	0° $\underline{\Omega}$ 41'48	
inferior conj	3713 Jun 21 19:14	1° \mathfrak{S} 49'28	0°03'38		3715 Oct 26 21:33	0° \mathcal{M}	
minimum elong	3713 Jun 21 19:22	1° \mathfrak{S} 49'15	0°03'35	max. Earth dist.	3715 Nov 06 20:11	13° \mathcal{M} 38'33	1.72032 AU
transit middle	3713 Jun 21 19:22	1° \mathfrak{S} 49'15	0°03'35				
transit begin	3713 Jun 21 15:25	1° \mathfrak{S} 55'28		superior conj	3715 Nov 09 15:53	17° \mathcal{M} 09'50	1°00'52
transit end	3713 Jun 21 23:19	1° \mathfrak{S} 43'02		minimum elong	3715 Nov 10 02:02	17° \mathcal{M} 41'29	1°00'31
min. Earth dist.	3713 Jun 21 14:00	1° \mathfrak{S} 57'43	0.28672 AU		3715 Nov 19 22:28	0° \mathfrak{X}	
desc. node	3713 Jun 22 01:17	1° \mathfrak{S} 39'57		desc. node	3715 Dec 07 20:36	22° \mathfrak{X} 25'13	
	3713 Jun 24 17:34	30° \mathfrak{R} Π			3715 Dec 13 21:51	0° \mathfrak{Z}	
morning rise	3713 Jun 28 03:22	28° Π 00'58		evening rise	3715 Dec 19 06:32	6° \mathfrak{Z} 42'58	
direct	3713 Jul 13 05:57	23° Π 38'10			3716 Jan 06 20:30	0° \approx	
greatest brilliancy	3713 Jul 26 01:10	26° Π 30'47	-4.5m		3716 Jan 30 19:28	0° \mathfrak{H}	
	3713 Aug 01 21:26	0° \mathfrak{S}			3716 Feb 23 20:51	0° Υ	
morning max el	3713 Aug 30 21:37	23° \mathfrak{S} 15'24	45°43'34		3716 Mar 19 04:11	0° \mathfrak{B}	
	3713 Sep 06 19:08	0° Ω		asc. node	3716 Mar 29 23:15	13° \mathfrak{B} 09'41	

	3716 Apr 12 22:30	0°♊			3718 Nov 10 12:20	0°♌		
	3716 May 08 11:32	0°♋			3718 Dec 04 13:46	0°♏		
	3716 Jun 04 12:09	0°♌		morning set	3718 Dec 13 16:56	11°♏26'17		
evening max el	3716 Jun 21 06:35	17°♌03'14 45°31'11			3718 Dec 28 11:58	0°♐		
	3716 Jul 05 15:17	0°♍		desc. node	3719 Jan 04 08:19	8°♐36'22		
desc. node	3716 Jul 19 13:13	10°♍06'36			3719 Jan 21 08:35	0°♑		
greatest brilliancy	3716 Jul 26 09:23	13°♍43'54 -4.5m						
retrograde	3716 Aug 09 00:32	16°♍59'02		superior conj	3719 Jan 23 13:29	2°♑46'21 0°-44'-9		
evening set	3716 Aug 26 03:30	11°♍26'27		minimum elong	3719 Jan 23 03:07	2°♑13'45 0°43'43		
inferior conj	3716 Aug 30 12:02	8°♍46'45 -7°-51'-34		max. Earth dist.	3719 Jan 23 16:56	2°♑57'14 1.71111 AU		
minimum elong	3716 Aug 30 04:30	8°♍58'29 7°50'42			3719 Feb 14 04:54	0°♒		
min. Earth dist.	3716 Aug 30 13:45	8°♍44'04 0.29048 AU		evening rise	3719 Mar 05 16:27	24°♒27'52		
morning rise	3716 Sep 03 05:25	6°♍29'07			3719 Mar 10 02:26	0°♓		
direct	3716 Sep 21 02:22	0°♍28'33			3719 Apr 03 03:12	0°♈		
greatest brilliancy	3716 Oct 05 10:46	4°♍05'33 -4.5m		asc. node	3719 Apr 27 11:09	0°♈05'39		
	3716 Nov 07 23:35	0°♎			3719 Apr 27 09:19	0°♈		
asc. node	3716 Nov 09 15:58	1°♎39'06			3719 May 21 22:58	0°♉		
morning max el	3716 Nov 09 18:48	1°♎46'04 46°15'58			3719 Jun 15 22:53	0°♊		
	3716 Dec 06 05:59	0°♌			3719 Jul 11 14:24	0°♋		
	3717 Jan 01 01:19	0°♍			3719 Aug 07 09:58	0°♌		
	3717 Jan 25 21:24	0°♎		desc. node	3719 Aug 17 01:03	10°♌14'14		
	3717 Feb 19 07:07	0°♏		evening max el	3719 Sep 01 19:21	26°♌02'55 45°46'01		
desc. node	3717 Mar 01 06:02	12°♏19'06			3719 Sep 06 00:14	0°♍		
	3717 Mar 15 12:18	0°♐		greatest brilliancy	3719 Oct 09 18:01	23°♍47'43 -4.5m		
	3717 Apr 08 16:07	0°♑		retrograde	3719 Oct 20 15:10	25°♍55'03		
	3717 May 02 20:37	0°♒		evening set	3719 Nov 06 00:22	20°♍50'20		
morning set	3717 May 15 22:49	16°♒11'54		inferior conj	3719 Nov 10 13:46	18°♍06'17 -6°-15'-30		
	3717 May 27 02:55	0°♓		minimum elong	3719 Nov 11 00:09	17°♍50'18 6°13'15		
	3717 Jun 20 11:04	0°♈		min. Earth dist.	3719 Nov 11 12:51	17°♍30'45 0.27574 AU		
asc. node	3717 Jun 22 08:43	2°♈20'31		morning rise	3719 Nov 15 23:21	14°♍52'32		
				direct	3719 Dec 01 14:22	10°♍07'23		
superior conj	3717 Jun 22 14:07	2°♈37'09 0°00'33		asc. node	3719 Dec 08 03:36	10°♍57'10		
minimum elong	3717 Jun 22 13:59	2°♈36'44 0°00'31		greatest brilliancy	3719 Dec 15 14:37	13°♍42'14 -4.6m		
behind sun begin	3717 Jun 21 15:01	1°♈26'03			3720 Jan 07 08:12	0°♍		
behind sun end	3717 Jun 23 12:56	3°♈47'25		morning max el	3720 Jan 21 05:49	13°♍20'58 46°55'04		
max. Earth dist.	3717 Jun 23 18:06	4°♈03'17 1.73356 AU			3720 Feb 05 22:22	0°♎		
	3717 Jul 14 20:23	0°♏			3720 Mar 03 06:19	0°♏		
evening rise	3717 Jul 29 01:41	17°♏28'41		desc. node	3720 Mar 28 18:00	0°♐15'32		
	3717 Aug 08 06:24	0°♍			3720 Mar 28 12:50	0°♐		
	3717 Sep 01 17:26	0°♎			3720 Apr 22 08:50	0°♑		
	3717 Sep 26 06:35	0°♌			3720 May 17 00:36	0°♒		
desc. node	3717 Oct 11 22:55	19°♌04'36			3720 Jun 10 14:53	0°♓		
	3717 Oct 20 23:04	0°♍			3720 Jul 05 04:19	0°♈		
	3717 Nov 14 20:15	0°♎		asc. node	3720 Jul 19 20:37	17°♈57'56		
	3717 Dec 10 01:29	0°♏		morning set	3720 Jul 23 19:05	22°♈47'20		
	3718 Jan 05 01:16	0°♐			3720 Jul 29 16:13	0°♊		
evening max el	3718 Jan 27 18:13	24°♐28'38 47°11'20			3720 Aug 23 01:47	0°♋		
asc. node	3718 Feb 02 01:27	29°♐46'18		max. Earth dist.	3720 Aug 26 22:42	4°♋46'22 1.73298 AU		
	3718 Feb 02 07:03	0°♑						
greatest brilliancy	3718 Mar 06 08:29	24°♑42'28 -4.6m		superior conj	3720 Aug 29 06:36	7°♋38'41 1°17'11		
retrograde	3718 Mar 19 14:04	27°♑56'33		minimum elong	3720 Aug 28 23:43	7°♋17'27 1°17'03		
evening set	3718 Apr 06 08:59	21°♑47'33			3720 Sep 16 09:01	0°♌		
min. Earth dist.	3718 Apr 09 04:09	20°♑03'37 0.27756 AU		evening rise	3720 Oct 04 15:12	22°♌35'33		
inferior conj	3718 Apr 09 12:08	19°♑51'08 8°27'52			3720 Oct 10 14:46	0°♍		
minimum elong	3718 Apr 09 18:30	19°♑41'12 8°27'16			3720 Nov 03 20:02	0°♎		
morning rise	3718 Apr 13 04:16	17°♑35'53		desc. node	3720 Nov 08 10:45	5°♎42'51		
direct	3718 Apr 30 08:55	11°♑54'46			3720 Nov 28 01:27	0°♏		
greatest brilliancy	3718 May 11 12:55	14°♑12'28 -4.6m			3720 Dec 22 07:45	0°♐		
desc. node	3718 May 24 15:24	21°♑25'52			3721 Jan 15 16:58	0°♑		
	3718 Jun 04 17:52	0°♒			3721 Feb 09 10:08	0°♒		
morning max el	3718 Jun 18 16:15	12°♒41'15 45°58'50		asc. node	3721 Mar 01 13:18	23°♒48'52		
	3718 Jul 05 18:17	0°♓			3721 Mar 06 21:49	0°♓		
	3718 Aug 02 03:54	0°♈			3721 Apr 03 05:06	0°♈		
	3718 Aug 28 05:30	0°♊		evening max el	3721 Apr 09 08:34	6°♈14'14 46°20'15		
asc. node	3718 Sep 14 18:20	20°♊44'05			3721 May 07 07:31	0°♉		
	3718 Sep 22 12:03	0°♋		greatest brilliancy	3721 May 14 11:38	4°♉05'45 -4.5m		
	3718 Oct 17 04:58	0°♌		retrograde	3721 May 29 01:37	7°♉53'12		

evening set	3721 Jun 13 04:47	3°☿26'04		superior conj	3723 Nov 07 06:45	14°♄53'08	1°03'16
	3721 Jun 18 22:13	30°♁II		minimum elong	3723 Nov 07 16:48	15°♄24'30	1°02'57
inferior conj	3721 Jun 19 11:21	29°♄39'22	0°23'58		3723 Nov 19 09:10	0°♁	
minimum elong	3721 Jun 19 12:15	29°♄37'58	0°23'42	desc. node	3723 Dec 06 22:37	21°♁57'43	
min. Earth dist.	3721 Jun 19 06:47	29°♄46'34	0.28645 AU		3723 Dec 13 08:41	0°♁	
desc. node	3721 Jun 21 03:17	28°♄36'49		evening rise	3723 Dec 16 18:42	4°♁16'45	
morning rise	3721 Jun 25 20:01	25°♄50'01			3724 Jan 06 07:31	0°≈	
direct	3721 Jul 10 21:03	21°♄28'18			3724 Jan 30 06:39	0°♁	
greatest brilliancy	3721 Jul 23 16:36	24°♄20'49	-4.5m		3724 Feb 23 08:16	0°♁	
	3721 Aug 03 00:39	0°☿			3724 Mar 18 15:59	0°♁	
morning max el	3721 Aug 28 12:38	21°☿03'54	45°43'19	asc. node	3724 Mar 29 01:13	12°♁39'08	
	3721 Sep 06 14:33	0°♁			3724 Apr 12 11:00	0°♄	
	3721 Oct 04 13:04	0°♁			3724 May 08 01:29	0°☿	
asc. node	3721 Oct 12 06:14	8°♁45'17			3724 Jun 04 05:35	0°♁	
	3721 Oct 30 11:45	0°♄		evening max el	3724 Jun 18 23:11	14°♁54'47	45°31'58
	3721 Nov 24 10:13	0°♄			3724 Jul 05 23:08	0°♁	
	3721 Dec 18 19:19	0°♁		desc. node	3724 Jul 18 15:20	8°♁48'08	
	3722 Jan 11 21:25	0°♁		greatest brilliancy	3724 Jul 23 23:32	11°♁33'06	-4.5m
desc. node	3722 Jan 31 20:16	24°♁59'08		retrograde	3724 Aug 06 16:55	14°♁50'07	
	3722 Feb 04 20:13	0°≈		evening set	3724 Aug 23 16:32	9°♁21'59	
morning set	3722 Feb 28 08:24	29°≈30'00		inferior conj	3724 Aug 28 04:12	6°♁37'21	-7°-43'-3
	3722 Feb 28 17:57	0°♁		minimum elong	3724 Aug 27 20:12	6°♁49'50	7°42'02
	3722 Mar 24 16:16	0°♁		min. Earth dist.	3724 Aug 28 04:36	6°♁36'42	0.29060 AU
				morning rise	3724 Aug 31 23:50	4°♁16'20	
superior conj	3722 Apr 09 21:42	20°♁17'14	-1°-22'-13		3724 Sep 09 14:52	30°♁♁	
minimum elong	3722 Apr 10 04:27	20°♁38'19	1°22'08	direct	3724 Sep 18 19:20	28°♁19'17	
max. Earth dist.	3722 Apr 13 21:19	25°♁15'26	1.71981 AU		3724 Sep 28 08:44	0°♁	
	3722 Apr 17 16:40	0°♁		greatest brilliancy	3724 Oct 03 01:24	1°♁54'01	-4.5m
	3722 May 11 20:23	0°♄		morning max el	3724 Nov 07 10:34	29°♁33'12	46°14'24
evening rise	3722 May 19 04:47	9°♄05'13			3724 Nov 07 21:24	0°♄	
asc. node	3722 May 24 22:57	16°♄11'31		asc. node	3724 Nov 08 17:51	0°♄50'49	
	3722 Jun 05 04:05	0°☿			3724 Dec 05 21:32	0°♄	
	3722 Jun 29 16:03	0°♁			3724 Dec 31 14:43	0°♁	
	3722 Jul 24 09:02	0°♁			3725 Jan 25 09:48	0°♁	
	3722 Aug 18 08:58	0°♄			3725 Feb 18 18:56	0°≈	
	3722 Sep 12 19:35	0°♄		desc. node	3725 Feb 28 08:07	11°≈49'29	
desc. node	3722 Sep 13 12:59	0°♄50'42			3725 Mar 14 23:44	0°♁	
	3722 Oct 08 23:46	0°♁			3725 Apr 08 03:16	0°♁	
	3722 Nov 05 15:39	0°♁			3725 May 02 07:32	0°♁	
evening max el	3722 Nov 13 16:16	8°♁07'27	46°47'09	morning set	3725 May 13 14:07	13°♁57'23	
	3722 Dec 08 14:28	0°≈			3725 May 26 13:39	0°♄	
greatest brilliancy	3722 Dec 22 09:54	8°≈00'36	-4.7m		3725 Jun 19 21:42	0°☿	
retrograde	3723 Jan 02 23:22	10°≈30'49					
asc. node	3723 Jan 04 15:37	10°≈27'22		superior conj	3725 Jun 20 06:55	0°☿28'24	0°-2'-48
evening set	3723 Jan 17 15:22	6°≈14'55		minimum elong	3725 Jun 20 07:31	0°☿30'15	0°02'47
min. Earth dist.	3723 Jan 23 02:31	3°≈03'20	0.26582 AU	behind sun begin	3725 Jun 19 08:41	29°♄19'58	
inferior conj	3723 Jan 23 12:59	2°≈47'22	4°41'29	behind sun end	3725 Jun 21 06:20	1°☿40'32	
minimum elong	3723 Jan 23 03:31	3°≈01'48	4°38'50	asc. node	3725 Jun 21 10:49	1°☿54'18	
	3723 Jan 28 05:29	30°♁☿		max. Earth dist.	3725 Jun 21 16:53	2°☿13'00	1.73328 AU
morning rise	3723 Jan 28 15:45	29°♁45'36			3725 Jul 14 07:00	0°♁	
direct	3723 Feb 12 22:28	25°♁07'48		evening rise	3725 Jul 26 20:13	15°♁25'27	
greatest brilliancy	3723 Feb 24 12:15	27°♁37'49	-4.7m		3725 Aug 07 17:07	0°♁	
	3723 Mar 01 11:16	0°≈			3725 Sep 01 04:24	0°♄	
morning max el	3723 Apr 04 04:52	27°≈38'02	46°44'54		3725 Sep 25 17:57	0°♄	
	3723 Apr 06 13:24	0°♁		desc. node	3725 Oct 11 00:52	18°♄35'04	
desc. node	3723 Apr 26 05:47	20°♁51'53			3725 Oct 20 11:00	0°♁	
	3723 May 04 11:23	0°♁			3725 Nov 14 09:02	0°♁	
	3723 May 30 16:11	0°♁			3725 Dec 09 15:38	0°≈	
	3723 Jun 25 04:40	0°♄			3726 Jan 04 18:10	0°♁	
	3723 Jul 20 08:28	0°☿		evening max el	3726 Jan 25 09:15	22°♁08'25	47°11'49
	3723 Aug 14 05:30	0°♁		asc. node	3726 Feb 01 03:30	28°♁51'18	
asc. node	3723 Aug 17 08:30	3°♁47'33			3726 Feb 02 08:06	0°♁	
	3723 Sep 07 19:57	0°♁		greatest brilliancy	3726 Mar 04 01:20	22°♁24'27	-4.7m
morning set	3723 Oct 01 00:11	28°♁32'50		retrograde	3726 Mar 17 04:38	25°♁35'37	
	3723 Oct 02 04:21	0°♄		evening set	3726 Apr 04 01:31	19°♁24'00	
	3723 Oct 26 08:10	0°♄		min. Earth dist.	3726 Apr 06 17:41	17°♁44'31	0.27717 AU
max. Earth dist.	3723 Nov 04 12:10	11°♄25'28	1.72078 AU	inferior conj	3726 Apr 07 02:24	17°♁30'54	8°34'58

minimum elong	3726 Apr 07 08:03	17°Υ22'03	8°34'29			3728 Nov 03 07:13	0°♄	
morning rise	3726 Apr 10 14:49	15°Υ21'02		desc. node		3728 Nov 07 12:45	5°♄14'12	
direct	3726 Apr 27 23:04	9°Υ35'28				3728 Nov 27 12:59	0°♄	
greatest brilliancy	3726 May 09 00:43	11°Υ50'55	-4.6m			3728 Dec 21 19:42	0°≈	
desc. node	3726 May 23 17:27	20°Υ10'35				3729 Jan 15 05:29	0°♄	
	3726 Jun 05 00:06	0°♄				3729 Feb 08 23:34	0°Υ	
morning max el	3726 Jun 16 06:17	10°♄24'02	46°00'04	asc. node		3729 Feb 28 15:19	23°Υ12'01	
	3726 Jul 05 11:56	0°♄				3729 Mar 06 13:04	0°♄	
	3726 Aug 01 18:00	0°♄				3729 Apr 03 01:10	0°♄	
	3726 Aug 27 17:58	0°♄		evening max el		3729 Apr 06 22:50	3°♄56'17	46°22'33
asc. node	3726 Sep 13 20:19	20°♄14'36				3729 May 08 13:45	0°♄	
	3726 Sep 21 23:41	0°♄		greatest brilliancy		3729 May 12 03:24	1°♄53'43	-4.5m
	3726 Oct 16 16:11	0°♄		retrograde		3729 May 26 18:02	5°♄42'36	
	3726 Nov 09 23:22	0°♄		evening set		3729 Jun 10 21:59	1°♄13'40	
	3726 Dec 04 00:43	0°♄				3729 Jun 13 01:19	30°♄	
morning set	3726 Dec 11 05:44	9°♄01'44		inferior conj		3729 Jun 17 03:31	27°♄28'44	0°44'19
	3726 Dec 27 22:53	0°♄		minimum elong		3729 Jun 17 05:10	27°♄26'10	0°43'49
desc. node	3727 Jan 03 10:29	8°♄08'52		min. Earth dist.		3729 Jun 16 23:19	27°♄35'20	0.28621 AU
				desc. node		3729 Jun 20 05:25	25°♄34'00	
superior conj	3727 Jan 20 23:59	0°≈14'10	0°-40'-41	morning rise		3729 Jun 23 12:38	23°♄38'58	
minimum elong	3727 Jan 20 14:14	29°♄43'28	0°40'16	direct		3729 Jul 08 12:27	19°♄17'45	
	3727 Jan 20 19:29	0°≈		greatest brilliancy		3729 Jul 21 08:40	22°♄10'59	-4.5m
max. Earth dist.	3727 Jan 20 20:12	0°≈02'14	1.71113 AU			3729 Aug 03 20:51	0°♄	
	3727 Feb 13 15:49	0°♄		morning max el		3729 Aug 26 04:40	18°♄54'03	45°43'04
evening rise	3727 Mar 03 03:09	21°♄56'36				3729 Sep 06 09:45	0°♄	
	3727 Mar 09 13:24	0°Υ				3729 Oct 04 03:46	0°♄	
	3727 Apr 02 14:15	0°♄		asc. node		3729 Oct 11 08:11	8°♄10'41	
asc. node	3727 Apr 26 13:06	29°♄37'04				3729 Oct 30 00:42	0°♄	
	3727 Apr 26 20:34	0°♄				3729 Nov 23 22:20	0°♄	
	3727 May 21 10:34	0°♄				3729 Dec 18 07:00	0°♄	
	3727 Jun 15 11:10	0°♄				3730 Jan 11 08:51	0°♄	
	3727 Jul 11 04:01	0°♄		desc. node		3730 Jan 30 22:14	24°♄29'45	
	3727 Aug 07 02:32	0°♄				3730 Feb 04 07:32	0°≈	
desc. node	3727 Aug 16 03:08	9°♄31'57		morning set		3730 Feb 25 18:21	26°≈55'25	
evening max el	3727 Aug 30 08:13	23°♄43'43	45°44'24			3730 Feb 28 05:09	0°♄	
	3727 Sep 06 02:05	0°♄				3730 Mar 24 03:21	0°Υ	
greatest brilliancy	3727 Oct 07 07:10	21°♄28'52	-4.5m					
retrograde	3727 Oct 18 04:02	23°♄36'20		superior conj		3730 Apr 07 10:19	17°Υ52'24	-1°-23'-20
evening set	3727 Nov 03 17:13	18°♄26'36		minimum elong		3730 Apr 07 16:18	18°Υ11'05	1°23'16
inferior conj	3727 Nov 08 03:45	15°♄46'44	-6°-30'-32	max. Earth dist.		3730 Apr 11 07:17	22°Υ42'30	1.71926 AU
minimum elong	3727 Nov 08 14:04	15°♄30'49	6°28'24			3730 Apr 17 03:39	0°♄	
min. Earth dist.	3727 Nov 09 03:25	15°♄10'16	0.27645 AU			3730 May 11 07:20	0°♄	
morning rise	3727 Nov 13 10:19	12°♄36'55		evening rise		3730 May 16 19:50	6°♄49'38	
direct	3727 Nov 29 04:23	7°♄46'29		asc. node		3730 May 24 01:04	15°♄44'14	
asc. node	3727 Dec 07 05:46	9°♄00'41				3730 Jun 04 15:06	0°♄	
greatest brilliancy	3727 Dec 13 07:34	11°♄23'58	-4.6m			3730 Jun 29 03:16	0°♄	
	3728 Jan 07 13:14	0°♄				3730 Jul 23 20:38	0°♄	
morning max el	3728 Jan 18 19:22	10°♄56'24	46°54'31			3730 Aug 17 21:15	0°♄	
	3728 Feb 05 16:16	0°♄				3730 Sep 12 09:04	0°♄	
	3728 Mar 02 20:55	0°≈		desc. node		3730 Sep 12 14:54	0°♄16'57	
desc. node	3728 Mar 27 19:58	29°≈42'12				3730 Oct 08 15:31	0°♄	
	3728 Mar 28 01:54	0°♄				3730 Nov 05 12:46	0°♄	
	3728 Apr 21 21:01	0°Υ		evening max el		3730 Nov 11 06:25	5°♄45'39	46°45'13
	3728 May 16 12:12	0°♄				3730 Dec 09 16:46	0°≈	
	3728 Jun 10 02:06	0°♄		greatest brilliancy		3730 Dec 19 22:15	5°≈31'32	-4.6m
	3728 Jul 04 15:15	0°♄		retrograde		3730 Dec 31 12:20	8°≈01'49	
asc. node	3728 Jul 18 22:43	17°♄31'06		asc. node		3731 Jan 03 17:41	7°≈48'59	
morning set	3728 Jul 21 12:51	20°♄41'32		evening set		3731 Jan 15 01:39	3°≈48'49	
	3728 Jul 29 03:00	0°♄		min. Earth dist.		3731 Jan 20 15:28	0°≈33'29	0.26570 AU
	3728 Aug 22 12:31	0°♄		inferior conj		3731 Jan 21 01:16	0°≈18'34	4°20'06
max. Earth dist.	3728 Aug 24 18:22	2°♄45'56	1.73326 AU	minimum elong		3731 Jan 20 16:19	0°≈32'11	4°17'32
						3731 Jan 21 13:27	30°♄	
superior conj	3728 Aug 27 00:48	5°♄33'44	1°15'48	morning rise		3731 Jan 26 07:08	27°♄12'55	
minimum elong	3728 Aug 26 17:30	5°♄11'14	1°15'37	direct		3731 Feb 10 11:28	22°♄39'06	
	3728 Sep 15 19:48	0°♄		greatest brilliancy		3731 Feb 22 02:02	25°♄10'43	-4.7m
evening rise	3728 Oct 02 07:55	20°♄25'05				3731 Mar 03 03:57	0°≈	
	3728 Oct 10 01:42	0°♄		morning max el		3731 Apr 01 19:08	25°≈15'40	46°46'10

	3731 Apr 06 11:27	0° H			3733 Sep 25 05:35	0° M	
desc. node	3731 Apr 25 07:47	20° H 09'32		desc. node	3733 Oct 10 02:56	18° M 05'03	
	3731 May 04 03:32	0° Y			3733 Oct 19 23:16	0° J	
	3731 May 30 05:57	0° B			3733 Nov 13 22:12	0° Z	
	3731 Jun 24 17:11	0° II			3733 Dec 09 06:19	0° \approx	
	3731 Jul 19 20:14	0° S			3734 Jan 04 11:50	0° H	
	3731 Aug 13 16:49	0° Ω		evening max el	3734 Jan 22 23:12	19° H 44'07	47°12'19
asc. node	3731 Aug 16 10:27	3° Ω 19'15		asc. node	3734 Jan 31 05:29	27° H 53'46	
	3731 Sep 07 07:02	0° M			3734 Feb 02 11:03	0° Y	
morning set	3731 Sep 28 17:09	26° M 23'00		greatest brilliancy	3734 Mar 01 18:34	20° Y 05'24	-4.7m
	3731 Oct 01 15:20	0° S		retrograde	3734 Mar 14 18:40	23° Y 13'13	
	3731 Oct 25 19:09	0° M		evening set	3734 Apr 01 17:38	16° Y 59'30	
max. Earth dist.	3731 Nov 02 01:49	9° M 04'02	1.72124 AU	inferior conj	3734 Apr 04 16:31	15° Y 09'20	8°41'07
				minimum elong	3734 Apr 04 21:25	15° Y 01'40	8°40'45
superior conj	3731 Nov 04 21:39	12° M 35'30	1°05'35	min. Earth dist.	3734 Apr 04 07:22	15° Y 23'40	0.27675 AU
minimum elong	3731 Nov 05 07:31	13° M 06'19	1°05'15	morning rise	3734 Apr 08 01:24	13° Y 04'35	
	3731 Nov 18 20:14	0° J		direct	3734 Apr 25 12:29	7° Y 14'45	
desc. node	3731 Dec 06 00:45	21° J 29'29		greatest brilliancy	3734 May 06 13:13	9° Y 28'55	-4.6m
	3731 Dec 12 19:53	0° Z		desc. node	3734 May 22 19:37	18° Y 56'51	
evening rise	3731 Dec 14 06:44	1° Z 49'04			3734 Jun 05 04:43	0° B	
	3732 Jan 05 18:51	0° \approx		morning max el	3734 Jun 13 19:26	8° B 03'39	46°01'23
	3732 Jan 29 18:10	0° H			3734 Jul 05 05:29	0° II	
	3732 Feb 22 20:03	0° Y			3734 Aug 01 08:11	0° S	
	3732 Mar 18 04:13	0° B			3734 Aug 27 06:36	0° Ω	
asc. node	3732 Mar 28 03:12	12° B 07'20		asc. node	3734 Sep 12 22:20	19° Ω 44'42	
	3732 Apr 12 00:00	0° II			3734 Sep 21 11:29	0° M	
	3732 May 07 16:00	0° S			3734 Oct 16 03:33	0° S	
	3732 Jun 03 23:49	0° Ω			3734 Nov 09 10:32	0° M	
evening max el	3732 Jun 16 15:37	12° Ω 44'54	45°32'48		3734 Dec 03 11:50	0° J	
	3732 Jul 06 10:22	0° M		morning set	3734 Dec 08 18:32	6° J 36'41	
desc. node	3732 Jul 17 17:20	7° M 26'07			3734 Dec 27 09:59	0° Z	
greatest brilliancy	3732 Jul 21 14:34	9° M 22'30	-4.5m	desc. node	3735 Jan 02 12:29	7° Z 40'10	
retrograde	3732 Aug 04 08:58	12° M 40'25					
evening set	3732 Aug 21 05:39	7° M 16'58		superior conj	3735 Jan 18 10:10	27° Z 40'15	0°-37'-6
inferior conj	3732 Aug 25 20:26	4° M 27'24	-7°-33'-53	minimum elong	3735 Jan 18 01:05	27° Z 11'41	0°36'42
minimum elong	3732 Aug 25 12:02	4° M 40'33	7°32'44	max. Earth dist.	3735 Jan 17 22:23	27° Z 03'11	1.71124 AU
min. Earth dist.	3732 Aug 25 19:49	4° M 28'22	0.29069 AU		3735 Jan 20 06:37	0° \approx	
morning rise	3732 Aug 29 18:25	2° M 02'41			3735 Feb 13 02:58	0° H	
	3732 Sep 02 09:58	30° R Ω		evening rise	3735 Feb 28 13:19	19° H 22'52	
direct	3732 Sep 16 12:07	26° Ω 09'34			3735 Mar 09 00:36	0° Y	
greatest brilliancy	3732 Sep 30 15:25	29° Ω 40'56	-4.5m		3735 Apr 02 01:31	0° B	
	3732 Oct 01 07:28	0° M		asc. node	3735 Apr 25 15:15	29° B 08'32	
morning max el	3732 Nov 05 01:26	27° M 17'08	46°12'40		3735 Apr 26 08:00	0° II	
asc. node	3732 Nov 07 20:01	0° S 02'59			3735 May 20 22:21	0° S	
	3732 Nov 07 18:50	0° S			3735 Jun 14 23:41	0° Ω	
	3732 Dec 05 13:15	0° M			3735 Jul 10 17:57	0° M	
	3732 Dec 31 04:25	0° J			3735 Aug 06 19:36	0° S	
	3733 Jan 24 22:30	0° Z		desc. node	3735 Aug 15 05:06	8° S 48'27	
	3733 Feb 18 07:02	0° \approx		evening max el	3735 Aug 27 21:12	21° S 24'43	45°43'00
desc. node	3733 Feb 27 10:06	11° \approx 18'38			3735 Sep 06 05:33	0° M	
	3733 Mar 14 11:25	0° H		greatest brilliancy	3735 Oct 04 19:23	19° M 09'16	-4.5m
	3733 Apr 07 14:40	0° Y		retrograde	3735 Oct 15 17:30	21° M 18'14	
	3733 May 01 18:44	0° B		evening set	3735 Nov 01 10:08	16° M 03'15	
morning set	3733 May 11 05:15	11° B 41'20		inferior conj	3735 Nov 05 17:50	13° M 27'37	-6°-44'-42
	3733 May 26 00:42	0° II		minimum elong	3735 Nov 06 04:04	13° M 11'52	6°42'41
				min. Earth dist.	3735 Nov 06 17:50	12° M 50'42	0.27716 AU
superior conj	3733 Jun 17 23:42	28° II 18'38	0°-6'-7	morning rise	3735 Nov 10 21:22	10° M 22'08	
minimum elong	3733 Jun 18 01:01	28° II 22'43	0°06'03	direct	3735 Nov 26 18:44	5° M 26'03	
behind sun begin	3733 Jun 17 03:25	27° II 16'09		asc. node	3735 Dec 06 07:47	7° M 08'58	
behind sun end	3733 Jun 18 22:38	29° II 29'16		greatest brilliancy	3735 Dec 11 00:51	9° M 06'44	-4.6m
	3733 Jun 19 08:37	0° S			3736 Jan 07 16:26	0° J	
max. Earth dist.	3733 Jun 19 14:10	0° S 17'03	1.73296 AU	morning max el	3736 Jan 16 09:47	8° J 34'09	46°53'43
asc. node	3733 Jun 20 12:55	1° S 27'04			3736 Feb 05 09:49	0° Z	
	3733 Jul 13 17:54	0° Ω			3736 Mar 02 11:29	0° \approx	
evening rise	3733 Jul 24 14:45	13° Ω 21'20		desc. node	3736 Mar 26 22:01	29° \approx 08'48	
	3733 Aug 07 04:06	0° M			3736 Mar 27 15:01	0° H	
	3733 Aug 31 15:38	0° S			3736 Apr 21 09:16	0° Y	

	3736 May 15 23:51	0°♄			3738 Dec 11 05:06	0°♊	
	3736 Jun 09 13:19	0°♊		greatest brilliancy	3738 Dec 17 11:30	3°♊04'44	-4.6m
	3736 Jul 04 02:12	0°♊		retrograde	3738 Dec 29 01:19	5°♊33'51	
asc. node	3736 Jul 18 00:38	17°♊03'43		asc. node	3739 Jan 02 19:37	5°♊05'47	
morning set	3736 Jul 19 06:25	18°♊35'00		evening set	3739 Jan 12 12:17	1°♊23'51	
	3736 Jul 28 13:47	0°♊			3739 Jan 14 23:52	30°♊♄	
	3736 Aug 21 23:16	0°♊		min. Earth dist.	3739 Jan 18 04:35	28°♄04'48	0.26554 AU
max. Earth dist.	3736 Aug 22 15:20	0°♊49'30	1.73352 AU	inferior conj	3739 Jan 18 13:35	27°♄51'04	3°58'14
				minimum elong	3739 Jan 18 05:13	28°♄03'50	3°55'47
superior conj	3736 Aug 24 18:55	3°♊28'30	1°14'17	morning rise	3739 Jan 23 22:21	24°♄41'36	
minimum elong	3736 Aug 24 11:15	3°♊04'50	1°14'06	direct	3739 Feb 08 00:26	20°♄12'00	
	3736 Sep 15 06:36	0°♊		greatest brilliancy	3739 Feb 19 15:01	22°♄43'58	-4.7m
evening rise	3736 Sep 30 00:48	18°♊15'15			3739 Mar 04 07:33	0°♊	
	3736 Oct 09 12:38	0°♊		morning max el	3739 Mar 30 08:46	22°♊52'59	46°47'17
	3736 Nov 02 18:21	0°♊			3739 Apr 06 08:11	0°♊	
desc. node	3736 Nov 06 14:54	4°♊46'16		desc. node	3739 Apr 24 09:57	19°♊29'20	
	3736 Nov 27 00:25	0°♊			3739 May 03 19:00	0°♊	
	3736 Dec 21 07:35	0°♊			3739 May 29 19:15	0°♊	
	3737 Jan 14 17:59	0°♊			3739 Jun 24 05:19	0°♊	
	3737 Feb 08 13:03	0°♊			3739 Jul 19 07:41	0°♊	
asc. node	3737 Feb 27 17:17	22°♊34'49			3739 Aug 13 03:49	0°♊	
	3737 Mar 06 04:32	0°♊		asc. node	3739 Aug 15 12:31	2°♊52'14	
	3737 Apr 02 21:58	0°♊			3739 Sep 06 17:45	0°♊	
evening max el	3737 Apr 04 13:49	1°♊39'49	46°24'50	morning set	3739 Sep 26 09:55	24°♊13'40	
greatest brilliancy	3737 May 09 19:13	29°♊41'11	-4.5m		3739 Oct 01 01:57	0°♊	
	3737 May 10 10:56	0°♊			3739 Oct 25 05:47	0°♊	
retrograde	3737 May 24 10:42	3°♊31'06		max. Earth dist.	3739 Oct 30 13:53	6°♊38'51	1.72172 AU
	3737 Jun 06 18:00	30°♊♊					
evening set	3737 Jun 08 15:07	29°♊00'15		superior conj	3739 Nov 02 12:34	10°♊19'08	1°07'46
inferior conj	3737 Jun 14 19:24	25°♊17'10	1°04'47	minimum elong	3739 Nov 02 22:13	10°♊49'10	1°07'28
minimum elong	3737 Jun 14 21:48	25°♊13'25	1°04'04		3739 Nov 18 06:59	0°♊	
min. Earth dist.	3737 Jun 14 15:16	25°♊23'38	0.28595 AU	desc. node	3739 Dec 05 02:42	21°♊01'44	
desc. node	3737 Jun 19 07:22	22°♊31'50		evening rise	3739 Dec 11 18:49	29°♊22'36	
morning rise	3737 Jun 21 04:49	21°♊27'25			3739 Dec 12 06:46	0°♊	
direct	3737 Jul 06 04:00	17°♊06'28			3740 Jan 05 05:52	0°♊	
greatest brilliancy	3737 Jul 18 23:43	19°♊59'45	-4.5m		3740 Jan 29 05:20	0°♊	
	3737 Aug 04 11:54	0°♊			3740 Feb 22 07:27	0°♊	
morning max el	3737 Aug 23 21:08	16°♊45'31	45°42'49		3740 Mar 17 16:01	0°♊	
	3737 Sep 06 04:20	0°♊		asc. node	3740 Mar 27 05:21	11°♊37'25	
	3737 Oct 03 18:10	0°♊			3740 Apr 11 12:34	0°♊	
asc. node	3737 Oct 10 10:17	7°♊37'02			3740 May 07 06:10	0°♊	
	3737 Oct 29 13:25	0°♊			3740 Jun 03 18:02	0°♊	
	3737 Nov 23 10:13	0°♊		evening max el	3740 Jun 14 07:28	10°♊34'35	45°33'32
	3737 Dec 17 18:27	0°♊			3740 Jul 07 00:51	0°♊	
	3738 Jan 10 20:03	0°♊		desc. node	3740 Jul 16 19:19	6°♊02'21	
desc. node	3738 Jan 30 00:14	24°♄01'17		greatest brilliancy	3740 Jul 19 05:57	7°♊13'13	-4.5m
	3738 Feb 03 18:34	0°♊		retrograde	3740 Aug 02 00:39	10°♊31'50	
morning set	3738 Feb 23 04:31	24°♊22'18		evening set	3740 Aug 18 18:46	5°♊13'07	
	3738 Feb 27 16:06	0°♊		inferior conj	3740 Aug 23 12:44	2°♊18'42	-7°-23'-59
	3738 Mar 23 14:13	0°♊		minimum elong	3740 Aug 23 03:58	2°♊32'27	7°22'42
				min. Earth dist.	3740 Aug 23 11:29	2°♊20'40	0.29076 AU
superior conj	3738 Apr 04 22:42	15°♊27'19	-1°-24'-17		3740 Aug 27 06:30	30°♊♊	
minimum elong	3738 Apr 05 03:51	15°♊43'25	1°24'16	morning rise	3740 Aug 27 13:07	29°♊50'06	
max. Earth dist.	3738 Apr 08 18:30	20°♊13'59	1.71879 AU	direct	3740 Sep 14 04:20	24°♊00'59	
	3738 Apr 16 14:27	0°♊		greatest brilliancy	3740 Sep 28 05:42	27°♊29'18	-4.5m
	3738 May 10 18:07	0°♊			3740 Oct 03 00:59	0°♊	
evening rise	3738 May 14 10:26	4°♊33'05		morning max el	3740 Nov 02 15:34	25°♊00'30	46°11'00
asc. node	3738 May 23 03:05	15°♊17'07		asc. node	3740 Nov 06 22:04	29°♊16'43	
	3738 Jun 04 01:58	0°♊			3740 Nov 07 15:06	0°♊	
	3738 Jun 28 14:19	0°♊			3740 Dec 05 04:20	0°♊	
	3738 Jul 23 08:04	0°♊			3740 Dec 30 17:37	0°♊	
	3738 Aug 17 09:23	0°♊			3741 Jan 24 10:45	0°♊	
desc. node	3738 Sep 11 16:59	29°♊44'10			3741 Feb 17 18:42	0°♊	
	3738 Sep 11 22:27	0°♊		desc. node	3741 Feb 26 12:09	10°♊49'15	
	3738 Oct 08 07:18	0°♊			3741 Mar 13 22:40	0°♊	
	3738 Nov 05 10:22	0°♊			3741 Apr 07 01:37	0°♊	
evening max el	3738 Nov 08 21:10	3°♄26'14	46°43'14		3741 May 01 05:28	0°♊	

morning set	3741 May 08 20:37	9°♄27'23		evening set	3743 Oct 30 03:05	13°♌40'49	
	3741 May 25 11:16	0°♈		inferior conj	3743 Nov 03 07:58	11°♌09'15	-6°-57'-59
				minimum elong	3743 Nov 03 18:02	10°♌53'48	6°56'07
superior conj	3741 Jun 15 16:43	26°♈10'58	0°-9'-23	min. Earth dist.	3743 Nov 04 07:54	10°♌32'28	0.27790 AU
minimum elong	3741 Jun 15 18:45	26°♈17'14	0°09'18	morning rise	3743 Nov 08 08:24	8°♌08'22	
behind sun begin	3741 Jun 14 23:42	25°♈18'35		direct	3743 Nov 24 09:42	3°♌06'29	
behind sun end	3741 Jun 16 13:48	27°♈15'53		asc. node	3743 Dec 05 09:43	5°♌21'57	
max. Earth dist.	3741 Jun 17 10:23	28°♈19'17	1.73266 AU	greatest brilliancy	3743 Dec 08 17:56	6°♌50'05	-4.6m
	3741 Jun 18 19:06	0°♄			3744 Jan 07 17:57	0°♌	
asc. node	3741 Jun 19 14:50	1°♄00'45		morning max el	3744 Jan 14 01:11	6°♌15'08	46°52'52
	3741 Jul 13 04:23	0°♈			3744 Feb 05 02:49	0°♌	
evening rise	3741 Jul 22 09:22	11°♈18'41			3744 Mar 02 01:41	0°♌	
	3741 Aug 06 14:43	0°♎		desc. node	3744 Mar 26 00:06	28°♌36'18	
	3741 Aug 31 02:30	0°♊			3744 Mar 27 03:51	0°♎	
	3741 Sep 24 16:53	0°♌			3744 Apr 20 21:18	0°♎	
desc. node	3741 Oct 09 05:00	17°♌36'08			3744 May 15 11:19	0°♎	
	3741 Oct 19 11:12	0°♌			3744 Jun 09 00:22	0°♈	
	3741 Nov 13 11:05	0°♌			3744 Jul 03 12:58	0°♄	
	3741 Dec 08 20:46	0°♌		morning set	3744 Jul 17 00:18	16°♄30'03	
	3742 Jan 04 05:30	0°♎		asc. node	3744 Jul 17 02:43	16°♄37'27	
evening max el	3742 Jan 20 12:26	17°♎18'58	47°12'41		3744 Jul 28 00:23	0°♈	
asc. node	3742 Jan 30 07:34	26°♎56'09		max. Earth dist.	3744 Aug 20 14:26	29°♈00'19	1.73375 AU
	3742 Feb 02 15:13	0°♎			3744 Aug 21 09:49	0°♎	
greatest brilliancy	3742 Feb 27 11:28	17°♎46'43	-4.7m				
retrograde	3742 Mar 12 08:37	20°♎51'54		superior conj	3744 Aug 22 13:18	1°♎24'43	1°12'42
evening set	3742 Mar 30 09:21	14°♎36'30		minimum elong	3744 Aug 22 05:19	1°♎00'06	1°12'30
inferior conj	3742 Apr 02 06:38	12°♎48'53	8°46'21		3744 Sep 14 17:13	0°♊	
minimum elong	3742 Apr 02 10:43	12°♎42'30	8°46'07	evening rise	3744 Sep 27 18:00	16°♊06'55	
min. Earth dist.	3742 Apr 01 21:13	13°♎03'38	0.27631 AU		3744 Oct 08 23:25	0°♌	
morning rise	3742 Apr 05 12:14	10°♎49'01			3744 Nov 02 05:25	0°♌	
direct	3742 Apr 23 01:25	4°♎54'55		desc. node	3744 Nov 05 16:50	4°♌17'53	
greatest brilliancy	3742 May 04 02:27	7°♎08'55	-4.6m		3744 Nov 26 11:51	0°♌	
desc. node	3742 May 21 21:30	17°♎46'01			3744 Dec 20 19:28	0°♌	
	3742 Jun 05 07:01	0°♎			3745 Jan 14 06:30	0°♎	
morning max el	3742 Jun 11 08:47	5°♎44'56	46°02'55		3745 Feb 08 02:37	0°♎	
	3742 Jul 04 22:07	0°♈		asc. node	3745 Feb 26 19:24	21°♎57'48	
	3742 Jul 31 21:45	0°♄			3745 Mar 05 20:11	0°♎	
	3742 Aug 26 18:45	0°♈		evening max el	3745 Apr 02 05:39	29°♎25'31	46°27'06
asc. node	3742 Sep 12 00:26	19°♈16'09			3745 Apr 02 19:31	0°♈	
	3742 Sep 20 22:54	0°♎		greatest brilliancy	3745 May 07 11:48	27°♈29'40	-4.6m
	3742 Oct 15 14:36	0°♊			3745 May 13 18:33	0°♄	
	3742 Nov 08 21:25	0°♌		retrograde	3745 May 22 03:31	1°♄19'19	
greatest brilliancy	3742 Nov 20 04:02	14°♌02'24	-3.9m		3745 May 30 04:49	30°♎	
	3742 Dec 02 22:38	0°♌		evening set	3745 Jun 06 08:25	26°♈46'39	
morning set	3742 Dec 06 07:27	4°♌12'58		inferior conj	3745 Jun 12 11:14	23°♈05'25	1°25'12
	3742 Dec 26 20:46	0°♌		minimum elong	3745 Jun 12 14:22	23°♈00'31	1°24'16
desc. node	3743 Jan 01 14:26	7°♌12'23		min. Earth dist.	3745 Jun 12 07:02	23°♈11'59	0.28565 AU
max. Earth dist.	3743 Jan 15 04:18	24°♌16'49	1.71140 AU	desc. node	3745 Jun 18 09:24	19°♈31'31	
				morning rise	3745 Jun 18 20:47	19°♈15'52	
superior conj	3743 Jan 15 20:21	25°♌07'17	0°-33'-27	direct	3745 Jul 03 19:53	14°♈55'13	
minimum elong	3743 Jan 15 12:01	24°♌41'06	0°33'05	greatest brilliancy	3745 Jul 16 13:39	17°♈47'12	-4.5m
	3743 Jan 19 17:26	0°♌			3745 Aug 04 23:01	0°♄	
	3743 Feb 12 13:51	0°♎		morning max el	3745 Aug 21 13:41	14°♄37'27	45°42'44
evening rise	3743 Feb 25 23:35	16°♎50'19			3745 Sep 05 22:21	0°♈	
	3743 Mar 08 11:32	0°♎			3745 Oct 03 08:19	0°♎	
	3743 Apr 01 12:32	0°♎		asc. node	3745 Oct 09 12:18	7°♎03'38	
asc. node	3743 Apr 24 17:14	28°♎40'23			3745 Oct 29 02:00	0°♊	
	3743 Apr 25 19:10	0°♈			3745 Nov 22 22:04	0°♌	
	3743 May 20 09:52	0°♄			3745 Dec 17 05:55	0°♌	
	3743 Jun 14 11:54	0°♈			3746 Jan 10 07:21	0°♌	
	3743 Jul 10 07:37	0°♎		desc. node	3746 Jan 29 02:22	23°♌32'50	
	3743 Aug 06 12:37	0°♊			3746 Feb 03 05:45	0°♌	
desc. node	3743 Aug 14 07:10	8°♊05'38		morning set	3746 Feb 20 14:21	21°♌47'43	
evening max el	3743 Aug 25 11:06	19°♊09'05	45°41'33		3746 Feb 27 03:10	0°♎	
	3743 Sep 06 10:25	0°♌			3746 Mar 23 01:11	0°♎	
greatest brilliancy	3743 Oct 02 06:35	16°♌49'38	-4.5m				
retrograde	3743 Oct 13 07:28	19°♌01'05		superior conj	3746 Apr 02 10:40	13°♎00'29	-1°-25'-6

minimum elong	3746 Apr 02 14:56	13° Υ 13'51	1°25'05	morning rise	3748 Aug 25 07:50	27° Ω 36'14	
max. Earth dist.	3746 Apr 06 07:36	17° Υ 50'51	1.71829 AU	direct	3748 Sep 11 20:06	21° Ω 50'56	
	3746 Apr 16 01:22	0° \mathcal{B}		greatest brilliancy	3748 Sep 25 20:47	25° Ω 17'27	-4.5m
	3746 May 10 05:03	0° Π			3748 Oct 04 06:11	0° \mathfrak{M}	
evening rise	3746 May 12 00:44	2° Π 15'10		morning max el	3748 Oct 31 05:41	22° \mathfrak{M} 42'53	46°09'39
asc. node	3746 May 22 05:03	14° Π 49'25		asc. node	3748 Nov 05 23:58	28° \mathfrak{M} 29'46	
	3746 Jun 03 12:58	0° \mathfrak{S}			3748 Nov 07 11:06	0° \mathfrak{L}	
	3746 Jun 28 01:32	0° Ω			3748 Dec 04 19:31	0° \mathfrak{M}	
	3746 Jul 22 19:39	0° \mathfrak{M}			3748 Dec 30 06:58	0° \mathcal{A}	
	3746 Aug 16 21:40	0° \mathfrak{L}			3749 Jan 23 23:12	0° \mathfrak{S}	
desc. node	3746 Sep 10 19:05	29° \mathfrak{L} 11'03			3749 Feb 17 06:38	0° \approx	
	3746 Sep 11 12:01	0° \mathfrak{M}		desc. node	3749 Feb 25 14:13	10° \approx 18'57	
	3746 Oct 07 23:24	0° \mathcal{A}			3749 Mar 13 10:17	0° \mathcal{H}	
	3746 Nov 05 08:56	0° \mathfrak{S}			3749 Apr 06 13:00	0° Υ	
evening max el	3746 Nov 06 11:31	1° \mathfrak{S} 05'39	46°40'59		3749 Apr 30 16:39	0° \mathcal{B}	
	3746 Dec 13 13:37	0° \approx		morning set	3749 May 06 11:17	7° \mathcal{B} 09'42	
greatest brilliancy	3746 Dec 15 01:20	0° \approx 37'58	-4.6m		3749 May 24 22:18	0° Π	
retrograde	3746 Dec 26 13:37	3° \approx 04'41					
asc. node	3747 Jan 01 21:44	2° \approx 15'14		superior conj	3749 Jun 13 09:08	24° Π 00'00	0°-12'-42
	3747 Jan 07 21:55	30° \mathcal{R} \mathfrak{S}		minimum elong	3749 Jun 13 11:53	24° Π 08'30	0°12'35
evening set	3747 Jan 09 23:02	28° \mathfrak{S} 57'31		behind sun begin	3749 Jun 12 21:29	23° Π 24'07	
inferior conj	3747 Jan 16 01:48	25° \mathfrak{S} 22'34	3°35'48	behind sun end	3749 Jun 14 02:18	24° Π 52'53	
minimum elong	3747 Jan 15 18:05	25° \mathfrak{S} 34'21	3°33'29	max. Earth dist.	3749 Jun 15 04:29	26° Π 13'32	1.73232 AU
min. Earth dist.	3747 Jan 15 18:04	25° \mathfrak{S} 34'23	0.26548 AU		3749 Jun 18 06:02	0° \mathfrak{S}	
morning rise	3747 Jan 21 13:18	22° \mathfrak{S} 09'06		asc. node	3749 Jun 18 16:56	0° \mathfrak{S} 33'31	
direct	3747 Feb 05 13:02	17° \mathfrak{S} 43'37			3749 Jul 12 15:19	0° Ω	
greatest brilliancy	3747 Feb 17 04:44	20° \mathfrak{S} 16'31	-4.7m	evening rise	3749 Jul 20 03:33	9° Ω 13'27	
	3747 Mar 05 04:20	0° \approx			3749 Aug 06 01:47	0° \mathfrak{M}	
morning max el	3747 Mar 27 21:24	20° \approx 26'21	46°48'22		3749 Aug 30 13:51	0° \mathfrak{L}	
	3747 Apr 06 04:41	0° \mathcal{H}			3749 Sep 24 04:40	0° \mathfrak{M}	
desc. node	3747 Apr 23 11:53	18° \mathcal{H} 47'47		desc. node	3749 Oct 08 06:57	17° \mathfrak{M} 05'27	
	3747 May 03 10:36	0° Υ			3749 Oct 18 23:35	0° \mathcal{A}	
	3747 May 29 08:45	0° \mathcal{B}			3749 Nov 13 00:25	0° \mathfrak{S}	
	3747 Jun 23 17:42	0° Π			3749 Dec 08 11:43	0° \approx	
	3747 Jul 18 19:21	0° \mathfrak{S}			3750 Jan 03 23:53	0° \mathcal{H}	
	3747 Aug 12 15:04	0° Ω		evening max el	3750 Jan 18 01:24	14° \mathcal{H} 52'28	47°13'01
asc. node	3747 Aug 14 14:35	2° Ω 24'25		asc. node	3750 Jan 29 09:36	25° \mathcal{H} 56'20	
	3747 Sep 06 04:44	0° \mathfrak{M}			3750 Feb 02 21:44	0° Υ	
morning set	3747 Sep 24 02:59	22° \mathfrak{M} 04'33		greatest brilliancy	3750 Feb 25 03:00	15° Υ 25'12	-4.7m
	3747 Sep 30 12:48	0° \mathfrak{L}		retrograde	3750 Mar 09 22:39	18° Υ 29'29	
	3747 Oct 24 16:39	0° \mathfrak{M}		evening set	3750 Mar 28 00:35	12° Υ 12'34	
max. Earth dist.	3747 Oct 28 02:50	4° \mathfrak{M} 15'51	1.72219 AU	inferior conj	3750 Mar 30 20:41	10° Υ 26'59	8°50'40
				minimum elong	3750 Mar 30 23:55	10° Υ 21'56	8°50'31
superior conj	3747 Oct 31 04:06	8° \mathfrak{M} 04'02	1°09'48	min. Earth dist.	3750 Mar 30 10:52	10° Υ 42'20	0.27595 AU
minimum elong	3747 Oct 31 13:27	8° \mathfrak{M} 33'11	1°09'32	morning rise	3750 Apr 02 23:22	8° Υ 31'38	
	3747 Nov 17 17:56	0° \mathcal{A}		direct	3750 Apr 20 14:21	2° Υ 33'21	
desc. node	3747 Dec 04 04:43	20° \mathcal{A} 33'33		greatest brilliancy	3750 May 01 16:09	4° Υ 47'57	-4.6m
evening rise	3747 Dec 09 07:25	26° \mathcal{A} 57'12		desc. node	3750 May 20 23:34	16° Υ 35'58	
	3747 Dec 11 17:52	0° \mathfrak{S}			3750 Jun 05 08:35	0° \mathcal{B}	
	3748 Jan 04 17:08	0° \approx		morning max el	3750 Jun 08 23:01	3° \mathcal{B} 26'43	46°04'21
	3748 Jan 28 16:49	0° \mathcal{H}			3750 Jul 04 15:00	0° Π	
	3748 Feb 21 19:14	0° Υ			3750 Jul 31 11:42	0° \mathfrak{S}	
	3748 Mar 17 04:17	0° \mathcal{B}			3750 Aug 26 07:18	0° Ω	
asc. node	3748 Mar 26 07:18	11° \mathcal{B} 05'30		asc. node	3750 Sep 11 02:24	18° Ω 45'59	
	3748 Apr 11 01:40	0° Π			3750 Sep 20 10:43	0° \mathfrak{M}	
	3748 May 06 20:59	0° \mathfrak{S}			3750 Oct 15 02:02	0° \mathfrak{L}	
	3748 Jun 03 13:16	0° Ω			3750 Nov 08 08:39	0° \mathfrak{M}	
evening max el	3748 Jun 11 22:20	8° Ω 20'32	45°34'27	greatest brilliancy	3750 Nov 26 11:01	22° \mathfrak{M} 33'37	-3.9m
	3748 Jul 07 21:17	0° \mathfrak{M}			3750 Dec 02 09:47	0° \mathcal{A}	
desc. node	3748 Jul 15 21:26	4° \mathfrak{M} 34'32		morning set	3750 Dec 03 20:38	1° \mathcal{A} 49'02	
greatest brilliancy	3748 Jul 16 20:29	5° \mathfrak{M} 01'28	-4.5m		3750 Dec 26 07:54	0° \mathfrak{S}	
retrograde	3748 Jul 30 16:09	8° \mathfrak{M} 22'01		desc. node	3750 Dec 31 16:36	6° \mathfrak{S} 44'12	
evening set	3748 Aug 16 07:49	3° \mathfrak{M} 07'42		max. Earth dist.	3751 Jan 12 13:19	21° \mathfrak{S} 39'11	1.71150 AU
inferior conj	3748 Aug 21 04:58	0° \mathfrak{M} 08'45	-7°-13'-32				
minimum elong	3748 Aug 20 19:52	0° \mathfrak{M} 23'02	7°12'06	superior conj	3751 Jan 13 06:53	22° \mathfrak{S} 34'26	0°-29'-45
min. Earth dist.	3748 Aug 21 03:24	0° \mathfrak{M} 11'13	0.29080 AU	minimum elong	3751 Jan 12 23:22	22° \mathfrak{S} 10'49	0°29'24
	3748 Aug 21 10:33	30° \mathcal{R} Ω			3751 Jan 19 04:33	0° \approx	

	3751 Feb 12 00:59	0° H			3753 Oct 02 22:31	0° m	
evening rise	3751 Feb 23 10:18	14° H 18'23		asc. node	3753 Oct 08 14:17	6° m 29'38	
	3751 Mar 07 22:43	0° Y			3753 Oct 28 14:42	0° L	
	3751 Mar 31 23:49	0° B			3753 Nov 22 10:01	0° M	
asc. node	3751 Apr 23 19:11	28° B 11'07			3753 Dec 16 17:30	0° J	
	3751 Apr 25 06:40	0° II			3754 Jan 09 18:43	0° Z	
	3751 May 19 21:47	0° S		desc. node	3754 Jan 28 04:20	23° Z 03'41	
	3751 Jun 14 00:38	0° Q			3754 Feb 02 16:59	0° \approx	
	3751 Jul 09 21:56	0° m		morning set	3754 Feb 18 00:10	19° \approx 12'53	
	3751 Aug 06 06:34	0° L			3754 Feb 26 14:17	0° H	
desc. node	3751 Aug 13 09:14	7° L 20'43			3754 Mar 22 12:11	0° Y	
evening max el	3751 Aug 23 01:44	16° L 53'58	45°40'14				
	3751 Sep 06 18:07	0° M		superior conj	3754 Mar 30 22:44	10° Y 33'49	-1°-25'-46
greatest brilliancy	3751 Sep 29 17:27	14° M 28'34	-4.5m	minimum elong	3754 Mar 31 02:04	10° Y 44'13	1°25'45
retrograde	3751 Oct 10 21:34	16° M 42'32		max. Earth dist.	3754 Apr 03 21:00	15° Y 28'31	1.71774 AU
evening set	3751 Oct 27 19:56	11° M 17'15			3754 Apr 15 12:17	0° B	
inferior conj	3751 Oct 31 22:00	8° M 49'35	-7°-10'-38	evening rise	3754 May 09 15:09	29° B 57'32	
minimum elong	3751 Nov 01 07:48	8° M 34'31	7°08'55		3754 May 09 15:56	0° II	
min. Earth dist.	3751 Nov 01 21:30	8° M 13'27	0.27861 AU	asc. node	3754 May 21 07:10	14° II 22'24	
morning rise	3751 Nov 05 19:11	5° M 53'26			3754 Jun 02 23:56	0° S	
direct	3751 Nov 22 00:56	0° M 45'51			3754 Jun 27 12:42	0° Q	
asc. node	3751 Dec 04 11:52	3° M 37'49			3754 Jul 22 07:15	0° m	
greatest brilliancy	3751 Dec 06 09:53	4° M 30'54	-4.6m		3754 Aug 16 10:02	0° L	
	3752 Jan 07 18:38	0° J		desc. node	3754 Sep 09 20:59	28° L 36'55	
morning max el	3752 Jan 11 16:59	3° J 56'14	46°52'04		3754 Sep 11 01:47	0° M	
	3752 Feb 04 19:47	0° Z			3754 Oct 07 15:55	0° J	
	3752 Mar 01 15:59	0° \approx		evening max el	3754 Nov 04 01:08	28° J 43'02	46°38'43
desc. node	3752 Mar 25 02:03	28° \approx 02'54			3754 Nov 05 08:36	0° Z	
	3752 Mar 26 16:48	0° H		greatest brilliancy	3754 Dec 12 15:46	28° Z 11'47	-4.6m
	3752 Apr 20 09:26	0° Y			3754 Dec 18 12:14	0° \approx	
	3752 May 14 22:55	0° B		retrograde	3754 Dec 24 01:18	0° \approx 35'37	
	3752 Jun 08 11:37	0° II			3754 Dec 29 10:58	30° R Z	
	3752 Jul 02 23:58	0° S		asc. node	3754 Dec 31 23:44	29° Z 18'44	
morning set	3752 Jul 14 18:00	14° S 23'41		evening set	3755 Jan 07 10:02	26° Z 30'49	
asc. node	3752 Jul 16 04:48	16° S 10'19		inferior conj	3755 Jan 13 14:02	22° Z 54'16	3°12'59
	3752 Jul 27 11:16	0° Q		minimum elong	3755 Jan 13 07:02	23° Z 04'59	3°10'49
max. Earth dist.	3752 Aug 18 12:21	27° Q 06'31	1.73397 AU	min. Earth dist.	3755 Jan 13 07:56	23° Z 03'37	0.26542 AU
				morning rise	3755 Jan 19 04:05	19° Z 36'58	
superior conj	3752 Aug 20 07:22	29° Q 19'01	1°11'00	direct	3755 Feb 03 01:09	15° Z 15'14	
minimum elong	3752 Aug 19 23:07	28° Q 53'36	1°10'46	greatest brilliancy	3755 Feb 14 19:23	17° Z 50'13	-4.7m
	3752 Aug 20 20:40	0° m			3755 Mar 05 19:46	0° \approx	
	3752 Sep 14 04:08	0° L		morning max el	3755 Mar 25 09:25	17° \approx 58'15	46°49'31
evening rise	3752 Sep 25 10:55	13° L 56'49			3755 Apr 06 00:28	0° H	
	3752 Oct 08 10:30	0° M		desc. node	3755 Apr 22 13:55	18° H 07'16	
	3752 Nov 01 16:45	0° J			3755 May 03 01:51	0° Y	
desc. node	3752 Nov 04 18:52	3° J 48'58			3755 May 28 22:00	0° B	
	3752 Nov 25 23:34	0° Z			3755 Jun 23 05:50	0° II	
	3752 Dec 20 07:38	0° \approx			3755 Jul 18 06:48	0° S	
	3753 Jan 13 19:18	0° H			3755 Aug 12 02:05	0° Q	
	3753 Feb 07 16:26	0° Y		asc. node	3755 Aug 13 16:33	1° Q 56'55	
asc. node	3753 Feb 25 21:23	21° Y 19'42			3755 Sep 05 15:32	0° m	
	3753 Mar 05 12:11	0° B		morning set	3755 Sep 21 20:04	19° m 55'53	
evening max el	3753 Mar 30 22:02	27° B 12'25	46°29'26		3755 Sep 29 23:33	0° L	
	3753 Apr 02 17:55	0° II			3755 Oct 24 03:26	0° M	
greatest brilliancy	3753 May 05 05:17	25° II 19'30	-4.6m	max. Earth dist.	3755 Oct 25 16:25	1° M 55'07	1.72272 AU
retrograde	3753 May 19 20:13	29° II 07'39					
evening set	3753 Jun 04 02:02	24° II 33'15		superior conj	3755 Oct 28 19:33	5° M 49'03	1°11'43
inferior conj	3753 Jun 10 03:14	20° II 53'54	1°45'27	minimum elong	3755 Oct 29 04:34	6° M 17'08	1°11'29
minimum elong	3753 Jun 10 07:05	20° II 47'52	1°44'18		3755 Nov 17 04:50	0° J	
min. Earth dist.	3753 Jun 09 22:57	21° II 00'37	0.28537 AU	desc. node	3755 Dec 03 06:51	20° J 05'56	
morning rise	3753 Jun 16 12:41	17° II 04'35		evening rise	3755 Dec 06 19:51	24° J 31'35	
desc. node	3753 Jun 17 11:30	16° II 34'15			3755 Dec 11 04:53	0° Z	
direct	3753 Jul 01 12:05	12° II 44'19			3756 Jan 04 04:18	0° \approx	
greatest brilliancy	3753 Jul 14 02:51	15° II 33'40	-4.5m		3756 Jan 28 04:11	0° H	
	3753 Aug 05 07:18	0° S			3756 Feb 21 06:54	0° Y	
morning max el	3753 Aug 19 05:50	12° S 28'01	45°42'25		3756 Mar 16 16:24	0° B	
	3753 Sep 05 16:08	0° Q		asc. node	3756 Mar 25 09:17	10° B 34'08	

	3756 Apr 10 14:38	0°♊			3758 Sep 19 22:05	0°♎	
	3756 May 06 11:42	0°♌			3758 Oct 14 13:01	0°♍	
	3756 Jun 03 08:40	0°♎			3758 Nov 07 19:28	0°♌	
evening max el	3756 Jun 09 13:09	6°♎07'21	45°35'36	greatest brilliancy	3758 Dec 01 04:24	29°♌09'27	-3.9m
	3756 Jul 09 00:21	0°♎		morning set	3758 Dec 01 10:15	29°♌27'44	
greatest brilliancy	3756 Jul 14 10:07	2°♎50'06	-4.5m		3758 Dec 01 20:34	0°♎	
desc. node	3756 Jul 14 23:26	3°♎05'07			3758 Dec 25 18:42	0°♌	
retrograde	3756 Jul 28 08:11	6°♎14'19		desc. node	3758 Dec 30 18:35	6°♌16'28	
evening set	3756 Aug 13 21:10	1°♎03'53		max. Earth dist.	3759 Jan 09 22:54	19°♌04'18	1.71169 AU
	3756 Aug 15 16:25	30°♎♎					
inferior conj	3756 Aug 18 21:29	28°♎00'39	-7°-2'-31	superior conj	3759 Jan 10 17:18	20°♌02'09	0°-25'-59
minimum elong	3756 Aug 18 12:06	28°♎15'21	7°00'57	minimum elong	3759 Jan 10 10:40	19°♌41'17	0°25'40
min. Earth dist.	3756 Aug 18 19:28	28°♎03'49	0.29086 AU		3759 Jan 18 15:25	0°♌	
morning rise	3756 Aug 23 02:55	25°♎24'22			3759 Feb 11 11:54	0°♎	
direct	3756 Sep 09 12:04	19°♎42'39		evening rise	3759 Feb 20 20:34	11°♎45'42	
greatest brilliancy	3756 Sep 23 13:06	23°♎08'50	-4.5m		3759 Mar 07 09:40	0°♎	
	3756 Oct 05 02:37	0°♎			3759 Mar 31 10:51	0°♎	
morning max el	3756 Oct 28 20:35	20°♎28'18	46°08'06	asc. node	3759 Apr 22 21:20	27°♎43'17	
asc. node	3756 Nov 05 02:08	27°♎45'04			3759 Apr 24 17:53	0°♊	
	3756 Nov 07 06:12	0°♌			3759 May 19 09:26	0°♌	
	3756 Dec 04 10:18	0°♌			3759 Jun 13 13:05	0°♎	
	3756 Dec 29 20:05	0°♎			3759 Jul 09 12:00	0°♎	
	3757 Jan 23 11:27	0°♌			3759 Aug 06 00:26	0°♌	
desc. node	3757 Feb 16 18:21	0°♌		desc. node	3759 Aug 12 11:13	6°♌36'19	
	3757 Feb 24 16:13	9°♌49'08		evening max el	3759 Aug 20 17:17	14°♌42'33	45°39'03
	3757 Mar 12 21:38	0°♎			3759 Sep 07 03:43	0°♌	
	3757 Apr 06 00:05	0°♎		greatest brilliancy	3759 Sep 27 05:17	12°♌10'59	-4.5m
	3757 Apr 30 03:32	0°♎		retrograde	3759 Oct 08 11:49	14°♌26'38	
morning set	3757 May 04 01:50	4°♎52'25		evening set	3759 Oct 25 13:09	8°♌56'47	
	3757 May 24 09:02	0°♊		inferior conj	3759 Oct 29 12:27	6°♌32'47	-7°-22'-22
				minimum elong	3759 Oct 29 21:56	6°♌18'10	7°20'49
superior conj	3757 Jun 11 01:41	21°♊50'21	0°-16'00	min. Earth dist.	3759 Oct 30 11:20	5°♌57'33	0.27929 AU
minimum elong	3757 Jun 11 05:09	22°♊01'03	0°15'51	morning rise	3759 Nov 03 06:19	3°♌41'14	
behind sun begin	3757 Jun 11 02:55	21°♊54'08			3759 Nov 11 00:54	30°♎♌	
behind sun end	3757 Jun 11 07:24	22°♊07'59		direct	3759 Nov 19 16:43	28°♌28'20	
max. Earth dist.	3757 Jun 12 21:49	24°♊06'20	1.73197 AU		3759 Nov 28 15:33	0°♌	
asc. node	3757 Jun 17 18:59	0°♌07'09		asc. node	3759 Dec 03 13:51	1°♌59'33	
	3757 Jun 17 16:40	0°♌		greatest brilliancy	3759 Dec 04 01:01	2°♌12'58	-4.6m
	3757 Jul 12 01:56	0°♎			3760 Jan 07 17:35	0°♎	
evening rise	3757 Jul 17 22:04	7°♎10'19		morning max el	3760 Jan 09 08:16	1°♎37'40	46°50'53
	3757 Aug 05 12:30	0°♎			3760 Feb 04 12:02	0°♌	
	3757 Aug 30 00:49	0°♌			3760 Mar 01 05:51	0°♌	
desc. node	3757 Sep 23 16:04	0°♌		desc. node	3760 Mar 24 04:07	27°♌30'41	
	3757 Oct 07 09:02	16°♌36'16			3760 Mar 26 05:27	0°♎	
	3757 Oct 18 11:41	0°♎			3760 Apr 19 21:19	0°♎	
	3757 Nov 12 13:33	0°♌			3760 May 14 10:16	0°♎	
	3757 Dec 08 02:38	0°♌			3760 Jun 07 22:34	0°♊	
	3758 Jan 03 18:34	0°♎			3760 Jul 02 10:40	0°♌	
evening max el	3758 Jan 15 15:12	12°♎28'34	47°13'19	morning set	3760 Jul 12 11:41	12°♌18'14	
asc. node	3758 Jan 28 11:34	24°♎55'19		asc. node	3760 Jul 15 06:42	15°♌43'41	
	3758 Feb 03 06:32	0°♎			3760 Jul 26 21:49	0°♎	
greatest brilliancy	3758 Feb 22 17:39	13°♎02'48	-4.7m	max. Earth dist.	3760 Aug 16 09:03	25°♎10'05	1.73414 AU
retrograde	3758 Mar 07 13:06	16°♎07'16					
evening set	3758 Mar 25 15:17	9°♎49'15		superior conj	3760 Aug 18 01:37	27°♎14'59	1°09'12
inferior conj	3758 Mar 28 10:35	8°♎05'12	8°54'04	minimum elong	3760 Aug 17 17:08	26°♎48'52	1°08'57
minimum elong	3758 Mar 28 12:57	8°♎01'30	8°53'59		3760 Aug 20 07:11	0°♎	
min. Earth dist.	3758 Mar 28 00:05	8°♎21'34	0.27554 AU		3760 Sep 13 14:43	0°♌	
morning rise	3758 Mar 31 10:43	6°♎13'57		evening rise	3760 Sep 23 04:14	11°♌49'03	
direct	3758 Apr 18 03:33	0°♎12'03			3760 Oct 07 21:14	0°♌	
greatest brilliancy	3758 Apr 29 05:12	2°♎26'57	-4.6m		3760 Nov 01 03:44	0°♎	
desc. node	3758 May 20 01:44	15°♎28'54		desc. node	3760 Nov 03 21:00	3°♎21'34	
	3758 Jun 05 08:28	0°♎			3760 Nov 25 10:54	0°♌	
morning max el	3758 Jun 06 14:00	1°♎11'19	46°05'53		3760 Dec 19 19:27	0°♌	
	3758 Jul 04 07:09	0°♊			3761 Jan 13 07:47	0°♎	
	3758 Jul 31 01:07	0°♌			3761 Feb 07 06:05	0°♎	
	3758 Aug 25 19:23	0°♎		asc. node	3761 Feb 24 23:23	20°♎41'58	
asc. node	3758 Sep 10 04:25	18°♎17'20			3761 Mar 05 04:15	0°♎	

evening max el	3761 Mar 28 13:55	24°♄58'05	46°31'30		3763 Oct 23 14:10	0°♍	
	3761 Apr 02 17:11	0°♈					
greatest brilliancy	3761 May 02 23:41	23°♈10'14	-4.6m	superior conj	3763 Oct 26 11:05	3°♍34'29	1°13'32
retrograde	3761 May 17 12:14	26°♈55'24		minimum elong	3763 Oct 26 19:42	4°♍01'20	1°13'18
evening set	3761 Jun 01 19:36	22°♈19'19			3763 Nov 16 15:41	0°♌	
inferior conj	3761 Jun 07 19:02	18°♈42'08	2°05'46	desc. node	3763 Dec 02 08:48	19°♌37'52	
minimum elong	3761 Jun 07 23:35	18°♈34'59	2°04'25	evening rise	3763 Dec 04 08:33	22°♌07'05	
min. Earth dist.	3761 Jun 07 14:59	18°♈48'28	0.28506 AU		3763 Dec 10 15:52	0°♋	
morning rise	3761 Jun 14 04:07	14°♈53'04			3764 Jan 03 15:27	0°♌	
desc. node	3761 Jun 16 13:27	13°♈39'44			3764 Jan 27 15:32	0°♌	
direct	3761 Jun 29 03:46	10°♈33'14			3764 Feb 20 18:31	0°♍	
greatest brilliancy	3761 Jul 11 15:40	13°♈19'37	-4.5m		3764 Mar 16 04:30	0°♄	
	3761 Aug 05 13:00	0°♋		asc. node	3764 Mar 24 11:27	10°♄03'24	
morning max el	3761 Aug 16 20:55	10°♋16'32	45°42'18		3764 Apr 10 03:38	0°♈	
	3761 Sep 05 09:15	0°♎			3764 May 06 02:37	0°♋	
	3761 Oct 02 12:17	0°♏			3764 Jun 03 04:49	0°♎	
asc. node	3761 Oct 07 16:23	5°♏57'04		evening max el	3764 Jun 07 04:09	3°♎54'18	45°36'38
	3761 Oct 28 03:02	0°♌			3764 Jul 10 16:06	0°♏	
	3761 Nov 21 21:38	0°♍		greatest brilliancy	3764 Jul 11 23:11	0°♏37'11	-4.5m
	3761 Dec 16 04:45	0°♌		desc. node	3764 Jul 14 01:27	1°♏31'44	
	3762 Jan 09 05:46	0°♋		retrograde	3764 Jul 26 00:34	4°♏05'32	
desc. node	3762 Jan 27 06:21	22°♋35'39			3764 Aug 09 14:03	30°♎♌	
	3762 Feb 02 03:55	0°♌		evening set	3764 Aug 11 10:20	28°♎58'50	
morning set	3762 Feb 15 10:16	16°♌39'46		inferior conj	3764 Aug 16 13:45	25°♎51'23	-6°-50'-41
	3762 Feb 26 01:07	0°♌		minimum elong	3764 Aug 16 04:10	26°♎06'22	6°49'01
	3762 Mar 21 22:58	0°♍		min. Earth dist.	3764 Aug 16 11:05	25°♎55'33	0.29090 AU
				morning rise	3764 Aug 20 21:53	23°♎11'20	
superior conj	3762 Mar 28 10:44	8°♍07'31	-1°-26'-14	direct	3764 Sep 07 04:03	17°♎33'12	
minimum elong	3762 Mar 28 13:04	8°♍14'50	1°26'15	greatest brilliancy	3764 Sep 21 05:45	20°♎59'59	-4.5m
max. Earth dist.	3762 Apr 01 09:13	13°♍02'58	1.71726 AU		3764 Oct 05 18:05	0°♏	
	3762 Apr 14 23:02	0°♄		morning max el	3764 Oct 26 12:11	18°♏15'10	46°06'42
evening rise	3762 May 07 05:04	27°♄38'40		asc. node	3764 Nov 04 04:10	27°♏00'13	
	3762 May 09 02:43	0°♈			3764 Nov 07 00:56	0°♌	
asc. node	3762 May 20 09:10	13°♈55'16			3764 Dec 04 01:00	0°♍	
	3762 Jun 02 10:48	0°♋			3764 Dec 29 09:09	0°♌	
	3762 Jun 26 23:46	0°♎			3765 Jan 22 23:42	0°♋	
	3762 Jul 21 18:45	0°♏			3765 Feb 16 06:06	0°♌	
	3762 Aug 15 22:20	0°♌		desc. node	3765 Feb 23 18:16	9°♌19'22	
desc. node	3762 Sep 08 23:07	28°♌03'45			3765 Mar 12 09:03	0°♌	
	3762 Sep 10 15:31	0°♍			3765 Apr 05 11:14	0°♍	
	3762 Oct 07 08:32	0°♌			3765 Apr 29 14:29	0°♄	
evening max el	3762 Nov 01 13:58	26°♌19'21	46°36'32	morning set	3765 May 01 16:31	2°♄35'15	
	3762 Nov 05 09:06	0°♋			3765 May 23 19:49	0°♈	
greatest brilliancy	3762 Dec 10 06:23	25°♋46'57	-4.6m				
retrograde	3762 Dec 21 13:02	28°♋08'18		superior conj	3765 Jun 08 18:17	19°♈40'28	0°-19'-16
asc. node	3762 Dec 31 01:43	26°♋18'15		minimum elong	3765 Jun 08 22:27	19°♈53'20	0°19'05
evening set	3763 Jan 04 21:28	24°♋05'06		max. Earth dist.	3765 Jun 10 16:44	22°♈03'39	1.73166 AU
inferior conj	3763 Jan 11 02:32	20°♋27'35	2°49'47	asc. node	3765 Jun 16 20:56	29°♈40'07	
minimum elong	3763 Jan 10 20:17	20°♋37'09	2°47'51		3765 Jun 17 03:24	0°♋	
min. Earth dist.	3763 Jan 10 22:12	20°♋34'13	0.26540 AU		3765 Jul 11 12:42	0°♎	
morning rise	3763 Jan 16 18:59	17°♋06'47		evening rise	3765 Jul 15 16:34	5°♎06'39	
direct	3763 Jan 31 13:11	12°♋48'12			3765 Aug 04 23:26	0°♏	
greatest brilliancy	3763 Feb 12 11:04	15°♋26'30	-4.7m		3765 Aug 29 12:03	0°♌	
	3763 Mar 06 06:50	0°♌			3765 Sep 23 03:45	0°♍	
morning max el	3763 Mar 22 21:37	15°♌31'19	46°50'36	desc. node	3765 Oct 06 11:07	16°♍06'14	
	3763 Apr 05 19:22	0°♌			3765 Oct 18 00:02	0°♌	
desc. node	3763 Apr 21 16:04	17°♌28'08			3765 Nov 12 02:59	0°♋	
	3763 May 02 16:43	0°♍			3765 Dec 07 17:56	0°♌	
	3763 May 28 11:04	0°♄			3766 Jan 03 13:57	0°♌	
	3763 Jun 22 17:53	0°♈		evening max el	3766 Jan 13 05:55	10°♌06'29	47°13'32
	3763 Jul 17 18:14	0°♋		asc. node	3766 Jan 27 13:40	23°♌52'30	
	3763 Aug 11 13:06	0°♎			3766 Feb 03 18:45	0°♍	
asc. node	3763 Aug 12 18:37	1°♎29'45		greatest brilliancy	3766 Feb 20 07:52	10°♍39'12	-4.7m
	3763 Sep 05 02:19	0°♏		retrograde	3766 Mar 05 03:51	13°♍44'04	
morning set	3763 Sep 19 13:02	17°♏46'58		evening set	3766 Mar 23 05:26	7°♍25'44	
	3763 Sep 29 10:14	0°♌		min. Earth dist.	3766 Mar 25 12:51	6°♍00'17	0.27511 AU
max. Earth dist.	3763 Oct 23 08:45	29°♌43'07	1.72323 AU	inferior conj	3766 Mar 26 00:22	5°♍42'22	8°56'27

minimum elong	3766 Mar 26 01:52	5°Υ40'03	8°56'26		3768 Aug 19 18:02	0°Π	
morning rise	3766 Mar 28 22:25	3°Υ54'33			3768 Sep 13 01:38	0°Δ	
	3766 Apr 05 09:58	30°RΗ		evening rise	3768 Sep 20 21:39	9°Δ40'37	
direct	3766 Apr 15 17:11	27°Η49'55			3768 Oct 07 08:21	0°Π	
greatest brilliancy	3766 Apr 26 17:19	0°Υ04'04	-4.6m		3768 Oct 31 15:10	0°Σ	
	3766 Apr 26 13:04	0°Υ		desc. node	3768 Nov 02 22:56	2°Σ52'10	
desc. node	3766 May 19 03:37	14°Υ22'27			3768 Nov 24 22:43	0°Θ	
morning max el	3766 Jun 04 05:16	28°Υ56'01	46°07'25		3768 Dec 19 07:45	0°≈	
	3766 Jun 05 07:31	0°Σ			3769 Jan 12 20:46	0°Η	
	3766 Jul 03 23:12	0°Π			3769 Feb 06 20:16	0°Υ	
	3766 Jul 30 14:38	0°Θ		asc. node	3769 Feb 24 01:30	20°Υ03'05	
	3766 Aug 25 07:40	0°Ω			3769 Mar 04 21:01	0°Σ	
asc. node	3766 Sep 09 06:31	17°Ω48'04		evening max el	3769 Mar 26 04:41	22°Σ39'45	46°33'37
	3766 Sep 19 09:44	0°Π			3769 Apr 02 18:01	0°Π	
	3766 Oct 14 00:20	0°Δ		greatest brilliancy	3769 Apr 30 18:00	20°Π59'36	-4.6m
	3766 Nov 07 06:37	0°Π		retrograde	3769 May 15 03:46	24°Π42'04	
morning set	3766 Nov 28 23:47	27°Π05'20		evening set	3769 May 30 13:17	20°Π03'57	
	3766 Dec 01 07:38	0°Σ		inferior conj	3769 Jun 05 10:50	16°Π29'17	2°25'52
	3766 Dec 25 05:46	0°Θ		minimum elong	3769 Jun 05 16:04	16°Π21'04	2°24'20
desc. node	3766 Dec 29 20:34	5°Θ47'57		min. Earth dist.	3769 Jun 05 07:19	16°Π34'49	0.28475 AU
max. Earth dist.	3767 Jan 07 08:03	16°Θ27'14	1.71185 AU	morning rise	3769 Jun 11 19:21	12°Π40'37	
				desc. node	3769 Jun 15 15:31	10°Π47'34	
superior conj	3767 Jan 08 03:41	17°Θ29'00	0°-22'-9	direct	3769 Jun 26 19:03	8°Π20'55	
minimum elong	3767 Jan 07 21:59	17°Θ11'04	0°21'54	greatest brilliancy	3769 Jul 09 05:24	11°Π05'21	-4.5m
	3767 Jan 18 02:32	0°≈			3769 Aug 05 17:14	0°Θ	
	3767 Feb 10 23:04	0°Η		morning max el	3769 Aug 14 11:20	8°Θ02'21	45°42'22
evening rise	3767 Feb 18 06:49	9°Η12'04			3769 Sep 05 02:22	0°Ω	
	3767 Mar 06 20:55	0°Υ			3769 Oct 02 02:14	0°Π	
	3767 Mar 30 22:11	0°Σ		asc. node	3769 Oct 06 18:24	5°Π23'28	
asc. node	3767 Apr 21 23:18	27°Σ13'56			3769 Oct 27 15:37	0°Δ	
	3767 Apr 24 05:27	0°Π			3769 Nov 21 09:35	0°Π	
	3767 May 18 21:25	0°Θ			3769 Dec 15 16:24	0°Σ	
	3767 Jun 13 01:53	0°Ω			3770 Jan 08 17:15	0°Θ	
	3767 Jul 09 02:31	0°Π		desc. node	3770 Jan 26 08:30	22°Θ06'44	
	3767 Aug 05 19:09	0°Δ			3770 Feb 01 15:16	0°≈	
desc. node	3767 Aug 11 13:18	5°Δ50'27		morning set	3770 Feb 12 19:52	14°≈03'39	
evening max el	3767 Aug 18 08:24	12°Δ29'01	45°37'38		3770 Feb 25 12:22	0°Η	
	3767 Sep 07 17:24	0°Π			3770 Mar 21 10:06	0°Υ	
greatest brilliancy	3767 Sep 24 17:57	9°Π52'52	-4.5m				
retrograde	3767 Oct 06 01:24	12°Π09'00		superior conj	3770 Mar 25 22:23	5°Υ38'57	-1°-26'-33
evening set	3767 Oct 23 06:10	6°Π34'52		minimum elong	3770 Mar 25 23:42	5°Υ43'07	1°26'35
inferior conj	3767 Oct 27 02:46	4°Π14'24	-7°-33'-20	max. Earth dist.	3770 Mar 29 19:05	10°Υ28'57	1.71673 AU
minimum elong	3767 Oct 27 11:52	4°Π00'21	7°31'57		3770 Apr 14 10:08	0°Σ	
min. Earth dist.	3767 Oct 28 01:13	3°Π39'45	0.27997 AU	evening rise	3770 May 04 18:45	25°Σ18'02	
morning rise	3767 Oct 31 17:12	1°Π27'25			3770 May 08 13:50	0°Π	
	3767 Nov 03 08:43	30°RΔ		asc. node	3770 May 19 11:09	13°Π27'06	
direct	3767 Nov 17 08:07	26°Δ09'14			3770 Jun 01 21:59	0°Θ	
greatest brilliancy	3767 Dec 01 15:47	29°Δ52'54	-4.6m		3770 Jun 26 11:11	0°Ω	
	3767 Dec 01 21:34	0°Π			3770 Jul 21 06:36	0°Π	
asc. node	3767 Dec 02 15:49	0°Π22'58			3770 Aug 15 11:00	0°Δ	
morning max el	3768 Jan 06 22:25	29°Π14'51	46°49'48	desc. node	3770 Sep 08 01:10	27°Δ29'23	
	3768 Jan 07 16:10	0°Σ			3770 Sep 10 05:41	0°Π	
	3768 Feb 04 04:26	0°Θ			3770 Oct 07 01:45	0°Σ	
	3768 Feb 29 19:57	0°≈		evening max el	3770 Oct 30 02:07	23°Σ53'23	46°34'15
desc. node	3768 Mar 23 06:14	26°≈57'47			3770 Nov 05 11:15	0°Θ	
	3768 Mar 25 18:21	0°Η		greatest brilliancy	3770 Dec 07 19:54	23°Θ19'41	-4.6m
	3768 Apr 19 09:28	0°Υ		retrograde	3770 Dec 19 00:50	25°Θ39'44	
	3768 May 13 21:55	0°Σ		asc. node	3770 Dec 30 03:50	23°Θ10'37	
	3768 Jun 07 09:51	0°Π		evening set	3771 Jan 02 08:56	21°Θ37'20	
	3768 Jul 01 21:42	0°Θ		inferior conj	3771 Jan 08 14:50	17°Θ59'14	2°26'09
morning set	3768 Jul 10 05:29	10°Θ12'07		minimum elong	3771 Jan 08 09:22	18°Θ07'34	2°24'26
asc. node	3768 Jul 14 08:50	15°Θ16'42		min. Earth dist.	3771 Jan 08 12:11	18°Θ03'16	0.26548 AU
	3768 Jul 26 08:43	0°Ω		morning rise	3771 Jan 14 09:35	14°Θ35'23	
max. Earth dist.	3768 Aug 14 04:54	23°Ω10'07	1.73430 AU	direct	3771 Jan 29 01:13	10°Θ19'12	
				greatest brilliancy	3771 Feb 10 03:19	13°Θ01'52	-4.7m
superior conj	3768 Aug 15 20:01	25°Ω10'31	1°07'18		3771 Mar 06 15:38	0°≈	
minimum elong	3768 Aug 15 11:22	24°Ω43'52	1°07'03	morning max el	3771 Mar 20 10:31	13°≈04'37	46°51'44

	3771 Apr 05 14:16	0° H			3773 Oct 17 12:24	0° J	
desc. node	3771 Apr 20 18:00	16° H 47'35			3773 Nov 11 16:27	0° Z	
	3771 May 02 07:46	0° Y			3773 Dec 07 09:19	0° \approx	
	3771 May 28 00:20	0° B			3774 Jan 03 09:43	0° H	
	3771 Jun 22 06:08	0° II	evening max el		3774 Jan 10 21:08	7° H 46'14	47°13'34
	3771 Jul 17 05:50	0° S	asc. node		3774 Jan 26 15:42	22° H 48'30	
asc. node	3771 Aug 11 00:18	0° Q			3774 Feb 04 10:45	0° Y	
	3771 Aug 11 20:42	1° Q 02'01	greatest brilliancy		3774 Feb 17 22:31	8° Y 16'37	-4.7m
	3771 Sep 04 13:17	0° M	retrograde		3774 Mar 02 18:33	11° Y 20'56	
morning set	3771 Sep 17 06:17	15° M 38'25	evening set		3774 Mar 20 19:04	5° Y 03'14	
	3771 Sep 28 21:08	0° L	min. Earth dist.		3774 Mar 23 01:26	3° Y 39'24	0.27471 AU
max. Earth dist.	3771 Oct 21 03:10	27° L 37'11	inferior conj		3774 Mar 23 14:07	3° Y 19'42	8°57'57
	3771 Oct 23 01:05	0° M	minimum elong		3774 Mar 23 14:41	3° Y 18'48	8°57'57
			morning rise		3774 Mar 26 10:28	1° Y 34'34	
superior conj	3771 Oct 24 03:00	1° M 20'40	1°15'11		3774 Mar 29 03:35	30° R H	
minimum elong	3771 Oct 24 11:10	1° M 46'07	1°15'00	direct	3774 Apr 13 07:08	25° H 28'08	
	3771 Nov 16 02:41	0° J		greatest brilliancy	3774 Apr 24 04:50	27° H 40'34	-4.6m
desc. node	3771 Dec 01 10:51	19° J 09'40			3774 Apr 29 07:27	0° Y	
evening rise	3771 Dec 01 21:40	19° J 43'28		desc. node	3774 May 18 05:43	13° Y 18'17	
	3771 Dec 10 03:01	0° Z		morning max el	3774 Jun 01 20:10	26° Y 39'48	46°08'49
	3772 Jan 03 02:47	0° \approx			3774 Jun 05 05:36	0° B	
	3772 Jan 27 03:07	0° H			3774 Jul 03 14:57	0° II	
	3772 Feb 20 06:26	0° Y			3774 Jul 30 03:57	0° S	
	3772 Mar 15 16:56	0° B			3774 Aug 24 19:46	0° Q	
asc. node	3772 Mar 23 13:22	9° B 30'58		asc. node	3774 Sep 08 08:29	17° Q 18'58	
	3772 Apr 09 16:59	0° II			3774 Sep 18 21:10	0° M	
	3772 May 05 17:58	0° S			3774 Oct 13 11:25	0° L	
	3772 Jun 03 01:50	0° Q			3774 Nov 06 17:32	0° M	
evening max el	3772 Jun 04 19:49	1° Q 42'26	45°37'59	morning set	3774 Nov 26 13:33	24° M 44'19	
greatest brilliancy	3772 Jul 09 12:33	28° Q 24'30	-4.5m		3774 Nov 30 18:30	0° J	
desc. node	3772 Jul 13 03:33	29° Q 54'59			3774 Dec 24 16:39	0° Z	
	3772 Jul 13 09:05	0° M		desc. node	3774 Dec 28 22:43	5° Z 20'31	
retrograde	3772 Jul 23 17:26	1° M 56'37		max. Earth dist.	3775 Jan 04 14:26	13° Z 42'15	1.71199 AU
	3772 Aug 02 14:48	30° R Q					
evening set	3772 Aug 08 23:43	26° Q 53'34		superior conj	3775 Jan 05 14:31	14° Z 57'55	0°-18'-19
inferior conj	3772 Aug 14 06:04	23° Q 41'56	-6°-38'-24	minimum elong	3775 Jan 05 09:46	14° Z 43'02	0°18'06
minimum elong	3772 Aug 13 20:20	23° Q 57'10	6°36'36		3775 Jan 17 13:26	0° \approx	
min. Earth dist.	3772 Aug 14 02:27	23° Q 47'37	0.29090 AU		3775 Feb 10 10:00	0° H	
morning rise	3772 Aug 18 16:54	20° Q 58'12		evening rise	3775 Feb 15 17:23	6° H 40'11	
direct	3772 Sep 04 20:33	15° Q 23'45			3775 Mar 06 07:52	0° Y	
greatest brilliancy	3772 Sep 18 22:00	18° Q 50'41	-4.5m		3775 Mar 30 09:16	0° B	
	3772 Oct 06 05:39	0° M		asc. node	3775 Apr 21 01:18	26° B 45'23	
morning max el	3772 Oct 24 04:29	16° M 03'56	46°05'20		3775 Apr 23 16:46	0° II	
asc. node	3772 Nov 03 06:05	26° M 15'38			3775 May 18 09:12	0° S	
	3772 Nov 06 19:13	0° L			3775 Jun 12 14:34	0° Q	
	3772 Dec 03 15:31	0° M			3775 Jul 08 16:59	0° M	
	3772 Dec 28 22:08	0° J			3775 Aug 05 14:05	0° L	
	3773 Jan 22 11:53	0° Z		desc. node	3775 Aug 10 15:21	5° L 04'32	
	3773 Feb 15 17:50	0° \approx		evening max el	3775 Aug 15 22:50	10° L 14'36	45°36'26
desc. node	3773 Feb 22 20:19	8° \approx 49'34			3775 Sep 08 11:06	0° M	
	3773 Mar 11 20:29	0° H		greatest brilliancy	3775 Sep 22 07:35	7° M 37'11	-4.5m
	3773 Apr 04 22:28	0° Y		retrograde	3775 Oct 03 14:54	9° M 53'12	
morning set	3773 Apr 29 06:44	0° B 16'10		evening set	3775 Oct 20 23:16	4° M 14'59	
	3773 Apr 29 01:31	0° B		inferior conj	3775 Oct 24 17:21	1° M 57'56	-7°-43'-23
	3773 May 23 06:42	0° II		minimum elong	3775 Oct 25 01:59	1° M 44'34	7°42'11
				min. Earth dist.	3775 Oct 25 15:33	1° M 23'35	0.28063 AU
superior conj	3773 Jun 06 10:22	17° II 28'44	0°-22'-33		3775 Oct 27 22:16	30° R L	
minimum elong	3773 Jun 06 15:14	17° II 43'44	0°22'21	morning rise	3775 Oct 29 04:21	29° L 15'30	
max. Earth dist.	3773 Jun 08 12:34	20° II 03'31	1.73130 AU	direct	3775 Nov 14 23:09	23° L 51'55	
asc. node	3773 Jun 15 23:02	29° II 13'24		greatest brilliancy	3775 Nov 29 07:04	27° L 34'58	-4.6m
	3773 Jun 16 14:10	0° S		asc. node	3775 Dec 01 17:59	28° L 51'21	
	3773 Jul 10 23:29	0° Q			3775 Dec 03 17:52	0° M	
evening rise	3773 Jul 13 10:47	3° Q 02'04		morning max el	3776 Jan 04 12:00	26° M 51'38	46°48'41
	3773 Aug 04 10:22	0° M			3776 Jan 07 13:30	0° J	
	3773 Aug 28 23:15	0° L			3776 Feb 03 20:12	0° Z	
	3773 Sep 22 15:25	0° M			3776 Feb 29 09:33	0° \approx	
desc. node	3773 Oct 05 13:02	15° M 35'48		desc. node	3776 Mar 22 08:08	26° \approx 25'35	

	3776 Mar 25 06:48	0° H		greatest brilliancy	3778 Dec 05 08:31	20° C 52'47	-4.6m
	3776 Apr 18 21:11	0° Y		retrograde	3778 Dec 16 13:12	23° C 12'39	
	3776 May 13 09:08	0° B		asc. node	3778 Dec 29 05:49	19° C 59'43	
	3776 Jun 06 20:45	0° II		evening set	3778 Dec 30 20:41	19° C 10'30	
	3776 Jul 01 08:23	0° C		inferior conj	3779 Jan 06 03:07	15° C 32'05	2°02'19
morning set	3776 Jul 07 23:10	8° C 06'40		minimum elong	3779 Jan 05 22:30	15° C 39'07	2°00'50
asc. node	3776 Jul 13 10:53	14° C 50'29		min. Earth dist.	3779 Jan 06 01:50	15° C 34'03	0.26559 AU
	3776 Jul 25 19:17	0° Q		morning rise	3779 Jan 12 00:04	12° C 05'37	
max. Earth dist.	3776 Aug 11 23:08	21° Q 06'08	1.73447 AU	direct	3779 Jan 26 13:42	7° C 51'27	
				greatest brilliancy	3779 Feb 07 18:56	10° C 37'52	-4.7m
superior conj	3776 Aug 13 14:19	23° Q 06'43	1°05'20		3779 Mar 06 21:30	0° \approx	
minimum elong	3776 Aug 13 05:33	22° Q 39'42	1°05'03	morning max el	3779 Mar 18 00:26	10° \approx 41'39	46°52'42
	3776 Aug 19 04:34	0° M			3779 Apr 05 08:18	0° H	
	3776 Sep 12 12:13	0° A		desc. node	3779 Apr 19 20:03	16° H 08'51	
evening rise	3776 Sep 18 15:01	7° A 33'09			3779 May 01 22:17	0° Y	
	3776 Oct 06 19:07	0° M			3779 May 27 13:10	0° B	
	3776 Oct 31 02:14	0° J			3779 Jun 21 17:58	0° II	
desc. node	3776 Nov 02 00:59	2° J 24'14			3779 Jul 16 17:03	0° C	
	3776 Nov 24 10:11	0° C			3779 Aug 10 11:07	0° Q	
	3776 Dec 18 19:44	0° \approx		asc. node	3779 Aug 10 22:39	0° Q 35'04	
	3777 Jan 12 09:29	0° H			3779 Sep 03 23:54	0° M	
	3777 Feb 06 10:13	0° Y		morning set	3779 Sep 14 23:34	13° M 31'05	
asc. node	3777 Feb 23 03:29	19° Y 24'37			3779 Sep 28 07:42	0° A	
	3777 Mar 04 13:39	0° B		max. Earth dist.	3779 Oct 18 20:59	25° A 30'16	1.72418 AU
evening max el	3777 Mar 23 18:38	20° B 20'31	46°35'49				
	3777 Apr 02 19:35	0° II		superior conj	3779 Oct 21 18:51	29° A 07'32	1°16'44
greatest brilliancy	3777 Apr 28 11:37	18° II 49'25	-4.6m	minimum elong	3779 Oct 22 02:32	29° A 31'28	1°16'34
retrograde	3777 May 12 19:24	22° II 30'30			3779 Oct 22 11:43	0° M	
evening set	3777 May 28 07:07	17° II 49'53			3779 Nov 15 13:25	0° J	
inferior conj	3777 Jun 03 02:44	14° II 18'06	2°45'40	evening rise	3779 Nov 29 10:37	17° J 20'11	
minimum elong	3777 Jun 03 08:36	14° II 08'51	2°43'58	desc. node	3779 Nov 30 12:58	18° J 42'28	
min. Earth dist.	3777 Jun 02 23:48	14° II 22'42	0.28446 AU		3779 Dec 09 13:54	0° C	
morning rise	3777 Jun 09 10:31	10° II 30'10			3780 Jan 02 13:50	0° \approx	
desc. node	3777 Jun 14 17:36	8° II 01'17			3780 Jan 26 14:25	0° H	
direct	3777 Jun 24 10:01	6° II 10'05			3780 Feb 19 18:05	0° Y	
greatest brilliancy	3777 Jul 06 20:09	8° II 53'48	-4.5m		3780 Mar 15 05:07	0° B	
	3777 Aug 05 19:13	0° C		asc. node	3780 Mar 22 15:22	8° B 59'31	
morning max el	3777 Aug 12 02:01	5° C 50'00	45°42'25		3780 Apr 09 06:10	0° II	
	3777 Sep 04 18:42	0° Q			3780 May 05 09:17	0° C	
	3777 Oct 01 15:40	0° M		evening max el	3780 Jun 02 12:21	29° C 33'26	45°39'22
asc. node	3777 Oct 05 20:22	4° M 51'03			3780 Jun 02 23:19	0° Q	
	3777 Oct 27 03:46	0° A		greatest brilliancy	3780 Jul 07 03:00	26° Q 14'03	-4.5m
	3777 Nov 20 21:06	0° M		desc. node	3780 Jul 12 05:32	28° Q 15'36	
	3777 Dec 15 03:35	0° J		retrograde	3780 Jul 21 10:19	29° Q 48'25	
	3778 Jan 08 04:17	0° C		evening set	3780 Aug 06 13:16	24° Q 49'12	
desc. node	3778 Jan 25 10:26	21° C 38'29		inferior conj	3780 Aug 11 22:24	21° Q 33'21	-6°-25'-37
	3778 Feb 01 02:12	0° \approx		minimum elong	3780 Aug 11 12:34	21° Q 48'43	6°23'42
morning set	3778 Feb 10 05:27	11° \approx 28'45		min. Earth dist.	3780 Aug 11 17:41	21° Q 40'44	0.29085 AU
	3778 Feb 24 23:12	0° H		morning rise	3780 Aug 16 11:54	18° Q 45'51	
	3778 Mar 20 20:52	0° Y		direct	3780 Sep 02 13:25	13° Q 15'26	
				greatest brilliancy	3780 Sep 16 13:01	16° Q 40'52	-4.5m
superior conj	3778 Mar 23 10:00	3° Y 11'26	-1°-26'-42		3780 Oct 06 13:45	0° M	
minimum elong	3778 Mar 23 10:18	3° Y 12'21	1°26'43	morning max el	3780 Oct 21 20:39	13° M 53'18	46°03'47
max. Earth dist.	3778 Mar 27 01:37	7° Y 45'39	1.71622 AU	asc. node	3780 Nov 02 08:16	25° M 33'02	
	3778 Apr 13 20:51	0° B			3780 Nov 06 12:50	0° A	
evening rise	3778 May 02 08:25	22° B 58'29			3780 Dec 03 05:42	0° M	
	3778 May 08 00:32	0° II			3780 Dec 28 10:54	0° J	
asc. node	3778 May 18 13:17	13° II 00'42			3781 Jan 21 23:55	0° C	
	3778 Jun 01 08:46	0° C			3781 Feb 15 05:25	0° \approx	
	3778 Jun 25 22:11	0° Q		desc. node	3781 Feb 21 22:19	8° \approx 20'06	
	3778 Jul 20 18:04	0° M			3781 Mar 11 07:46	0° H	
	3778 Aug 14 23:21	0° A			3781 Apr 04 09:30	0° Y	
desc. node	3778 Sep 07 03:05	26° A 55'25		morning set	3781 Apr 26 20:43	27° Y 56'52	
	3778 Sep 09 19:37	0° M			3781 Apr 28 12:22	0° B	
	3778 Oct 06 18:59	0° J			3781 May 22 17:26	0° II	
evening max el	3778 Oct 27 14:51	21° J 30'11	46°32'07				
	3778 Nov 05 14:28	0° C		superior conj	3781 Jun 04 02:18	15° II 16'46	0°-25'-50

minimum elong	3781 Jun 04 07:51	15° Π 33'52	0°25'35	minimum elong	3783 Oct 22 16:08	29° Ω 28'56	7°51'36
max. Earth dist.	3781 Jun 06 09:09	18° Π 05'59	1.73093 AU	min. Earth dist.	3783 Oct 23 06:09	29° Ω 07'12	0.28127 AU
asc. node	3781 Jun 15 01:05	28° Π 46'50		morning rise	3783 Oct 26 15:37	27° Ω 03'43	
	3781 Jun 16 00:50	0° Ω		direct	3783 Nov 12 13:48	21° Ω 34'28	
	3781 Jul 10 10:11	0° Ω		greatest brilliancy	3783 Nov 26 23:03	25° Ω 17'58	-4.6m
evening rise	3781 Jul 11 04:55	0° Ω 57'32		asc. node	3783 Nov 30 19:56	27° Ω 22'25	
	3781 Aug 03 21:11	0° Π			3783 Dec 05 00:07	0° Π	
	3781 Aug 28 10:22	0° Ω		morning max el	3784 Jan 02 01:23	24° Π 27'39	46°47'33
	3781 Sep 22 02:59	0° Π			3784 Jan 07 10:12	0° Ω	
desc. node	3781 Oct 04 15:10	15° Π 06'14			3784 Feb 03 11:54	0° Ω	
	3781 Oct 17 00:43	0° Ω			3784 Feb 28 23:16	0° \approx	
	3781 Nov 11 05:58	0° Ω		desc. node	3784 Mar 21 10:14	25° \approx 53'17	
	3781 Dec 07 00:57	0° \approx			3784 Mar 24 19:27	0° Π	
	3782 Jan 03 06:13	0° Π			3784 Apr 18 09:09	0° Π	
evening max el	3782 Jan 08 12:15	5° Π 25'21	47°13'24		3784 May 12 20:38	0° Ω	
asc. node	3782 Jan 25 17:40	21° Π 42'19			3784 Jun 06 07:54	0° Π	
	3782 Feb 05 08:37	0° Π			3784 Jun 30 19:19	0° Ω	
greatest brilliancy	3782 Feb 15 14:14	5° Π 54'37	-4.7m	morning set	3784 Jul 05 16:32	5° Ω 59'22	
retrograde	3782 Feb 28 08:45	8° Π 56'39		asc. node	3784 Jul 12 12:48	14° Ω 23'05	
evening set	3782 Mar 18 08:04	2° Π 40'42			3784 Jul 25 06:05	0° Ω	
min. Earth dist.	3782 Mar 20 14:05	1° Π 17'20	0.27424 AU	max. Earth dist.	3784 Aug 09 17:56	19° Ω 03'09	1.73464 AU
inferior conj	3782 Mar 21 03:39	0° Π 56'13	8°58'33				
minimum elong	3782 Mar 21 03:19	0° Π 56'44	8°58'33	superior conj	3784 Aug 11 08:28	21° Ω 01'41	1°03'15
	3782 Mar 22 15:55	30° Π		minimum elong	3784 Aug 10 23:35	20° Ω 34'22	1°02'57
morning rise	3782 Mar 23 22:45	29° Π 12'57			3784 Aug 18 15:21	0° Π	
direct	3782 Apr 10 20:47	23° Π 05'44			3784 Sep 11 23:06	0° Ω	
greatest brilliancy	3782 Apr 21 16:02	25° Π 16'04	-4.6m	evening rise	3784 Sep 16 08:30	5° Ω 25'13	
	3782 May 01 00:30	0° Π			3784 Oct 06 06:12	0° Π	
desc. node	3782 May 17 07:51	12° Π 15'43			3784 Oct 30 13:36	0° Ω	
morning max el	3782 May 30 09:53	24° Π 20'31	46°10'13	desc. node	3784 Nov 01 03:05	1° Ω 55'38	
	3782 Jun 05 02:53	0° Ω			3784 Nov 23 21:55	0° Ω	
	3782 Jul 03 06:28	0° Π			3784 Dec 18 07:57	0° \approx	
	3782 Jul 29 17:11	0° Ω			3785 Jan 11 22:28	0° Π	
	3782 Aug 24 07:51	0° Ω			3785 Feb 06 00:34	0° Π	
asc. node	3782 Sep 07 10:31	16° Ω 50'08		asc. node	3785 Feb 22 05:28	18° Π 44'59	
	3782 Sep 18 08:36	0° Π			3785 Mar 04 06:59	0° Ω	
	3782 Oct 12 22:30	0° Ω		evening max el	3785 Mar 21 08:14	17° Ω 59'13	46°37'54
	3782 Nov 06 04:28	0° Π			3785 Apr 02 23:14	0° Π	
morning set	3782 Nov 24 03:34	22° Π 24'02		greatest brilliancy	3785 Apr 26 04:15	16° Π 36'11	-4.6m
	3782 Nov 30 05:24	0° Ω		retrograde	3785 May 10 11:09	20° Π 17'05	
	3782 Dec 24 03:35	0° Ω		evening set	3785 May 26 00:52	15° Π 33'26	
desc. node	3782 Dec 28 00:41	4° Ω 52'20		inferior conj	3785 May 31 18:26	12° Π 04'54	3°05'28
max. Earth dist.	3783 Jan 01 19:11	10° Ω 51'57	1.71223 AU	minimum elong	3785 Jun 01 00:56	11° Π 54'41	3°03'36
				min. Earth dist.	3785 May 31 16:00	12° Π 08'42	0.28419 AU
superior conj	3783 Jan 03 01:23	12° Ω 26'51	0°-14'-28	morning rise	3785 Jun 07 01:20	8° Π 18'11	
minimum elong	3783 Jan 02 21:38	12° Ω 15'03	0°14'17	desc. node	3785 Jun 13 19:33	5° Π 17'34	
behind sun begin	3783 Jan 02 08:57	11° Ω 35'13		direct	3785 Jun 22 00:37	3° Π 57'06	
behind sun end	3783 Jan 03 10:19	12° Ω 54'54		greatest brilliancy	3785 Jul 04 11:20	6° Π 41'06	-4.5m
	3783 Jan 17 00:26	0° \approx			3785 Aug 05 20:24	0° Ω	
	3783 Feb 09 21:04	0° Π		morning max el	3785 Aug 09 17:15	3° Ω 37'41	45°42'34
evening rise	3783 Feb 13 03:33	4° Π 06'33			3785 Sep 04 11:08	0° Ω	
	3783 Mar 05 19:00	0° Π			3785 Oct 01 05:20	0° Π	
	3783 Mar 29 20:30	0° Ω		asc. node	3785 Oct 04 22:29	4° Π 18'11	
asc. node	3783 Apr 20 03:25	26° Ω 16'42			3785 Oct 26 16:13	0° Ω	
	3783 Apr 23 04:15	0° Π			3785 Nov 20 08:57	0° Π	
	3783 May 17 21:11	0° Ω			3785 Dec 14 15:06	0° Ω	
	3783 Jun 12 03:29	0° Ω			3786 Jan 07 15:36	0° Ω	
	3783 Jul 08 07:49	0° Π		desc. node	3786 Jan 24 12:28	21° Ω 09'41	
	3783 Aug 05 09:47	0° Ω			3786 Jan 31 13:22	0° \approx	
desc. node	3783 Aug 09 17:19	4° Ω 17'13		morning set	3786 Feb 07 15:29	8° \approx 54'24	
evening max el	3783 Aug 13 12:33	7° Ω 58'00	45°35'20		3786 Feb 24 10:17	0° Π	
	3783 Sep 09 11:24	0° Π			3786 Mar 20 07:55	0° Π	
greatest brilliancy	3783 Sep 19 21:04	5° Π 21'00	-4.5m				
retrograde	3783 Oct 01 04:25	7° Π 37'29		superior conj	3786 Mar 20 21:43	0° Π 43'14	-1°-26'-41
evening set	3783 Oct 18 16:16	1° Π 55'08		minimum elong	3786 Mar 20 20:57	0° Π 40'49	1°26'42
	3783 Oct 21 20:05	30° Π		max. Earth dist.	3786 Mar 24 08:22	5° Π 02'04	1.71579 AU
inferior conj	3783 Oct 22 08:01	29° Ω 41'30	-7°-52'-39		3786 Apr 13 07:53	0° Ω	

evening rise	3786 Apr 29 21:57	20°♄37'28			3788 Dec 02 20:02	0°♌	
	3786 May 07 11:35	0°♈			3788 Dec 27 23:52	0°♌	
asc. node	3786 May 17 15:14	12°♈32'31			3789 Jan 21 12:10	0°♌	
	3786 May 31 19:55	0°♌			3789 Feb 14 17:15	0°♌	
	3786 Jun 25 09:35	0°♌		desc. node	3789 Feb 21 00:23	7°♌50'01	
	3786 Jul 20 05:59	0°♌			3789 Mar 10 19:17	0°♌	
	3786 Aug 14 12:11	0°♌			3789 Apr 03 20:46	0°♌	
desc. node	3786 Sep 06 05:13	26°♌20'40		morning set	3789 Apr 24 10:58	25°♌37'40	
	3786 Sep 09 10:08	0°♌			3789 Apr 27 23:25	0°♌	
	3786 Oct 06 13:04	0°♌			3789 May 22 04:19	0°♌	
evening max el	3786 Oct 25 04:30	19°♌08'13	46°29'56				
	3786 Nov 05 20:03	0°♌		superior conj	3789 Jun 01 18:32	13°♌05'13	0°-29'-2
greatest brilliancy	3786 Dec 02 20:51	18°♌24'32	-4.6m	minimum elong	3789 Jun 02 00:43	13°♌24'17	0°28'46
retrograde	3786 Dec 14 02:00	20°♌44'24		max. Earth dist.	3789 Jun 04 07:00	16°♌11'49	1.73052 AU
evening set	3786 Dec 28 08:43	16°♌42'23		asc. node	3789 Jun 14 03:01	28°♌19'28	
asc. node	3786 Dec 28 07:48	16°♌43'36			3789 Jun 15 11:40	0°♌	
inferior conj	3787 Jan 03 15:22	13°♌03'46	1°38'07	evening rise	3789 Jul 08 23:17	28°♌53'06	
minimum elong	3787 Jan 03 11:38	13°♌09'27	1°36'55		3789 Jul 09 21:04	0°♌	
min. Earth dist.	3787 Jan 03 15:16	13°♌03'56	0.26568 AU		3789 Aug 03 08:14	0°♌	
morning rise	3787 Jan 09 14:20	9°♌34'59			3789 Aug 27 21:42	0°♌	
direct	3787 Jan 24 02:39	5°♌22'46			3789 Sep 21 14:50	0°♌	
greatest brilliancy	3787 Feb 05 09:30	8°♌11'41	-4.7m	desc. node	3789 Oct 03 17:11	14°♌35'36	
	3787 Mar 07 01:46	0°♌			3789 Oct 16 13:20	0°♌	
morning max el	3787 Mar 15 14:53	8°♌19'18	46°53'43		3789 Nov 10 19:50	0°♌	
	3787 Apr 05 02:10	0°♌			3789 Dec 06 17:04	0°♌	
desc. node	3787 Apr 18 22:11	15°♌30'04			3790 Jan 03 03:41	0°♌	
	3787 May 01 12:53	0°♌		evening max el	3790 Jan 06 02:38	3°♌01'53	47°13'03
	3787 May 27 02:12	0°♌		asc. node	3790 Jan 24 19:45	20°♌33'56	
	3787 Jun 21 06:06	0°♌			3790 Feb 06 15:16	0°♌	
	3787 Jul 16 04:35	0°♌		greatest brilliancy	3790 Feb 13 06:45	3°♌32'47	-4.7m
	3787 Aug 09 22:18	0°♌		retrograde	3790 Feb 25 22:29	6°♌31'31	
asc. node	3787 Aug 10 00:44	0°♌07'25		evening set	3790 Mar 15 20:33	0°♌18'21	
	3787 Sep 03 10:53	0°♌			3790 Mar 16 08:33	30°♌	
morning set	3787 Sep 12 16:50	11°♌22'39		min. Earth dist.	3790 Mar 18 03:10	28°♌53'59	0.27376 AU
	3787 Sep 27 18:38	0°♌		inferior conj	3790 Mar 18 17:12	28°♌32'07	8°58'09
max. Earth dist.	3787 Oct 16 13:43	23°♌19'02	1.72465 AU	minimum elong	3790 Mar 18 15:57	28°♌34'03	8°58'08
				morning rise	3790 Mar 21 11:32	26°♌49'54	
superior conj	3787 Oct 19 10:45	26°♌53'37	1°18'09	direct	3790 Apr 08 09:48	20°♌42'39	
minimum elong	3787 Oct 19 17:54	27°♌15'52	1°18'01	greatest brilliancy	3790 Apr 19 04:02	22°♌51'40	-4.6m
	3787 Oct 21 22:41	0°♌			3790 May 02 05:15	0°♌	
	3787 Nov 15 00:31	0°♌		desc. node	3790 May 16 09:44	11°♌13'45	
evening rise	3787 Nov 26 23:39	14°♌56'03		morning max el	3790 May 27 22:54	21°♌58'55	46°11'53
desc. node	3787 Nov 29 14:54	18°♌13'30			3790 Jun 04 23:32	0°♌	
	3787 Dec 09 01:09	0°♌			3790 Jul 02 21:47	0°♌	
	3788 Jan 02 01:18	0°♌			3790 Jul 29 06:21	0°♌	
	3788 Jan 26 02:05	0°♌			3790 Aug 23 19:56	0°♌	
	3788 Feb 19 06:03	0°♌		asc. node	3790 Sep 06 12:36	16°♌21'17	
	3788 Mar 14 17:35	0°♌			3790 Sep 17 20:06	0°♌	
asc. node	3788 Mar 21 17:31	8°♌27'40			3790 Oct 12 09:42	0°♌	
	3788 Apr 08 19:39	0°♌			3790 Nov 05 15:31	0°♌	
	3788 May 05 01:02	0°♌		morning set	3790 Nov 21 17:38	20°♌03'32	
evening max el	3788 May 31 05:16	27°♌24'34	45°40'36		3790 Nov 29 16:25	0°♌	
	3788 Jun 02 21:58	0°♌			3790 Dec 23 14:37	0°♌	
greatest brilliancy	3788 Jul 04 18:38	24°♌04'21	-4.5m	desc. node	3790 Dec 27 02:42	4°♌24'00	
desc. node	3788 Jul 11 07:33	26°♌32'00		max. Earth dist.	3790 Dec 30 00:25	8°♌02'58	1.71249 AU
retrograde	3788 Jul 19 03:01	27°♌39'24					
evening set	3788 Aug 04 03:05	22°♌44'10		superior conj	3790 Dec 31 12:18	9°♌55'40	0°-10'-35
inferior conj	3788 Aug 09 14:50	19°♌24'11	-6°-12'-12	minimum elong	3790 Dec 31 09:33	9°♌47'01	0°10'28
minimum elong	3788 Aug 09 05:00	19°♌39'35	6°10'14	behind sun begin	3790 Dec 30 13:26	8°♌43'49	
min. Earth dist.	3788 Aug 09 09:19	19°♌32'49	0.29080 AU	behind sun end	3791 Jan 01 05:41	10°♌50'14	
morning rise	3788 Aug 14 07:01	16°♌32'42			3791 Jan 16 11:32	0°♌	
direct	3788 Aug 31 06:23	11°♌06'39			3791 Feb 09 08:13	0°♌	
greatest brilliancy	3788 Sep 14 03:08	14°♌29'05	-4.5m	evening rise	3791 Feb 10 13:44	1°♌32'43	
	3788 Oct 06 19:55	0°♌			3791 Mar 05 06:13	0°♌	
morning max el	3788 Oct 19 12:18	11°♌40'37	46°02'14		3791 Mar 29 07:52	0°♌	
asc. node	3788 Nov 01 10:15	24°♌49'37		asc. node	3791 Apr 19 05:22	25°♌47'12	
	3788 Nov 06 06:23	0°♌			3791 Apr 22 15:52	0°♌	

	3791 May 17 09:16	0°☿			3793 Dec 14 02:23	0°♂		
	3791 Jun 11 16:28	0°♂			3794 Jan 07 02:44	0°♂		
	3791 Jul 07 22:45	0°♍		desc. node	3794 Jan 23 14:37	20°♂41'41		
	3791 Aug 05 06:00	0°♁			3794 Jan 31 00:25	0°≈		
desc. node	3791 Aug 08 19:26	3°♁29'48		morning set	3794 Feb 05 01:11	6°≈19'23		
evening max el	3791 Aug 11 02:02	5°♁41'16	45°34'17		3794 Feb 23 21:15	0°♂		
	3791 Sep 10 21:09	0°♌						
greatest brilliancy	3791 Sep 17 09:22	3°♌04'04	-4.5m	superior conj	3794 Mar 18 08:50	28°♂13'28	-1°-26'-28	
retrograde	3791 Sep 28 18:19	5°♌22'36		minimum elong	3794 Mar 18 06:59	28°♂07'42	1°26'29	
	3791 Oct 15 16:47	30°♌			3794 Mar 19 18:49	0°♑		
evening set	3791 Oct 16 09:14	29°♁35'59		max. Earth dist.	3794 Mar 21 15:49	2°♑20'58	1.71537 AU	
inferior conj	3791 Oct 19 22:51	27°♁25'37	-8°00'-59		3794 Apr 12 18:45	0°♄		
minimum elong	3791 Oct 20 06:24	27°♁13'55	8°00'06	evening rise	3794 Apr 27 11:05	18°♄15'41		
min. Earth dist.	3791 Oct 20 20:51	26°♁51'32	0.28196 AU		3794 May 06 22:28	0°♐		
morning rise	3791 Oct 24 03:12	24°♁52'32		asc. node	3794 May 16 17:15	12°♐05'05		
direct	3791 Nov 10 04:40	19°♁17'21			3794 May 31 06:54	0°☿		
greatest brilliancy	3791 Nov 24 16:15	23°♁02'54	-4.6m		3794 Jun 24 20:49	0°♂		
asc. node	3791 Nov 29 21:54	25°♁56'35			3794 Jul 19 17:43	0°♍		
	3791 Dec 05 21:57	0°♌			3794 Aug 14 00:49	0°♁		
morning max el	3791 Dec 30 15:47	22°♌06'12	46°46'25	desc. node	3794 Sep 05 07:16	25°♁46'33		
	3792 Jan 07 06:19	0°♂			3794 Sep 09 00:27	0°♌		
	3792 Feb 03 03:24	0°♂			3794 Oct 06 07:06	0°♂		
	3792 Feb 28 12:51	0°≈		evening max el	3794 Oct 22 19:04	16°♂50'07	46°27'46	
desc. node	3792 Mar 20 12:19	25°≈21'10			3794 Nov 06 03:09	0°♂		
	3792 Mar 24 07:59	0°♂		greatest brilliancy	3794 Nov 30 09:10	15°♂58'08	-4.6m	
	3792 Apr 17 21:02	0°♑		retrograde	3794 Dec 11 14:50	18°♂17'40		
	3792 May 12 08:03	0°♄		evening set	3794 Dec 25 21:11	14°♂15'45		
	3792 Jun 05 19:00	0°♐		asc. node	3794 Dec 27 09:55	13°♂25'37		
	3792 Jun 30 06:10	0°☿		inferior conj	3795 Jan 01 03:46	10°♂36'57	1°13'49	
morning set	3792 Jul 03 10:08	3°☿52'58		minimum elong	3795 Jan 01 00:56	10°♂41'15	1°12'55	
asc. node	3792 Jul 11 14:56	13°☿56'39		min. Earth dist.	3795 Jan 01 04:44	10°♂35'29	0.26586 AU	
	3792 Jul 24 16:47	0°♂		morning rise	3795 Jan 07 04:31	7°♂05'57		
max. Earth dist.	3792 Aug 07 15:01	17°♂07'32	1.73477 AU	direct	3795 Jan 21 16:06	2°♂55'40		
				greatest brilliancy	3795 Feb 02 23:43	5°♂46'02	-4.7m	
superior conj	3792 Aug 09 02:58	18°♂58'10	1°01'06		3795 Mar 07 04:09	0°≈		
minimum elong	3792 Aug 08 18:03	18°♂30'42	1°00'48	morning max el	3795 Mar 13 05:13	5°≈57'11	46°54'24	
	3792 Aug 18 02:00	0°♍			3795 Apr 04 19:29	0°♂		
	3792 Sep 11 09:50	0°♁		desc. node	3795 Apr 18 00:06	14°♂51'30		
evening rise	3792 Sep 14 02:31	3°♁19'33			3795 May 01 03:09	0°♑		
	3792 Oct 05 17:09	0°♌			3795 May 26 14:56	0°♄		
	3792 Oct 30 00:52	0°♂			3795 Jun 20 17:55	0°♐		
desc. node	3792 Oct 31 05:03	1°♂26'51			3795 Jul 15 15:49	0°☿		
	3792 Nov 23 09:35	0°♂		asc. node	3795 Aug 09 02:46	29°☿40'31		
	3792 Dec 17 20:10	0°≈			3795 Aug 09 09:10	0°♂		
	3793 Jan 11 11:29	0°♂			3795 Sep 02 21:35	0°♍		
	3793 Feb 05 15:01	0°♑		morning set	3795 Sep 10 10:15	9°♍15'43		
asc. node	3793 Feb 21 07:36	18°♑05'33			3795 Sep 27 05:15	0°♁		
	3793 Mar 04 00:37	0°♄		max. Earth dist.	3795 Oct 14 04:49	21°♁03'49	1.72506 AU	
evening max el	3793 Mar 18 22:29	15°♄39'45	46°40'07					
	3793 Apr 03 04:37	0°♐		superior conj	3795 Oct 17 03:09	24°♁42'22	1°19'26	
greatest brilliancy	3793 Apr 23 20:02	14°♐22'06	-4.6m	minimum elong	3795 Oct 17 09:43	25°♁02'45	1°19'19	
retrograde	3793 May 08 03:17	18°♐03'52			3795 Oct 21 09:19	0°♌		
evening set	3793 May 23 18:41	13°♐16'51			3795 Nov 14 11:13	0°♂		
inferior conj	3793 May 29 10:03	9°♐51'44	3°25'02	evening rise	3795 Nov 24 13:10	12°♂34'45		
minimum elong	3793 May 29 17:08	9°♐40'36	3°23'02	desc. node	3795 Nov 28 16:59	17°♂46'16		
min. Earth dist.	3793 May 29 07:53	9°♐55'08	0.28392 AU		3795 Dec 08 12:01	0°♂		
morning rise	3793 Jun 04 15:56	6°♐06'43			3796 Jan 01 12:22	0°≈		
desc. node	3793 Jun 12 21:38	2°♐38'44			3796 Jan 25 13:26	0°♂		
direct	3793 Jun 19 15:30	1°♐44'08			3796 Feb 18 17:47	0°♑		
greatest brilliancy	3793 Jul 02 02:18	4°♐28'32	-4.5m		3796 Mar 14 05:54	0°♄		
	3793 Aug 05 20:08	0°☿		asc. node	3796 Mar 20 19:26	7°♄55'38		
morning max el	3793 Aug 07 09:29	1°☿28'25	45°42'58		3796 Apr 08 09:04	0°♐		
	3793 Sep 04 03:00	0°♂			3796 May 04 16:53	0°☿		
	3793 Sep 30 18:36	0°♍		evening max el	3796 May 28 21:31	25°☿14'25	45°41'58	
asc. node	3793 Oct 04 00:28	3°♍45'57			3796 Jun 02 21:26	0°♂		
	3793 Oct 26 04:19	0°♁		greatest brilliancy	3796 Jul 02 10:42	21°♂55'26	-4.5m	
	3793 Nov 19 20:29	0°♌		desc. node	3796 Jul 10 09:39	24°♂45'00		

retrograde	3796 Jul 16 19:04	25°♌30'31		superior conj	3798 Dec 28 23:26	7°♊25'57	0°-6'-42
evening set	3796 Aug 01 16:50	20°♌39'15		minimum elong	3798 Dec 28 21:42	7°♊20'29	0°06'38
inferior conj	3796 Aug 07 07:07	17°♌15'22	-5°-58'-14	behind sun begin	3798 Dec 27 21:50	6°♊05'30	
minimum elong	3796 Aug 06 21:18	17°♌30'46	5°56'12	behind sun end	3798 Dec 29 21:34	8°♊35'28	
min. Earth dist.	3796 Aug 07 01:11	17°♌24'40	0.29069 AU		3799 Jan 15 22:22	0°♊	
morning rise	3796 Aug 12 01:52	14°♌19'49		evening rise	3799 Feb 08 00:18	29°♊01'05	
direct	3796 Aug 28 22:47	8°♌58'11			3799 Feb 08 19:04	0°♋	
greatest brilliancy	3796 Sep 11 16:42	12°♌17'05	-4.5m		3799 Mar 04 17:08	0°♋	
	3796 Oct 06 23:46	0°♎			3799 Mar 28 18:55	0°♋	
morning max el	3796 Oct 17 03:03	9°♎26'35	46°00'55	asc. node	3799 Apr 18 07:24	25°♋18'46	
asc. node	3796 Oct 31 12:12	24°♎07'37			3799 Apr 22 03:13	0°♌	
	3796 Nov 05 23:13	0°♏			3799 May 16 21:09	0°♌	
	3796 Dec 02 09:50	0°♎			3799 Jun 11 05:22	0°♌	
	3796 Dec 27 12:21	0°♏			3799 Jul 07 13:48	0°♎	
	3797 Jan 20 23:58	0°♊			3799 Aug 05 02:49	0°♏	
	3797 Feb 14 04:38	0°♊		desc. node	3799 Aug 07 21:28	2°♏41'37	
desc. node	3797 Feb 20 02:26	7°♊21'13		evening max el	3799 Aug 08 15:51	3°♏25'37	45°33'24
	3797 Mar 10 06:25	0°♋			3799 Sep 13 00:02	0°♎	
	3797 Apr 03 07:43	0°♋		greatest brilliancy	3799 Sep 14 20:32	0°♎46'11	-4.5m
morning set	3797 Apr 22 00:41	23°♋17'35		retrograde	3799 Sep 26 08:39	3°♎08'01	
	3797 Apr 27 10:12	0°♌			3799 Oct 09 01:16	30°♎♏	
	3797 May 21 14:58	0°♌		evening set	3799 Oct 14 01:53	27°♏17'13	
				inferior conj	3799 Oct 17 13:34	25°♏09'51	-8°-8'-28
superior conj	3797 May 30 10:12	10°♌52'34	0°-32'-15	minimum elong	3799 Oct 17 20:31	24°♏59'06	8°07'45
minimum elong	3797 May 30 16:59	11°♌13'32	0°31'57	min. Earth dist.	3799 Oct 18 11:06	24°♏36'32	0.28263 AU
max. Earth dist.	3797 Jun 02 02:50	14°♌12'06	1.73009 AU	morning rise	3799 Oct 21 14:47	22°♏41'31	
asc. node	3797 Jun 13 05:09	27°♌53'22		direct	3799 Nov 07 19:51	17°♏00'27	
	3797 Jun 14 22:16	0°♏		greatest brilliancy	3799 Nov 22 09:28	20°♏48'25	-4.6m
evening rise	3797 Jul 06 17:03	26°♏47'36		asc. node	3799 Nov 29 00:06	24°♏34'15	
	3797 Jul 09 07:42	0°♌			3799 Dec 06 13:59	0°♎	
	3797 Aug 02 19:02	0°♎		morning max el	3799 Dec 28 07:02	19°♎47'32	46°45'17
	3797 Aug 27 08:49	0°♏			3800 Jan 07 01:41	0°♏	
	3797 Sep 21 02:27	0°♎			3800 Feb 02 18:30	0°♊	
desc. node	3797 Oct 02 19:08	14°♎05'28			3800 Feb 28 02:08	0°♊	
	3797 Oct 16 01:45	0°♏		desc. node	3800 Mar 20 14:15	24°♊49'22	
	3797 Nov 10 09:30	0°♊			3800 Mar 24 20:15	0°♋	
	3797 Dec 06 09:01	0°♊			3800 Apr 18 08:38	0°♋	
	3798 Jan 03 01:22	0°♋			3800 May 12 19:14	0°♌	
evening max el	3798 Jan 03 16:09	0°♋37'35	47°12'46		3800 Jun 06 05:54	0°♌	
asc. node	3798 Jan 23 21:48	19°♋25'14			3800 Jun 30 16:53	0°♏	
	3798 Feb 08 10:43	0°♋		morning set	3800 Jul 02 03:40	1°♏46'43	
greatest brilliancy	3798 Feb 10 23:06	1°♋12'15	-4.7m	asc. node	3800 Jul 11 16:58	13°♏30'16	
retrograde	3798 Feb 23 11:59	4°♋08'11			3800 Jul 25 03:23	0°♌	
	3798 Mar 09 20:31	30°♎♏		max. Earth dist.	3800 Aug 06 12:44	15°♌14'06	1.73493 AU
evening set	3798 Mar 13 08:37	27°♋58'29					
min. Earth dist.	3798 Mar 15 16:41	26°♋31'57	0.27333 AU	superior conj	3800 Aug 07 21:11	16°♌53'56	0°58'51
inferior conj	3798 Mar 16 06:55	26°♋09'45	8°56'41	minimum elong	3800 Aug 07 12:16	16°♌26'30	0°58'32
minimum elong	3798 Mar 16 04:44	26°♋13'09	8°56'37		3800 Aug 18 12:36	0°♎	
morning rise	3798 Mar 19 01:01	24°♋27'45			3800 Sep 11 20:32	0°♏	
direct	3798 Apr 05 22:33	18°♋20'56		evening rise	3800 Sep 12 20:15	1°♏13'08	
greatest brilliancy	3798 Apr 16 17:21	20°♋29'55	-4.6m		3800 Oct 06 04:04	0°♎	
	3798 May 03 01:37	0°♋			3800 Oct 30 12:06	0°♏	
desc. node	3798 May 15 11:52	10°♋14'49		desc. node	3800 Oct 31 07:06	0°♏58'30	
morning max el	3798 May 25 11:49	19°♋37'40	46°13'21		3800 Nov 23 21:15	0°♊	
	3798 Jun 04 19:15	0°♌			3800 Dec 18 08:24	0°♊	
	3798 Jul 02 12:42	0°♌			3801 Jan 12 00:33	0°♋	
	3798 Jul 28 19:16	0°♏			3801 Feb 06 05:34	0°♋	
	3798 Aug 23 07:47	0°♌		asc. node	3801 Feb 21 09:34	17°♋25'32	
asc. node	3798 Sep 05 14:35	15°♌52'47			3801 Mar 04 18:33	0°♌	
	3798 Sep 17 07:22	0°♎		evening max el	3801 Mar 17 13:52	13°♌23'28	46°42'25
	3798 Oct 11 20:38	0°♏			3801 Apr 04 12:01	0°♌	
	3798 Nov 05 02:19	0°♎		greatest brilliancy	3801 Apr 22 12:00	12°♌08'53	-4.6m
morning set	3798 Nov 19 07:42	17°♎43'49		retrograde	3801 May 06 19:53	15°♌51'13	
	3798 Nov 29 03:12	0°♏		evening set	3801 May 22 12:43	11°♌00'49	
	3798 Dec 23 01:26	0°♊		inferior conj	3801 May 28 01:44	7°♌39'03	3°44'10
desc. node	3798 Dec 26 04:50	3°♊56'47		minimum elong	3801 May 28 09:23	7°♌27'05	3°42'04
max. Earth dist.	3798 Dec 27 07:26	5°♊20'17	1.71273 AU	min. Earth dist.	3801 May 27 23:26	7°♌42'40	0.28364 AU

morning rise	3801 Jun 03 06:26	3°II56'05		desc. node	3803 Nov 28 19:05	17°X18'03	
desc. node	3801 Jun 12 23:42	0°II05'41			3803 Dec 08 23:13	0°Z	
	3801 Jun 13 10:50	30°R8			3804 Jan 01 23:47	0°≈	
direct	3801 Jun 18 07:00	29°831'51			3804 Jan 26 01:08	0°K	
	3801 Jun 23 06:24	0°II			3804 Feb 19 05:50	0°Y	
greatest brilliancy	3801 Jun 30 16:21	2°II15'27	-4.5m		3804 Mar 14 18:33	0°8	
morning max el	3801 Aug 06 02:18	29°II20'44	45°43'06	asc. node	3804 Mar 20 21:28	7°822'59	
	3801 Aug 06 18:44	0°S			3804 Apr 08 22:53	0°II	
	3801 Sep 04 18:38	0°Q			3804 May 05 09:19	0°S	
	3801 Oct 01 07:51	0°n		evening max el	3804 May 27 13:14	23°S02'13	45°43'26
asc. node	3801 Oct 04 02:28	3°n13'43			3804 Jun 03 22:20	0°Q	
	3801 Oct 26 16:29	0°A		greatest brilliancy	3804 Jul 01 02:53	19°Q46'16	-4.5m
	3801 Nov 20 08:07	0°M		desc. node	3804 Jul 10 11:38	22°Q53'58	
	3801 Dec 14 13:44	0°X		retrograde	3804 Jul 15 11:00	23°Q21'51	
	3802 Jan 07 13:55	0°Z		evening set	3804 Jul 31 06:58	18°Q34'12	
desc. node	3802 Jan 23 16:32	20°Z12'50		inferior conj	3804 Aug 05 23:41	15°Q06'50	-5°-43'-56
	3802 Jan 31 11:30	0°≈		minimum elong	3804 Aug 05 13:56	15°Q22'09	5°41'49
morning set	3802 Feb 03 10:52	3°≈44'11		min. Earth dist.	3804 Aug 05 17:35	15°Q16'24	0.29057 AU
	3802 Feb 24 08:16	0°K		morning rise	3804 Aug 10 20:58	12°Q07'19	
				direct	3804 Aug 27 15:00	6°Q49'56	
superior conj	3802 Mar 16 19:51	25°K43'07	-1°-26'-6	greatest brilliancy	3804 Sep 10 07:03	10°Q05'58	-4.5m
minimum elong	3802 Mar 16 16:58	25°K34'03	1°26'06		3804 Oct 08 02:10	0°n	
max. Earth dist.	3802 Mar 20 01:14	29°K45'41	1.71494 AU	morning max el	3804 Oct 15 17:19	7°n10'57	45°59'29
	3802 Mar 20 05:48	0°Y		asc. node	3804 Oct 31 14:23	23°n26'08	
	3802 Apr 13 05:41	0°8			3804 Nov 06 15:58	0°A	
evening rise	3802 Apr 26 00:14	15°853'43			3804 Dec 02 23:50	0°M	
	3802 May 07 09:23	0°II			3804 Dec 28 01:09	0°X	
asc. node	3802 May 16 19:23	11°II37'53			3805 Jan 21 12:09	0°Z	
	3802 May 31 17:54	0°S			3805 Feb 14 16:26	0°≈	
	3802 Jun 25 08:06	0°Q		desc. node	3805 Feb 20 04:25	6°≈50'57	
	3802 Jul 20 05:33	0°n			3805 Mar 10 17:56	0°K	
	3802 Aug 14 13:38	0°A			3805 Apr 03 19:00	0°Y	
desc. node	3802 Sep 05 09:11	25°A11'16		morning set	3805 Apr 20 14:09	20°Y55'35	
	3802 Sep 09 15:09	0°M			3805 Apr 27 21:18	0°8	
	3802 Oct 07 01:54	0°X			3805 May 22 01:57	0°II	
evening max el	3802 Oct 21 09:49	14°X31'40	46°25'26				
	3802 Nov 07 13:21	0°Z		superior conj	3805 May 29 01:54	8°II39'00	0°-35'-24
greatest brilliancy	3802 Nov 28 22:19	13°Z31'51	-4.6m	minimum elong	3805 May 29 09:16	9°II01'46	0°35'06
retrograde	3802 Dec 10 03:11	15°Z49'48		max. Earth dist.	3805 May 31 20:57	12°II06'02	1.72963 AU
evening set	3802 Dec 24 09:50	11°Z48'02		asc. node	3805 Jun 13 07:10	27°II25'48	
asc. node	3802 Dec 27 11:54	10°Z03'59			3805 Jun 15 09:12	0°S	
inferior conj	3802 Dec 30 16:05	8°Z09'19	0°49'28	evening rise	3805 Jul 05 10:58	24°S41'32	
minimum elong	3802 Dec 30 14:10	8°Z12'13	0°48'51		3805 Jul 09 18:41	0°Q	
min. Earth dist.	3802 Dec 30 18:20	8°Z05'52	0.26603 AU		3805 Aug 03 06:08	0°n	
morning rise	3803 Jan 05 18:21	4°Z36'05			3805 Aug 27 20:13	0°A	
direct	3803 Jan 20 05:14	0°Z27'50			3805 Sep 21 14:22	0°M	
greatest brilliancy	3803 Feb 01 13:38	3°Z19'05	-4.7m	desc. node	3805 Oct 02 21:16	13°M35'00	
	3803 Mar 08 05:24	0°≈			3805 Oct 16 14:31	0°X	
morning max el	3803 Mar 11 18:33	3°≈31'52	46°55'03		3805 Nov 10 23:39	0°Z	
	3803 Apr 05 12:38	0°K			3805 Dec 07 01:45	0°≈	
desc. node	3803 Apr 18 02:12	14°K13'20		evening max el	3806 Jan 02 05:03	28°≈10'03	47°12'12
	3803 May 01 17:26	0°Y			3806 Jan 04 00:38	0°K	
	3803 May 27 03:45	0°8		asc. node	3806 Jan 23 23:46	18°K12'24	
	3803 Jun 21 05:51	0°II		greatest brilliancy	3806 Feb 09 14:35	28°K48'03	-4.7m
	3803 Jul 16 03:11	0°S			3806 Feb 12 15:15	0°Y	
asc. node	3803 Aug 09 04:44	29°S12'57		retrograde	3806 Feb 22 01:09	1°Y42'13	
	3803 Aug 09 20:11	0°Q			3806 Mar 03 03:21	30°R8	
	3803 Sep 03 08:25	0°n		evening set	3806 Mar 11 19:47	25°K36'31	
morning set	3803 Sep 09 03:52	7°n08'51		min. Earth dist.	3806 Mar 14 05:57	24°K07'02	0.27289 AU
	3803 Sep 27 16:04	0°A		inferior conj	3806 Mar 14 20:18	23°K44'42	8°54'13
max. Earth dist.	3803 Oct 12 18:41	18°A44'09	1.72557 AU	minimum elong	3806 Mar 14 17:11	23°K49'34	8°54'05
				morning rise	3806 Mar 17 14:42	22°K02'20	
superior conj	3803 Oct 15 19:39	22°A30'45	1°20'34	direct	3806 Apr 04 10:50	15°K56'20	
minimum elong	3803 Oct 16 01:36	22°A49'14	1°20'29	greatest brilliancy	3806 Apr 15 07:05	18°K06'30	-4.6m
	3803 Oct 21 20:12	0°M			3806 May 04 17:35	0°Y	
	3803 Nov 14 22:15	0°X		desc. node	3806 May 15 13:58	9°Y15'40	
evening rise	3803 Nov 23 02:32	10°X12'02		morning max el	3806 May 24 00:55	17°Y15'22	46°15'03

	3806 Jun 05 14:52	0°♄			3808 Nov 23 09:04	0°♄	
	3806 Jul 03 03:49	0°♄			3808 Dec 17 20:47	0°♄	
	3806 Jul 29 08:25	0°♄			3809 Jan 11 13:49	0°♄	
	3806 Aug 23 19:55	0°♄			3809 Feb 05 20:27	0°♄	
asc. node	3806 Sep 05 16:37	15°♄23'33		asc. node	3809 Feb 20 11:35	16°♄44'42	
	3806 Sep 17 18:54	0°♄			3809 Mar 04 13:13	0°♄	
	3806 Oct 12 07:51	0°♄		evening max el	3809 Mar 15 05:47	11°♄07'33	46°44'20
	3806 Nov 05 13:23	0°♄			3809 Apr 04 22:48	0°♄	
morning set	3806 Nov 17 22:19	15°♄25'04		greatest brilliancy	3809 Apr 20 04:48	9°♄55'10	-4.6m
	3806 Nov 29 14:15	0°♄		retrograde	3809 May 04 12:11	13°♄36'20	
	3806 Dec 23 12:33	0°♄		evening set	3809 May 20 06:37	8°♄42'44	
max. Earth dist.	3806 Dec 25 17:54	2°♄47'29	1.71308 AU	inferior conj	3809 May 25 17:07	5°♄24'21	4°03'17
desc. node	3806 Dec 26 06:47	3°♄27'58		minimum elong	3809 May 26 01:16	5°♄11'36	4°01'04
				min. Earth dist.	3809 May 25 14:36	5°♄28'17	0.28336 AU
superior conj	3806 Dec 27 10:46	4°♄55'50	0°-2'-49	morning rise	3809 May 31 20:23	1°♄43'38	
minimum elong	3806 Dec 27 10:02	4°♄53'33	0°02'48		3809 Jun 04 06:48	30°♄	
behind sun begin	3806 Dec 26 08:32	3°♄33'27		desc. node	3809 Jun 12 01:38	27°♄35'45	
behind sun end	3806 Dec 28 11:33	6°♄13'40		direct	3809 Jun 15 22:30	27°♄17'47	
	3807 Jan 16 09:34	0°♄		greatest brilliancy	3809 Jun 28 05:18	29°♄59'29	-4.5m
evening rise	3807 Feb 06 10:43	26°♄27'41			3809 Jun 28 05:48	0°♄	
	3807 Feb 09 06:20	0°♄		morning max el	3809 Aug 03 18:27	27°♄10'38	45°43'23
	3807 Mar 05 04:30	0°♄			3809 Aug 06 16:47	0°♄	
	3807 Mar 29 06:26	0°♄			3809 Sep 04 10:13	0°♄	
asc. node	3807 Apr 18 09:31	24°♄49'16			3809 Sep 30 21:07	0°♄	
	3807 Apr 22 15:01	0°♄		asc. node	3809 Oct 03 04:35	2°♄41'37	
	3807 May 17 09:28	0°♄			3809 Oct 26 04:41	0°♄	
	3807 Jun 11 18:44	0°♄			3809 Nov 19 19:46	0°♄	
	3807 Jul 08 05:24	0°♄			3809 Dec 14 01:05	0°♄	
	3807 Aug 06 00:44	0°♄			3810 Jan 07 01:05	0°♄	
evening max el	3807 Aug 07 06:43	1°♄11'54	45°32'44	desc. node	3810 Jan 22 18:35	19°♄44'26	
desc. node	3807 Aug 07 23:26	1°♄51'42			3810 Jan 30 22:34	0°♄	
greatest brilliancy	3807 Sep 13 07:29	28°♄28'03	-4.5m	morning set	3810 Jan 31 21:10	1°♄11'01	
	3807 Sep 18 01:09	0°♄			3810 Feb 23 19:16	0°♄	
retrograde	3807 Sep 24 23:42	0°♄53'36					
	3807 Oct 01 16:48	30°♄		superior conj	3810 Mar 14 07:09	23°♄13'36	-1°-25'-33
evening set	3807 Oct 12 18:38	24°♄59'04		minimum elong	3810 Mar 14 03:13	23°♄01'15	1°25'32
inferior conj	3807 Oct 16 04:33	22°♄54'18	-8°-15'-9	max. Earth dist.	3810 Mar 17 13:14	27°♄18'28	1.71457 AU
minimum elong	3807 Oct 16 10:51	22°♄44'33	8°14'35		3810 Mar 19 16:45	0°♄	
min. Earth dist.	3807 Oct 17 01:08	22°♄22'29	0.28325 AU		3810 Apr 12 16:38	0°♄	
morning rise	3807 Oct 20 02:47	20°♄30'33		evening rise	3810 Apr 23 13:16	13°♄31'01	
direct	3807 Nov 06 11:44	14°♄44'06			3810 May 06 20:23	0°♄	
greatest brilliancy	3807 Nov 21 02:08	18°♄33'31	-4.6m	asc. node	3810 May 15 21:20	11°♄09'51	
asc. node	3807 Nov 29 02:00	23°♄14'06			3810 May 31 05:02	0°♄	
	3807 Dec 08 01:59	0°♄			3810 Jun 24 19:31	0°♄	
morning max el	3807 Dec 26 22:53	17°♄30'19	46°43'58		3810 Jul 19 17:31	0°♄	
	3808 Jan 07 20:40	0°♄			3810 Aug 14 02:37	0°♄	
	3808 Feb 03 09:37	0°♄		desc. node	3810 Sep 04 11:20	24°♄36'20	
	3808 Feb 28 15:36	0°♄			3810 Sep 09 06:02	0°♄	
desc. node	3808 Mar 19 16:20	24°♄17'08			3810 Oct 06 21:12	0°♄	
	3808 Mar 24 08:47	0°♄		evening max el	3810 Oct 18 23:46	12°♄11'29	46°23'08
	3808 Apr 17 20:36	0°♄			3810 Nov 08 02:51	0°♄	
	3808 May 12 06:47	0°♄		greatest brilliancy	3810 Nov 26 12:26	11°♄07'13	-4.6m
	3808 Jun 05 17:07	0°♄		retrograde	3810 Dec 07 15:04	13°♄22'40	
morning set	3808 Jun 29 20:54	29°♄38'39		evening set	3810 Dec 21 22:51	9°♄20'44	
	3808 Jun 30 03:52	0°♄		asc. node	3810 Dec 26 13:54	6°♄41'21	
asc. node	3808 Jul 10 18:54	13°♄02'41		inferior conj	3810 Dec 28 04:33	5°♄42'34	0°25'06
	3808 Jul 24 14:14	0°♄		minimum elong	3810 Dec 28 03:35	5°♄44'03	0°24'46
max. Earth dist.	3808 Aug 04 11:30	13°♄23'05	1.73502 AU	min. Earth dist.	3810 Dec 28 08:26	5°♄36'39	0.26621 AU
				morning rise	3811 Jan 03 08:04	2°♄07'13	
superior conj	3808 Aug 05 15:14	14°♄48'26	0°56'31		3811 Jan 07 20:49	30°♄	
minimum elong	3808 Aug 05 06:22	14°♄21'10	0°56'11	direct	3811 Jan 17 18:02	28°♄00'45	
	3808 Aug 17 23:26	0°♄			3811 Jan 27 23:31	0°♄	
evening rise	3808 Sep 10 14:07	29°♄06'26		greatest brilliancy	3811 Jan 30 04:22	0°♄53'40	-4.7m
	3808 Sep 11 07:29	0°♄			3811 Mar 08 05:14	0°♄	
	3808 Oct 05 15:13	0°♄		morning max el	3811 Mar 09 06:55	1°♄04'29	46°55'45
	3808 Oct 29 23:33	0°♄			3811 Apr 05 05:14	0°♄	
desc. node	3808 Oct 30 09:11	0°♄29'42		desc. node	3811 Apr 17 04:18	13°♄36'02	

	3811 May 01 07:23	0°Υ				3814 Jan 04 00:29	0°Ϡ	
	3811 May 26 16:21	0°Ϡ			asc. node	3814 Jan 23 01:51	16°Ϡ58'48	
	3811 Jun 20 17:39	0°Π			greatest brilliancy	3814 Feb 07 04:54	26°Ϡ23'28	-4.7m
	3811 Jul 15 14:28	0°☿			retrograde	3814 Feb 19 14:38	29°Ϡ17'20	
asc. node	3811 Aug 08 06:51	28°☿45'54			evening set	3814 Mar 09 06:26	23°Ϡ15'51	
	3811 Aug 09 07:09	0°Ω			inferior conj	3814 Mar 12 09:35	21°Ϡ20'25	8°50'44
	3811 Sep 02 19:12	0°Ⓜ			minimum elong	3814 Mar 12 05:34	21°Ϡ26'38	8°50'30
morning set	3811 Sep 06 21:07	5°Ⓜ01'09			min. Earth dist.	3814 Mar 11 18:51	21°Ϡ43'16	0.27245 AU
	3811 Sep 27 02:47	0°♁			morning rise	3814 Mar 15 04:50	19°Ϡ37'01	
max. Earth dist.	3811 Oct 10 09:33	16°♁28'03	1.72604 AU		direct	3814 Apr 01 23:18	13°Ϡ32'26	
					greatest brilliancy	3814 Apr 12 20:39	15°Ϡ43'53	-4.6m
superior conj	3811 Oct 13 12:02	20°♁19'14	1°21'36			3814 May 05 05:01	0°Υ	
minimum elong	3811 Oct 13 17:21	20°♁35'46	1°21'32		desc. node	3814 May 14 15:51	8°Υ18'35	
	3811 Oct 21 06:58	0°♊			morning max el	3814 May 21 14:56	14°Υ56'23	46°16'52
	3811 Nov 14 09:08	0°♋				3814 Jun 05 09:28	0°Ϡ	
evening rise	3811 Nov 20 15:59	7°♋50'10				3814 Jul 02 18:16	0°Π	
desc. node	3811 Nov 27 21:00	16°♋49'45				3814 Jul 28 21:04	0°☿	
	3811 Dec 08 10:16	0°♌				3814 Aug 23 07:35	0°Ω	
	3812 Jan 01 11:04	0°♍			asc. node	3814 Sep 04 18:42	14°Ω55'41	
	3812 Jan 25 12:39	0°Ϡ				3814 Sep 17 06:03	0°Ⓜ	
	3812 Feb 18 17:41	0°Υ				3814 Oct 11 18:44	0°♁	
	3812 Mar 14 06:59	0°Ϡ				3814 Nov 05 00:10	0°♊	
asc. node	3812 Mar 19 23:36	6°Ϡ51'23			morning set	3814 Nov 15 12:47	13°♊06'51	
	3812 Apr 08 12:30	0°Π				3814 Nov 29 01:01	0°♋	
	3812 May 05 01:43	0°☿				3814 Dec 22 23:21	0°♌	
evening max el	3812 May 25 03:58	20°☿48'11	45°44'46		max. Earth dist.	3814 Dec 23 05:23	0°♌18'57	1.71337 AU
	3812 Jun 04 00:18	0°Ω						
greatest brilliancy	3812 Jun 28 18:01	17°Ω35'58	-4.5m		superior conj	3814 Dec 24 21:54	2°♌26'11	0°01'07
desc. node	3812 Jul 09 13:39	20°Ω58'59			minimum elong	3814 Dec 24 22:12	2°♌27'07	0°01'06
retrograde	3812 Jul 13 02:52	21°Ω13'24			behind sun begin	3814 Dec 23 20:34	1°♌06'37	
evening set	3812 Jul 28 21:01	16°Ω28'48			behind sun end	3814 Dec 25 23:50	3°♌47'36	
inferior conj	3812 Aug 03 16:05	12°Ω58'21	-5°-28'-59		desc. node	3814 Dec 25 08:52	3°♌00'39	
minimum elong	3812 Aug 03 06:28	13°Ω13'26	5°26'49			3815 Jan 15 20:24	0°♍	
min. Earth dist.	3812 Aug 03 10:02	13°Ω07'51	0.29049 AU		evening rise	3815 Feb 03 21:06	23°♍55'19	
morning rise	3812 Aug 08 15:57	9°Ω54'58				3815 Feb 08 17:14	0°Ϡ	
direct	3812 Aug 25 06:46	4°Ω41'30				3815 Mar 04 15:29	0°Υ	
greatest brilliancy	3812 Sep 07 22:41	7°Ω56'36	-4.5m			3815 Mar 28 17:36	0°Ϡ	
	3812 Oct 08 03:03	0°Ⓜ			asc. node	3815 Apr 17 11:27	24°Ϡ20'19	
morning max el	3812 Oct 13 07:41	4°Ⓜ56'01	45°58'14			3815 Apr 22 02:28	0°Π	
asc. node	3812 Oct 30 16:21	22°Ⓜ45'03				3815 May 16 21:27	0°☿	
	3812 Nov 06 08:13	0°♁				3815 Jun 11 07:46	0°Ω	
	3812 Dec 02 13:27	0°♊				3815 Jul 07 20:47	0°Ⓜ	
	3812 Dec 27 13:36	0°♋			evening max el	3815 Aug 04 22:08	29°Ⓜ00'47	45°31'58
	3813 Jan 20 23:59	0°♌				3815 Aug 05 23:03	0°♁	
	3813 Feb 14 03:54	0°♍			desc. node	3815 Aug 07 01:33	1°♁02'30	
desc. node	3813 Feb 19 06:29	6°♍21'55			greatest brilliancy	3815 Sep 10 18:45	26°♁11'24	-4.5m
	3813 Mar 10 05:07	0°Ϡ			retrograde	3815 Sep 22 14:37	28°♁39'54	
	3813 Apr 03 05:57	0°Υ			evening set	3815 Oct 10 11:05	22°♁42'11	
morning set	3813 Apr 18 03:37	18°Υ34'28			inferior conj	3815 Oct 13 19:26	20°♁39'29	-8°-21'-5
	3813 Apr 27 08:03	0°Ϡ			minimum elong	3815 Oct 14 01:03	20°♁30'47	8°20'37
	3813 May 21 12:35	0°Π			min. Earth dist.	3815 Oct 14 14:47	20°♁09'32	0.28389 AU
					morning rise	3815 Oct 17 14:48	18°♁19'59	
superior conj	3813 May 26 17:41	6°Π26'46	0°-38'-31		direct	3815 Nov 04 03:51	12°♁28'38	
minimum elong	3813 May 27 01:36	6°Π51'13	0°38'10		greatest brilliancy	3815 Nov 18 17:57	16°♁18'12	-4.6m
max. Earth dist.	3813 May 29 14:17	9°Π58'37	1.72918 AU		asc. node	3815 Nov 28 04:02	21°♁57'10	
asc. node	3813 Jun 12 09:08	26°Π59'15				3815 Dec 08 10:37	0°♊	
	3813 Jun 14 19:47	0°☿			morning max el	3815 Dec 24 14:38	15°♊13'35	46°42'35
evening rise	3813 Jul 03 04:55	22°☿36'38				3816 Jan 07 14:56	0°♋	
	3813 Jul 09 05:19	0°Ω				3816 Feb 03 00:17	0°♌	
	3813 Aug 02 16:58	0°Ⓜ				3816 Feb 28 04:38	0°♍	
	3813 Aug 27 07:22	0°♁			desc. node	3816 Mar 18 18:25	23°♍46'02	
	3813 Sep 21 02:04	0°♊				3816 Mar 23 20:55	0°Ϡ	
desc. node	3813 Oct 01 23:16	13°♊04'50				3816 Apr 17 08:09	0°Υ	
	3813 Oct 16 03:06	0°♋				3816 May 11 17:56	0°Ϡ	
	3813 Nov 10 13:40	0°♌				3816 Jun 05 03:59	0°Π	
	3813 Dec 06 18:26	0°♍			morning set	3816 Jun 27 14:19	27°Π32'07	
evening max el	3813 Dec 30 18:00	25°♍43'54	47°11'43			3816 Jun 29 14:30	0°☿	

asc. node	3816 Jul 09 21:02	12°♊36'45		minimum elong	3818 Dec 25 17:01	3°♊16'28	0°00'41
	3816 Jul 24 00:44	0°♊		transit middle	3818 Dec 25 17:01	3°♊16'28	0°00'41
max. Earth dist.	3816 Aug 02 10:18	11°♊33'17	1.73507 AU	transit begin	3818 Dec 25 12:57	3°♊22'41	
				transit end	3818 Dec 25 21:05	3°♊10'15	
superior conj	3816 Aug 03 09:29	12°♊44'35	0°54'06	asc. node	3818 Dec 25 15:59	3°♊18'02	
minimum elong	3816 Aug 03 00:43	12°♊17'37	0°53'46	min. Earth dist.	3818 Dec 25 22:46	3°♊07'42	0.26649 AU
	3816 Aug 17 09:55	0°♊			3818 Dec 31 06:14	30°♊	
evening rise	3816 Sep 08 08:12	27°♊01'30		morning rise	3818 Dec 31 21:37	29°♊39'13	
	3816 Sep 10 18:05	0°♊		direct	3819 Jan 15 06:31	25°♊33'50	
	3816 Oct 05 02:04	0°♊		greatest brilliancy	3819 Jan 27 20:15	28°♊29'49	-4.7m
desc. node	3816 Oct 29 11:08	0°♊01'14			3819 Jan 30 22:39	0°♊	
	3816 Oct 29 10:44	0°♊		morning max el	3819 Mar 06 19:00	28°♊36'02	46°56'22
	3816 Nov 22 20:43	0°♊			3819 Mar 08 04:08	0°♊	
	3816 Dec 17 09:02	0°♊			3819 Apr 04 21:38	0°♊	
	3817 Jan 11 03:01	0°♊		desc. node	3819 Apr 16 06:12	12°♊58'16	
	3817 Feb 05 11:19	0°♊			3819 Apr 30 21:16	0°♊	
asc. node	3817 Feb 19 13:41	16°♊04'23			3819 May 26 04:54	0°♊	
	3817 Mar 04 08:05	0°♊			3819 Jun 20 05:22	0°♊	
evening max el	3817 Mar 12 21:34	8°♊51'57	46°46'24		3819 Jul 15 01:40	0°♊	
	3817 Apr 05 12:45	0°♊		asc. node	3819 Aug 07 08:51	28°♊18'47	
greatest brilliancy	3817 Apr 17 22:37	7°♊43'42	-4.6m		3819 Aug 08 18:02	0°♊	
retrograde	3817 May 02 04:09	11°♊22'15			3819 Sep 02 05:56	0°♊	
evening set	3817 May 18 00:42	6°♊25'32		morning set	3819 Sep 04 14:34	2°♊54'11	
inferior conj	3817 May 23 08:33	3°♊10'36	4°22'05		3819 Sep 26 13:28	0°♊	
minimum elong	3817 May 23 17:09	2°♊57'07	4°19'47	max. Earth dist.	3819 Oct 08 02:30	14°♊18'33	1.72650 AU
min. Earth dist.	3817 May 23 05:52	3°♊14'48	0.28304 AU				
	3817 May 28 14:14	30°♊		superior conj	3819 Oct 11 04:49	18°♊09'12	1°22'30
morning rise	3817 May 29 10:08	29°♊32'10		minimum elong	3819 Oct 11 09:29	18°♊23'39	1°22'26
desc. node	3817 Jun 11 03:45	25°♊11'47			3819 Oct 20 17:41	0°♊	
direct	3817 Jun 13 14:03	25°♊04'45			3819 Nov 13 19:58	0°♊	
greatest brilliancy	3817 Jun 25 17:51	27°♊43'47	-4.5m	evening rise	3819 Nov 18 05:59	5°♊30'19	
	3817 Jun 30 12:55	0°♊		desc. node	3819 Nov 26 23:04	16°♊22'06	
morning max el	3817 Aug 01 09:52	24°♊59'36	45°43'43		3819 Dec 07 21:18	0°♊	
	3817 Aug 06 13:40	0°♊			3819 Dec 31 22:19	0°♊	
	3817 Sep 04 01:14	0°♊			3820 Jan 25 00:12	0°♊	
	3817 Sep 30 09:59	0°♊			3820 Feb 18 05:38	0°♊	
asc. node	3817 Oct 02 06:32	2°♊10'03			3820 Mar 13 19:37	0°♊	
	3817 Oct 25 16:33	0°♊		asc. node	3820 Mar 19 01:30	6°♊18'30	
	3817 Nov 19 07:10	0°♊			3820 Apr 08 02:26	0°♊	
	3817 Dec 13 12:14	0°♊			3820 May 04 18:38	0°♊	
	3818 Jan 06 12:07	0°♊		evening max el	3820 May 22 18:31	18°♊33'19	45°46'28
desc. node	3818 Jan 21 20:42	19°♊16'31			3820 Jun 04 04:00	0°♊	
morning set	3818 Jan 29 07:01	28°♊36'43		greatest brilliancy	3820 Jun 26 08:23	15°♊24'31	-4.5m
	3818 Jan 30 09:32	0°♊		desc. node	3820 Jul 08 15:45	18°♊59'44	
	3818 Feb 23 06:11	0°♊		retrograde	3820 Jul 10 19:17	19°♊05'05	
				evening set	3820 Jul 26 11:16	14°♊23'02	
superior conj	3818 Mar 11 17:55	20°♊42'42	-1°-24'-49	inferior conj	3820 Aug 01 08:34	10°♊49'47	-5°-13'-31
minimum elong	3818 Mar 11 12:57	20°♊27'07	1°24'47	minimum elong	3820 Jul 31 23:08	11°♊04'34	5°11'21
max. Earth dist.	3818 Mar 14 23:06	24°♊44'50	1.71414 AU	min. Earth dist.	3820 Aug 01 02:21	10°♊59'31	0.29038 AU
	3818 Mar 19 03:37	0°♊		morning rise	3820 Aug 06 10:59	7°♊42'50	
	3818 Apr 12 03:27	0°♊		direct	3820 Aug 22 22:36	2°♊32'55	
evening rise	3818 Apr 21 01:47	11°♊07'09		greatest brilliancy	3820 Sep 05 15:15	5°♊48'24	-4.5m
	3818 May 06 07:12	0°♊			3820 Oct 08 02:48	0°♊	
asc. node	3818 May 14 23:20	10°♊42'28		morning max el	3820 Oct 10 22:58	2°♊43'16	45°57'05
	3818 May 30 16:00	0°♊		asc. node	3820 Oct 29 18:18	22°♊04'18	
	3818 Jun 24 06:48	0°♊			3820 Nov 06 00:15	0°♊	
	3818 Jul 19 05:22	0°♊			3820 Dec 02 03:01	0°♊	
	3818 Aug 13 15:30	0°♊			3820 Dec 27 02:03	0°♊	
desc. node	3818 Sep 03 13:21	24°♊01'27			3821 Jan 20 11:51	0°♊	
	3818 Sep 08 20:55	0°♊			3821 Feb 13 15:26	0°♊	
	3818 Oct 06 16:48	0°♊		desc. node	3821 Feb 18 08:30	5°♊52'28	
evening max el	3818 Oct 16 12:39	9°♊49'31	46°20'47		3821 Mar 09 16:25	0°♊	
	3818 Nov 08 20:28	0°♊			3821 Apr 02 17:03	0°♊	
greatest brilliancy	3818 Nov 24 02:33	8°♊43'16	-4.6m	morning set	3821 Apr 15 16:42	16°♊11'26	
retrograde	3818 Dec 05 02:34	10°♊56'22			3821 Apr 26 19:01	0°♊	
evening set	3818 Dec 19 12:02	6°♊53'33			3821 May 20 23:27	0°♊	
inferior conj	3818 Dec 25 17:03	3°♊16'25	0°00'41				

superior conj	3821 May 24 09:04	4° Π 12'25	0°-41'-35	direct	3823 Nov 01 20:03	10° Ω 13'10	
minimum elong	3821 May 24 17:29	4° Π 38'27	0°41'14	greatest brilliancy	3823 Nov 16 08:45	14° Ω 01'04	-4.6m
max. Earth dist.	3821 May 27 06:07	7° Π 45'50	1.72872 AU	asc. node	3823 Nov 27 06:11	20° Ω 42'13	
asc. node	3821 Jun 11 11:15	26° Π 32'24			3823 Dec 08 17:07	0° \mathbb{M}	
	3821 Jun 14 06:37	0° \mathfrak{S}		morning max el	3823 Dec 22 05:42	12° \mathbb{M} 54'26	46°41'04
evening rise	3821 Jun 30 22:33	20° \mathfrak{S} 30'08			3824 Jan 07 09:04	0° \mathcal{X}	
	3821 Jul 08 16:11	0° Ω			3824 Feb 02 15:05	0° \mathfrak{C}	
	3821 Aug 02 03:59	0° \mathfrak{M}			3824 Feb 27 17:54	0° \approx	
	3821 Aug 26 18:45	0° Ω		desc. node	3824 Mar 17 20:19	23° \approx 13'32	
	3821 Sep 20 14:02	0° \mathbb{M}			3824 Mar 23 09:18	0° \mathcal{X}	
desc. node	3821 Oct 01 01:14	12° \mathbb{M} 33'51			3824 Apr 16 19:58	0° \mathcal{Y}	
	3821 Oct 15 15:59	0° \mathcal{X}			3824 May 11 05:20	0° \mathfrak{C}	
	3821 Nov 10 04:01	0° \mathfrak{C}			3824 Jun 04 15:06	0° Π	
	3821 Dec 06 11:37	0° \approx		morning set	3824 Jun 25 07:49	25° Π 24'58	
evening max el	3821 Dec 28 07:58	23° \approx 20'04	47°11'16		3824 Jun 29 01:25	0° \mathfrak{S}	
	3822 Jan 04 01:38	0° \mathcal{X}		asc. node	3824 Jul 08 23:02	12° \mathfrak{S} 09'28	
asc. node	3822 Jan 22 03:53	15° \mathcal{X} 42'37			3824 Jul 23 11:34	0° Ω	
greatest brilliancy	3822 Feb 04 18:35	23° \mathcal{X} 58'00	-4.7m	max. Earth dist.	3824 Jul 31 07:31	9° Ω 37'36	1.73512 AU
retrograde	3822 Feb 17 04:48	26° \mathcal{X} 52'24					
evening set	3822 Mar 06 16:48	20° \mathcal{X} 55'35		superior conj	3824 Aug 01 03:43	10° Ω 39'44	0°51'37
inferior conj	3822 Mar 09 22:58	18° \mathcal{X} 55'53	8°46'10	minimum elong	3824 Jul 31 19:07	10° Ω 13'17	0°51'17
minimum elong	3822 Mar 09 18:06	19° \mathcal{X} 03'25	8°45'50		3824 Aug 16 20:46	0° \mathfrak{M}	
min. Earth dist.	3822 Mar 09 07:30	19° \mathcal{X} 19'49	0.27203 AU	evening rise	3824 Sep 06 02:14	24° \mathfrak{M} 55'24	
morning rise	3822 Mar 12 19:33	17° \mathcal{X} 10'47			3824 Sep 10 05:04	0° Ω	
direct	3822 Mar 30 12:26	11° \mathcal{X} 08'26			3824 Oct 04 13:15	0° \mathbb{M}	
greatest brilliancy	3822 Apr 10 09:33	13° \mathcal{X} 20'15	-4.6m	desc. node	3824 Oct 28 13:13	29° \mathbb{M} 32'14	
	3822 May 05 13:41	0° \mathcal{Y}			3824 Oct 28 22:15	0° \mathcal{X}	
desc. node	3822 May 13 18:00	7° \mathcal{Y} 22'45			3824 Nov 22 08:42	0° \mathfrak{C}	
morning max el	3822 May 19 05:42	12° \mathcal{Y} 38'32	46°18'26		3824 Dec 16 21:40	0° \approx	
	3822 Jun 05 03:55	0° \mathfrak{C}			3825 Jan 10 16:38	0° \mathcal{X}	
	3822 Jul 02 08:54	0° Π			3825 Feb 05 02:45	0° \mathcal{Y}	
	3822 Jul 28 09:57	0° \mathfrak{S}		asc. node	3825 Feb 18 15:38	15° \mathcal{Y} 22'09	
	3822 Aug 22 19:32	0° Ω			3825 Mar 04 03:52	0° \mathfrak{C}	
asc. node	3822 Sep 03 20:39	14° Ω 26'33		evening max el	3825 Mar 10 12:44	6° \mathfrak{C} 33'31	46°48'21
	3822 Sep 16 17:26	0° \mathfrak{M}			3825 Apr 06 08:06	0° Π	
	3822 Oct 11 05:50	0° Ω		greatest brilliancy	3825 Apr 15 17:17	5° Π 32'15	-4.6m
	3822 Nov 04 11:10	0° \mathbb{M}		retrograde	3825 Apr 29 19:45	9° Π 07'18	
morning set	3822 Nov 13 03:31	10° \mathbb{M} 48'48		evening set	3825 May 15 18:56	4° Π 07'28	
	3822 Nov 28 12:03	0° \mathcal{X}		inferior conj	3825 May 21 00:03	0° Π 56'11	4°40'19
max. Earth dist.	3822 Dec 20 16:01	27° \mathcal{X} 46'55	1.71365 AU	minimum elong	3825 May 21 09:03	0° Π 42'03	4°37'59
				min. Earth dist.	3825 May 20 21:27	1° Π 00'17	0.28270 AU
superior conj	3822 Dec 22 09:25	29° \mathcal{X} 56'51	0°05'00		3825 May 22 11:57	30° \mathcal{R}	
minimum elong	3822 Dec 22 10:41	0° \mathfrak{C} 00'52	0°04'56	morning rise	3825 May 26 23:42	27° \mathfrak{C} 20'09	
behind sun begin	3822 Dec 21 10:03	28° \mathcal{X} 43'30		desc. node	3825 Jun 10 05:47	22° \mathfrak{C} 52'13	
behind sun end	3822 Dec 23 11:20	1° \mathfrak{C} 18'14		direct	3825 Jun 11 05:17	22° \mathfrak{C} 51'05	
	3822 Dec 22 10:25	0° \mathfrak{C}		greatest brilliancy	3825 Jun 23 06:35	25° \mathfrak{C} 27'29	-4.5m
desc. node	3822 Dec 24 10:57	2° \mathfrak{C} 32'20			3825 Jul 02 01:00	0° Π	
	3823 Jan 15 07:30	0° \approx		morning max el	3825 Jul 30 00:29	22° Π 45'41	45°44'03
evening rise	3823 Feb 01 07:45	21° \approx 22'58			3825 Aug 06 10:09	0° \mathfrak{S}	
	3823 Feb 08 04:23	0° \mathcal{X}			3825 Sep 03 16:24	0° Ω	
	3823 Mar 04 02:44	0° \mathcal{Y}			3825 Sep 29 23:07	0° \mathfrak{M}	
	3823 Mar 28 05:01	0° \mathfrak{C}		asc. node	3825 Oct 01 08:34	1° \mathfrak{M} 37'48	
asc. node	3823 Apr 16 13:29	23° \mathfrak{C} 50'56			3825 Oct 25 04:44	0° Ω	
	3823 Apr 21 14:11	0° Π			3825 Nov 18 18:51	0° \mathbb{M}	
	3823 May 16 09:45	0° \mathfrak{S}			3825 Dec 12 23:40	0° \mathcal{X}	
	3823 Jun 10 21:14	0° Ω			3826 Jan 05 23:24	0° \mathfrak{C}	
	3823 Jul 07 12:50	0° \mathfrak{M}		desc. node	3826 Jan 20 22:39	18° \mathfrak{C} 47'17	
evening max el	3823 Aug 02 13:58	26° \mathfrak{M} 49'33	45°31'18	morning set	3826 Jan 26 16:54	26° \mathfrak{C} 01'40	
	3823 Aug 05 22:49	0° Ω			3826 Jan 29 20:45	0° \approx	
desc. node	3823 Aug 06 03:34	0° Ω 11'02			3826 Feb 22 17:22	0° \mathcal{X}	
greatest brilliancy	3823 Sep 08 07:28	23° Ω 55'44	-4.5m				
retrograde	3823 Sep 20 05:24	26° Ω 25'41		superior conj	3826 Mar 09 04:38	18° \mathcal{X} 10'44	-1°-23'-54
evening set	3823 Oct 08 03:30	20° Ω 25'33		minimum elong	3826 Mar 08 22:42	17° \mathcal{X} 52'05	1°23'51
inferior conj	3823 Oct 11 10:32	18° Ω 24'30	-8°-26'-7	max. Earth dist.	3826 Mar 12 05:45	22° \mathcal{X} 00'08	1.71375 AU
minimum elong	3823 Oct 11 15:27	18° Ω 16'52	8°25'47		3826 Mar 18 14:46	0° \mathcal{Y}	
min. Earth dist.	3823 Oct 12 04:44	17° Ω 56'16	0.28447 AU		3826 Apr 11 14:35	0° \mathfrak{C}	
morning rise	3823 Oct 15 03:13	16° Ω 08'45		evening rise	3826 Apr 18 14:09	8° \mathfrak{C} 41'43	

	3826 May 05 18:21	0°♈			3828 Nov 05 16:04	0°♈	
asc. node	3826 May 14 01:28	10°♈14'38			3828 Dec 01 16:33	0°♈	
	3826 May 30 03:15	0°♈			3828 Dec 26 14:34	0°♈	
	3826 Jun 23 18:22	0°♈			3829 Jan 19 23:50	0°♈	
	3826 Jul 18 17:32	0°♈			3829 Feb 13 03:03	0°♈	
	3826 Aug 13 04:45	0°♈		desc. node	3829 Feb 17 10:33	5°♈22'46	
desc. node	3826 Sep 02 15:17	23°♈25'10			3829 Mar 09 03:45	0°♈	
	3826 Sep 08 12:19	0°♈			3829 Apr 02 04:10	0°♈	
	3826 Oct 06 13:25	0°♈		morning set	3829 Apr 13 05:28	13°♈47'12	
evening max el	3826 Oct 14 01:02	7°♈25'30	46°18'29		3829 Apr 26 05:59	0°♈	
	3826 Nov 09 20:50	0°♈			3829 May 20 10:20	0°♈	
greatest brilliancy	3826 Nov 21 16:29	6°♈18'25	-4.6m				
retrograde	3826 Dec 02 14:26	8°♈29'52		superior conj	3829 May 22 00:12	1°♈57'11	0°-44'-36
evening set	3826 Dec 17 01:30	4°♈25'29		minimum elong	3829 May 22 09:06	2°♈24'43	0°44'15
inferior conj	3826 Dec 23 05:40	0°♈49'53	0°-23'-31	max. Earth dist.	3829 May 24 22:44	5°♈35'17	1.72829 AU
minimum elong	3826 Dec 23 06:34	0°♈48'30	0°23'14	asc. node	3829 Jun 10 13:14	26°♈05'07	
min. Earth dist.	3826 Dec 23 13:12	0°♈38'24	0.26680 AU		3829 Jun 13 17:28	0°♈	
asc. node	3826 Dec 24 17:58	29°♈54'36		evening rise	3829 Jun 28 16:08	18°♈23'19	
	3826 Dec 24 14:25	30°♈			3829 Jul 08 03:05	0°♈	
morning rise	3826 Dec 29 11:06	27°♈11'21			3829 Aug 01 15:02	0°♈	
direct	3827 Jan 12 18:52	23°♈06'23			3829 Aug 26 06:07	0°♈	
greatest brilliancy	3827 Jan 25 12:41	26°♈06'22	-4.7m		3829 Sep 20 01:59	0°♈	
	3827 Feb 01 17:44	0°♈		desc. node	3829 Sep 30 03:23	12°♈03'36	
morning max el	3827 Mar 04 07:49	26°♈08'51	46°56'54		3829 Oct 15 04:52	0°♈	
	3827 Mar 08 02:20	0°♈			3829 Nov 09 18:28	0°♈	
	3827 Apr 04 13:57	0°♈			3829 Dec 06 05:09	0°♈	
desc. node	3827 Apr 15 08:21	12°♈20'54		evening max el	3829 Dec 25 22:43	20°♈58'08	47°10'32
	3827 Apr 30 11:14	0°♈			3830 Jan 04 04:16	0°♈	
	3827 May 25 17:35	0°♈		asc. node	3830 Jan 21 05:51	14°♈23'23	
	3827 Jun 19 17:16	0°♈		greatest brilliancy	3830 Feb 02 08:18	21°♈31'50	-4.7m
	3827 Jul 14 13:03	0°♈		retrograde	3830 Feb 14 18:56	24°♈26'07	
asc. node	3827 Aug 06 10:51	27°♈51'06		evening set	3830 Mar 04 02:33	18°♈34'44	
	3827 Aug 08 05:06	0°♈		min. Earth dist.	3830 Mar 06 19:41	16°♈55'25	0.27159 AU
	3827 Sep 01 16:50	0°♈		inferior conj	3830 Mar 07 12:02	16°♈30'09	8°40'36
morning set	3827 Sep 02 08:12	0°♈47'16		minimum elong	3830 Mar 07 06:20	16°♈38'58	8°40'08
	3827 Sep 26 00:19	0°♈		morning rise	3830 Mar 10 10:19	14°♈42'44	
max. Earth dist.	3827 Oct 05 21:26	12°♈14'37	1.72700 AU	direct	3830 Mar 28 01:40	8°♈43'32	
				greatest brilliancy	3830 Apr 07 21:14	10°♈54'33	-4.6m
superior conj	3827 Oct 08 21:43	15°♈58'51	1°23'15		3830 May 05 19:58	0°♈	
minimum elong	3827 Oct 09 01:41	16°♈11'11	1°23'13	desc. node	3830 May 12 20:05	6°♈27'52	
	3827 Oct 20 04:36	0°♈		morning max el	3830 May 16 20:10	10°♈19'54	46°20'00
	3827 Nov 13 07:01	0°♈			3830 Jun 04 21:51	0°♈	
evening rise	3827 Nov 15 20:00	3°♈09'55			3830 Jul 01 23:16	0°♈	
desc. node	3827 Nov 26 01:11	15°♈53'52			3830 Jul 27 22:40	0°♈	
	3827 Dec 07 08:33	0°♈			3830 Aug 22 07:19	0°♈	
	3827 Dec 31 09:48	0°♈		asc. node	3830 Sep 02 22:43	13°♈58'08	
	3828 Jan 24 11:57	0°♈			3830 Sep 16 04:41	0°♈	
	3828 Feb 17 17:47	0°♈			3830 Oct 10 16:48	0°♈	
	3828 Mar 13 08:29	0°♈			3830 Nov 03 22:01	0°♈	
asc. node	3828 Mar 18 03:34	5°♈45'34		morning set	3830 Nov 10 18:37	8°♈32'29	
	3828 Apr 07 16:41	0°♈			3830 Nov 27 22:53	0°♈	
	3828 May 04 12:07	0°♈		max. Earth dist.	3830 Dec 18 01:43	25°♈12'39	1.71397 AU
evening max el	3828 May 20 09:44	16°♈19'32	45°48'11				
	3828 Jun 04 09:54	0°♈		superior conj	3830 Dec 19 21:13	27°♈29'08	0°08'49
greatest brilliancy	3828 Jun 23 22:32	13°♈12'12	-4.5m	minimum elong	3830 Dec 19 23:27	27°♈36'08	0°08'42
desc. node	3828 Jul 07 17:44	16°♈55'26		behind sun begin	3830 Dec 19 01:36	26°♈27'36	
retrograde	3828 Jul 08 12:10	16°♈56'08		behind sun end	3830 Dec 20 21:18	28°♈44'42	
evening set	3828 Jul 24 01:36	12°♈16'27			3830 Dec 21 21:18	0°♈	
inferior conj	3828 Jul 30 00:56	8°♈40'34	-4°-57'-36	desc. node	3830 Dec 23 12:54	2°♈04'16	
minimum elong	3828 Jul 29 15:44	8°♈54'58	4°55'24		3831 Jan 14 18:27	0°♈	
min. Earth dist.	3828 Jul 29 18:19	8°♈50'55	0.29023 AU	evening rise	3831 Jan 29 18:17	18°♈50'36	
morning rise	3828 Aug 04 05:54	5°♈30'16			3831 Feb 07 15:26	0°♈	
direct	3828 Aug 20 14:36	0°♈23'49			3831 Mar 03 13:54	0°♈	
greatest brilliancy	3828 Sep 03 07:29	3°♈39'40	-4.5m		3831 Mar 27 16:21	0°♈	
	3828 Oct 08 01:34	0°♈		asc. node	3831 Apr 15 15:35	23°♈22'01	
morning max el	3828 Oct 08 14:59	0°♈32'24	45°55'57		3831 Apr 21 01:49	0°♈	
asc. node	3828 Oct 28 20:30	21°♈24'28			3831 May 15 21:59	0°♈	

	3831 Jun 10 10:41	0°♈				3834 Jan 05 10:20	0°♈	
	3831 Jul 07 04:59	0°♍			desc. node	3834 Jan 20 00:42	18°♈19'33	
evening max el	3831 Jul 31 05:19	24°♍37'38	45°30'37		morning set	3834 Jan 24 03:10	23°♈28'57	
desc. node	3831 Aug 05 05:34	29°♍19'01				3834 Jan 29 07:35	0°♍	
	3831 Aug 05 23:32	0°♊				3834 Feb 22 04:08	0°♋	
greatest brilliancy	3831 Sep 05 21:03	21°♊41'38	-4.5m					
retrograde	3831 Sep 17 19:43	24°♊12'12			superior conj	3834 Mar 06 15:42	15°♋41'08	-1°-22'-50
evening set	3831 Oct 05 19:39	18°♊10'17			minimum elong	3834 Mar 06 08:49	15°♋19'33	1°22'44
inferior conj	3831 Oct 09 01:40	16°♊10'28	-8°-30'-22		max. Earth dist.	3834 Mar 09 10:37	19°♋11'11	1.71338 AU
minimum elong	3831 Oct 09 05:49	16°♊04'00	8°30'09			3834 Mar 18 01:29	0°♌	
min. Earth dist.	3831 Oct 09 19:01	15°♊43'28	0.28499 AU			3834 Apr 11 01:17	0°♍	
morning rise	3831 Oct 12 15:49	13°♊58'09			evening rise	3834 Apr 16 02:39	6°♍17'57	
direct	3831 Oct 30 11:47	7°♊58'41				3834 May 05 05:06	0°♎	
greatest brilliancy	3831 Nov 13 23:08	11°♊44'21	-4.6m		asc. node	3834 May 13 03:25	9°♎47'19	
asc. node	3831 Nov 26 08:06	19°♊29'53				3834 May 29 14:11	0°♏	
	3831 Dec 08 21:11	0°♐				3834 Jun 23 05:37	0°♏	
morning max el	3831 Dec 19 19:48	10°♐33'52	46°39'40			3834 Jul 18 05:24	0°♐	
	3832 Jan 07 02:25	0°♑				3834 Aug 12 17:45	0°♑	
	3832 Feb 02 05:21	0°♈			desc. node	3834 Sep 01 17:27	22°♑50'16	
	3832 Feb 27 06:46	0°♍				3834 Sep 08 03:35	0°♐	
desc. node	3832 Mar 16 22:27	22°♍42'38				3834 Oct 06 10:20	0°♑	
	3832 Mar 22 21:23	0°♋			evening max el	3834 Oct 11 13:27	5°♑02'52	46°16'16
	3832 Apr 16 07:32	0°♌				3834 Nov 11 06:00	0°♈	
	3832 May 10 16:32	0°♍			greatest brilliancy	3834 Nov 19 05:28	3°♈53'36	-4.6m
	3832 Jun 04 01:59	0°♎			retrograde	3834 Nov 30 02:39	6°♈04'30	
morning set	3832 Jun 23 00:56	23°♎17'22			evening set	3834 Dec 14 15:06	1°♈57'59	
	3832 Jun 28 12:06	0°♏				3834 Dec 18 02:41	30°♌♑	
asc. node	3832 Jul 08 01:00	11°♏42'49			inferior conj	3834 Dec 20 18:12	28°♑24'12	0°-47'-42
	3832 Jul 22 22:09	0°♏			minimum elong	3834 Dec 20 20:02	28°♑21'24	0°47'07
max. Earth dist.	3832 Jul 29 03:29	7°♏38'57	1.73515 AU		min. Earth dist.	3834 Dec 21 03:23	28°♑10'12	0.26715 AU
					asc. node	3834 Dec 23 20:00	26°♑32'48	
superior conj	3832 Jul 29 21:44	8°♏35'04	0°49'04		morning rise	3834 Dec 27 00:20	24°♑44'49	
minimum elong	3832 Jul 29 13:21	8°♏09'16	0°48'43		direct	3835 Jan 10 07:32	20°♑39'37	
	3832 Aug 16 07:22	0°♐			greatest brilliancy	3835 Jan 23 05:09	23°♑43'59	-4.7m
evening rise	3832 Sep 03 20:14	22°♐50'00				3835 Feb 02 22:55	0°♈	
	3832 Sep 09 15:47	0°♊			morning max el	3835 Mar 01 21:42	23°♈45'34	46°57'37
	3832 Oct 04 00:12	0°♐				3835 Mar 07 23:16	0°♍	
desc. node	3832 Oct 27 15:17	29°♐04'02				3835 Apr 04 05:31	0°♋	
	3832 Oct 28 09:30	0°♑			desc. node	3835 Apr 14 10:23	11°♋44'54	
	3832 Nov 21 20:23	0°♈				3835 Apr 30 00:35	0°♌	
	3832 Dec 16 09:59	0°♍				3835 May 25 05:45	0°♍	
	3833 Jan 10 05:57	0°♋				3835 Jun 19 04:43	0°♎	
	3833 Feb 04 17:57	0°♌				3835 Jul 14 00:03	0°♏	
asc. node	3833 Feb 17 17:42	14°♌40'59			asc. node	3835 Aug 05 12:56	27°♏24'40	
	3833 Mar 03 23:50	0°♍				3835 Aug 07 15:50	0°♏	
evening max el	3833 Mar 08 02:50	4°♍13'20	46°50'05		morning set	3835 Aug 31 01:44	28°♏41'02	
	3833 Apr 07 10:03	0°♎				3835 Sep 01 03:24	0°♐	
greatest brilliancy	3833 Apr 13 11:27	3°♎20'33	-4.6m			3835 Sep 25 10:51	0°♊	
retrograde	3833 Apr 27 10:55	6°♎52'41			max. Earth dist.	3835 Oct 03 17:15	10°♊14'31	1.72745 AU
evening set	3833 May 13 13:05	1°♎49'27						
	3833 May 16 13:43	30°♌♍			superior conj	3835 Oct 06 14:29	13°♊49'12	1°23'53
inferior conj	3833 May 18 15:26	28°♍42'07	4°58'17		minimum elong	3835 Oct 06 17:46	13°♊59'24	1°23'52
minimum elong	3833 May 19 00:47	28°♍27'26	4°55'55			3835 Oct 19 15:11	0°♐	
min. Earth dist.	3833 May 18 13:12	28°♍45'38	0.28241 AU			3835 Nov 12 17:46	0°♑	
morning rise	3833 May 24 12:56	25°♍08'44			evening rise	3835 Nov 13 10:03	0°♑50'42	
direct	3833 Jun 08 19:51	20°♍37'32			desc. node	3835 Nov 25 03:05	15°♑25'58	
desc. node	3833 Jun 09 07:45	20°♍37'49				3835 Dec 06 19:31	0°♈	
greatest brilliancy	3833 Jun 20 20:15	23°♍12'32	-4.5m			3835 Dec 30 21:01	0°♍	
	3833 Jul 03 02:15	0°♎				3836 Jan 23 23:27	0°♋	
morning max el	3833 Jul 27 14:39	20°♎31'15	45°44'33			3836 Feb 17 05:41	0°♌	
	3833 Aug 06 05:43	0°♏				3836 Mar 12 21:04	0°♍	
	3833 Sep 03 07:02	0°♏			asc. node	3836 Mar 17 05:41	5°♍13'46	
	3833 Sep 29 11:50	0°♐				3836 Apr 07 06:39	0°♎	
asc. node	3833 Sep 30 10:41	1°♐06'55				3836 May 04 05:29	0°♏	
	3833 Oct 24 16:32	0°♊			evening max el	3836 May 18 01:50	14°♏09'17	45°49'55
	3833 Nov 18 06:11	0°♐				3836 Jun 04 17:30	0°♏	
	3833 Dec 12 10:44	0°♑			greatest brilliancy	3836 Jun 21 13:08	11°♏01'47	-4.5m

retrograde	3836 Jul 06 05:17	14°♌48'18		superior conj	3838 Dec 17 09:02	25°♏01'27	0°12'36
desc. node	3836 Jul 06 19:45	14°♌47'52		minimum elong	3838 Dec 17 12:12	25°♏11'22	0°12'27
evening set	3836 Jul 21 16:14	10°♌10'55		behind sun begin	3838 Dec 16 19:38	24°♏19'24	
inferior conj	3836 Jul 27 17:22	6°♌32'26	-4°-41'-17	behind sun end	3838 Dec 18 04:46	26°♏03'20	
minimum elong	3836 Jul 27 08:28	6°♌46'22	4°39'06		3838 Dec 21 08:13	0°♏	
min. Earth dist.	3836 Jul 27 10:11	6°♌43'40	0.29011 AU	desc. node	3838 Dec 22 14:58	1°♏36'28	
morning rise	3836 Aug 02 00:50	3°♌18'52			3839 Jan 14 05:26	0°≈	
	3836 Aug 08 22:45	30°♌		evening rise	3839 Jan 27 04:42	16°≈17'48	
direct	3836 Aug 18 07:11	28°♌15'52			3839 Feb 07 02:31	0°✕	
	3836 Aug 28 02:30	0°♌			3839 Mar 03 01:07	0°♑	
greatest brilliancy	3836 Aug 31 23:04	1°♌31'07	-4.5m		3839 Mar 27 03:46	0°♏	
morning max el	3836 Oct 06 07:39	28°♌23'59	45°54'44	asc. node	3839 Apr 14 17:31	22°♏52'18	
	3836 Oct 07 23:08	0°♌			3839 Apr 20 13:34	0°♌	
asc. node	3836 Oct 27 22:25	20°♌44'57			3839 May 15 10:21	0°♏	
	3836 Nov 05 07:23	0°♌			3839 Jun 10 00:16	0°♌	
	3836 Dec 01 05:44	0°♌			3839 Jul 06 21:25	0°♌	
	3836 Dec 26 02:47	0°♏		evening max el	3839 Jul 28 20:00	22°♌24'15	45°30'04
	3837 Jan 19 11:32	0°♏		desc. node	3839 Aug 04 07:41	28°♌26'26	
	3837 Feb 12 14:25	0°≈			3839 Aug 06 01:31	0°♌	
desc. node	3837 Feb 16 12:35	4°≈53'47		greatest brilliancy	3839 Sep 03 10:36	19°♌27'59	-4.5m
	3837 Mar 08 14:53	0°✕		retrograde	3839 Sep 15 09:59	21°♌59'38	
	3837 Apr 01 15:05	0°♑		evening set	3839 Oct 03 11:41	15°♌56'15	
morning set	3837 Apr 10 18:20	11°♑23'49		inferior conj	3839 Oct 06 17:05	13°♌57'14	-8°-33'-49
	3837 Apr 25 16:45	0°♏		minimum elong	3839 Oct 06 20:26	13°♌52'00	8°33'40
				min. Earth dist.	3839 Oct 07 09:50	13°♌31'08	0.28554 AU
superior conj	3837 May 19 15:31	29°♏43'07	0°-47'-34	morning rise	3839 Oct 10 05:00	11°♌47'57	
minimum elong	3837 May 20 00:50	0°♌11'58	0°47'11	direct	3839 Oct 28 03:17	5°♌44'44	
	3837 May 19 20:58	0°♌		greatest brilliancy	3839 Nov 11 14:32	9°♌29'06	-4.6m
max. Earth dist.	3837 May 22 17:30	3°♌32'03	1.72781 AU	asc. node	3839 Nov 25 10:08	18°♌19'33	
asc. node	3837 Jun 09 15:14	25°♌38'38			3839 Dec 08 23:46	0°♌	
	3837 Jun 13 04:04	0°♏		morning max el	3839 Dec 17 09:41	8°♌12'20	46°38'07
evening rise	3837 Jun 26 09:56	16°♏17'59			3840 Jan 06 19:38	0°♏	
	3837 Jul 07 13:44	0°♌			3840 Feb 01 19:42	0°♏	
	3837 Aug 01 01:53	0°♌			3840 Feb 26 19:46	0°≈	
	3837 Aug 25 17:21	0°♌		desc. node	3840 Mar 16 00:30	22°≈10'58	
	3837 Sep 19 13:51	0°♌			3840 Mar 22 09:37	0°✕	
desc. node	3837 Sep 29 05:21	11°♌33'06			3840 Apr 15 19:15	0°♑	
	3837 Oct 14 17:43	0°♏			3840 May 10 03:53	0°♏	
	3837 Nov 09 08:58	0°♏			3840 Jun 03 13:03	0°♌	
	3837 Dec 05 22:56	0°≈		morning set	3840 Jun 20 18:05	21°♌09'04	
evening max el	3837 Dec 23 13:47	18°≈37'22	47°09'40		3840 Jun 27 22:58	0°♏	
	3838 Jan 04 08:23	0°✕		asc. node	3840 Jul 07 03:08	11°♏16'08	
asc. node	3838 Jan 20 07:57	13°✕01'59			3840 Jul 22 08:54	0°♌	
greatest brilliancy	3838 Jan 30 22:45	19°✕06'48	-4.7m	max. Earth dist.	3840 Jul 26 22:43	5°♌37'29	1.73512 AU
retrograde	3838 Feb 12 08:47	21°✕59'38					
evening set	3838 Mar 01 12:01	16°✕14'21		superior conj	3840 Jul 27 15:57	6°♌30'29	0°46'26
min. Earth dist.	3838 Mar 04 08:04	14°✕30'38	0.27113 AU	minimum elong	3840 Jul 27 07:48	6°♌05'25	0°46'05
inferior conj	3838 Mar 05 01:02	14°✕04'24	8°34'07		3840 Aug 15 18:07	0°♌	
minimum elong	3838 Mar 04 18:34	14°✕14'24	8°33'28	evening rise	3840 Sep 01 14:34	20°♌45'17	
morning rise	3838 Mar 08 01:20	12°✕14'01			3840 Sep 09 02:39	0°♌	
direct	3838 Mar 25 14:54	6°✕18'42			3840 Oct 03 11:18	0°♌	
greatest brilliancy	3838 Apr 05 08:38	8°✕28'18	-4.6m	desc. node	3840 Oct 26 17:14	28°♌34'51	
	3838 May 06 00:14	0°♑			3840 Oct 27 20:59	0°♏	
desc. node	3838 May 11 21:58	5°♑33'42			3840 Nov 21 08:22	0°♏	
morning max el	3838 May 14 10:08	8°♑00'04	46°21'41		3840 Dec 15 22:41	0°≈	
	3838 Jun 04 15:18	0°♏			3841 Jan 09 19:45	0°✕	
	3838 Jul 01 13:22	0°♌			3841 Feb 04 09:47	0°♑	
	3838 Jul 27 11:09	0°♏		asc. node	3841 Feb 16 19:46	13°♑58'06	
	3838 Aug 21 18:56	0°♌			3841 Mar 03 20:56	0°♏	
asc. node	3838 Sep 02 00:47	13°♌30'06		evening max el	3841 Mar 05 16:13	1°♏50'04	46°51'56
	3838 Sep 15 15:50	0°♌			3841 Apr 09 00:09	0°♌	
	3838 Oct 10 03:44	0°♌		greatest brilliancy	3841 Apr 11 04:30	1°♌05'55	-4.6m
	3838 Nov 03 08:54	0°♌		retrograde	3841 Apr 25 02:00	4°♌36'41	
morning set	3838 Nov 08 09:40	6°♌16'01			3841 May 10 09:45	30°♌♏	
	3838 Nov 27 09:46	0°♏		evening set	3841 May 11 07:08	29°♏29'31	
max. Earth dist.	3838 Dec 15 08:38	22°♏29'40	1.71430 AU	inferior conj	3841 May 16 06:41	26°♏26'31	5°15'55
				minimum elong	3841 May 16 16:19	26°♏11'22	5°13'33

min. Earth dist.	3841 May 16 04:52	26°♄29'22	0.28211 AU	evening rise	3843 Nov 11 00:27	28°♄31'30	
morning rise	3841 May 22 01:51	22°♄56'11			3843 Nov 12 04:53	0°♄	
direct	3841 Jun 06 09:55	18°♄22'13		desc. node	3843 Nov 24 05:11	14°♄57'41	
desc. node	3841 Jun 08 09:51	18°♄26'49			3843 Dec 06 06:49	0°♄	
greatest brilliancy	3841 Jun 18 10:35	20°♄57'00	-4.5m		3843 Dec 30 08:33	0°♄	
	3841 Jul 03 21:23	0°♄			3844 Jan 23 11:16	0°♄	
morning max el	3841 Jul 25 05:23	18°♄17'02	45°45'16		3844 Feb 16 17:58	0°♄	
	3841 Aug 06 01:04	0°♄			3844 Mar 12 10:10	0°♄	
	3841 Sep 02 21:48	0°♄		asc. node	3844 Mar 16 07:34	4°♄39'42	
	3841 Sep 29 00:44	0°♄			3844 Apr 06 21:19	0°♄	
asc. node	3841 Sep 29 12:37	0°♄34'50			3844 May 03 23:54	0°♄	
	3841 Oct 24 04:32	0°♄		evening max el	3844 May 15 18:32	11°♄58'40	45°51'42
	3841 Nov 17 17:44	0°♄			3844 Jun 05 04:56	0°♄	
	3841 Dec 11 22:03	0°♄		greatest brilliancy	3844 Jun 19 04:48	8°♄50'55	-4.5m
	3842 Jan 04 21:34	0°♄		retrograde	3844 Jul 03 22:06	12°♄38'13	
desc. node	3842 Jan 19 02:49	17°♄50'56		desc. node	3844 Jul 05 21:50	12°♄33'31	
morning set	3842 Jan 21 13:16	20°♄54'36		evening set	3844 Jul 19 06:51	8°♄03'17	
	3842 Jan 28 18:47	0°♄		inferior conj	3844 Jul 25 09:36	4°♄22'16	-4°-24'-26
	3842 Feb 21 15:19	0°♄		minimum elong	3844 Jul 25 01:03	4°♄35'39	4°22'17
				min. Earth dist.	3844 Jul 25 01:52	4°♄34'21	0.28992 AU
superior conj	3842 Mar 04 02:11	13°♄08'21	-1°-21'-34	morning rise	3844 Jul 30 19:28	1°♄05'25	
minimum elong	3842 Mar 03 18:24	12°♄43'54	1°21'26		3844 Aug 01 19:24	30°♄	
max. Earth dist.	3842 Mar 06 13:15	16°♄13'48	1.71307 AU	direct	3844 Aug 15 23:51	26°♄06'08	
	3842 Mar 17 12:38	0°♄		greatest brilliancy	3844 Aug 29 13:15	29°♄19'14	-4.5m
	3842 Apr 10 12:24	0°♄			3844 Aug 31 00:25	0°♄	
evening rise	3842 Apr 13 14:36	3°♄51'05		morning max el	3844 Oct 03 23:48	26°♄13'11	45°53'35
	3842 May 04 16:17	0°♄			3844 Oct 07 20:26	0°♄	
asc. node	3842 May 12 05:26	9°♄18'59		asc. node	3844 Oct 27 00:27	20°♄04'59	
	3842 May 29 01:32	0°♄			3844 Nov 04 22:52	0°♄	
	3842 Jun 22 17:20	0°♄			3844 Nov 30 19:09	0°♄	
	3842 Jul 17 17:44	0°♄			3844 Dec 25 15:13	0°♄	
	3842 Aug 12 07:15	0°♄			3845 Jan 18 23:26	0°♄	
desc. node	3842 Aug 31 19:26	22°♄13'31			3845 Feb 12 01:59	0°♄	
	3842 Sep 07 19:27	0°♄		desc. node	3845 Feb 15 14:37	4°♄24'06	
	3842 Oct 06 08:22	0°♄			3845 Mar 08 02:13	0°♄	
evening max el	3842 Oct 09 02:54	2°♄42'18	46°14'15		3845 Apr 01 02:16	0°♄	
	3842 Nov 13 07:48	0°♄		morning set	3845 Apr 08 06:59	8°♄58'54	
greatest brilliancy	3842 Nov 16 17:22	1°♄27'32	-4.6m		3845 Apr 25 03:49	0°♄	
retrograde	3842 Nov 27 15:25	3°♄39'06					
	3842 Dec 11 06:08	30°♄		superior conj	3845 May 17 06:21	27°♄26'21	0°-50'-28
evening set	3842 Dec 12 05:06	29°♄30'09		minimum elong	3845 May 17 16:01	27°♄56'19	0°50'06
inferior conj	3842 Dec 18 06:53	25°♄58'13	-1°-11'-37		3845 May 19 07:58	0°♄	
minimum elong	3842 Dec 18 09:38	25°♄54'03	1°10'45	max. Earth dist.	3845 May 20 12:22	1°♄27'54	1.72736 AU
min. Earth dist.	3842 Dec 18 17:17	25°♄42'24	0.26756 AU	asc. node	3845 Jun 08 17:21	25°♄11'22	
asc. node	3842 Dec 22 22:05	23°♄12'48			3845 Jun 12 15:02	0°♄	
morning rise	3842 Dec 24 13:33	22°♄18'26		evening rise	3845 Jun 24 03:06	14°♄09'28	
direct	3843 Jan 07 21:04	18°♄12'42			3845 Jul 07 00:44	0°♄	
greatest brilliancy	3843 Jan 20 21:08	21°♄20'31	-4.7m		3845 Jul 31 13:06	0°♄	
	3843 Feb 03 20:31	0°♄			3845 Aug 25 04:58	0°♄	
morning max el	3843 Feb 27 12:33	21°♄23'31	46°57'55		3845 Sep 19 02:06	0°♄	
	3843 Mar 07 20:00	0°♄		desc. node	3845 Sep 28 07:19	11°♄01'29	
	3843 Apr 03 21:23	0°♄			3845 Oct 14 06:59	0°♄	
desc. node	3843 Apr 13 12:19	11°♄07'11			3845 Nov 08 23:56	0°♄	
	3843 Apr 29 14:22	0°♄			3845 Dec 05 17:24	0°♄	
	3843 May 24 18:22	0°♄		evening max el	3845 Dec 21 04:36	16°♄15'25	47°08'50
	3843 Jun 18 16:37	0°♄			3846 Jan 04 14:36	0°♄	
	3843 Jul 13 11:30	0°♄		asc. node	3846 Jan 19 09:58	11°♄37'29	
asc. node	3843 Aug 04 14:57	26°♄56'44		greatest brilliancy	3846 Jan 28 14:05	16°♄42'44	-4.7m
	3843 Aug 07 02:59	0°♄		retrograde	3846 Feb 09 22:20	19°♄33'06	
morning set	3843 Aug 28 19:12	26°♄33'25		evening set	3846 Feb 26 21:29	13°♄54'29	
	3843 Aug 31 14:24	0°♄		min. Earth dist.	3846 Mar 01 20:58	12°♄05'34	0.27066 AU
	3843 Sep 24 21:47	0°♄		inferior conj	3846 Mar 02 14:12	11°♄38'53	8°26'38
max. Earth dist.	3843 Oct 01 12:05	8°♄10'10	1.72783 AU	minimum elong	3846 Mar 02 07:00	11°♄50'01	8°25'50
				morning rise	3846 Mar 05 16:47	9°♄44'59	
superior conj	3843 Oct 04 07:25	11°♄38'54	1°24'24	direct	3846 Mar 23 03:54	3°♄54'11	
minimum elong	3843 Oct 04 10:00	11°♄46'53	1°24'23	greatest brilliancy	3846 Apr 02 20:47	6°♄02'49	-4.6m
	3843 Oct 19 02:10	0°♄			3846 May 06 02:53	0°♄	

desc. node	3846 May 11 00:09	4°Υ41'04		3848 Nov 20 20:18	0°Θ	
morning max el	3846 May 11 23:11	5°Υ37'28	46°23'07	3848 Dec 15 11:21	0°≈	
	3846 Jun 04 08:33	0°Ϡ		3849 Jan 09 09:32	0°Ϡ	
	3846 Jul 01 03:32	0°Π		3849 Feb 04 01:41	0°Υ	
	3846 Jul 26 23:50	0°Ϡ		asc. node	3849 Feb 15 21:43	13°Υ14'50
	3846 Aug 21 06:45	0°Ω		evening max el	3849 Mar 03 06:01	29°Υ28'22 46°53'56
asc. node	3846 Sep 01 02:44	13°Ω01'02			3849 Mar 03 18:32	0°Ϡ
	3846 Sep 15 03:10	0°Ϡ		greatest brilliancy	3849 Apr 08 20:47	28°Ϡ51'11 -4.6m
	3846 Oct 09 14:49	0°Ϡ			3849 Apr 11 11:36	0°Π
	3846 Nov 02 19:54	0°Ϡ		retrograde	3849 Apr 22 17:37	2°Π21'59
morning set	3846 Nov 06 00:33	3°Ϡ58'36			3849 May 03 12:49	30°Ϡ
	3846 Nov 26 20:46	0°Ϡ		evening set	3849 May 09 01:23	27°Ϡ10'32
max. Earth dist.	3846 Dec 12 14:45	19°Ϡ43'48	1.71466 AU	inferior conj	3849 May 13 22:03	24°Ϡ12'04 5°32'55
				minimum elong	3849 May 14 07:57	23°Ϡ56'33 5°30'34
superior conj	3846 Dec 14 20:57	22°Ϡ33'43	0°16'22	min. Earth dist.	3849 May 13 20:24	24°Ϡ14'40 0.28179 AU
minimum elong	3846 Dec 15 01:01	22°Ϡ46'27	0°16'10	morning rise	3849 May 19 14:47	20°Ϡ45'18
behind sun begin	3846 Dec 14 22:45	22°Ϡ39'20		direct	3849 Jun 04 00:12	16°Ϡ08'02
behind sun end	3846 Dec 15 03:17	22°Ϡ53'33		desc. node	3849 Jun 07 11:52	16°Ϡ21'59
	3846 Dec 20 19:16	0°Θ		greatest brilliancy	3849 Jun 16 01:01	18°Ϡ42'57 -4.5m
desc. node	3846 Dec 21 17:02	1°Θ08'19			3849 Jul 04 11:03	0°Π
	3847 Jan 13 16:32	0°≈		morning max el	3849 Jul 22 21:01	16°Π06'05 45°45'54
evening rise	3847 Jan 24 15:17	13°≈45'16			3849 Aug 05 19:30	0°Ϡ
	3847 Feb 06 13:40	0°Ϡ			3849 Sep 02 12:05	0°Ω
	3847 Mar 02 12:22	0°Υ		asc. node	3849 Sep 28 14:39	0°Ϡ03'49
	3847 Mar 26 15:11	0°Ϡ			3849 Sep 28 13:21	0°Ϡ
asc. node	3847 Apr 13 19:34	22°Ϡ23'01			3849 Oct 23 16:19	0°Ϡ
	3847 Apr 20 01:18	0°Π			3849 Nov 17 05:04	0°Ϡ
	3847 May 14 22:45	0°Ϡ			3849 Dec 11 09:11	0°Ϡ
	3847 Jun 09 14:03	0°Ω			3850 Jan 04 08:35	0°Θ
	3847 Jul 06 14:19	0°Ϡ		desc. node	3850 Jan 18 04:43	17°Θ22'28
evening max el	3847 Jul 26 09:59	20°Ϡ08'41	45°29'31	morning set	3850 Jan 18 23:24	18°Θ21'08
desc. node	3847 Aug 03 09:40	27°Ϡ31'53			3850 Jan 28 05:45	0°≈
	3847 Aug 06 05:20	0°Ϡ			3850 Feb 21 02:14	0°Ϡ
greatest brilliancy	3847 Aug 31 23:22	17°Ϡ12'45	-4.5m			
retrograde	3847 Sep 13 00:14	19°Ϡ46'37		superior conj	3850 Mar 01 12:33	10°Ϡ35'53 -1°-20'-7
evening set	3847 Oct 01 03:14	13°Ϡ42'00		minimum elong	3850 Mar 01 03:55	10°Ϡ08'47 1°19'58
inferior conj	3847 Oct 04 08:22	11°Ϡ43'28	-8°-36'-22	max. Earth dist.	3850 Mar 03 18:28	13°Ϡ25'17 1.71279 AU
minimum elong	3847 Oct 04 10:56	11°Ϡ39'28	8°36'17		3850 Mar 16 23:30	0°Υ
min. Earth dist.	3847 Oct 05 00:39	11°Ϡ18'05	0.28608 AU		3850 Apr 09 23:15	0°Ϡ
morning rise	3847 Oct 07 18:25	9°Ϡ36'53		evening rise	3850 Apr 11 02:35	1°Ϡ25'10
direct	3847 Oct 25 18:27	3°Ϡ30'07			3850 May 04 03:09	0°Π
greatest brilliancy	3847 Nov 09 06:45	7°Ϡ14'44	-4.6m	asc. node	3850 May 11 07:33	8°Π51'56
asc. node	3847 Nov 24 12:17	17°Ϡ11'04			3850 May 28 12:33	0°Ϡ
	3847 Dec 09 01:01	0°Ϡ			3850 Jun 22 04:40	0°Ω
morning max el	3847 Dec 14 23:36	5°Ϡ50'49	46°36'41		3850 Jul 17 05:43	0°Ϡ
	3848 Jan 06 12:30	0°Ϡ			3850 Aug 11 20:28	0°Ϡ
	3848 Feb 01 09:53	0°Θ		desc. node	3850 Aug 30 21:24	21°Ϡ37'23
	3848 Feb 26 08:38	0°≈			3850 Sep 07 11:14	0°Ϡ
desc. node	3848 Mar 15 02:25	21°≈39'11			3850 Oct 06 07:00	0°Ϡ
	3848 Mar 21 21:42	0°Ϡ		evening max el	3850 Oct 06 17:12	0°Ϡ24'39 46°11'59
	3848 Apr 15 06:49	0°Υ		greatest brilliancy	3850 Nov 14 05:06	29°Ϡ01'58 -4.6m
	3848 May 09 15:03	0°Ϡ			3850 Nov 17 01:46	0°Θ
	3848 Jun 02 23:56	0°Π		retrograde	3850 Nov 25 04:16	1°Θ13'57
morning set	3848 Jun 18 11:18	19°Π01'27			3850 Dec 02 23:30	30°Ϡ
	3848 Jun 27 09:41	0°Ϡ		evening set	3850 Dec 09 19:14	27°Ϡ02'40
asc. node	3848 Jul 06 05:07	10°Ϡ49'23		inferior conj	3850 Dec 15 19:26	23°Ϡ32'35 -1°-35'-26
	3848 Jul 21 19:33	0°Ω		minimum elong	3850 Dec 15 23:04	23°Ϡ27'04 1°34'17
				min. Earth dist.	3850 Dec 16 06:51	23°Ϡ15'15 0.26799 AU
superior conj	3848 Jul 25 10:08	4°Ω26'06	0°43'45	morning rise	3850 Dec 22 02:22	19°Ϡ52'40
minimum elong	3848 Jul 25 02:15	4°Ω01'54	0°43'24	asc. node	3850 Dec 22 00:02	19°Ϡ55'47
max. Earth dist.	3848 Jul 24 18:06	3°Ω36'48	1.73518 AU	direct	3851 Jan 05 10:50	15°Ϡ46'25
	3848 Aug 15 04:49	0°Ϡ		greatest brilliancy	3851 Jan 18 12:06	18°Ϡ56'22 -4.7m
evening rise	3848 Aug 30 08:49	18°Ϡ40'34			3851 Feb 04 12:18	0°Θ
	3848 Sep 08 13:29	0°Ϡ		morning max el	3851 Feb 25 03:16	19°Θ02'02 46°58'11
	3848 Oct 02 22:22	0°Ϡ			3851 Mar 07 15:44	0°≈
desc. node	3848 Oct 25 19:19	28°Ϡ06'17			3851 Apr 03 12:39	0°Ϡ
	3848 Oct 27 08:24	0°Ϡ		desc. node	3851 Apr 12 14:27	10°Ϡ31'27

	3851 Apr 29 03:39	0°♄			3853 Dec 05 11:59	0°♁	
	3851 May 24 06:33	0°♂		evening max el	3853 Dec 18 18:22	13°♁51'31	47°07'32
	3851 Jun 18 04:05	0°♂			3854 Jan 04 22:59	0°♂	
	3851 Jul 12 22:29	0°♂		asc. node	3854 Jan 18 11:56	10°♂10'00	
asc. node	3851 Aug 03 16:55	26°♂30'03		greatest brilliancy	3854 Jan 26 05:38	14°♂18'41	-4.7m
	3851 Aug 06 13:40	0°♂		retrograde	3854 Feb 07 11:01	17°♂06'01	
morning set	3851 Aug 26 13:06	24°♂28'36		evening set	3854 Feb 24 06:23	11°♂34'27	
	3851 Aug 31 00:55	0°♄		min. Earth dist.	3854 Feb 27 10:03	9°♂39'23	0.27022 AU
	3851 Sep 24 08:18	0°♂		inferior conj	3854 Feb 28 03:05	9°♂12'59	8°17'59
max. Earth dist.	3851 Sep 29 06:13	6°♂05'02	1.72827 AU	minimum elong	3854 Feb 27 19:12	9°♂25'13	8°17'00
				morning rise	3854 Mar 03 08:14	7°♂15'08	
superior conj	3851 Oct 02 00:43	9°♂31'01	1°24'47	direct	3854 Mar 20 16:09	1°♂28'59	
minimum elong	3851 Oct 02 02:34	9°♂36'45	1°24'46	greatest brilliancy	3854 Mar 31 10:04	3°♂38'08	-4.6m
	3851 Oct 18 12:47	0°♄			3854 May 06 04:02	0°♄	
evening rise	3851 Nov 08 14:56	26°♄13'39		morning max el	3854 May 09 11:19	3°♄12'47	46°24'47
	3851 Nov 11 15:40	0°♂		desc. node	3854 May 10 02:10	3°♄49'23	
desc. node	3851 Nov 23 07:16	14°♂30'16			3854 Jun 04 01:14	0°♂	
	3851 Dec 05 17:50	0°♂			3854 Jun 30 17:17	0°♂	
	3851 Dec 29 19:49	0°♁			3854 Jul 26 12:07	0°♂	
	3852 Jan 22 22:50	0°♂			3854 Aug 20 18:14	0°♂	
	3852 Feb 16 06:00	0°♄		asc. node	3854 Aug 31 04:47	12°♂33'14	
	3852 Mar 11 23:00	0°♂			3854 Sep 14 14:11	0°♄	
asc. node	3852 Mar 15 09:39	4°♂07'09			3854 Oct 09 01:36	0°♂	
	3852 Apr 06 11:45	0°♂			3854 Nov 02 06:35	0°♄	
	3852 May 03 18:19	0°♂		morning set	3854 Nov 03 16:06	1°♄44'20	
evening max el	3852 May 13 11:21	9°♂49'32	45°53'33		3854 Nov 26 07:27	0°♂	
	3852 Jun 05 19:24	0°♂		max. Earth dist.	3854 Dec 10 00:41	17°♂10'53	1.71508 AU
greatest brilliancy	3852 Jun 16 21:56	6°♂43'28	-4.5m				
retrograde	3852 Jul 01 14:47	10°♂29'58		superior conj	3854 Dec 12 09:30	20°♂09'00	0°20'03
desc. node	3852 Jul 04 23:49	10°♂16'25		minimum elong	3854 Dec 12 14:24	20°♂24'21	0°19'48
evening set	3852 Jul 16 21:55	5°♂57'33			3854 Dec 20 06:01	0°♂	
inferior conj	3852 Jul 23 02:03	2°♂14'10	-4°-7'-16	desc. node	3854 Dec 20 19:00	0°♂40'44	
minimum elong	3852 Jul 22 17:54	2°♂26'57	4°05'11		3855 Jan 13 03:23	0°♁	
min. Earth dist.	3852 Jul 22 18:01	2°♂26'47	0.28968 AU	evening rise	3855 Jan 22 02:08	11°♁14'22	
	3852 Jul 26 16:58	30°♄			3855 Feb 06 00:39	0°♂	
morning rise	3852 Jul 28 14:11	28°♄54'01			3855 Mar 01 23:30	0°♄	
direct	3852 Aug 13 16:34	23°♄58'39			3855 Mar 26 02:31	0°♂	
greatest brilliancy	3852 Aug 27 02:42	27°♄08'20	-4.5m	asc. node	3855 Apr 12 21:40	21°♂54'00	
	3852 Sep 01 17:10	0°♂			3855 Apr 19 13:00	0°♂	
morning max el	3852 Oct 01 15:13	24°♂02'21	45°52'25		3855 May 14 11:08	0°♂	
	3852 Oct 07 16:21	0°♄			3855 Jun 09 03:50	0°♂	
asc. node	3852 Oct 26 02:34	19°♄27'13			3855 Jul 06 07:24	0°♄	
	3852 Nov 04 13:37	0°♂		evening max el	3855 Jul 24 00:00	17°♄53'55	45°29'14
	3852 Nov 30 08:03	0°♄		desc. node	3855 Aug 02 11:40	26°♄36'52	
	3852 Dec 25 03:17	0°♂			3855 Aug 06 10:44	0°♂	
	3853 Jan 18 11:03	0°♂		greatest brilliancy	3855 Aug 29 11:20	14°♂57'43	-4.5m
	3853 Feb 11 13:18	0°♁		retrograde	3855 Sep 10 15:10	17°♂35'08	
desc. node	3853 Feb 14 16:38	3°♁55'10		evening set	3855 Sep 28 18:39	11°♂29'32	
	3853 Mar 07 13:17	0°♂		inferior conj	3855 Oct 01 23:52	9°♂31'02	-8°-38'-5
	3853 Mar 31 13:09	0°♄		minimum elong	3855 Oct 02 01:38	9°♂28'16	8°38'04
morning set	3853 Apr 05 19:14	6°♄33'33		min. Earth dist.	3855 Oct 02 15:24	9°♂06'50	0.28657 AU
	3853 Apr 24 14:33	0°♂		morning rise	3855 Oct 05 08:24	7°♂26'51	
				direct	3855 Oct 23 09:59	1°♂16'51	
superior conj	3853 May 14 20:59	25°♂10'03	0°-53'-18	greatest brilliancy	3855 Nov 06 23:55	5°♂02'58	-4.6m
minimum elong	3853 May 15 06:58	25°♂40'57	0°52'56	asc. node	3855 Nov 23 14:10	16°♂04'52	
max. Earth dist.	3853 May 18 07:39	29°♂26'02	1.72685 AU		3855 Dec 09 00:40	0°♄	
	3853 May 18 18:37	0°♂		morning max el	3855 Dec 12 14:26	3°♄32'48	46°35'21
asc. node	3853 Jun 07 19:18	24°♂44'43			3856 Jan 06 04:45	0°♂	
	3853 Jun 12 01:39	0°♂			3856 Jan 31 23:40	0°♂	
evening rise	3853 Jun 21 20:15	12°♄01'57			3856 Feb 25 21:16	0°♁	
	3853 Jul 06 11:25	0°♂		desc. node	3856 Mar 14 04:34	21°♁08'34	
	3853 Jul 30 23:57	0°♄			3856 Mar 21 09:40	0°♂	
	3853 Aug 24 16:12	0°♂			3856 Apr 14 18:20	0°♄	
	3853 Sep 18 13:58	0°♄			3856 May 09 02:13	0°♂	
desc. node	3853 Sep 27 09:29	10°♄31'42			3856 Jun 02 10:50	0°♂	
	3853 Oct 13 19:53	0°♂		morning set	3856 Jun 16 04:04	16°♂52'18	
	3853 Nov 08 14:39	0°♂			3856 Jun 26 20:23	0°♂	

asc. node	3856 Jul 05 07:05	10°♊22'40		min. Earth dist.	3858 Dec 13 20:32	20°♊48'02	0.26840 AU
	3856 Jul 21 06:11	0°♊		morning rise	3858 Dec 19 15:01	17°♊26'56	
max. Earth dist.	3856 Jul 22 14:45	1°♊40'08	1.73517 AU	asc. node	3858 Dec 21 02:05	16°♊41'57	
				direct	3859 Jan 03 00:43	13°♊20'13	
superior conj	3856 Jul 23 04:01	2°♊20'53	0°40'58	greatest brilliancy	3859 Jan 16 02:37	16°♊31'15	-4.7m
minimum elong	3856 Jul 22 20:28	1°♊57'42	0°40'39		3859 Feb 05 00:16	0°♊	
	3856 Aug 14 15:28	0°♊		morning max el	3859 Feb 22 17:17	16°♊38'19	46°58'28
evening rise	3856 Aug 28 03:09	16°♊36'19			3859 Mar 07 11:02	0°♊	
	3856 Sep 08 00:16	0°♊			3859 Apr 03 03:48	0°♊	
	3856 Oct 02 09:24	0°♊		desc. node	3859 Apr 11 16:30	9°♊55'20	
desc. node	3856 Oct 24 21:22	27°♊37'45			3859 Apr 28 16:57	0°♊	
	3856 Oct 26 19:47	0°♊			3859 May 23 18:49	0°♊	
	3856 Nov 20 08:11	0°♊			3859 Jun 17 15:45	0°♊	
	3856 Dec 14 23:57	0°♊			3859 Jul 12 09:45	0°♊	
	3857 Jan 08 23:17	0°♊		asc. node	3859 Aug 02 19:02	26°♊02'51	
	3857 Feb 03 17:44	0°♊			3859 Aug 06 00:40	0°♊	
asc. node	3857 Feb 14 23:48	12°♊31'38		morning set	3859 Aug 24 06:43	22°♊21'55	
evening max el	3857 Feb 28 20:29	27°♊08'28	46°55'36		3859 Aug 30 11:47	0°♊	
	3857 Mar 03 16:58	0°♊			3859 Sep 23 19:07	0°♊	
greatest brilliancy	3857 Apr 06 12:11	26°♊34'41	-4.6m	max. Earth dist.	3859 Sep 26 22:31	3°♊53'18	1.72867 AU
	3857 Apr 18 03:11	0°♊					
retrograde	3857 Apr 20 09:21	0°♊06'08		superior conj	3859 Sep 29 17:50	7°♊21'46	1°25'02
	3857 Apr 22 14:59	30°♊		minimum elong	3859 Sep 29 18:58	7°♊25'16	1°25'02
evening set	3857 May 06 19:27	24°♊50'09			3859 Oct 17 23:41	0°♊	
inferior conj	3857 May 11 13:10	21°♊56'14	5°49'31	evening rise	3859 Nov 06 05:21	23°♊54'46	
minimum elong	3857 May 11 23:14	21°♊40'28	5°47'12		3859 Nov 11 02:45	0°♊	
min. Earth dist.	3857 May 11 11:22	21°♊59'03	0.28154 AU	desc. node	3859 Nov 22 09:11	14°♊01'29	
morning rise	3857 May 17 03:18	18°♊33'28			3859 Dec 05 05:08	0°♊	
direct	3857 Jun 01 14:54	13°♊52'27			3859 Dec 29 07:22	0°♊	
desc. node	3857 Jun 06 13:50	14°♊20'32			3860 Jan 22 10:43	0°♊	
greatest brilliancy	3857 Jun 13 15:08	16°♊27'25	-4.5m		3860 Feb 15 18:21	0°♊	
	3857 Jul 04 21:36	0°♊			3860 Mar 11 12:10	0°♊	
morning max el	3857 Jul 20 13:09	13°♊55'36	45°46'36	asc. node	3860 Mar 14 11:45	3°♊33'43	
	3857 Aug 05 13:43	0°♊			3860 Apr 06 02:36	0°♊	
	3857 Sep 02 02:22	0°♊			3860 May 03 13:31	0°♊	
asc. node	3857 Sep 27 16:46	29°♊32'52		evening max el	3860 May 11 03:12	7°♊37'06	45°55'15
	3857 Sep 28 01:58	0°♊			3860 Jun 06 15:32	0°♊	
	3857 Oct 23 04:07	0°♊		greatest brilliancy	3860 Jun 14 15:05	4°♊34'52	-4.5m
	3857 Nov 16 16:27	0°♊		retrograde	3860 Jun 29 06:53	8°♊20'27	
	3857 Dec 10 20:21	0°♊		desc. node	3860 Jul 04 01:51	7°♊53'09	
	3858 Jan 03 19:39	0°♊		evening set	3860 Jul 14 13:02	3°♊50'14	
morning set	3858 Jan 16 10:08	15°♊49'26		inferior conj	3860 Jul 20 18:27	0°♊04'51	-3°-49'-45
desc. node	3858 Jan 17 06:49	16°♊54'25		minimum elong	3860 Jul 20 10:44	0°♊16'58	3°47'43
	3858 Jan 27 16:45	0°♊		min. Earth dist.	3860 Jul 20 10:28	0°♊17'23	0.28949 AU
	3858 Feb 20 13:11	0°♊			3860 Jul 20 21:32	30°♊	
				morning rise	3860 Jul 26 08:44	26°♊41'18	
superior conj	3858 Feb 26 23:13	8°♊04'14	-1°-18'-31	direct	3860 Aug 11 08:52	21°♊49'43	
minimum elong	3858 Feb 26 13:51	7°♊34'48	1°18'20	greatest brilliancy	3860 Aug 24 16:41	24°♊56'29	-4.5m
max. Earth dist.	3858 Mar 01 03:37	10°♊48'52	1.71253 AU		3860 Sep 02 22:05	0°♊	
	3858 Mar 16 10:25	0°♊		morning max el	3860 Sep 29 05:45	21°♊47'54	45°51'19
evening rise	3858 Apr 08 14:43	28°♊59'21			3860 Oct 07 12:13	0°♊	
	3858 Apr 09 10:11	0°♊		asc. node	3860 Oct 25 04:31	18°♊47'54	
	3858 May 03 14:11	0°♊			3860 Nov 04 04:39	0°♊	
asc. node	3858 May 10 09:29	8°♊23'48			3860 Nov 29 21:16	0°♊	
	3858 May 27 23:47	0°♊			3860 Dec 24 15:39	0°♊	
	3858 Jun 21 16:17	0°♊			3861 Jan 17 22:56	0°♊	
	3858 Jul 16 18:01	0°♊			3861 Feb 11 00:53	0°♊	
	3858 Aug 11 10:04	0°♊		desc. node	3861 Feb 13 18:42	3°♊25'34	
desc. node	3858 Aug 29 23:33	21°♊00'46			3861 Mar 07 00:39	0°♊	
	3858 Sep 07 03:33	0°♊			3861 Mar 31 00:21	0°♊	
evening max el	3858 Oct 04 07:48	28°♊07'19	46°09'50	morning set	3861 Apr 03 07:27	4°♊07'00	
	3858 Oct 06 06:53	0°♊			3861 Apr 24 01:37	0°♊	
greatest brilliancy	3858 Nov 11 17:34	26°♊37'12	-4.6m				
retrograde	3858 Nov 22 16:58	28°♊48'36		superior conj	3861 May 12 11:47	22°♊53'12	0°-56'-3
evening set	3858 Dec 07 09:42	24°♊35'05		minimum elong	3861 May 12 22:00	23°♊24'52	0°55'41
inferior conj	3858 Dec 13 08:07	21°♊06'56	-1°-58'-53	max. Earth dist.	3861 May 16 02:09	27°♊20'47	1.72630 AU
minimum elong	3858 Dec 13 12:36	21°♊00'06	1°57'29		3861 May 18 05:34	0°♊	

asc. node	3861 Jun 06 21:20	24° Π 17'19		greatest brilliancy	3863 Nov 04 17:07	2° Ω 50'28	-4.6m
	3861 Jun 11 12:34	0° \mathfrak{S}		asc. node	3863 Nov 22 16:15	14° Ω 59'34	
evening rise	3861 Jun 19 13:28	9° \mathfrak{S} 53'39			3863 Dec 08 23:47	0° \mathbb{M}	
	3861 Jul 05 22:25	0° Ω		morning max el	3863 Dec 10 06:09	1° \mathbb{M} 15'56	46°33'50
	3861 Jul 30 11:12	0° \mathbb{M}			3864 Jan 05 21:10	0° \mathfrak{X}	
	3861 Aug 24 03:52	0° Ω			3864 Jan 31 13:45	0° \mathfrak{Z}	
	3861 Sep 18 02:20	0° \mathbb{M}			3864 Feb 25 10:11	0° \approx	
desc. node	3861 Sep 26 11:26	9° \mathbb{M} 59'47		desc. node	3864 Mar 13 06:36	20° \approx 36'49	
	3861 Oct 13 09:21	0° \mathfrak{X}			3864 Mar 20 21:52	0° \mathfrak{H}	
	3861 Nov 08 06:02	0° \mathfrak{Z}			3864 Apr 14 06:03	0° Υ	
	3861 Dec 05 07:31	0° \approx			3864 May 08 13:35	0° \mathfrak{B}	
evening max el	3861 Dec 16 07:05	11° \approx 23'55	47°06'24		3864 Jun 01 21:56	0° Π	
	3862 Jan 05 10:51	0° \mathfrak{H}		morning set	3864 Jun 13 20:52	14° Π 42'29	
asc. node	3862 Jan 17 14:03	8° \mathfrak{H} 38'40			3864 Jun 26 07:20	0° \mathfrak{S}	
greatest brilliancy	3862 Jan 23 20:52	11° \mathfrak{H} 53'13	-4.7m	asc. node	3864 Jul 04 09:13	9° \mathfrak{S} 55'46	
retrograde	3862 Feb 04 23:33	14° \mathfrak{H} 38'15					
evening set	3862 Feb 21 15:15	9° \mathfrak{H} 13'26		superior conj	3864 Jul 20 21:59	0° Ω 15'12	0°38'09
min. Earth dist.	3862 Feb 24 23:18	7° \mathfrak{H} 12'07	0.26980 AU	minimum elong	3864 Jul 20 14:48	29° \mathfrak{S} 53'09	0°37'49
inferior conj	3862 Feb 25 16:02	6° \mathfrak{H} 46'13	8°08'28	max. Earth dist.	3864 Jul 20 12:38	29° \mathfrak{S} 46'27	1.73514 AU
minimum elong	3862 Feb 25 07:30	6° \mathfrak{H} 59'25	8°07'17		3864 Jul 20 17:02	0° Ω	
morning rise	3862 Feb 28 23:57	4° \mathfrak{H} 44'15			3864 Aug 14 02:20	0° \mathbb{M}	
	3862 Mar 11 07:52	30° \mathfrak{R} \approx		evening rise	3864 Aug 25 21:42	14° \mathbb{M} 32'06	
direct	3862 Mar 18 04:09	29° \approx 02'37			3864 Sep 07 11:15	0° Ω	
	3862 Mar 25 05:47	0° \mathfrak{H}			3864 Oct 01 20:38	0° \mathbb{M}	
greatest brilliancy	3862 Mar 29 00:16	1° \mathfrak{H} 13'30	-4.6m	desc. node	3864 Oct 23 23:20	27° \mathbb{M} 08'15	
	3862 May 06 04:21	0° Υ			3864 Oct 26 07:25	0° \mathfrak{X}	
morning max el	3862 May 06 23:46	0° Υ 47'39	46°26'31		3864 Nov 19 20:23	0° \mathfrak{Z}	
desc. node	3862 May 09 04:06	2° Υ 57'26			3864 Dec 14 12:56	0° \approx	
	3862 Jun 03 17:56	0° \mathfrak{B}			3865 Jan 08 13:31	0° \mathfrak{H}	
	3862 Jun 30 07:13	0° Π			3865 Feb 03 10:23	0° Υ	
	3862 Jul 26 00:40	0° \mathfrak{S}		asc. node	3865 Feb 14 01:51	11° Υ 46'50	
	3862 Aug 20 06:00	0° Ω		evening max el	3865 Feb 26 11:46	24° Υ 49'44	46°57'27
asc. node	3862 Aug 30 06:52	12° Ω 04'35			3865 Mar 03 16:43	0° \mathfrak{B}	
	3862 Sep 14 01:32	0° \mathbb{M}		greatest brilliancy	3865 Apr 04 04:07	24° \mathfrak{B} 18'11	-4.6m
	3862 Oct 08 12:46	0° Ω		retrograde	3865 Apr 18 01:21	27° \mathfrak{B} 49'22	
morning set	3862 Nov 01 07:27	29° Ω 28'08		evening set	3865 May 04 13:34	22° \mathfrak{B} 28'58	
	3862 Nov 01 17:41	0° \mathbb{M}		inferior conj	3865 May 09 04:12	19° \mathfrak{B} 39'32	6°05'42
	3862 Nov 25 18:34	0° \mathfrak{X}		minimum elong	3865 May 09 14:23	19° \mathfrak{B} 23'36	6°03'26
max. Earth dist.	3862 Dec 07 12:11	14° \mathfrak{X} 41'39	1.71547 AU	min. Earth dist.	3865 May 09 01:50	19° \mathfrak{B} 43'13	0.28124 AU
				morning rise	3865 May 14 15:33	16° \mathfrak{B} 21'06	
superior conj	3862 Dec 09 21:46	17° \mathfrak{X} 42'05	0°23'42	direct	3865 May 30 05:56	11° \mathfrak{B} 36'21	
minimum elong	3862 Dec 10 03:28	17° \mathfrak{X} 59'58	0°23'26	desc. node	3865 Jun 05 15:58	12° \mathfrak{B} 23'08	
desc. node	3862 Dec 19 21:05	0° \mathfrak{Z} 12'19		greatest brilliancy	3865 Jun 11 04:07	14° \mathfrak{B} 10'04	-4.5m
	3862 Dec 19 17:10	0° \mathfrak{Z}			3865 Jul 05 05:30	0° Π	
	3863 Jan 12 14:37	0° \approx		morning max el	3865 Jul 18 05:24	11° Π 45'04	45°47'19
evening rise	3863 Jan 19 12:48	8° \approx 41'49			3865 Aug 05 07:37	0° \mathfrak{S}	
	3863 Feb 05 11:58	0° \mathfrak{H}			3865 Sep 01 16:36	0° Ω	
	3863 Mar 01 10:57	0° Υ		asc. node	3865 Sep 26 18:40	29° Ω 01'12	
	3863 Mar 25 14:11	0° \mathfrak{B}			3865 Sep 27 14:36	0° \mathbb{M}	
asc. node	3863 Apr 11 23:35	21° \mathfrak{B} 23'26			3865 Oct 22 15:57	0° Ω	
	3863 Apr 19 01:02	0° Π			3865 Nov 16 03:52	0° \mathbb{M}	
	3863 May 13 23:54	0° \mathfrak{S}			3865 Dec 10 07:35	0° \mathfrak{X}	
	3863 Jun 08 18:04	0° Ω			3866 Jan 03 06:49	0° \mathfrak{Z}	
	3863 Jul 06 01:11	0° \mathbb{M}		morning set	3866 Jan 13 20:42	13° \mathfrak{Z} 16'52	
evening max el	3863 Jul 21 14:34	15° \mathbb{M} 39'46	45°29'04	desc. node	3866 Jan 16 08:55	16° \mathfrak{Z} 26'01	
desc. node	3863 Aug 01 13:48	25° \mathbb{M} 40'11			3866 Jan 27 03:53	0° \approx	
	3863 Aug 06 18:49	0° Ω			3866 Feb 20 00:17	0° \mathfrak{H}	
greatest brilliancy	3863 Aug 26 22:24	12° Ω 41'02	-4.5m				
retrograde	3863 Sep 08 06:41	15° Ω 22'54		superior conj	3866 Feb 24 09:20	5° \mathfrak{H} 30'14	-1°-16'-44
evening set	3863 Sep 26 09:39	9° Ω 16'47		minimum elong	3866 Feb 23 23:18	4° \mathfrak{H} 58'40	1°16'30
inferior conj	3863 Sep 29 15:19	7° Ω 17'39	-8°-39'-1	max. Earth dist.	3866 Feb 26 12:14	8° \mathfrak{H} 10'13	1.71227 AU
minimum elong	3863 Sep 29 16:16	7° Ω 16'10	8°39'02		3866 Mar 15 21:29	0° Υ	
min. Earth dist.	3863 Sep 30 05:41	6° Ω 55'20	0.28710 AU	evening rise	3866 Apr 06 02:13	26° Υ 31'08	
morning rise	3863 Oct 02 22:42	5° Ω 15'23			3866 Apr 08 21:14	0° \mathfrak{B}	
	3863 Oct 14 04:56	30° \mathfrak{R} \mathbb{M}			3866 May 03 01:18	0° Π	
direct	3863 Oct 21 01:56	29° \mathbb{M} 02'44		asc. node	3866 May 09 11:32	7° Π 55'49	
	3863 Oct 28 04:30	0° Ω			3866 May 27 11:05	0° \mathfrak{S}	

	3866 Jun 21 03:57	0°♈			3869 Jan 17 10:27	0°♈		
	3866 Jul 16 06:23	0°♎			3869 Feb 10 12:05	0°♎		
	3866 Aug 10 23:47	0°♊			3869 Feb 12 20:42	2°♎56'50		
desc. node	3866 Aug 29 01:32	20°♊23'25		desc. node	3869 Mar 06 11:40	0°♋		
	3866 Sep 06 20:07	0°♋			3869 Mar 30 11:13	0°♎		
evening max el	3866 Oct 01 22:12	25°♋49'58	46°07'42	morning set	3869 Mar 31 19:31	1°♎40'55		
	3866 Oct 06 07:48	0°♌			3869 Apr 23 12:23	0°♏		
greatest brilliancy	3866 Nov 09 06:58	24°♌14'28	-4.6m					
retrograde	3866 Nov 20 05:20	26°♌24'23		superior conj	3869 May 10 02:22	20°♏36'25	0°-58'-43	
evening set	3866 Dec 05 00:33	22°♌08'32		minimum elong	3869 May 10 12:44	21°♏08'36	0°58'21	
inferior conj	3866 Dec 10 21:03	18°♌42'33	-2°-21'-50	max. Earth dist.	3869 May 13 17:53	25°♏07'41	1.72578 AU	
minimum elong	3866 Dec 11 02:20	18°♌34'29	2°20'12		3869 May 17 16:16	0°♐		
min. Earth dist.	3866 Dec 11 10:35	18°♌21'54	0.26886 AU	asc. node	3869 Jun 05 23:27	23°♐51'01		
morning rise	3866 Dec 17 03:37	15°♌02'33			3869 Jun 10 23:13	0°♑		
asc. node	3866 Dec 20 04:09	13°♌33'23		evening rise	3869 Jun 17 06:17	7°♑44'53		
direct	3866 Dec 31 14:24	10°♌55'13			3869 Jul 05 09:08	0°♈		
greatest brilliancy	3867 Jan 13 17:23	14°♌07'07	-4.7m		3869 Jul 29 22:08	0°♎		
	3867 Feb 05 08:59	0°♈			3869 Aug 23 15:14	0°♊		
morning max el	3867 Feb 20 06:27	14°♈12'29	46°58'27		3869 Sep 17 14:24	0°♋		
	3867 Mar 07 05:49	0°♎		desc. node	3869 Sep 25 13:24	9°♋28'53		
	3867 Apr 02 18:48	0°♋			3869 Oct 12 22:32	0°♌		
desc. node	3867 Apr 10 18:24	9°♋18'57			3869 Nov 07 21:14	0°♍		
	3867 Apr 28 06:11	0°♎			3869 Dec 05 03:11	0°♎		
	3867 May 23 07:03	0°♏		evening max el	3869 Dec 13 19:43	8°♎57'29	47°05'18	
	3867 Jun 17 03:19	0°♐			3870 Jan 06 01:54	0°♋		
	3867 Jul 11 20:53	0°♑		asc. node	3870 Jan 16 16:03	7°♋05'17		
asc. node	3867 Aug 01 21:02	25°♑35'47		greatest brilliancy	3870 Jan 21 11:21	9°♋28'14	-4.7m	
	3867 Aug 05 11:31	0°♈		retrograde	3870 Feb 02 12:31	12°♋12'16		
morning set	3867 Aug 22 00:24	20°♈15'52		evening set	3870 Feb 19 00:05	6°♋53'51		
	3867 Aug 29 22:29	0°♎		min. Earth dist.	3870 Feb 22 12:29	4°♋46'32	0.26940 AU	
	3867 Sep 23 05:48	0°♊		inferior conj	3870 Feb 23 05:02	4°♋20'59	7°57'55	
max. Earth dist.	3867 Sep 24 14:18	1°♊40'31	1.72907 AU	minimum elong	3870 Feb 22 19:57	4°♋35'01	7°56'32	
				morning rise	3870 Feb 26 15:59	2°♋14'46		
superior conj	3867 Sep 27 11:16	5°♊14'01	1°25'10		3870 Mar 02 17:55	30°♌		
minimum elong	3867 Sep 27 11:41	5°♊15'18	1°25'10	direct	3870 Mar 15 16:18	26°♌37'41		
	3867 Oct 17 10:27	0°♋		greatest brilliancy	3870 Mar 26 14:33	28°♌50'38	-4.6m	
evening rise	3867 Nov 03 20:12	21°♋37'54			3870 Mar 29 07:44	0°♋		
	3867 Nov 10 13:39	0°♌		morning max el	3870 May 04 12:58	28°♋25'43	46°28'10	
desc. node	3867 Nov 21 11:18	13°♌33'57			3870 May 06 03:02	0°♎		
	3867 Dec 04 16:13	0°♈		desc. node	3870 May 08 06:16	2°♎08'23		
	3867 Dec 28 18:42	0°♎			3870 Jun 03 09:54	0°♏		
	3868 Jan 21 22:24	0°♋			3870 Jun 29 20:39	0°♐		
	3868 Feb 15 06:35	0°♎			3870 Jul 25 12:48	0°♑		
	3868 Mar 11 01:18	0°♏			3870 Aug 19 17:23	0°♈		
asc. node	3868 Mar 13 13:38	2°♏59'50		asc. node	3870 Aug 29 08:49	11°♈36'41		
	3868 Apr 05 17:32	0°♐			3870 Sep 13 12:30	0°♎		
	3868 May 03 09:11	0°♑			3870 Oct 07 23:30	0°♊		
evening max el	3868 May 08 18:13	5°♑22'41	45°57'06	morning set	3870 Oct 29 22:53	27°♊13'41		
	3868 Jun 07 19:02	0°♈			3870 Nov 01 04:21	0°♋		
greatest brilliancy	3868 Jun 12 07:51	2°♈25'58	-4.5m		3870 Nov 25 05:15	0°♌		
retrograde	3868 Jun 26 22:49	6°♈11'27		max. Earth dist.	3870 Dec 05 01:51	12°♌20'29	1.71589 AU	
desc. node	3868 Jul 03 03:54	5°♈25'30						
evening set	3868 Jul 12 04:16	1°♈43'00		superior conj	3870 Dec 07 10:11	15°♌16'59	0°27'18	
	3868 Jul 15 03:06	30°♌		minimum elong	3870 Dec 07 16:39	15°♌37'13	0°27'00	
inferior conj	3868 Jul 18 10:50	27°♌56'07	-3°-31'-53	desc. node	3870 Dec 18 23:09	29°♌45'04		
minimum elong	3868 Jul 18 03:37	28°♌07'29	3°29'56		3870 Dec 19 03:55	0°♈		
min. Earth dist.	3868 Jul 18 03:10	28°♌08'11	0.28925 AU		3871 Jan 12 01:27	0°♎		
morning rise	3868 Jul 24 03:11	24°♌29'23		evening rise	3871 Jan 16 23:42	6°♎11'16		
direct	3868 Aug 09 00:40	19°♌41'21			3871 Feb 04 22:55	0°♋		
greatest brilliancy	3868 Aug 22 07:30	22°♌46'22	-4.5m		3871 Feb 28 22:00	0°♎		
	3868 Sep 03 18:39	0°♈			3871 Mar 25 01:25	0°♏		
morning max el	3868 Sep 26 19:58	19°♈33'34	45°50'20	asc. node	3871 Apr 11 01:40	20°♏54'44		
	3868 Oct 07 07:10	0°♎			3871 Apr 18 12:39	0°♐		
asc. node	3868 Oct 24 06:33	18°♎10'08			3871 May 13 12:17	0°♑		
	3868 Nov 03 19:10	0°♊			3871 Jun 08 08:02	0°♈		
	3868 Nov 29 10:06	0°♋			3871 Jul 05 18:57	0°♎		
	3868 Dec 24 03:39	0°♌		evening max el	3871 Jul 19 06:11	13°♎29'22	45°28'55	

desc. node	3871 Jul 31 15:46	24° \cap 42'55			3874 Jan 26 14:46	0° \approx	
	3871 Aug 07 05:13	0° $\underline{\Delta}$			3874 Feb 19 11:08	0° \times	
greatest brilliancy	3871 Aug 24 10:00	10° $\underline{\Delta}$ 26'16	-4.5m				
retrograde	3871 Sep 05 22:30	13° $\underline{\Delta}$ 11'56		superior conj	3874 Feb 21 19:29	2° \times 57'09	-1°-14'-47
evening set	3871 Sep 24 00:28	7° $\underline{\Delta}$ 06'03		minimum elong	3874 Feb 21 08:52	2° \times 23'45	1°14'32
inferior conj	3871 Sep 27 06:52	5° $\underline{\Delta}$ 05'44	-8°-39'-14	max. Earth dist.	3874 Feb 23 20:10	5° \times 30'09	1.71204 AU
minimum elong	3871 Sep 27 07:02	5° $\underline{\Delta}$ 05'29	8°39'14		3874 Mar 15 08:19	0° Υ	
min. Earth dist.	3871 Sep 27 19:48	4° $\underline{\Delta}$ 45'39	0.28755 AU	evening rise	3874 Apr 03 13:40	24° Υ 03'10	
morning rise	3871 Sep 30 13:26	3° $\underline{\Delta}$ 04'46			3874 Apr 08 08:06	0° \mathcal{B}	
	3871 Oct 06 03:39	30° \mathcal{R} \cap			3874 May 02 12:14	0° Π	
direct	3871 Oct 18 18:19	26° \cap 50'22		asc. node	3874 May 08 13:38	7° Π 28'31	
	3871 Nov 01 00:28	0° $\underline{\Delta}$			3874 May 26 22:12	0° \mathcal{E}	
greatest brilliancy	3871 Nov 02 09:19	0° $\underline{\Delta}$ 38'20	-4.6m		3874 Jun 20 15:25	0° Ω	
asc. node	3871 Nov 21 18:22	13° $\underline{\Delta}$ 57'23			3874 Jul 15 18:35	0° \cap	
morning max el	3871 Dec 07 22:11	29° $\underline{\Delta}$ 01'31	46°32'12		3874 Aug 10 13:25	0° $\underline{\Delta}$	
	3871 Dec 08 21:25	0° \mathcal{M}		desc. node	3874 Aug 28 03:30	19° $\underline{\Delta}$ 46'15	
	3872 Jan 05 12:49	0° \mathcal{X}			3874 Sep 06 12:51	0° \mathcal{M}	
	3872 Jan 31 03:15	0° \mathcal{Z}		evening max el	3874 Sep 29 11:40	23° \mathcal{M} 30'38	46°05'24
	3872 Feb 24 22:36	0° \approx			3874 Oct 06 09:58	0° \mathcal{X}	
desc. node	3872 Mar 12 08:31	20° \approx 06'01		greatest brilliancy	3874 Nov 06 21:07	21° \mathcal{X} 52'36	-4.6m
	3872 Mar 20 09:38	0° \times		retrograde	3874 Nov 17 17:13	24° \mathcal{X} 00'18	
	3872 Apr 13 17:21	0° Υ		evening set	3874 Dec 02 15:28	19° \mathcal{X} 41'42	
	3872 May 08 00:31	0° \mathcal{B}		inferior conj	3874 Dec 08 09:56	16° \mathcal{X} 18'21	-2°-44'-34
	3872 Jun 01 08:37	0° Π		minimum elong	3874 Dec 08 15:59	16° \mathcal{X} 09'06	2°42'43
morning set	3872 Jun 11 13:52	12° Π 34'31		min. Earth dist.	3874 Dec 09 00:57	15° \mathcal{X} 55'24	0.26934 AU
	3872 Jun 25 17:51	0° \mathcal{E}		morning rise	3874 Dec 14 15:55	12° \mathcal{X} 38'34	
asc. node	3872 Jul 03 11:12	9° \mathcal{E} 29'36		asc. node	3874 Dec 19 06:08	10° \mathcal{X} 29'18	
				direct	3874 Dec 29 03:30	8° \mathcal{X} 30'08	
superior conj	3872 Jul 18 15:58	28° \mathcal{E} 10'43	0°35'16	greatest brilliancy	3875 Jan 11 08:47	11° \mathcal{X} 43'51	-4.7m
minimum elong	3872 Jul 18 09:12	27° \mathcal{E} 49'54	0°34'57		3875 Feb 05 15:11	0° \mathcal{Z}	
max. Earth dist.	3872 Jul 18 11:30	27° \mathcal{E} 57'00	1.73511 AU	morning max el	3875 Feb 17 18:53	11° \mathcal{Z} 44'56	46°58'30
	3872 Jul 20 03:31	0° Ω			3875 Mar 07 00:00	0° \approx	
	3872 Aug 13 12:51	0° \cap			3875 Apr 02 09:30	0° \times	
evening rise	3872 Aug 23 16:12	12° \cap 28'49		desc. node	3875 Apr 09 20:35	8° \times 43'55	
	3872 Sep 06 21:55	0° $\underline{\Delta}$			3875 Apr 27 19:14	0° Υ	
	3872 Oct 01 07:33	0° \mathcal{M}			3875 May 22 19:10	0° \mathcal{B}	
desc. node	3872 Oct 23 01:26	26° \mathcal{M} 40'08			3875 Jun 16 14:49	0° Π	
	3872 Oct 25 18:44	0° \mathcal{X}			3875 Jul 11 07:58	0° \mathcal{E}	
	3872 Nov 19 08:16	0° \mathcal{Z}		asc. node	3875 Jul 31 23:01	25° \mathcal{E} 08'47	
	3872 Dec 14 01:38	0° \approx			3875 Aug 04 22:19	0° Ω	
	3873 Jan 08 03:32	0° \times		morning set	3875 Aug 19 18:09	18° Ω 10'14	
	3873 Feb 03 03:01	0° Υ			3875 Aug 29 09:08	0° \cap	
asc. node	3873 Feb 13 03:48	11° Υ 02'03		max. Earth dist.	3875 Sep 22 07:43	29° \cap 33'00	1.72950 AU
evening max el	3873 Feb 24 03:29	22° Υ 32'48	46°59'05		3875 Sep 22 16:27	0° $\underline{\Delta}$	
	3873 Mar 03 17:14	0° \mathcal{B}					
greatest brilliancy	3873 Apr 01 21:15	22° \mathcal{B} 03'53	-4.6m	superior conj	3875 Sep 25 04:50	3° $\underline{\Delta}$ 06'49	1°25'10
retrograde	3873 Apr 15 17:14	25° \mathcal{B} 32'58		minimum elong	3875 Sep 25 04:31	3° $\underline{\Delta}$ 05'52	1°25'10
evening set	3873 May 02 07:42	20° \mathcal{B} 08'28			3875 Oct 16 21:13	0° \mathcal{M}	
inferior conj	3873 May 06 19:09	17° \mathcal{B} 23'29	6°21'22	evening rise	3875 Nov 01 11:09	19° \mathcal{M} 21'20	
minimum elong	3873 May 07 05:24	17° \mathcal{B} 07'26	6°19'10		3875 Nov 10 00:37	0° \mathcal{X}	
min. Earth dist.	3873 May 06 16:12	17° \mathcal{B} 28'05	0.28090 AU	desc. node	3875 Nov 20 13:21	13° \mathcal{X} 05'58	
morning rise	3873 May 12 03:30	14° \mathcal{B} 09'27			3875 Dec 04 03:25	0° \mathcal{Z}	
direct	3873 May 27 20:59	9° \mathcal{B} 21'07			3875 Dec 28 06:09	0° \approx	
desc. node	3873 Jun 04 17:57	10° \mathcal{B} 30'53			3876 Jan 21 10:13	0° \times	
greatest brilliancy	3873 Jun 08 15:59	11° \mathcal{B} 52'12	-4.5m		3876 Feb 14 18:56	0° Υ	
	3873 Jul 05 10:38	0° Π			3876 Mar 10 14:35	0° \mathcal{B}	
morning max el	3873 Jul 15 20:57	9° Π 33'51	45°48'02	asc. node	3876 Mar 12 15:44	2° \mathcal{B} 26'14	
	3873 Aug 05 00:43	0° \mathcal{E}			3876 Apr 05 08:44	0° Π	
	3873 Sep 01 06:21	0° Ω			3876 May 03 05:35	0° \mathcal{E}	
asc. node	3873 Sep 25 20:46	28° Ω 31'00		evening max el	3876 May 06 08:33	3° \mathcal{E} 06'17	45°59'01
	3873 Sep 27 02:54	0° \cap			3876 Jun 09 11:11	0° Ω	
	3873 Oct 22 03:31	0° $\underline{\Delta}$		greatest brilliancy	3876 Jun 09 23:40	0° Ω 15'16	-4.5m
	3873 Nov 15 15:03	0° \mathcal{M}		retrograde	3876 Jun 24 14:56	4° Ω 02'03	
	3873 Dec 09 18:34	0° \mathcal{X}		desc. node	3876 Jul 02 05:54	2° Ω 52'35	
	3874 Jan 02 17:43	0° \mathcal{Z}			3876 Jul 09 00:54	30° \mathcal{R} \mathcal{E}	
morning set	3874 Jan 11 07:22	10° \mathcal{Z} 45'29		evening set	3876 Jul 09 19:33	29° \mathcal{E} 34'48	
desc. node	3874 Jan 15 10:50	15° \mathcal{Z} 57'55		inferior conj	3876 Jul 16 03:09	25° \mathcal{E} 46'49	-3°-13'-30

minimum elong	3876 Jul 15 20:27	25°57'21"	3°11'41"		3878 Dec 18 14:58	0°00'	
min. Earth dist.	3876 Jul 15 19:50	25°58'18"	0.28902 AU		3879 Jan 11 12:37	0°00'	
morning rise	3876 Jul 21 21:30	22°51'11"		evening rise	3879 Jan 14 10:49	3°00'40"	22'
direct	3876 Aug 06 16:05	17°53'21"			3879 Feb 04 10:13	0°00'	
greatest brilliancy	3876 Aug 19 23:08	20°53'50"	-4.5m		3879 Feb 28 09:28	0°00'	
	3876 Sep 04 10:03	0°00'			3879 Mar 24 13:06	0°00'	
morning max el	3876 Sep 24 10:45	17°02'20"	45°49'32"	asc. node	3879 Apr 10 03:43	20°08'24"	27'
	3876 Oct 07 01:42	0°00'			3879 Apr 18 00:45	0°00'	
asc. node	3876 Oct 23 08:41	17°03'24"			3879 May 13 01:11	0°00'	
	3876 Nov 03 09:38	0°00'			3879 Jun 07 22:37	0°00'	
	3876 Nov 28 22:59	0°00'			3879 Jul 05 13:40	0°00'	
	3876 Dec 23 15:47	0°00'		evening max el	3879 Jul 16 22:20	11°00'18"	56' 45°28'51"
	3877 Jan 16 22:10	0°00'		desc. node	3879 Jul 30 17:47	23°00'43"	11'
	3877 Feb 09 23:32	0°00'			3879 Aug 07 20:01	0°00'	
desc. node	3877 Feb 11 22:44	2°00'27"	28'	greatest brilliancy	3879 Aug 21 22:29	8°00'11"	17' -4.5m
	3877 Mar 05 22:55	0°00'		retrograde	3879 Sep 03 14:00	10°00'59"	29'
morning set	3877 Mar 29 07:05	29°00'12"	22'	evening set	3879 Sep 21 14:56	4°00'54"	38'
	3877 Mar 29 22:19	0°00'		inferior conj	3879 Sep 24 22:22	2°00'52"	31' -8°-38'-39'
	3877 Apr 22 23:21	0°00'		minimum elong	3879 Sep 24 21:45	2°00'53"	30' 8°38'40"
				min. Earth dist.	3879 Sep 25 09:51	2°00'54"	39' 0.28796 AU
superior conj	3877 May 07 16:36	18°00'17"	56' -1°-1'-18"	morning rise	3879 Sep 28 04:26	0°00'52"	14'
minimum elong	3877 May 08 03:05	18°00'50"	27' 1°00'57'		3879 Sep 29 15:41	30°00'00"	
max. Earth dist.	3877 May 11 08:03	22°00'49"	07' 1.72525 AU	direct	3879 Oct 16 10:49	24°00'36"	52'
	3877 May 17 03:09	0°00'		greatest brilliancy	3879 Oct 31 00:13	28°00'23"	17' -4.6m
asc. node	3877 Jun 05 01:23	23°00'23"	26'		3879 Nov 03 02:18	0°00'	
	3877 Jun 10 10:06	0°00'		asc. node	3879 Nov 20 20:16	12°00'55"	02'
evening rise	3877 Jun 14 22:57	5°00'34"	58'	morning max el	3879 Dec 05 13:53	26°00'45"	17' 46°30'42"
	3877 Jul 04 20:07	0°00'			3879 Dec 08 18:42	0°00'	
	3877 Jul 29 09:22	0°00'			3880 Jan 05 04:35	0°00'	
	3877 Aug 23 02:53	0°00'			3880 Jan 30 16:58	0°00'	
	3877 Sep 17 02:44	0°00'			3880 Feb 24 11:18	0°00'	
desc. node	3877 Sep 24 15:33	8°00'57"	45'	desc. node	3880 Mar 11 10:39	19°00'34"	56'
	3877 Oct 12 12:03	0°00'			3880 Mar 19 21:44	0°00'	
	3877 Nov 07 12:54	0°00'			3880 Apr 13 05:01	0°00'	
	3877 Dec 04 23:49	0°00'			3880 May 07 11:52	0°00'	
evening max el	3877 Dec 11 08:51	6°00'31"	34' 47°03'58"		3880 May 31 19:44	0°00'	
	3878 Jan 06 22:55	0°00'		morning set	3880 Jun 09 06:28	10°00'23"	56'
asc. node	3878 Jan 15 18:01	5°00'18"	51' 5°18'51'		3880 Jun 25 04:49	0°00'	
greatest brilliancy	3878 Jan 19 00:40	7°00'00"	07' -4.7m	asc. node	3880 Jul 02 13:10	9°00'02"	07'
retrograde	3878 Jan 31 01:42	9°00'44"	08'				
evening set	3878 Feb 16 08:31	4°00'31"	55'	superior conj	3880 Jul 16 09:34	26°00'03"	48' 0°32'18"
min. Earth dist.	3878 Feb 20 01:07	2°00'18"	51' 0.26903 AU	minimum elong	3880 Jul 16 03:16	25°00'44"	25' 0°32'01"
inferior conj	3878 Feb 20 17:41	1°00'53"	22' 7°46'09'	max. Earth dist.	3880 Jul 16 10:13	26°00'05"	45' 1.73503 AU
minimum elong	3878 Feb 20 08:06	2°00'08"	07' 7°44'36'		3880 Jul 19 14:24	0°00'	
	3878 Feb 23 20:11	30°00'00"			3880 Aug 12 23:46	0°00'	
morning rise	3878 Feb 24 07:53	29°00'42"	42'	evening rise	3880 Aug 21 10:31	10°00'00"	23'42'
direct	3878 Mar 13 04:34	24°00'10"	21'		3880 Sep 06 08:59	0°00'	
greatest brilliancy	3878 Mar 24 04:05	26°00'24"	56' -4.6m		3880 Sep 30 18:54	0°00'	
	3878 Mar 31 12:11	0°00'		desc. node	3880 Oct 22 03:26	26°00'00"	24'
morning max el	3878 May 02 02:54	26°00'04"	08' 46°29'52"		3880 Oct 25 06:30	0°00'	
	3878 May 06 01:21	0°00'			3880 Nov 18 20:36	0°00'	
desc. node	3878 May 07 08:17	1°00'18"	26'		3880 Dec 13 14:46	0°00'	
	3878 Jun 03 02:00	0°00'			3881 Jan 07 17:59	0°00'	
	3878 Jun 29 10:19	0°00'			3881 Feb 02 20:15	0°00'	
	3878 Jul 25 01:12	0°00'		asc. node	3881 Feb 12 05:53	10°00'16"	13'
	3878 Aug 19 05:04	0°00'		evening max el	3881 Feb 21 18:50	20°00'13"	58' 47°00'31"
asc. node	3878 Aug 28 10:53	11°00'08"	10'		3881 Mar 03 19:24	0°00'	
	3878 Sep 12 23:47	0°00'		greatest brilliancy	3881 Mar 30 14:58	19°00'49"	13' -4.6m
	3878 Oct 07 10:34	0°00'		retrograde	3881 Apr 13 08:37	23°00'15"	13'
morning set	3878 Oct 27 14:42	24°00'59"	31'	evening set	3881 Apr 30 01:52	17°00'46"	47'
	3878 Oct 31 15:20	0°00'		inferior conj	3881 May 04 10:07	15°00'06"	14' 6°36'23'
	3878 Nov 24 16:13	0°00'		minimum elong	3881 May 04 20:21	14°00'50"	12' 6°34'17'
max. Earth dist.	3878 Dec 02 15:53	9°00'59"	38' 1.71627 AU	min. Earth dist.	3881 May 04 06:48	15°00'11"	26' 0.28058 AU
				morning rise	3881 May 09 15:14	11°00'56"	38'
superior conj	3878 Dec 04 23:02	12°00'52"	18' 0°30'48"	direct	3881 May 25 11:54	7°00'04"	41'
minimum elong	3878 Dec 05 06:10	13°00'14"	39' 0°30'28"	desc. node	3881 Jun 03 19:56	8°00'41"	33'
desc. node	3878 Dec 18 01:05	29°00'16"	28'	greatest brilliancy	3881 Jun 06 04:00	9°00'33"	01' -4.5m

	3881 Jul 05 14:31	0°II			3884 Mar 10 04:02	0°8	
morning max el	3881 Jul 13 11:43	7°II19'16	45°48'45	asc. node	3884 Mar 11 17:48	1°852'08	
	3881 Aug 04 17:56	0°☿			3884 Apr 05 00:09	0°II	
	3881 Aug 31 20:22	0°♊			3884 May 03 02:35	0°☿	
asc. node	3881 Sep 24 22:49	27°♊59'48		evening max el	3884 May 03 23:14	0°☿50'59	46°01'07
	3881 Sep 26 15:29	0°♎		greatest brilliancy	3884 Jun 07 14:30	28°☿03'53	-4.5m
	3881 Oct 21 15:21	0°♋			3884 Jun 12 04:19	0°♊	
	3881 Nov 15 02:32	0°♌		retrograde	3884 Jun 22 07:40	1°♊53'31	
	3881 Dec 09 05:53	0°♍		desc. node	3884 Jul 01 07:55	0°♊16'08	
	3882 Jan 02 04:57	0°☾			3884 Jul 02 01:21	30°☿☿	
morning set	3882 Jan 08 18:16	8°☾13'52		evening set	3884 Jul 07 11:13	27°☿26'59	
desc. node	3882 Jan 14 12:54	15°☾29'18		inferior conj	3884 Jul 13 19:40	23°☿38'10	-2°-55'-2
	3882 Jan 26 01:55	0°♋		minimum elong	3884 Jul 13 13:31	23°☿47'49	2°53'19
	3882 Feb 18 22:13	0°♌		min. Earth dist.	3884 Jul 13 12:30	23°☿49'24	0.28883 AU
				morning rise	3884 Jul 19 15:57	20°☿06'00	
superior conj	3882 Feb 19 05:58	0°♌24'21	-1°-12'-41	direct	3884 Aug 04 07:48	15°☿23'39	
minimum elong	3882 Feb 18 18:52	29°♋49'27	1°12'25	greatest brilliancy	3884 Aug 17 15:28	18°☿28'40	-4.5m
max. Earth dist.	3882 Feb 21 01:48	2°♌42'07	1.71177 AU		3884 Sep 04 21:24	0°♊	
	3882 Mar 14 19:22	0°♎		morning max el	3884 Sep 22 02:46	15°♊10'25	45°48'40
evening rise	3882 Apr 01 01:18	21°♎35'04			3884 Oct 06 19:48	0°♎	
	3882 Apr 07 19:10	0°8		asc. node	3884 Oct 22 10:34	16°♎54'58	
	3882 May 01 23:25	0°II			3884 Nov 02 23:57	0°♋	
asc. node	3882 May 07 15:33	6°II59'55			3884 Nov 28 11:47	0°♌	
	3882 May 26 09:34	0°☿			3884 Dec 23 03:51	0°♍	
	3882 Jun 20 03:12	0°♊			3885 Jan 16 09:49	0°☾	
	3882 Jul 15 07:09	0°♎			3885 Feb 09 10:55	0°♋	
	3882 Aug 10 03:30	0°♋		desc. node	3885 Feb 11 00:48	1°♋58'23	
desc. node	3882 Aug 27 05:39	19°♋08'23			3885 Mar 05 10:08	0°♌	
	3882 Sep 06 06:15	0°♌		morning set	3885 Mar 26 18:31	26°♌43'27	
evening max el	3882 Sep 27 00:19	21°♌08'45	46°03'13		3885 Mar 29 09:23	0°♎	
	3882 Oct 06 14:05	0°♍			3885 Apr 22 10:16	0°8	
greatest brilliancy	3882 Nov 04 10:58	19°♍29'56	-4.6m				
retrograde	3882 Nov 15 05:05	21°♍36'06		superior conj	3885 May 05 06:53	15°859'38	-1°-3'-47
evening set	3882 Nov 30 06:33	17°♍14'06		minimum elong	3885 May 05 17:25	16°832'22	1°03'27
inferior conj	3882 Dec 05 22:54	13°♍53'49	-3°-6'-45	max. Earth dist.	3885 May 08 21:42	20°829'03	1.72469 AU
minimum elong	3882 Dec 06 05:40	13°♍43'27	3°04'44		3885 May 16 13:57	0°II	
min. Earth dist.	3882 Dec 06 15:34	13°♍28'19	0.26987 AU	asc. node	3885 Jun 04 03:25	22°II56'34	
morning rise	3882 Dec 12 04:04	10°♍14'39			3885 Jun 09 20:51	0°☿	
asc. node	3882 Dec 18 08:09	7°♍29'44		evening rise	3885 Jun 12 15:48	3°☿26'01	
direct	3882 Dec 26 16:25	6°♍04'20			3885 Jul 04 06:58	0°♊	
greatest brilliancy	3883 Jan 09 01:17	9°♍21'25	-4.7m		3885 Jul 28 20:27	0°♎	
	3883 Feb 05 19:43	0°☾			3885 Aug 22 14:26	0°♋	
morning max el	3883 Feb 15 07:48	9°☾17'48	46°58'43		3885 Sep 16 15:02	0°♌	
	3883 Mar 06 17:58	0°♋		desc. node	3885 Sep 23 17:29	8°♌26'04	
	3883 Apr 02 00:10	0°♌			3885 Oct 12 01:36	0°♍	
desc. node	3883 Apr 08 22:33	8°♌08'08			3885 Nov 07 04:44	0°☾	
	3883 Apr 27 08:19	0°♎			3885 Dec 04 21:02	0°♋	
	3883 May 22 07:19	0°8		evening max el	3885 Dec 08 23:00	4°♋08'45	47°02'40
	3883 Jun 16 02:23	0°II			3886 Jan 08 03:21	0°♌	
	3883 Jul 10 19:08	0°☿		asc. node	3886 Jan 14 20:06	3°♌45'08	
asc. node	3883 Jul 31 01:07	24°☿41'44		greatest brilliancy	3886 Jan 16 13:34	4°♌32'04	-4.7m
	3883 Aug 04 09:14	0°♊		retrograde	3886 Jan 28 15:16	7°♌16'19	
morning set	3883 Aug 17 11:53	16°♊04'00		evening set	3886 Feb 13 17:01	2°♌10'16	
	3883 Aug 28 19:56	0°♎			3886 Feb 17 08:10	30°☿☿	
max. Earth dist.	3883 Sep 20 02:30	27°♎29'12	1.72993 AU	min. Earth dist.	3886 Feb 17 13:32	29°♋51'46	0.26867 AU
	3883 Sep 22 03:15	0°♋		inferior conj	3886 Feb 18 06:18	29°♋26'01	7°33'34
				minimum elong	3886 Feb 17 20:18	29°♋41'23	7°31'48
superior conj	3883 Sep 22 22:22	0°♋59'09	1°25'02	morning rise	3886 Feb 21 23:48	27°♋10'50	
minimum elong	3883 Sep 22 21:21	0°♋56'00	1°25'02	direct	3886 Mar 10 17:19	21°♋43'27	
	3883 Oct 16 08:07	0°♌		greatest brilliancy	3886 Mar 21 16:49	23°♋58'41	-4.6m
evening rise	3883 Oct 30 02:13	17°♌04'55			3886 Apr 01 22:34	0°♌	
	3883 Nov 09 11:41	0°♍		morning max el	3886 Apr 29 17:27	23°♌44'30	46°31'32
desc. node	3883 Nov 19 15:16	12°♍37'12			3886 May 05 22:40	0°♎	
	3883 Dec 03 14:43	0°☾		desc. node	3886 May 06 10:13	0°♎29'39	
	3883 Dec 27 17:45	0°♋			3886 Jun 02 17:38	0°8	
	3884 Jan 20 22:11	0°♌			3886 Jun 28 23:38	0°II	
	3884 Feb 14 07:27	0°♎			3886 Jul 24 13:17	0°☿	

	3886 Aug 18 16:27	0°♈		evening max el	3889 Feb 19 09:21	17°♊53'26	47°01'54
asc. node	3886 Aug 27 12:56	10°♈40'33			3889 Mar 03 22:54	0°♈	
	3886 Sep 12 10:46	0°♎		greatest brilliancy	3889 Mar 28 08:57	17°♈35'06	-4.6m
	3886 Oct 06 21:23	0°♊		retrograde	3889 Apr 10 23:24	20°♈57'40	
morning set	3886 Oct 25 06:41	22°♊46'35		evening set	3889 Apr 27 19:56	15°♈25'19	
	3886 Oct 31 02:06	0°♍		inferior conj	3889 May 02 00:58	12°♈49'22	6°50'52
	3886 Nov 24 03:02	0°♊		minimum elong	3889 May 02 11:05	12°♈33'28	6°48'53
max. Earth dist.	3886 Nov 30 03:00	7°♊30'18	1.71668 AU	min. Earth dist.	3889 May 01 21:33	12°♈54'42	0.28024 AU
				morning rise	3889 May 07 02:38	9°♈44'22	
superior conj	3886 Dec 02 11:58	10°♊28'35	0°34'14	direct	3889 May 23 02:08	4°♈48'32	
minimum elong	3886 Dec 02 19:42	10°♊52'49	0°33'53	desc. node	3889 Jun 02 22:05	6°♈56'53	
desc. node	3886 Dec 17 03:12	28°♊49'02		greatest brilliancy	3889 Jun 03 16:33	7°♈14'48	-4.5m
	3886 Dec 18 01:51	0°♊			3889 Jul 05 16:29	0°♈	
	3887 Jan 10 23:36	0°♋		morning max el	3889 Jul 11 01:48	5°♈03'43	45°49'38
evening rise	3887 Jan 11 21:46	1°♋09'34			3889 Aug 04 10:28	0°♋	
	3887 Feb 03 21:18	0°♋			3889 Aug 31 09:54	0°♈	
	3887 Feb 27 20:42	0°♊		asc. node	3889 Sep 24 00:44	27°♈29'23	
	3887 Mar 24 00:35	0°♈			3889 Sep 26 03:37	0°♎	
asc. node	3887 Apr 09 05:39	19°♈54'22			3889 Oct 21 02:46	0°♊	
	3887 Apr 17 12:41	0°♈			3889 Nov 14 13:35	0°♍	
	3887 May 12 13:57	0°♋			3889 Dec 08 16:48	0°♊	
	3887 Jun 07 13:04	0°♈			3890 Jan 01 15:49	0°♊	
	3887 Jul 05 08:30	0°♎		morning set	3890 Jan 06 05:21	5°♊43'49	
evening max el	3887 Jul 14 14:35	9°♎09'49	45°28'55	desc. node	3890 Jan 13 15:00	15°♊01'51	
desc. node	3887 Jul 29 19:54	22°♎43'38			3890 Jan 25 12:46	0°♋	
	3887 Aug 08 15:00	0°♊					
greatest brilliancy	3887 Aug 19 12:06	5°♊59'19	-4.5m	superior conj	3890 Feb 16 16:09	27°♋51'22	-1°-10'-26
retrograde	3887 Sep 01 05:21	8°♊49'03		minimum elong	3890 Feb 16 04:40	27°♋15'17	1°10'06
evening set	3887 Sep 19 05:22	2°♊46'01		max. Earth dist.	3890 Feb 18 03:59	29°♋44'02	1.71161 AU
inferior conj	3887 Sep 22 14:11	0°♊41'32	-8°-37'-18		3890 Feb 18 09:04	0°♋	
minimum elong	3887 Sep 22 12:45	0°♊43'45	8°37'18		3890 Mar 14 06:13	0°♊	
min. Earth dist.	3887 Sep 23 00:23	0°♊25'36	0.28833 AU	evening rise	3890 Mar 29 12:17	19°♊05'35	
	3887 Sep 23 16:49	30°♎♎			3890 Apr 07 06:02	0°♈	
morning rise	3887 Sep 25 20:02	28°♎41'18			3890 May 01 10:22	0°♈	
direct	3887 Oct 14 03:23	22°♎25'42		asc. node	3890 May 06 17:37	6°♈32'26	
greatest brilliancy	3887 Oct 28 14:21	26°♎08'58	-4.6m		3890 May 25 20:44	0°♋	
	3887 Nov 04 10:25	0°♊			3890 Jun 19 14:47	0°♈	
asc. node	3887 Nov 19 22:20	11°♊55'49			3890 Jul 14 19:33	0°♎	
morning max el	3887 Dec 03 04:56	24°♊28'39	46°28'55		3890 Aug 09 17:28	0°♊	
	3887 Dec 08 14:54	0°♍		desc. node	3890 Aug 26 07:37	18°♊30'33	
	3888 Jan 04 19:51	0°♊			3890 Sep 05 23:41	0°♍	
	3888 Jan 30 06:21	0°♊		evening max el	3890 Sep 24 13:01	18°♍48'17	46°01'19
	3888 Feb 23 23:43	0°♋			3890 Oct 06 19:31	0°♊	
desc. node	3888 Mar 10 12:41	19°♋04'22		greatest brilliancy	3890 Nov 01 23:55	17°♊08'13	-4.6m
	3888 Mar 19 09:31	0°♋		retrograde	3890 Nov 12 17:33	19°♊14'20	
	3888 Apr 12 16:22	0°♊		evening set	3890 Nov 27 21:58	14°♊48'23	
	3888 May 06 22:54	0°♈		inferior conj	3890 Dec 03 12:07	11°♊31'25	-3°-28'-16
	3888 May 31 06:32	0°♈		minimum elong	3890 Dec 03 19:33	11°♊20'04	3°26'06
morning set	3888 Jun 06 22:58	8°♈13'57		min. Earth dist.	3890 Dec 04 06:08	11°♊03'53	0.27043 AU
	3888 Jun 24 15:28	0°♋		morning rise	3890 Dec 09 16:19	7°♊53'28	
asc. node	3888 Jul 01 15:18	8°♋36'05		asc. node	3890 Dec 17 10:14	4°♊37'59	
				direct	3890 Dec 24 05:46	3°♊40'39	
superior conj	3888 Jul 14 03:18	23°♋58'13	0°29'19	greatest brilliancy	3891 Jan 06 18:17	7°♊01'42	-4.7m
minimum elong	3888 Jul 13 21:29	23°♋40'21	0°29'01		3891 Feb 05 22:00	0°♊	
max. Earth dist.	3888 Jul 14 07:36	24°♋11'25	1.73488 AU	morning max el	3891 Feb 12 21:42	6°♊54'26	46°58'37
	3888 Jul 19 00:58	0°♈			3891 Mar 06 11:11	0°♋	
	3888 Aug 12 10:21	0°♎			3891 Apr 01 14:25	0°♋	
evening rise	3888 Aug 19 05:05	8°♎20'31		desc. node	3891 Apr 08 00:31	7°♋33'15	
	3888 Sep 05 19:41	0°♊			3891 Apr 26 21:07	0°♊	
	3888 Sep 30 05:52	0°♍			3891 May 21 19:16	0°♈	
desc. node	3888 Oct 21 05:26	25°♍41'50			3891 Jun 15 13:45	0°♈	
	3888 Oct 24 17:54	0°♊			3891 Jul 10 06:05	0°♋	
	3888 Nov 18 08:37	0°♊		asc. node	3891 Jul 30 03:05	24°♋15'00	
	3888 Dec 13 03:40	0°♋			3891 Aug 03 19:56	0°♈	
	3889 Jan 07 08:19	0°♋		morning set	3891 Aug 15 05:23	13°♈57'45	
	3889 Feb 02 13:37	0°♊			3891 Aug 28 06:32	0°♎	
asc. node	3889 Feb 11 07:56	9°♊30'13		max. Earth dist.	3891 Sep 17 22:21	25°♎29'24	1.73031 AU

superior conj	3891 Sep 20 15:52	28° \mathbb{M} 52'00	1°24'47	direct	3894 Mar 08 06:28	19° \approx 17'36	
minimum elong	3891 Sep 20 14:10	28° \mathbb{M} 46'44	1°24'47	greatest brilliancy	3894 Mar 19 04:56	21° \approx 32'23	-4.6m
	3891 Sep 21 13:51	0° $\underline{\mathbb{A}}$			3894 Apr 02 22:42	0° \mathbb{H}	
	3891 Oct 15 18:48	0° \mathbb{M}		morning max el	3894 Apr 27 07:31	21° \mathbb{H} 24'08	46°32'59
evening rise	3891 Oct 27 17:32	14° \mathbb{M} 50'05		desc. node	3894 May 05 12:24	29° \mathbb{H} 42'51	
	3891 Nov 08 22:31	0° \mathbb{A}			3894 May 05 19:01	0° \mathbb{Y}	
desc. node	3891 Nov 18 17:24	12° \mathbb{A} 09'54			3894 Jun 02 08:56	0° \mathbb{B}	
	3891 Dec 03 01:45	0° \mathbb{Z}			3894 Jun 28 12:50	0° \mathbb{II}	
	3891 Dec 27 05:03	0° \approx			3894 Jul 24 01:23	0° \mathbb{S}	
	3892 Jan 20 09:53	0° \mathbb{H}			3894 Aug 18 03:55	0° \mathbb{O}	
	3892 Feb 13 19:44	0° \mathbb{Y}		asc. node	3894 Aug 26 14:53	10° \mathbb{O} 12'19	
	3892 Mar 09 17:22	0° \mathbb{B}			3894 Sep 11 21:52	0° \mathbb{M}	
asc. node	3892 Mar 10 19:42	1° \mathbb{B} 18'01			3894 Oct 06 08:17	0° $\underline{\mathbb{A}}$	
	3892 Apr 04 15:39	0° \mathbb{II}		morning set	3894 Oct 22 22:27	20° $\underline{\mathbb{A}}$ 32'54	
evening max el	3892 May 01 14:42	28° \mathbb{II} 37'37	46°03'09		3894 Oct 30 12:56	0° \mathbb{M}	
	3892 May 03 00:21	0° \mathbb{S}			3894 Nov 23 13:54	0° \mathbb{A}	
greatest brilliancy	3892 Jun 05 05:19	25° \mathbb{S} 52'01	-4.5m	max. Earth dist.	3894 Nov 27 12:16	4° \mathbb{A} 55'05	1.71710 AU
retrograde	3892 Jun 20 00:27	29° \mathbb{S} 44'04					
desc. node	3892 Jun 30 10:00	27° \mathbb{S} 34'12		superior conj	3894 Nov 30 00:56	8° \mathbb{A} 04'52	0°37'36
evening set	3892 Jul 05 02:44	25° \mathbb{S} 18'04		minimum elong	3894 Nov 30 09:13	8° \mathbb{A} 30'48	0°37'14
inferior conj	3892 Jul 11 11:49	21° \mathbb{S} 28'34	-2°-36'-4	desc. node	3894 Dec 16 05:14	28° \mathbb{A} 21'03	
minimum elong	3892 Jul 11 06:16	21° \mathbb{S} 37'16	2°34'30		3894 Dec 17 12:48	0° \mathbb{Z}	
min. Earth dist.	3892 Jul 11 04:36	21° \mathbb{S} 39'53	0.28861 AU	evening rise	3895 Jan 09 08:44	28° \mathbb{Z} 38'36	
morning rise	3892 Jul 17 10:01	17° \mathbb{S} 54'06			3895 Jan 10 10:40	0° \approx	
direct	3892 Aug 01 23:42	13° \mathbb{S} 14'13			3895 Feb 03 08:29	0° \mathbb{H}	
greatest brilliancy	3892 Aug 15 07:05	16° \mathbb{S} 19'21	-4.5m		3895 Feb 27 07:59	0° \mathbb{Y}	
	3892 Sep 05 05:46	0° \mathbb{O}			3895 Mar 23 12:05	0° \mathbb{B}	
morning max el	3892 Sep 19 19:12	13° \mathbb{O} 01'43	45°47'52	asc. node	3895 Apr 08 07:45	19° \mathbb{B} 24'52	
	3892 Oct 06 13:22	0° \mathbb{M}			3895 Apr 17 00:38	0° \mathbb{II}	
asc. node	3892 Oct 21 12:40	16° \mathbb{M} 18'26			3895 May 12 02:48	0° \mathbb{S}	
	3892 Nov 02 14:00	0° $\underline{\mathbb{A}}$			3895 Jun 07 03:47	0° \mathbb{O}	
	3892 Nov 28 00:23	0° \mathbb{M}			3895 Jul 05 04:05	0° \mathbb{M}	
	3892 Dec 22 15:42	0° \mathbb{A}		evening max el	3895 Jul 12 06:09	6° \mathbb{M} 58'22	45°28'47
	3893 Jan 15 21:14	0° \mathbb{Z}		desc. node	3895 Jul 28 21:52	21° \mathbb{M} 41'34	
	3893 Feb 08 22:05	0° \approx			3895 Aug 09 17:36	0° $\underline{\mathbb{A}}$	
desc. node	3893 Feb 10 02:47	1° \approx 29'45		greatest brilliancy	3895 Aug 17 02:12	3° $\underline{\mathbb{A}}$ 46'55	-4.5m
	3893 Mar 04 21:06	0° \mathbb{H}		retrograde	3895 Aug 29 20:11	6° $\underline{\mathbb{A}}$ 37'40	
morning set	3893 Mar 24 06:07	24° \mathbb{H} 15'33		evening set	3895 Sep 16 19:22	0° $\underline{\mathbb{A}}$ 37'00	
	3893 Mar 28 20:14	0° \mathbb{Y}			3895 Sep 17 19:46	30° \mathbb{R} \mathbb{M}	
	3893 Apr 21 21:02	0° \mathbb{B}		inferior conj	3895 Sep 20 05:55	28° \mathbb{M} 29'43	-8°-35'-13
superior conj	3893 May 02 20:56	13° \mathbb{B} 40'53	-1°-6'-11	minimum elong	3895 Sep 20 03:42	28° \mathbb{M} 33'12	8°35'09
minimum elong	3893 May 03 07:27	14° \mathbb{B} 13'33	1°05'51	min. Earth dist.	3895 Sep 20 15:14	28° \mathbb{M} 15'09	0.28869 AU
max. Earth dist.	3893 May 06 12:12	18° \mathbb{B} 11'50	1.72422 AU	morning rise	3895 Sep 23 11:54	26° \mathbb{M} 29'02	
	3893 May 16 00:39	0° \mathbb{II}		direct	3895 Oct 11 19:25	20° \mathbb{M} 13'37	
asc. node	3893 Jun 03 05:31	22° \mathbb{II} 29'57		greatest brilliancy	3895 Oct 26 04:47	23° \mathbb{M} 54'09	-4.6m
	3893 Jun 09 07:35	0° \mathbb{S}			3895 Nov 05 09:50	0° $\underline{\mathbb{A}}$	
evening rise	3893 Jun 10 08:14	1° \mathbb{S} 15'53		asc. node	3895 Nov 19 00:27	10° $\underline{\mathbb{A}}$ 57'17	
	3893 Jul 03 17:48	0° \mathbb{O}		morning max el	3895 Nov 30 18:53	22° $\underline{\mathbb{A}}$ 08'33	46°27'13
	3893 Jul 28 07:34	0° \mathbb{M}			3895 Dec 08 10:43	0° \mathbb{M}	
	3893 Aug 22 02:00	0° $\underline{\mathbb{A}}$			3896 Jan 04 11:07	0° \mathbb{A}	
	3893 Sep 16 03:23	0° \mathbb{M}			3896 Jan 29 19:49	0° \mathbb{Z}	
desc. node	3893 Sep 22 19:30	7° \mathbb{M} 54'35		desc. node	3896 Feb 23 12:14	0° \approx	
	3893 Oct 11 15:15	0° \mathbb{A}			3896 Mar 09 14:36	18° \approx 33'04	
	3893 Nov 06 20:49	0° \mathbb{Z}			3896 Mar 18 21:26	0° \mathbb{H}	
	3893 Dec 04 19:00	0° \approx			3896 Apr 12 03:51	0° \mathbb{Y}	
evening max el	3893 Dec 06 14:06	1° \approx 48'33	47°01'21		3896 May 06 10:03	0° \mathbb{B}	
	3894 Jan 09 19:51	0° \mathbb{H}		morning set	3896 May 30 17:27	0° \mathbb{II}	
asc. node	3894 Jan 13 22:07	2° \mathbb{H} 00'02			3896 Jun 04 15:45	6° \mathbb{II} 04'26	
greatest brilliancy	3894 Jan 14 03:04	2° \mathbb{H} 05'21	-4.7m	asc. node	3896 Jun 24 02:15	0° \mathbb{S}	
retrograde	3894 Jan 26 04:52	4° \mathbb{H} 48'58			3896 Jun 30 17:16	8° \mathbb{S} 09'03	
	3894 Feb 10 18:16	30° \mathbb{R} \approx		superior conj	3896 Jul 11 21:14	21° \mathbb{S} 52'48	0°26'17
evening set	3894 Feb 11 01:48	29° \approx 49'17		minimum elong	3896 Jul 11 15:56	21° \mathbb{S} 36'33	0°26'02
min. Earth dist.	3894 Feb 15 02:05	27° \approx 25'22	0.26825 AU	max. Earth dist.	3896 Jul 12 04:08	22° \mathbb{S} 14'02	1.73478 AU
inferior conj	3894 Feb 15 19:01	26° \approx 59'23	7°20'10		3896 Jul 18 11:43	0° \mathbb{O}	
minimum elong	3894 Feb 15 08:42	27° \approx 15'13	7°18'13		3896 Aug 11 21:09	0° \mathbb{M}	
morning rise	3894 Feb 19 15:53	24° \approx 39'30		evening rise	3896 Aug 16 23:41	6° \mathbb{M} 16'47	

	3896 Sep 05 06:40	0°♄			3899 Apr 26 10:11	0°♃		
	3896 Sep 29 17:09	0°♍			3899 May 21 07:29	0°♄		
desc. node	3896 Oct 20 07:32	25°♍12'36			3899 Jun 15 01:23	0°♂		
	3896 Oct 24 05:38	0°♂			3899 Jul 09 17:19	0°♄		
	3896 Nov 17 20:58	0°♄		asc. node	3899 Jul 29 05:06	23°♄47'29		
	3896 Dec 12 16:55	0°♄			3899 Aug 03 06:54	0°♂		
	3897 Jan 06 23:06	0°♂		morning set	3899 Aug 12 23:21	11°♂52'07		
	3897 Feb 02 07:41	0°♃			3899 Aug 27 17:23	0°♄		
asc. node	3897 Feb 10 09:53	8°♃42'29		max. Earth dist.	3899 Sep 15 19:48	23°♄33'48	1.73069 AU	
evening max el	3897 Feb 16 23:00	15°♃29'44	47°03'15					
	3897 Mar 04 04:36	0°♄		superior conj	3899 Sep 18 09:45	26°♄45'18	1°24'26	
greatest brilliancy	3897 Mar 26 02:36	15°♄19'35	-4.6m	minimum elong	3899 Sep 18 07:22	26°♄37'55	1°24'25	
retrograde	3897 Apr 08 14:07	18°♄39'33			3899 Sep 21 00:43	0°♄		
evening set	3897 Apr 25 14:01	13°♄03'04			3899 Oct 15 05:47	0°♍		
inferior conj	3897 Apr 29 15:53	10°♄31'56	7°04'43	evening rise	3899 Oct 25 09:10	12°♍35'18		
minimum elong	3897 Apr 30 01:51	10°♄16'16	7°02'52		3899 Nov 08 09:42	0°♂		
min. Earth dist.	3897 Apr 29 12:36	10°♄37'04	0.27988 AU	desc. node	3899 Nov 17 19:26	11°♂41'10		
morning rise	3897 May 04 13:59	7°♄31'50			3899 Dec 02 13:11	0°♄		
direct	3897 May 20 15:56	2°♄31'38			3899 Dec 26 16:48	0°♄		
greatest brilliancy	3897 Jun 01 05:59	4°♄57'01	-4.5m		3900 Jan 19 22:03	0°♂		
desc. node	3897 Jun 02 00:02	5°♄15'28			3900 Feb 13 08:31	0°♃		
	3897 Jul 05 17:17	0°♂			3900 Mar 10 07:13	0°♄		
morning max el	3897 Jul 08 15:52	2°♂47'30	45°50'39	asc. node	3900 Mar 10 21:49	0°♄43'11		
	3897 Aug 04 02:52	0°♄			3900 Apr 05 07:48	0°♂		
	3897 Aug 30 23:32	0°♂		evening max el	3900 Apr 30 06:56	26°♂25'09	46°05'17	
asc. node	3897 Sep 23 02:50	26°♂58'48			3900 May 03 23:24	0°♄		
	3897 Sep 25 15:59	0°♄		greatest brilliancy	3900 Jun 03 21:23	23°♄41'05	-4.5m	
	3897 Oct 20 14:30	0°♄		retrograde	3900 Jun 18 17:30	27°♄33'51		
	3897 Nov 14 01:01	0°♍		desc. node	3900 Jun 30 11:58	24°♄47'51		
	3897 Dec 08 04:05	0°♂		evening set	3900 Jul 03 18:36	23°♄08'31		
	3898 Jan 01 03:01	0°♄		inferior conj	3900 Jul 10 04:04	19°♄18'19	-2°-16'-48	
morning set	3898 Jan 03 16:19	3°♄12'24		minimum elong	3900 Jul 09 23:09	19°♄26'00	2°15'25	
desc. node	3898 Jan 12 16:57	14°♄32'49		min. Earth dist.	3900 Jul 09 20:35	19°♄30'01	0.28835 AU	
	3898 Jan 24 23:55	0°♄		morning rise	3900 Jul 16 04:02	15°♄41'44		
				direct	3900 Jul 31 16:07	11°♄04'24		
superior conj	3898 Feb 14 02:09	25°♄16'51	-1°-8'00	greatest brilliancy	3900 Aug 13 21:43	14°♄08'22	-4.5m	
minimum elong	3898 Feb 13 14:22	24°♄39'47	1°07'39		3900 Sep 06 11:58	0°♂		
max. Earth dist.	3898 Feb 15 06:25	26°♄45'44	1.71147 AU	morning max el	3900 Sep 18 11:48	10°♂53'03	45°47'08	
	3898 Feb 17 20:12	0°♂			3900 Oct 07 06:46	0°♄		
	3898 Mar 13 17:22	0°♃		asc. node	3900 Oct 21 14:45	15°♄41'42		
evening rise	3898 Mar 26 23:17	16°♃35'04			3900 Nov 03 04:07	0°♄		
	3898 Apr 06 17:14	0°♄			3900 Nov 28 13:08	0°♍		
	3898 Apr 30 21:38	0°♂			3900 Dec 23 03:48	0°♂		
asc. node	3898 May 05 19:42	6°♂04'02			3901 Jan 16 08:59	0°♄		
	3898 May 25 08:12	0°♄			3901 Feb 09 09:36	0°♄		
	3898 Jun 19 02:40	0°♂		desc. node	3901 Feb 10 04:50	1°♄00'11		
	3898 Jul 14 08:15	0°♄			3901 Mar 05 08:28	0°♂		
	3898 Aug 09 07:50	0°♄		morning set	3901 Mar 22 17:12	21°♂44'56		
desc. node	3898 Aug 25 09:37	17°♄51'40			3901 Mar 29 07:26	0°♃		
	3898 Sep 05 17:53	0°♍			3901 Apr 22 08:06	0°♄		
evening max el	3898 Sep 22 02:05	16°♍27'57	45°59'15					
	3898 Oct 07 03:49	0°♂		superior conj	3901 May 01 10:37	11°♄19'54	-1°-8'-29	
greatest brilliancy	3898 Oct 30 11:46	14°♄44'02	-4.6m	minimum elong	3901 May 01 21:01	11°♄52'14	1°08'10	
retrograde	3898 Nov 10 06:21	16°♄51'07		max. Earth dist.	3901 May 05 04:33	15°♄59'22	1.72369 AU	
evening set	3898 Nov 25 13:25	12°♄20'53			3901 May 16 11:39	0°♂		
inferior conj	3898 Dec 01 01:11	9°♄07'18	-3°-49'-29	asc. node	3901 Jun 03 07:28	22°♂02'02		
minimum elong	3898 Dec 01 09:14	8°♄55'02	3°47'11	evening rise	3901 Jun 09 00:32	29°♂04'27		
min. Earth dist.	3898 Dec 01 20:14	8°♄38'14	0.27105 AU		3901 Jun 09 18:35	0°♄		
morning rise	3898 Dec 07 04:14	5°♄31'06			3901 Jul 04 04:55	0°♂		
asc. node	3898 Dec 16 12:11	1°♄50'12			3901 Jul 28 18:55	0°♄		
direct	3898 Dec 21 19:37	1°♄15'15			3901 Aug 22 13:48	0°♄		
greatest brilliancy	3899 Jan 04 11:09	4°♄40'20	-4.7m		3901 Sep 16 15:57	0°♍		
	3899 Feb 05 23:29	0°♄		desc. node	3901 Sep 22 21:39	7°♍22'57		
morning max el	3899 Feb 10 12:21	4°♄31'42	46°58'34		3901 Oct 12 05:09	0°♂		
	3899 Mar 06 04:29	0°♄			3901 Nov 07 13:17	0°♄		
	3899 Apr 01 04:54	0°♂		evening max el	3901 Dec 05 04:54	29°♄27'11	46°59'39	
desc. node	3899 Apr 07 02:41	6°♂58'11			3901 Dec 05 18:03	0°♄		

greatest brilliancy	3902 Jan 12 17:03	29° \approx 38'09	-4.7m	morning set	3904 Jun 03 07:57	3° Π 52'55	
	3902 Jan 13 14:19	0° X			3904 Jun 24 13:02	0° S	
asc. node	3902 Jan 14 00:06	0° X 09'35		asc. node	3904 Jun 30 19:16	7° S 42'12	
retrograde	3902 Jan 24 17:48	2° X 19'56					
	3902 Feb 04 09:10	30° R \approx		superior conj	3904 Jul 10 14:42	19° S 46'03	0°23'11
evening set	3902 Feb 09 10:28	27° \approx 26'47		minimum elong	3904 Jul 10 09:58	19° S 31'31	0°22'57
min. Earth dist.	3902 Feb 13 14:51	24° \approx 56'50	0.26790 AU	max. Earth dist.	3904 Jul 10 22:59	20° S 11'33	1.73462 AU
inferior conj	3902 Feb 14 07:32	24° \approx 31'11	7°05'37		3904 Jul 18 22:25	0° Ω	
minimum elong	3902 Feb 13 20:59	24° \approx 47'23	7°03'31		3904 Aug 12 07:52	0° M	
morning rise	3902 Feb 18 07:50	22° \approx 06'19		evening rise	3904 Aug 15 18:05	4° M 12'41	
direct	3902 Mar 06 19:17	16° \approx 50'08			3904 Sep 05 17:33	0° S	
greatest brilliancy	3902 Mar 17 17:32	19° \approx 04'49	-4.6m		3904 Sep 30 04:21	0° M	
	3902 Apr 04 17:12	0° X		desc. node	3904 Oct 20 09:31	24° M 43'23	
morning max el	3902 Apr 25 20:30	18° X 59'43	46°34'30		3904 Oct 24 17:16	0° X	
desc. node	3902 May 05 14:23	28° X 55'09			3904 Nov 18 09:13	0° S	
	3902 May 06 15:10	0° Y			3904 Dec 13 06:04	0° \approx	
	3902 Jun 03 00:20	0° X			3905 Jan 07 13:48	0° X	
	3902 Jun 29 02:09	0° Π			3905 Feb 03 01:52	0° Y	
	3902 Jul 24 13:35	0° S		asc. node	3905 Feb 10 12:00	7° Y 55'22	
	3902 Aug 18 15:28	0° Ω		evening max el	3905 Feb 15 12:09	13° Y 05'32	47°04'29
asc. node	3902 Aug 26 16:59	9° Ω 44'12			3905 Mar 05 12:15	0° X	
	3902 Sep 12 09:02	0° M		greatest brilliancy	3905 Mar 24 18:47	13° X 02'34	-4.6m
	3902 Oct 06 19:15	0° S		retrograde	3905 Apr 07 04:46	16° X 21'44	
morning set	3902 Oct 21 14:40	18° S 20'24		evening set	3905 Apr 24 07:54	10° X 40'42	
	3902 Oct 30 23:49	0° M		inferior conj	3905 Apr 28 06:39	8° X 14'29	7°17'49
	3902 Nov 24 00:48	0° X		minimum elong	3905 Apr 28 16:24	7° X 59'12	7°16'06
max. Earth dist.	3902 Nov 25 22:00	2° X 21'21	1.71753 AU	min. Earth dist.	3905 Apr 28 03:25	8° X 19'35	0.27960 AU
				morning rise	3905 May 03 01:08	5° X 19'38	
superior conj	3902 Nov 28 14:34	5° X 43'12	0°40'51	direct	3905 May 19 05:38	0° X 14'26	
minimum elong	3902 Nov 28 23:19	6° X 10'36	0°40'27	greatest brilliancy	3905 May 30 20:19	2° X 40'16	-4.5m
desc. node	3902 Dec 16 07:12	27° X 52'45		desc. node	3905 Jun 02 02:02	3° X 37'50	
	3902 Dec 17 23:48	0° S			3905 Jul 06 16:52	0° Π	
evening rise	3903 Jan 07 20:08	26° S 08'53		morning max el	3905 Jul 07 06:31	0° Π 32'41	45°51'42
	3903 Jan 10 21:47	0° \approx			3905 Aug 04 18:54	0° S	
	3903 Feb 03 19:44	0° X			3905 Aug 31 12:54	0° Ω	
	3903 Feb 27 19:25	0° Y		asc. node	3905 Sep 23 04:54	26° Ω 28'48	
	3903 Mar 23 23:48	0° X			3905 Sep 26 04:05	0° M	
asc. node	3903 Apr 08 09:47	18° X 54'28			3905 Oct 21 01:58	0° S	
	3903 Apr 17 12:50	0° Π			3905 Nov 14 12:09	0° M	
	3903 May 12 15:55	0° S			3905 Dec 08 15:04	0° X	
	3903 Jun 07 18:50	0° Ω			3906 Jan 01 13:56	0° S	
	3903 Jul 06 00:21	0° M		morning set	3906 Jan 02 03:40	0° S 43'04	
evening max el	3903 Jul 10 20:46	4° M 44'27	45°28'55	desc. node	3906 Jan 12 19:01	14° S 05'08	
desc. node	3903 Jul 28 23:53	20° M 38'05			3906 Jan 25 10:47	0° \approx	
	3903 Aug 12 07:32	0° S					
greatest brilliancy	3903 Aug 15 16:02	1° S 34'19	-4.5m	superior conj	3906 Feb 12 12:28	22° \approx 44'16	-1°-5'-27
retrograde	3903 Aug 28 11:06	4° S 26'54		minimum elong	3906 Feb 12 00:29	22° \approx 06'33	1°05'05
	3903 Sep 12 17:48	30° R M		max. Earth dist.	3906 Feb 13 11:30	23° \approx 56'42	1.71134 AU
evening set	3903 Sep 15 09:14	28° M 28'48			3906 Feb 18 07:01	0° X	
inferior conj	3903 Sep 18 21:48	26° M 18'28	-8°-32'-24		3906 Mar 14 04:11	0° Y	
minimum elong	3903 Sep 18 18:49	26° M 23'09	8°32'17	evening rise	3906 Mar 25 10:39	14° Y 06'47	
min. Earth dist.	3903 Sep 19 06:26	26° M 04'58	0.28901 AU		3906 Apr 07 04:04	0° X	
morning rise	3903 Sep 22 04:15	24° M 16'55			3906 May 01 08:35	0° Π	
direct	3903 Oct 10 11:06	18° M 01'58		asc. node	3906 May 05 21:38	5° Π 36'07	
greatest brilliancy	3903 Oct 24 20:20	21° M 41'17	-4.5m		3906 May 25 19:23	0° S	
	3903 Nov 07 02:55	0° S			3906 Jun 19 14:19	0° Ω	
asc. node	3903 Nov 19 02:21	9° S 59'57			3906 Jul 14 20:49	0° M	
morning max el	3903 Nov 29 08:45	19° S 48'43	46°25'45		3906 Aug 09 22:09	0° S	
	3903 Dec 09 05:49	0° M		desc. node	3906 Aug 25 11:45	17° S 13'33	
	3904 Jan 05 02:01	0° X			3906 Sep 06 12:15	0° M	
	3904 Jan 30 09:02	0° S		evening max el	3906 Sep 20 16:00	14° M 10'42	45°57'25
	3904 Feb 24 00:34	0° \approx			3906 Oct 08 14:33	0° X	
desc. node	3904 Mar 09 16:46	18° \approx 02'54		greatest brilliancy	3906 Oct 28 23:05	12° X 20'48	-4.6m
	3904 Mar 19 09:13	0° X		retrograde	3906 Nov 08 19:36	14° X 29'14	
	3904 Apr 12 15:15	0° Y		evening set	3906 Nov 24 05:07	9° X 54'44	
	3904 May 06 21:11	0° X		inferior conj	3906 Nov 29 14:19	6° X 44'28	-4°-10'-10
	3904 May 31 04:23	0° Π		minimum elong	3906 Nov 29 22:55	6° X 31'21	4°07'45

min. Earth dist.	3906 Nov 30 09:57	6°♊14'31	0.27167 AU	asc. node	3909 Jun 02 09:31	21°♊35'39	
morning rise	3906 Dec 05 16:00	3°♊10'21		evening rise	3909 Jun 06 16:47	26°♊53'59	
	3906 Dec 12 23:26	30°♋♌			3909 Jun 09 05:11	0°♌	
asc. node	3906 Dec 16 14:15	29°♌09'30			3909 Jul 03 15:38	0°♌	
direct	3906 Dec 20 09:58	28°♌51'26			3909 Jul 28 05:55	0°♍	
	3906 Dec 28 02:08	0°♊			3909 Aug 22 01:18	0°♎	
greatest brilliancy	3907 Jan 03 03:15	2°♊19'20	-4.6m		3909 Sep 16 04:17	0°♌	
	3907 Feb 06 23:18	0°♌		desc. node	3909 Sep 21 23:33	6°♌51'20	
morning max el	3907 Feb 09 03:31	2°♌11'30	46°58'25		3909 Oct 11 18:56	0°♊	
	3907 Mar 06 21:02	0°♋			3909 Nov 07 05:50	0°♌	
	3907 Apr 01 18:48	0°♋		evening max el	3909 Dec 02 18:44	27°♌04'07	46°57'59
desc. node	3907 Apr 07 04:37	6°♋23'53			3909 Dec 05 17:51	0°♋	
	3907 Apr 26 22:44	0°♍		greatest brilliancy	3910 Jan 10 07:53	27°♋12'43	-4.7m
	3907 May 21 19:13	0°♌		asc. node	3910 Jan 13 02:12	28°♋15'37	
	3907 Jun 15 12:35	0°♊		retrograde	3910 Jan 22 06:12	29°♋51'38	
	3907 Jul 10 04:10	0°♌		evening set	3910 Feb 06 19:14	25°♋04'52	
asc. node	3907 Jul 29 07:12	23°♌21'13		min. Earth dist.	3910 Feb 11 03:56	22°♋28'41	0.26754 AU
	3907 Aug 03 17:33	0°♌		inferior conj	3910 Feb 11 20:01	22°♋03'57	6°50'16
morning set	3907 Aug 11 17:05	9°♌46'46		minimum elong	3910 Feb 11 09:19	22°♋20'25	6°48'01
	3907 Aug 28 03:56	0°♍		morning rise	3910 Feb 15 23:41	19°♋34'01	
max. Earth dist.	3907 Sep 14 15:50	21°♍34'46	1.73102 AU	direct	3910 Mar 04 07:30	14°♋23'29	
				greatest brilliancy	3910 Mar 15 06:57	16°♋38'54	-4.6m
superior conj	3907 Sep 17 03:20	24°♍38'39	1°23'56		3910 Apr 05 06:35	0°♋	
minimum elong	3907 Sep 17 00:17	24°♍29'13	1°23'55	morning max el	3910 Apr 23 08:29	16°♋33'35	46°36'00
	3907 Sep 21 11:16	0°♎		desc. node	3910 May 04 16:21	28°♋09'09	
	3907 Oct 15 16:26	0°♌			3910 May 06 10:21	0°♍	
evening rise	3907 Oct 24 00:32	10°♌20'46			3910 Jun 02 15:09	0°♌	
	3907 Nov 08 20:31	0°♊			3910 Jun 28 15:02	0°♊	
desc. node	3907 Nov 17 21:21	11°♊13'10			3910 Jul 24 01:25	0°♌	
	3907 Dec 03 00:15	0°♌			3910 Aug 18 02:41	0°♌	
	3907 Dec 27 04:13	0°♋		asc. node	3910 Aug 25 19:01	9°♌16'51	
	3908 Jan 20 09:53	0°♋			3910 Sep 11 19:54	0°♍	
	3908 Feb 13 20:58	0°♍			3910 Oct 06 05:57	0°♎	
asc. node	3908 Mar 09 23:52	0°♌09'14		morning set	3910 Oct 19 06:44	16°♎08'08	
	3908 Mar 09 20:44	0°♌			3910 Oct 30 10:30	0°♌	
	3908 Apr 04 23:42	0°♊			3910 Nov 23 11:33	0°♊	
evening max el	3908 Apr 27 23:25	24°♊14'37	46°07'25	max. Earth dist.	3910 Nov 23 08:23	29°♌50'06	1.71801 AU
	3908 May 03 22:52	0°♌					
greatest brilliancy	3908 Jun 01 14:22	21°♌32'44	-4.5m	superior conj	3910 Nov 26 04:00	3°♊21'29	0°44'02
retrograde	3908 Jun 16 10:20	25°♌24'47		minimum elong	3910 Nov 26 13:10	3°♊50'08	0°43'38
desc. node	3908 Jun 29 14:00	21°♌58'54		desc. node	3910 Dec 15 09:18	27°♊25'22	
evening set	3908 Jul 01 10:40	21°♌00'10			3910 Dec 17 10:39	0°♌	
inferior conj	3908 Jul 07 20:18	17°♌09'18	-1°-57'-22	evening rise	3911 Jan 05 07:11	23°♌38'42	
minimum elong	3908 Jul 07 16:03	17°♌15'59	1°56'10		3911 Jan 10 08:45	0°♋	
min. Earth dist.	3908 Jul 07 12:36	17°♌21'22	0.28810 AU		3911 Feb 03 06:48	0°♋	
morning rise	3908 Jul 13 21:52	13°♌30'38			3911 Feb 27 06:39	0°♍	
direct	3908 Jul 29 08:45	8°♌55'58			3911 Mar 23 11:19	0°♌	
greatest brilliancy	3908 Aug 11 11:35	11°♌57'31	-4.5m	asc. node	3911 Apr 07 11:43	18°♌24'22	
	3908 Sep 06 15:44	0°♌			3911 Apr 17 00:52	0°♊	
morning max el	3908 Sep 16 03:44	8°♌43'43	45°46'15		3911 May 12 04:54	0°♌	
	3908 Oct 06 23:28	0°♍			3911 Jun 07 09:51	0°♌	
asc. node	3908 Oct 20 16:39	15°♍05'36			3911 Jul 05 21:02	0°♍	
	3908 Nov 02 17:47	0°♎		evening max el	3911 Jul 08 10:57	2°♍30'11	45°29'13
	3908 Nov 28 01:30	0°♌		desc. node	3911 Jul 28 02:01	19°♍33'59	
	3908 Dec 22 15:30	0°♊		greatest brilliancy	3911 Aug 13 04:54	29°♍21'26	-4.5m
	3909 Jan 15 20:18	0°♌			3911 Aug 14 18:47	0°♎	
	3909 Feb 08 20:43	0°♋		retrograde	3911 Aug 26 02:25	2°♎17'21	
desc. node	3909 Feb 09 06:53	0°♋31'49			3911 Sep 05 22:13	30°♋♌	
	3909 Mar 04 19:25	0°♋		evening set	3911 Sep 12 22:50	26°♍21'58	
morning set	3909 Mar 20 04:11	19°♋15'07		inferior conj	3911 Sep 16 13:46	24°♍08'13	-8°-28'-41
	3909 Mar 28 18:16	0°♍		minimum elong	3911 Sep 16 10:02	24°♍14'04	8°28'31
	3909 Apr 21 18:48	0°♌		min. Earth dist.	3911 Sep 16 21:37	23°♍55'57	0.28934 AU
				morning rise	3911 Sep 19 21:04	22°♍05'24	
superior conj	3909 Apr 29 00:16	8°♌59'54	-1°-10'-39	direct	3911 Oct 08 02:47	15°♍51'11	
minimum elong	3909 Apr 29 10:29	9°♌31'40	1°10'23	greatest brilliancy	3911 Oct 22 12:54	19°♍30'39	-4.5m
max. Earth dist.	3909 May 02 22:01	13°♌51'22	1.72313 AU		3911 Nov 07 15:21	0°♎	
	3909 May 15 22:15	0°♊		asc. node	3911 Nov 18 04:27	9°♎04'47	

morning max el	3911 Nov 26 23:09	17° Ω 30'44	46°24'06		3914 Jun 19 02:13	0° Ω	
	3911 Dec 09 00:20	0° \mathbb{M}			3914 Jul 14 09:38	0° \mathbb{M}	
	3912 Jan 04 16:44	0° \mathcal{A}			3914 Aug 09 12:49	0° Ω	
	3912 Jan 29 22:11	0° \mathcal{C}		desc. node	3914 Aug 24 13:41	16° Ω 33'58	
	3912 Feb 23 12:51	0° \approx			3914 Sep 06 07:18	0° \mathbb{M}	
desc. node	3912 Mar 08 18:44	17° \approx 32'16		evening max el	3914 Sep 18 06:50	11° \mathbb{M} 55'29	45°55'37
	3912 Mar 18 20:56	0° \mathcal{H}			3914 Oct 09 05:03	0° \mathcal{A}	
	3912 Apr 12 02:34	0° \mathcal{Y}		greatest brilliancy	3914 Oct 26 11:03	9° \mathcal{A} 58'39	-4.6m
	3912 May 06 08:13	0° \mathcal{B}		retrograde	3914 Nov 06 09:05	12° \mathcal{A} 07'41	
	3912 May 30 15:13	0° \mathbb{I}		evening set	3914 Nov 21 21:10	7° \mathcal{A} 29'11	
morning set	3912 Jun 01 00:03	1° \mathbb{I} 41'16		inferior conj	3914 Nov 27 03:42	4° \mathcal{A} 22'09	-4°-30'-1
	3912 Jun 23 23:44	0° \mathcal{C}		minimum elong	3914 Nov 27 12:46	4° \mathcal{A} 08'18	4°27'34
asc. node	3912 Jun 29 21:23	7° \mathcal{C} 15'50		min. Earth dist.	3914 Nov 27 23:39	3° \mathcal{A} 51'40	0.27228 AU
				morning rise	3914 Dec 03 03:44	0° \mathcal{A} 50'14	
superior conj	3912 Jul 08 08:15	17° \mathcal{C} 39'44	0°20'03		3914 Dec 04 18:07	30° \mathbb{R} \mathbb{M}	
minimum elong	3912 Jul 08 04:07	17° \mathcal{C} 27'01	0°19'51	asc. node	3914 Dec 15 16:17	26° \mathbb{M} 35'08	
max. Earth dist.	3912 Jul 08 17:48	18° \mathcal{C} 09'07	1.73447 AU	direct	3914 Dec 18 00:38	26° \mathbb{M} 28'21	
	3912 Jul 18 09:03	0° Ω			3914 Dec 31 20:40	0° \mathcal{A}	
	3912 Aug 11 18:33	0° \mathbb{M}		greatest brilliancy	3914 Dec 31 18:16	29° \mathbb{M} 57'08	-4.6m
evening rise	3912 Aug 13 12:44	2° \mathbb{M} 09'41			3915 Feb 06 22:15	0° \mathcal{C}	
	3912 Sep 05 04:23	0° Ω		morning max el	3915 Feb 06 18:23	29° \mathcal{A} 50'10	46°57'57
	3912 Sep 29 15:30	0° \mathbb{M}			3915 Mar 06 13:32	0° \approx	
desc. node	3912 Oct 19 11:31	24° \mathbb{M} 14'22			3915 Apr 01 08:54	0° \mathcal{H}	
	3912 Oct 24 04:54	0° \mathcal{A}		desc. node	3915 Apr 06 06:36	5° \mathcal{H} 48'52	
	3912 Nov 17 21:31	0° \mathcal{C}			3915 Apr 26 11:35	0° \mathcal{Y}	
	3912 Dec 12 19:23	0° \approx			3915 May 21 07:16	0° \mathcal{B}	
	3913 Jan 07 04:51	0° \mathcal{H}			3915 Jun 15 00:06	0° \mathbb{I}	
	3913 Feb 02 20:45	0° \mathcal{Y}			3915 Jul 09 15:18	0° \mathcal{C}	
asc. node	3913 Feb 09 14:00	7° \mathcal{Y} 06'30		asc. node	3915 Jul 28 09:09	22° \mathcal{C} 53'45	
evening max el	3913 Feb 13 01:50	10° \mathcal{Y} 41'59	47°05'47		3915 Aug 03 04:26	0° Ω	
	3913 Mar 05 23:05	0° \mathcal{B}		morning set	3915 Aug 09 10:47	7° Ω 40'38	
greatest brilliancy	3913 Mar 22 10:18	10° \mathcal{B} 43'49	-4.6m		3915 Aug 27 14:44	0° \mathbb{M}	
retrograde	3913 Apr 04 19:46	14° \mathcal{B} 03'01		max. Earth dist.	3915 Sep 12 10:48	19° \mathbb{M} 31'44	1.73135 AU
evening set	3913 Apr 22 01:36	8° \mathcal{B} 17'17					
inferior conj	3913 Apr 25 21:16	5° \mathcal{B} 56'00	7°30'15	superior conj	3915 Sep 14 21:07	22° \mathbb{M} 31'50	1°23'20
minimum elong	3913 Apr 26 06:43	5° \mathcal{B} 41'12	7°28'42	minimum elong	3915 Sep 14 17:26	22° \mathbb{M} 20'28	1°23'18
min. Earth dist.	3913 Apr 25 17:37	6° \mathcal{B} 01'42	0.27926 AU		3915 Sep 20 22:07	0° Ω	
morning rise	3913 Apr 30 12:01	3° \mathcal{B} 06'51			3915 Oct 15 03:23	0° \mathbb{M}	
	3913 May 06 17:07	30° \mathbb{R} \mathcal{Y}		evening rise	3915 Oct 21 16:16	8° \mathbb{M} 06'32	
direct	3913 May 16 19:29	27° \mathcal{Y} 56'19			3915 Nov 08 07:38	0° \mathcal{A}	
	3913 May 27 10:40	0° \mathcal{B}		desc. node	3915 Nov 16 23:29	10° \mathcal{A} 44'59	
greatest brilliancy	3913 May 28 10:00	0° \mathcal{B} 22'21	-4.5m		3915 Dec 02 11:37	0° \mathcal{C}	
desc. node	3913 Jun 01 04:10	2° \mathcal{B} 03'25			3915 Dec 26 15:53	0° \approx	
morning max el	3913 Jul 04 21:52	28° \mathcal{B} 19'23	45°52'50		3916 Jan 19 21:59	0° \mathcal{H}	
	3913 Jul 06 15:31	0° \mathbb{I}			3916 Feb 13 09:44	0° \mathcal{Y}	
	3913 Aug 04 10:41	0° \mathcal{C}		asc. node	3916 Mar 09 01:45	29° \mathcal{Y} 33'36	
	3913 Aug 31 02:12	0° Ω			3916 Mar 09 10:43	0° \mathcal{B}	
asc. node	3913 Sep 22 06:47	25° Ω 58'11			3916 Apr 04 16:20	0° \mathbb{I}	
	3913 Sep 25 16:11	0° \mathbb{M}		evening max el	3916 Apr 25 15:38	22° \mathbb{I} 01'55	46°09'25
	3913 Oct 20 13:27	0° Ω			3916 May 04 00:08	0° \mathcal{C}	
	3913 Nov 13 23:21	0° \mathbb{M}		greatest brilliancy	3916 May 30 08:25	19° \mathcal{C} 24'05	-4.5m
	3913 Dec 08 02:08	0° \mathcal{A}		retrograde	3916 Jun 14 02:44	23° \mathcal{C} 13'59	
morning set	3913 Dec 30 15:17	28° \mathcal{A} 14'20		desc. node	3916 Jun 28 16:04	19° \mathcal{C} 04'47	
	3914 Jan 01 00:58	0° \mathcal{C}		evening set	3916 Jun 29 02:52	18° \mathcal{C} 50'05	
desc. node	3914 Jan 11 21:05	13° \mathcal{C} 36'58		min. Earth dist.	3916 Jul 05 04:54	15° \mathcal{C} 10'47	0.28780 AU
	3914 Jan 24 21:48	0° \approx		inferior conj	3916 Jul 05 12:30	14° \mathcal{C} 58'52	-1°-37'-46
				minimum elong	3916 Jul 05 08:56	15° \mathcal{C} 04'28	1°36'43
superior conj	3914 Feb 09 22:27	20° \approx 09'53	-1°-2'-44	morning rise	3916 Jul 11 15:29	11° \mathcal{C} 18'03	
minimum elong	3914 Feb 09 10:23	19° \approx 31'57	1°02'20	direct	3916 Jul 27 01:00	6° \mathcal{C} 46'12	
max. Earth dist.	3914 Feb 10 18:20	21° \approx 12'26	1.71129 AU	greatest brilliancy	3916 Aug 09 01:00	9° \mathcal{C} 44'44	-4.5m
	3914 Feb 17 18:04	0° \mathcal{H}			3916 Sep 06 18:22	0° Ω	
	3914 Mar 13 15:14	0° \mathcal{Y}		morning max el	3916 Sep 13 18:43	6° Ω 31'05	45°45'30
evening rise	3914 Mar 22 21:27	11° \mathcal{Y} 35'53			3916 Oct 06 16:12	0° \mathbb{M}	
	3914 Apr 06 15:10	0° \mathcal{B}		asc. node	3916 Oct 19 18:46	14° \mathbb{M} 29'29	
	3914 Apr 30 19:46	0° \mathbb{I}			3916 Nov 02 07:39	0° Ω	
asc. node	3914 May 04 23:41	5° \mathbb{I} 07'56			3916 Nov 27 14:07	0° \mathbb{M}	
	3914 May 25 06:47	0° \mathcal{C}			3916 Dec 22 03:28	0° \mathcal{A}	

	3917 Jan 15 07:55	0°☾			3919 Aug 21 07:03	0°♊	
desc. node	3917 Feb 08 08:52	0°≈02'24		retrograde	3919 Aug 23 18:18	0°♊07'01	
	3917 Feb 08 08:06	0°≈			3919 Aug 26 04:52	30°♋♊	
	3917 Mar 04 06:39	0°♋		evening set	3919 Sep 10 12:13	24°♊14'31	
morning set	3917 Mar 17 15:23	16°♋45'03		inferior conj	3919 Sep 14 05:45	21°♊57'04	-8°-24'-17
	3917 Mar 28 05:22	0°♎		minimum elong	3919 Sep 14 01:17	22°♊04'03	8°24'01
	3917 Apr 21 05:48	0°♏		min. Earth dist.	3919 Sep 14 12:35	21°♊46'23	0.28966 AU
				morning rise	3919 Sep 17 14:11	19°♊52'42	
superior conj	3917 Apr 26 13:55	6°♏38'50	-1°-12'-43	direct	3919 Oct 05 18:42	13°♊39'34	
minimum elong	3917 Apr 26 23:52	7°♏09'47	1°12'28	greatest brilliancy	3919 Oct 20 05:59	17°♊20'08	-4.5m
max. Earth dist.	3917 Apr 30 14:55	11°♏40'29	1.72261 AU		3919 Nov 08 00:54	0°♊	
	3917 May 15 09:14	0°♐		asc. node	3919 Nov 17 06:32	8°♊10'01	
asc. node	3917 Jun 01 11:36	21°♐08'08		morning max el	3919 Nov 24 14:28	15°♊14'34	46°22'31
evening rise	3917 Jun 04 08:42	24°♐41'14			3919 Dec 08 18:38	0°♋	
	3917 Jun 08 16:11	0°♑			3920 Jan 04 07:29	0°♋	
	3917 Jul 03 02:46	0°♒			3920 Jan 29 11:25	0°♋	
	3917 Jul 27 17:19	0°♓			3920 Feb 23 01:16	0°≈	
	3917 Aug 21 13:12	0°♌		desc. node	3920 Mar 07 20:42	17°≈01'02	
desc. node	3917 Sep 15 17:03	0°♍			3920 Mar 18 08:49	0°♋	
	3917 Sep 21 01:35	6°♍18'55			3920 Apr 11 14:04	0°♎	
	3917 Oct 11 09:13	0°♌			3920 May 05 19:25	0°♏	
	3917 Nov 06 23:05	0°♋		morning set	3920 May 29 16:17	29°♏29'23	
evening max el	3917 Nov 30 07:48	24°♋38'13	46°56'15		3920 May 30 02:12	0°♐	
	3917 Dec 05 19:14	0°≈			3920 Jun 23 10:34	0°♑	
greatest brilliancy	3918 Jan 07 23:08	24°≈46'56	-4.7m	asc. node	3920 Jun 28 23:20	6°♑48'32	
asc. node	3918 Jan 12 04:11	26°≈16'12					
retrograde	3918 Jan 19 18:25	27°≈22'58		superior conj	3920 Jul 06 01:52	15°♑33'09	0°16'54
evening set	3918 Feb 04 04:16	22°≈42'05		minimum elong	3920 Jul 05 22:20	15°♑22'17	0°16'43
min. Earth dist.	3918 Feb 08 17:30	19°≈59'39	0.26719 AU	max. Earth dist.	3920 Jul 06 14:15	16°♑11'12	1.73433 AU
inferior conj	3918 Feb 09 08:39	19°≈36'21	6°34'10		3920 Jul 17 19:50	0°♒	
minimum elong	3918 Feb 08 21:52	19°≈52'57	6°31'45	evening rise	3920 Aug 11 07:30	0°♓06'29	
morning rise	3918 Feb 13 15:42	17°≈01'26			3920 Aug 11 05:24	0°♓	
direct	3918 Mar 01 19:25	11°≈56'12			3920 Sep 04 15:26	0°♌	
greatest brilliancy	3918 Mar 12 21:19	14°≈13'33	-4.6m		3920 Sep 29 02:52	0°♍	
	3918 Apr 05 16:48	0°♋		desc. node	3920 Oct 18 13:37	23°♍45'01	
morning max el	3918 Apr 20 20:20	14°♋06'14	46°37'34		3920 Oct 23 16:44	0°♌	
desc. node	3918 May 03 18:32	27°♋23'45			3920 Nov 17 10:02	0°♋	
	3918 May 06 05:15	0°♎			3920 Dec 12 08:54	0°≈	
	3918 Jun 02 06:04	0°♏			3921 Jan 06 20:12	0°♋	
	3918 Jun 28 04:10	0°♐			3921 Feb 02 16:17	0°♎	
	3918 Jul 23 13:34	0°♑		asc. node	3921 Feb 08 15:57	6°♎16'29	
asc. node	3918 Aug 17 14:14	0°♒		evening max el	3921 Feb 10 16:24	8°♎20'25	47°06'58
	3918 Aug 24 20:58	8°♒48'14			3921 Mar 06 13:48	0°♏	
	3918 Sep 11 07:06	0°♓		greatest brilliancy	3921 Mar 20 01:38	8°♏24'23	-4.6m
	3918 Oct 05 16:58	0°♌		retrograde	3921 Apr 02 11:16	11°♏43'39	
morning set	3918 Oct 16 22:53	13°♌55'17		evening set	3921 Apr 19 19:14	5°♏53'16	
	3918 Oct 29 21:27	0°♍		inferior conj	3921 Apr 23 11:48	3°♏36'47	7°42'04
max. Earth dist.	3918 Nov 20 22:01	27°♍28'17	1.71850 AU	minimum elong	3921 Apr 23 20:53	3°♏22'34	7°40'40
	3918 Nov 22 22:34	0°♌		min. Earth dist.	3921 Apr 23 07:26	3°♏43'36	0.27893 AU
				morning rise	3921 Apr 27 22:46	0°♏53'32	
superior conj	3918 Nov 23 17:40	0°♌59'42	0°47'05		3921 Apr 29 12:33	30°♋♎	
minimum elong	3918 Nov 24 03:11	1°♌29'26	0°46'42	direct	3921 May 14 09:42	25°♎37'39	
desc. node	3918 Dec 14 11:20	26°♌56'51		greatest brilliancy	3921 May 25 22:44	28°♎02'56	-4.5m
	3918 Dec 16 21:47	0°♋			3921 May 30 05:44	0°♏	
evening rise	3919 Jan 02 18:36	21°♋08'51		desc. node	3921 May 31 06:08	0°♏31'50	
	3919 Jan 09 20:00	0°≈		morning max el	3921 Jul 02 13:40	26°♏06'58	45°54'01
	3919 Feb 02 18:10	0°♋			3921 Jul 06 13:20	0°♐	
	3919 Feb 26 18:10	0°♎			3921 Aug 04 02:15	0°♑	
	3919 Mar 22 23:07	0°♏			3921 Aug 30 15:26	0°♒	
asc. node	3919 Apr 06 13:50	17°♏54'05		asc. node	3921 Sep 21 08:56	25°♒28'12	
	3919 Apr 16 13:11	0°♐			3921 Sep 25 04:18	0°♓	
	3919 May 11 18:13	0°♑			3921 Oct 20 01:01	0°♌	
	3919 Jun 07 01:21	0°♒			3921 Nov 13 10:38	0°♍	
	3919 Jul 05 18:50	0°♓			3921 Dec 07 13:17	0°♌	
evening max el	3919 Jul 06 01:36	0°♓16'16	45°29'31	morning set	3921 Dec 28 03:00	25°♌45'49	
desc. node	3919 Jul 27 03:56	18°♓26'51			3921 Dec 31 12:02	0°♋	
greatest brilliancy	3919 Aug 10 16:55	27°♓06'39	-4.5m	desc. node	3922 Jan 10 23:02	13°♋08'19	

	3922 Jan 24 08:51	0°♊		minimum elong	3924 Jul 03 01:47	12°♊53'20	1°17'00
				min. Earth dist.	3924 Jul 02 21:31	13°♊00'03	0.28751 AU
superior conj	3922 Feb 07 08:22	17°♊35'19	0°-59'-53	morning rise	3924 Jul 09 08:54	9°♊05'56	
minimum elong	3922 Feb 06 20:20	16°♊57'29	0°59'28	direct	3924 Jul 24 16:40	4°♊36'41	
max. Earth dist.	3922 Feb 08 03:12	18°♊34'34	1.71123 AU	greatest brilliancy	3924 Aug 06 14:54	7°♊32'51	-4.5m
	3922 Feb 17 05:07	0°♋			3924 Sep 06 19:19	0°♋	
	3922 Mar 13 02:18	0°♌		morning max el	3924 Sep 11 09:10	4°♋17'48	45°44'59
evening rise	3922 Mar 20 08:13	9°♌04'45			3924 Oct 06 08:21	0°♍	
	3922 Apr 06 02:17	0°♍		asc. node	3924 Oct 18 20:49	13°♍54'15	
	3922 Apr 30 06:59	0°♎			3924 Nov 01 21:06	0°♎	
asc. node	3922 May 04 01:46	4°♎39'39			3924 Nov 27 02:23	0°♏	
	3922 May 24 18:15	0°♏			3924 Dec 21 15:09	0°♐	
	3922 Jun 18 14:09	0°♐			3925 Jan 14 19:18	0°♑	
	3922 Jul 13 22:31	0°♑		desc. node	3925 Feb 07 10:56	29°♑33'48	
	3922 Aug 09 03:38	0°♒			3925 Feb 07 19:18	0°♒	
desc. node	3922 Aug 23 15:44	15°♒54'29			3925 Mar 03 17:42	0°♓	
	3922 Sep 06 02:52	0°♓		morning set	3925 Mar 15 01:59	14°♓13'32	
evening max el	3922 Sep 15 21:34	9°♓40'06	45°53'39		3925 Mar 27 16:16	0°♈	
	3922 Oct 10 00:30	0°♈			3925 Apr 20 16:35	0°♉	
greatest brilliancy	3922 Oct 23 23:52	7°♈37'25	-4.6m				
retrograde	3922 Nov 03 22:00	9°♈45'51		superior conj	3925 Apr 24 03:10	4°♉17'10	-1°-14'-40
evening set	3922 Nov 19 13:17	5°♈03'29		minimum elong	3925 Apr 24 12:45	4°♉47'00	1°14'26
inferior conj	3922 Nov 24 17:02	1°♈59'50	-4°-49'-24	max. Earth dist.	3925 Apr 28 05:46	9°♉23'56	1.72203 AU
minimum elong	3922 Nov 25 02:30	1°♈45'20	4°46'56		3925 May 14 19:57	0°♊	
min. Earth dist.	3922 Nov 25 13:32	1°♈28'26	0.27291 AU	asc. node	3925 May 31 13:31	20°♊40'58	
	3922 Nov 28 00:07	30°♋♌		evening rise	3925 Jun 02 00:19	22°♊28'17	
morning rise	3922 Nov 30 15:09	28°♌30'07			3925 Jun 08 02:57	0°♋	
asc. node	3922 Dec 14 18:16	24°♌06'09			3925 Jul 02 13:40	0°♌	
direct	3922 Dec 15 15:03	24°♌05'15			3925 Jul 27 04:30	0°♍	
greatest brilliancy	3922 Dec 29 08:52	27°♌34'07	-4.6m		3925 Aug 21 00:53	0°♎	
	3923 Jan 02 22:03	0°♎			3925 Sep 15 05:36	0°♏	
morning max el	3923 Feb 04 08:21	27°♎26'29	46°57'31	desc. node	3925 Sep 20 03:44	5°♏47'40	
	3923 Feb 06 20:19	0°♏			3925 Oct 10 23:18	0°♐	
	3923 Mar 06 05:41	0°♐			3925 Nov 06 16:17	0°♑	
	3923 Mar 31 22:45	0°♑		evening max el	3925 Nov 27 20:09	22°♑11'51	46°54'27
desc. node	3923 Apr 05 08:47	5°♑15'02			3925 Dec 05 21:32	0°♒	
	3923 Apr 26 00:14	0°♌		greatest brilliancy	3926 Jan 05 13:26	22°♒20'46	-4.7m
	3923 May 20 19:09	0°♍		asc. node	3926 Jan 11 06:10	24°♒12'28	
	3923 Jun 14 11:28	0°♎		retrograde	3926 Jan 17 06:34	24°♒55'03	
	3923 Jul 09 02:18	0°♏		evening set	3926 Feb 01 13:16	20°♒19'17	
asc. node	3923 Jul 27 11:10	22°♏26'45		inferior conj	3926 Feb 06 21:09	17°♒09'09	6°17'03
	3923 Aug 02 15:13	0°♐		minimum elong	3926 Feb 06 10:22	17°♒25'42	6°14'31
morning set	3923 Aug 07 04:41	5°♐35'25		min. Earth dist.	3926 Feb 06 07:00	17°♒30'53	0.26693 AU
	3923 Aug 27 01:25	0°♑		morning rise	3926 Feb 11 07:39	14°♒29'23	
max. Earth dist.	3923 Sep 10 04:59	17°♑26'46	1.73165 AU	direct	3926 Feb 27 07:07	9°♒28'59	
				greatest brilliancy	3926 Mar 10 12:19	11°♒49'17	-4.7m
superior conj	3923 Sep 12 15:10	20°♑26'25	1°22'37		3926 Apr 06 00:05	0°♓	
minimum elong	3923 Sep 12 10:53	20°♑13'11	1°22'34	morning max el	3926 Apr 18 09:00	11°♓41'17	46°39'08
	3923 Sep 20 08:47	0°♒		desc. node	3926 May 02 20:28	26°♓38'55	
	3923 Oct 14 14:10	0°♓			3926 May 05 23:27	0°♈	
evening rise	3923 Oct 19 08:14	5°♓53'36			3926 Jun 01 20:33	0°♉	
	3923 Nov 07 18:38	0°♈			3926 Jun 27 16:55	0°♊	
desc. node	3923 Nov 16 01:31	10°♈16'54			3926 Jul 23 01:21	0°♋	
	3923 Dec 01 22:53	0°♉			3926 Aug 17 01:27	0°♌	
	3923 Dec 26 03:30	0°♊		asc. node	3926 Aug 23 23:03	8°♌20'57	
	3924 Jan 19 10:03	0°♋			3926 Sep 10 17:58	0°♍	
	3924 Feb 12 22:28	0°♌			3926 Oct 05 03:40	0°♎	
asc. node	3924 Mar 08 03:54	28°♌59'01		morning set	3926 Oct 14 15:14	11°♎44'04	
	3924 Mar 09 00:41	0°♍			3926 Oct 29 08:07	0°♏	
	3924 Apr 04 09:06	0°♎		max. Earth dist.	3926 Nov 18 13:28	25°♏13'11	1.71894 AU
evening max el	3924 Apr 23 06:49	19°♎46'58	46°11'27				
	3924 May 04 02:34	0°♏		superior conj	3926 Nov 21 07:41	28°♏40'06	0°50'04
greatest brilliancy	3924 May 28 02:15	17°♏15'25	-4.5m	minimum elong	3926 Nov 21 17:29	29°♏10'43	0°49'40
retrograde	3924 Jun 11 18:39	21°♏03'33			3926 Nov 22 09:15	0°♐	
evening set	3924 Jun 26 19:08	16°♏40'00		desc. node	3926 Dec 13 13:18	26°♐29'20	
desc. node	3924 Jun 27 18:03	16°♏07'53			3926 Dec 16 08:33	0°♑	
inferior conj	3924 Jul 03 04:39	12°♑48'51	-1°-17'-50	evening rise	3926 Dec 31 06:25	18°♑41'27	

	3927 Jan 09 06:53	0°♊		morning max el	3929 Jun 30 05:29	23°♊55'16	45°55'01
	3927 Feb 02 05:11	0°♋			3929 Jul 06 10:03	0°♌	
	3927 Feb 26 05:24	0°♍			3929 Aug 03 17:21	0°♍	
	3927 Mar 22 10:40	0°♎			3929 Aug 30 04:21	0°♎	
asc. node	3927 Apr 05 15:51	17°♎24'13		asc. node	3929 Sep 20 10:58	24°♏58'40	
	3927 Apr 16 01:17	0°♏			3929 Sep 24 16:09	0°♐	
	3927 May 11 07:22	0°♑			3929 Oct 19 12:19	0°♑	
	3927 Jun 06 16:48	0°♒			3929 Nov 12 21:41	0°♒	
evening max el	3927 Jul 03 16:59	28°♒04'58	45°30'00		3929 Dec 07 00:12	0°♓	
	3927 Jul 05 17:11	0°♓		morning set	3929 Dec 25 14:51	23°♓18'19	
desc. node	3927 Jul 26 06:00	17°♓18'53			3929 Dec 30 22:54	0°♐	
greatest brilliancy	3927 Aug 08 04:35	24°♐52'20	-4.5m	desc. node	3930 Jan 10 01:08	12°♐40'44	
retrograde	3927 Aug 21 10:29	27°♐57'18			3930 Jan 23 19:42	0°♑	
evening set	3927 Sep 08 01:21	22°♐07'59					
inferior conj	3927 Sep 11 21:37	19°♐46'31	-8°-19'-13	superior conj	3930 Feb 04 18:30	15°♑02'04	0°-56'-55
minimum elong	3927 Sep 11 16:28	19°♐54'32	8°18'50	minimum elong	3930 Feb 04 06:37	14°♑24'41	0°56'29
min. Earth dist.	3927 Sep 12 03:11	19°♐37'50	0.28994 AU	max. Earth dist.	3930 Feb 05 10:44	15°♑53'10	1.71112 AU
morning rise	3927 Sep 15 07:28	17°♐40'10			3930 Feb 16 15:57	0°♋	
direct	3927 Oct 03 10:57	11°♐28'38			3930 Mar 12 13:08	0°♍	
greatest brilliancy	3927 Oct 17 22:28	15°♐09'45	-4.5m	evening rise	3930 Mar 17 19:13	6°♍35'01	
	3927 Nov 08 07:28	0°♎			3930 Apr 05 13:08	0°♎	
asc. node	3927 Nov 16 08:26	7°♎16'46			3930 Apr 29 17:57	0°♏	
morning max el	3927 Nov 22 06:42	13°♎01'45	46°21'04	asc. node	3930 May 03 03:42	4°♏11'46	
	3927 Dec 08 12:11	0°♏			3930 May 24 05:29	0°♑	
	3928 Jan 03 21:42	0°♓			3930 Jun 18 01:56	0°♒	
	3928 Jan 29 00:11	0°♐			3930 Jul 13 11:20	0°♓	
	3928 Feb 22 13:14	0°♑			3930 Aug 08 18:29	0°♔	
desc. node	3928 Mar 06 22:51	16°♑31'38		desc. node	3930 Aug 22 17:52	15°♔15'09	
	3928 Mar 17 20:17	0°♋			3930 Sep 05 22:52	0°♏	
	3928 Apr 11 01:12	0°♍		evening max el	3930 Sep 13 11:49	7°♏24'01	45°51'45
	3928 May 05 06:19	0°♎			3930 Oct 11 02:38	0°♓	
morning set	3928 May 27 08:12	27°♎17'19		greatest brilliancy	3930 Oct 21 13:25	5°♓17'49	-4.6m
	3928 May 29 12:55	0°♏		retrograde	3930 Nov 01 10:25	7°♓25'04	
	3928 Jun 22 21:08	0°♑		evening set	3930 Nov 17 05:37	2°♓38'38	
asc. node	3928 Jun 28 01:22	6°♑22'17			3930 Nov 21 16:37	30°♒♏	
				inferior conj	3930 Nov 22 06:34	29°♒38'35	-5°-8'-7
superior conj	3928 Jul 03 19:07	13°♑26'06	0°13'41	minimum elong	3930 Nov 22 16:21	29°♒23'33	5°05'37
minimum elong	3928 Jul 03 16:13	13°♑17'12	0°13'33	min. Earth dist.	3930 Nov 23 03:51	29°♒05'55	0.27355 AU
behind sun begin	3928 Jul 03 04:09	12°♑40'03		morning rise	3930 Nov 28 02:29	26°♒11'15	
behind sun end	3928 Jul 04 04:18	13°♑54'22		direct	3930 Dec 13 05:11	21°♒43'02	
max. Earth dist.	3928 Jul 04 11:40	14°♑17'03	1.73416 AU	asc. node	3930 Dec 13 20:20	21°♒43'30	
	3928 Jul 17 06:21	0°♒		greatest brilliancy	3930 Dec 27 00:03	25°♒12'27	-4.6m
evening rise	3928 Aug 09 02:02	28°♒03'25			3931 Jan 04 06:44	0°♓	
	3928 Aug 10 15:59	0°♐		morning max el	3931 Feb 01 21:41	25°♓01'24	46°57'03
	3928 Sep 04 02:14	0°♑			3931 Feb 06 17:28	0°♐	
	3928 Sep 28 14:01	0°♒			3931 Mar 05 21:29	0°♑	
desc. node	3928 Oct 17 15:36	23°♒16'01			3931 Mar 31 12:23	0°♋	
	3928 Oct 23 04:22	0°♓		desc. node	3931 Apr 04 10:42	4°♋40'54	
	3928 Nov 16 22:20	0°♐			3931 Apr 25 12:40	0°♍	
	3928 Dec 11 22:15	0°♑			3931 May 20 06:50	0°♎	
	3929 Jan 06 11:24	0°♋			3931 Jun 13 22:39	0°♏	
	3929 Feb 02 11:57	0°♍			3931 Jul 08 13:10	0°♑	
asc. node	3929 Feb 07 18:06	5°♍27'19		asc. node	3931 Jul 26 13:17	22°♑00'21	
evening max el	3929 Feb 08 07:55	6°♍02'32	47°08'08		3931 Aug 02 01:55	0°♒	
	3929 Mar 07 08:45	0°♎		morning set	3931 Aug 04 22:38	3°♒30'36	
greatest brilliancy	3929 Mar 17 17:20	6°♎06'52	-4.6m		3931 Aug 26 12:02	0°♐	
retrograde	3929 Mar 31 02:55	9°♎25'27		max. Earth dist.	3931 Sep 07 22:17	15°♐19'18	1.73199 AU
evening set	3929 Apr 17 12:56	3°♎30'46					
inferior conj	3929 Apr 21 02:26	1°♎18'48	7°53'05	superior conj	3931 Sep 10 09:14	18°♐21'15	1°21'47
minimum elong	3929 Apr 21 11:07	1°♎05'13	7°51'50	minimum elong	3931 Sep 10 04:22	18°♐06'13	1°21'43
min. Earth dist.	3929 Apr 20 21:07	1°♎27'05	0.27860 AU		3931 Sep 19 19:26	0°♑	
	3929 Apr 23 05:12	30°♒♐			3931 Oct 14 00:56	0°♒	
morning rise	3929 Apr 25 09:34	28°♐41'22		evening rise	3931 Oct 17 00:13	3°♒40'53	
direct	3929 May 12 00:25	23°♐20'23			3931 Nov 07 05:36	0°♓	
greatest brilliancy	3929 May 23 10:40	25°♐43'34	-4.5m	desc. node	3931 Nov 15 03:27	9°♓48'33	
desc. node	3929 May 30 08:09	29°♐04'28			3931 Dec 01 10:08	0°♐	
	3929 May 31 22:06	0°♎			3931 Dec 25 15:09	0°♑	

	3932 Jan 18 22:10	0° H			3934 Sep 10 05:02	0° M		
	3932 Feb 12 11:18	0° Y			3934 Oct 04 14:35	0° L		
asc. node	3932 Mar 07 05:55	28° Y 23'41		morning set	3934 Oct 12 07:51	9° L 32'59		
	3932 Mar 08 14:48	0° B			3934 Oct 28 19:02	0° M		
	3932 Apr 04 02:12	0° II		max. Earth dist.	3934 Nov 16 04:48	22° M 56'51	1.71942 AU	
evening max el	3932 Apr 20 21:24	17° II 30'32	46°13'39					
	3932 May 04 06:32	0° S		superior conj	3934 Nov 18 21:46	26° M 19'44	0°52'56	
greatest brilliancy	3932 May 25 19:13	15° S 06'01	-4.5m	minimum elong	3934 Nov 19 07:45	26° M 50'55	0°52'32	
retrograde	3932 Jun 09 10:40	18° S 53'59			3934 Nov 21 20:16	0° J		
evening set	3932 Jun 24 11:44	14° S 30'14		desc. node	3934 Dec 12 15:25	26° J 01'12		
desc. node	3932 Jun 26 20:05	13° S 09'21			3934 Dec 15 19:41	0° S		
inferior conj	3932 Jun 30 21:00	10° S 39'36	0°-57'-54	evening rise	3934 Dec 28 18:01	16° S 12'21		
minimum elong	3932 Jun 30 18:52	10° S 42'58	0°57'18		3935 Jan 08 18:07	0° \approx		
min. Earth dist.	3932 Jun 30 14:30	10° S 49'49	0.28722 AU		3935 Feb 01 16:34	0° H		
morning rise	3932 Jul 07 02:22	6° S 54'52			3935 Feb 25 17:00	0° Y		
direct	3932 Jul 22 08:09	2° S 27'44			3935 Mar 21 22:37	0° B		
greatest brilliancy	3932 Aug 04 05:53	5° S 22'40	-4.5m	asc. node	3935 Apr 04 17:47	16° B 52'59		
	3932 Sep 06 19:03	0° Q			3935 Apr 15 13:49	0° II		
morning max el	3932 Sep 08 23:56	2° Q 05'13	45°44'24		3935 May 10 21:00	0° S		
	3932 Oct 06 00:18	0° M			3935 Jun 06 08:53	0° Q		
asc. node	3932 Oct 17 22:44	13° M 18'36		evening max el	3935 Jul 01 09:25	25° Q 55'21	45°30'39	
	3932 Nov 01 10:33	0° L			3935 Jul 05 16:54	0° M		
	3932 Nov 26 14:44	0° M		desc. node	3935 Jul 25 08:07	16° M 08'28		
	3932 Dec 21 02:56	0° J		greatest brilliancy	3935 Aug 05 17:21	22° M 38'59	-4.5m	
	3933 Jan 14 06:46	0° S		retrograde	3935 Aug 19 02:53	25° M 47'25		
desc. node	3933 Feb 06 12:59	29° S 04'51		evening set	3935 Sep 05 14:38	20° M 01'47		
	3933 Feb 07 06:36	0° \approx		inferior conj	3935 Sep 09 13:44	17° M 35'59	-8°-13'-25	
	3933 Mar 03 04:51	0° H		minimum elong	3935 Sep 09 07:57	17° M 45'00	8°12'56	
morning set	3933 Mar 12 12:21	11° H 40'47		min. Earth dist.	3935 Sep 09 17:49	17° M 29'37	0.29015 AU	
	3933 Mar 27 03:18	0° Y		morning rise	3935 Sep 13 01:11	15° M 27'17		
	3933 Apr 20 03:32	0° B		direct	3935 Oct 01 03:46	9° M 18'03		
				greatest brilliancy	3935 Oct 15 13:43	12° M 57'45	-4.5m	
superior conj	3933 Apr 21 16:24	1° B 54'53	-1°-16'-29		3935 Nov 08 12:11	0° L		
minimum elong	3933 Apr 22 01:34	2° B 23'24	1°16'17	asc. node	3935 Nov 15 10:34	6° L 24'30		
max. Earth dist.	3933 Apr 25 17:28	6° B 57'04	1.72144 AU	morning max el	3935 Nov 19 22:59	10° L 48'41	46°19'19	
	3933 May 14 06:50	0° II			3935 Dec 08 05:39	0° M		
evening rise	3933 May 30 16:00	20° II 15'03			3936 Jan 03 12:09	0° J		
asc. node	3933 May 30 15:37	20° II 13'52			3936 Jan 28 13:18	0° S		
	3933 Jun 07 13:51	0° S			3936 Feb 22 01:36	0° \approx		
	3933 Jul 02 00:41	0° Q		desc. node	3936 Mar 06 00:49	16° \approx 00'20		
	3933 Jul 26 15:47	0° M			3936 Mar 17 08:10	0° H		
	3933 Aug 20 12:43	0° L			3936 Apr 10 12:44	0° Y		
	3933 Sep 14 18:24	0° M			3936 May 04 17:36	0° B		
desc. node	3933 Sep 19 05:37	5° M 14'59		morning set	3936 May 24 23:54	25° B 03'21		
	3933 Oct 10 13:47	0° J			3936 May 29 00:00	0° II		
	3933 Nov 06 10:11	0° S			3936 Jun 22 08:06	0° S		
evening max el	3933 Nov 25 08:57	19° S 46'00	46°52'42	asc. node	3936 Jun 27 03:28	5° S 55'03		
	3933 Dec 06 01:49	0° \approx						
greatest brilliancy	3934 Jan 03 02:51	19° \approx 52'42	-4.7m	superior conj	3936 Jul 01 12:14	11° S 17'25	0°10'27	
asc. node	3934 Jan 10 08:17	22° \approx 02'45		minimum elong	3936 Jul 01 10:01	11° S 10'35	0°10'20	
retrograde	3934 Jan 14 19:10	22° \approx 26'24		behind sun begin	3936 Jun 30 16:22	10° S 16'17		
evening set	3934 Jan 29 22:24	17° \approx 55'07		behind sun end	3936 Jul 02 03:39	12° S 04'53		
inferior conj	3934 Feb 04 09:35	14° \approx 40'58	5°59'03	max. Earth dist.	3936 Jul 02 09:54	12° S 24'04	1.73395 AU	
minimum elong	3934 Feb 03 22:54	14° \approx 57'20	5°56'27		3936 Jul 16 17:16	0° Q		
min. Earth dist.	3934 Feb 03 20:14	15° \approx 01'25	0.26670 AU	evening rise	3936 Aug 06 20:38	25° Q 59'24		
morning rise	3934 Feb 08 23:32	11° \approx 56'36			3936 Aug 10 02:57	0° M		
direct	3934 Feb 24 19:08	7° \approx 00'42			3936 Sep 03 13:22	0° L		
greatest brilliancy	3934 Mar 08 03:05	9° \approx 23'58	-4.7m		3936 Sep 28 01:28	0° M		
	3934 Apr 06 05:31	0° H		desc. node	3936 Oct 16 17:37	22° M 46'16		
morning max el	3934 Apr 15 22:39	9° H 17'58	46°40'38		3936 Oct 22 16:19	0° J		
desc. node	3934 May 01 22:29	25° H 54'02			3936 Nov 16 11:01	0° S		
	3934 May 05 17:31	0° Y			3936 Dec 11 12:05	0° \approx		
	3934 Jun 01 11:09	0° B			3937 Jan 06 03:20	0° H		
	3934 Jun 27 05:52	0° II			3937 Feb 02 08:54	0° Y		
	3934 Jul 22 13:21	0° S		evening max el	3937 Feb 05 23:29	3° Y 42'49	47°08'58	
	3934 Aug 16 12:51	0° Q		asc. node	3937 Feb 06 20:05	4° Y 35'01		
asc. node	3934 Aug 23 01:06	7° Q 52'54			3937 Mar 08 12:08	0° B		

greatest brilliancy	3937 Mar 15 09:54	3°♄47'55	-4.6m			3939 Aug 25 22:53	0°♍	
retrograde	3937 Mar 28 17:55	7°♄04'08		max. Earth dist.		3939 Sep 05 16:20	13°♍13'31	1.73231 AU
evening set	3937 Apr 15 06:12	1°♄05'39						
	3937 Apr 17 00:59	30°♋♂		superior conj		3939 Sep 08 03:06	16°♍14'49	1°20'49
inferior conj	3937 Apr 18 16:41	28°♂58'02	8°03'22	minimum elong		3939 Sep 07 21:40	15°♍58'03	1°20'45
minimum elong	3937 Apr 19 00:53	28°♂45'13	8°02'17			3939 Sep 19 06:18	0°♎	
min. Earth dist.	3937 Apr 18 10:35	29°♂07'35	0.27823 AU			3939 Oct 13 11:54	0°♍	
morning rise	3937 Apr 22 19:52	26°♂26'23		evening rise		3939 Oct 14 16:18	1°♍27'56	
direct	3937 May 09 14:43	21°♂00'33				3939 Nov 06 16:45	0°♌	
greatest brilliancy	3937 May 20 21:44	23°♂20'53	-4.5m	desc. node		3939 Nov 14 05:35	9°♌20'20	
desc. node	3937 May 29 10:16	27°♂38'11				3939 Nov 30 21:34	0°♌	
	3937 Jun 02 03:11	0°♌				3939 Dec 25 02:54	0°♍	
morning max el	3937 Jun 27 20:16	21°♌39'27	45°56'07			3940 Jan 18 10:23	0°♋	
	3937 Jul 06 06:39	0°♌				3940 Feb 12 00:14	0°♍	
	3937 Aug 03 08:41	0°♍		asc. node		3940 Mar 06 07:50	27°♍47'40	
	3937 Aug 29 17:34	0°♎				3940 Mar 08 05:09	0°♌	
asc. node	3937 Sep 19 12:52	24°♎27'43				3940 Apr 03 19:50	0°♌	
	3937 Sep 24 04:19	0°♍		evening max el		3940 Apr 18 11:36	15°♌12'29	46°15'42
	3937 Oct 18 23:55	0°♎				3940 May 04 12:54	0°♍	
	3937 Nov 12 08:59	0°♍		greatest brilliancy		3940 May 23 11:09	12°♍53'56	-4.5m
	3937 Dec 06 11:22	0°♌		retrograde		3940 Jun 07 02:40	16°♍42'57	
morning set	3937 Dec 23 03:04	20°♌51'14		evening set		3940 Jun 22 04:09	12°♍18'26	
	3937 Dec 30 10:02	0°♌		desc. node		3940 Jun 25 22:08	10°♍06'47	
desc. node	3938 Jan 09 03:11	12°♌12'08		inferior conj		3940 Jun 28 13:04	8°♍28'44	0°-37'-42
	3938 Jan 23 06:50	0°♍		minimum elong		3940 Jun 28 11:40	8°♍30'55	0°37'18
				min. Earth dist.		3940 Jun 28 07:10	8°♍37'59	0.28697 AU
superior conj	3938 Feb 02 04:39	12°♍27'55	0°-53'-49	morning rise		3940 Jul 04 19:27	4°♍42'33	
minimum elong	3938 Feb 01 17:02	11°♍51'22	0°53'23	direct		3940 Jul 19 23:12	0°♍17'02	
max. Earth dist.	3938 Feb 02 15:48	13°♍02'59	1.71112 AU	greatest brilliancy		3940 Aug 01 21:30	3°♍12'09	-4.5m
	3938 Feb 16 03:08	0°♋		morning max el		3940 Sep 06 15:10	29°♍53'15	45°43'59
	3938 Mar 12 00:21	0°♍				3940 Sep 06 18:00	0°♎	
evening rise	3938 Mar 15 05:42	4°♍02'23				3940 Oct 05 16:06	0°♍	
	3938 Apr 05 00:24	0°♌		asc. node		3940 Oct 17 00:52	12°♍43'31	
	3938 Apr 29 05:20	0°♌				3940 Oct 31 23:57	0°♎	
asc. node	3938 May 02 05:47	3°♌43'04				3940 Nov 26 03:03	0°♍	
	3938 May 23 17:09	0°♍				3940 Dec 20 14:41	0°♌	
	3938 Jun 17 14:10	0°♎				3941 Jan 13 18:13	0°♌	
	3938 Jul 13 00:37	0°♍		desc. node		3941 Feb 05 14:57	28°♌35'47	
	3938 Aug 08 09:57	0°♎				3941 Feb 06 17:49	0°♍	
desc. node	3938 Aug 21 19:46	14°♎33'46				3941 Mar 02 15:54	0°♋	
	3938 Sep 05 19:57	0°♍		morning set		3941 Mar 09 23:02	9°♋09'15	
evening max el	3938 Sep 11 01:18	5°♍05'16	45°50'00			3941 Mar 26 14:13	0°♍	
	3938 Oct 12 16:01	0°♌						
greatest brilliancy	3938 Oct 19 03:14	2°♌58'10	-4.5m	superior conj		3941 Apr 19 05:43	29°♍33'01	-1°-18'-9
retrograde	3938 Oct 29 22:55	5°♌04'31		minimum elong		3941 Apr 19 14:23	0°♌00'04	1°17'59
evening set	3938 Nov 14 22:08	0°♌13'41				3941 Apr 19 14:22	0°♌	
	3938 Nov 15 07:49	30°♋♍		max. Earth dist.		3941 Apr 23 04:12	4°♌27'20	1.72094 AU
inferior conj	3938 Nov 19 20:17	27°♍17'33	-5°-26'00			3941 May 13 17:40	0°♌	
minimum elong	3938 Nov 20 06:20	27°♍02'06	5°23'32	evening rise		3941 May 28 07:30	18°♌01'23	
min. Earth dist.	3938 Nov 20 18:30	26°♍43'24	0.27418 AU	asc. node		3941 May 29 17:41	19°♌46'49	
morning rise	3938 Nov 25 13:51	23°♍52'58				3941 Jun 07 00:43	0°♍	
direct	3938 Dec 10 19:01	19°♍20'54				3941 Jul 01 11:42	0°♎	
asc. node	3938 Dec 12 22:22	19°♍26'21				3941 Jul 26 03:06	0°♍	
greatest brilliancy	3938 Dec 24 16:00	22°♍51'54	-4.6m			3941 Aug 20 00:36	0°♎	
	3939 Jan 05 06:14	0°♌				3941 Sep 14 07:16	0°♍	
morning max el	3939 Jan 30 10:43	22°♌35'17	46°56'30	desc. node		3941 Sep 18 07:41	4°♍42'42	
	3939 Feb 06 14:01	0°♌				3941 Oct 10 04:25	0°♌	
	3939 Mar 05 13:13	0°♍				3941 Nov 06 04:26	0°♌	
	3939 Mar 31 02:08	0°♋		evening max el		3941 Nov 22 22:37	17°♌22'47	46°50'57
desc. node	3939 Apr 03 12:42	4°♋06'25				3941 Dec 06 07:57	0°♍	
	3939 Apr 25 01:20	0°♍		greatest brilliancy		3941 Dec 31 15:27	17°♍24'06	-4.7m
	3939 May 19 18:48	0°♌		asc. node		3942 Jan 09 10:16	19°♍47'48	
	3939 Jun 13 10:07	0°♌		retrograde		3942 Jan 12 08:10	19°♍58'02	
	3939 Jul 08 00:18	0°♍		evening set		3942 Jan 27 07:42	15°♍30'58	
asc. node	3939 Jul 25 15:14	21°♍32'43		inferior conj		3942 Feb 01 21:56	12°♍13'01	5°40'21
	3939 Aug 01 12:50	0°♎		minimum elong		3942 Feb 01 11:25	12°♍29'04	5°37'41
morning set	3939 Aug 02 16:09	1°♎23'41		min. Earth dist.		3942 Feb 01 09:08	12°♍32'34	0.26645 AU

morning rise	3942 Feb 06 15:18	9° \approx 24'15			3944 Aug 09 13:32	0° \cap	
direct	3942 Feb 22 07:40	4° \approx 32'53			3944 Sep 03 00:11	0° $\underline{\cap}$	
greatest brilliancy	3942 Mar 05 16:55	6° \approx 58'12	-4.7m		3944 Sep 27 12:38	0° \cap	
	3942 Apr 06 08:46	0° \times		desc. node	3944 Oct 15 19:42	22° \cap 17'35	
morning max el	3942 Apr 13 12:53	6° \times 56'57	46°42'09		3944 Oct 22 04:00	0° \nearrow	
desc. node	3942 May 01 00:38	25° \times 10'59			3944 Nov 15 23:27	0° $\overline{\cap}$	
	3942 May 05 10:50	0° Υ			3944 Dec 11 01:43	0° \approx	
	3942 Jun 01 01:18	0° \mathcal{B}			3945 Jan 05 19:08	0° \times	
	3942 Jun 26 18:29	0° Π			3945 Feb 02 06:10	0° Υ	
	3942 Jul 22 01:06	0° \mathcal{C}		evening max el	3945 Feb 03 14:18	1° Υ 22'08	47°09'43
	3942 Aug 16 00:05	0° Ω		asc. node	3945 Feb 05 22:02	3° Υ 42'49	
asc. node	3942 Aug 22 03:03	7° Ω 25'03			3945 Mar 10 02:26	0° \mathcal{B}	
	3942 Sep 09 15:57	0° \cap		greatest brilliancy	3945 Mar 13 03:14	1° \mathcal{B} 30'57	-4.6m
	3942 Oct 04 01:20	0° $\underline{\cap}$		retrograde	3945 Mar 26 08:25	4° \mathcal{B} 43'50	
morning set	3942 Oct 10 00:15	7° $\underline{\cap}$ 21'52			3945 Apr 10 18:20	30° $\mathcal{R}\Upsilon$	
	3942 Oct 28 05:46	0° \cap		evening set	3945 Apr 12 23:23	28° Υ 41'58	
max. Earth dist.	3942 Nov 13 19:01	20° \cap 37'47	1.71987 AU	inferior conj	3945 Apr 16 06:59	26° Υ 38'33	8°12'58
				minimum elong	3945 Apr 16 14:37	26° Υ 26'36	8°12'03
superior conj	3942 Nov 16 11:46	23° \cap 59'52	0°55'42	min. Earth dist.	3945 Apr 16 00:24	26° Υ 48'51	0.27781 AU
minimum elong	3942 Nov 16 21:51	24° \cap 31'22	0°55'20	morning rise	3945 Apr 20 06:07	24° Υ 12'38	
	3942 Nov 21 07:04	0° \nearrow		direct	3945 May 07 04:40	18° Υ 41'58	
desc. node	3942 Dec 11 17:25	25° \nearrow 33'22		greatest brilliancy	3945 May 18 09:33	21° Υ 00'07	-4.6m
	3942 Dec 15 06:35	0° $\overline{\cap}$		desc. node	3945 May 28 12:13	26° Υ 15'43	
evening rise	3942 Dec 26 05:36	13° $\overline{\cap}$ 43'52			3945 Jun 02 23:38	0° \mathcal{B}	
	3943 Jan 08 05:09	0° \approx		morning max el	3945 Jun 25 10:09	19° \mathcal{B} 22'46	45°57'25
	3943 Feb 01 03:44	0° \times			3945 Jul 06 02:00	0° Π	
	3943 Feb 25 04:21	0° Υ			3945 Aug 02 23:15	0° \mathcal{C}	
	3943 Mar 21 10:16	0° \mathcal{B}			3945 Aug 29 06:11	0° Ω	
asc. node	3943 Apr 03 19:55	16° \mathcal{B} 23'19		asc. node	3945 Sep 18 15:01	23° Ω 58'56	
	3943 Apr 15 02:00	0° Π			3945 Sep 23 15:59	0° \cap	
	3943 May 10 10:19	0° \mathcal{C}			3945 Oct 18 11:07	0° $\underline{\cap}$	
	3943 Jun 06 00:49	0° Ω			3945 Nov 11 19:57	0° \cap	
evening max el	3943 Jun 29 02:04	23° Ω 47'11	45°31'05		3945 Dec 05 22:14	0° \nearrow	
	3943 Jul 05 17:20	0° \cap		morning set	3945 Dec 20 15:10	18° \nearrow 24'42	
desc. node	3943 Jul 24 10:01	14° \cap 56'20			3945 Dec 29 20:51	0° $\overline{\cap}$	
greatest brilliancy	3943 Aug 03 07:12	20° \cap 27'36	-4.5m	desc. node	3946 Jan 08 05:09	11° $\overline{\cap}$ 44'17	
retrograde	3943 Aug 16 18:52	23° \cap 37'54			3946 Jan 22 17:39	0° \approx	
evening set	3943 Sep 03 03:41	17° \cap 56'30					
inferior conj	3943 Sep 07 05:45	15° \cap 25'59	-8°-6'-52	superior conj	3946 Jan 30 14:41	9° \approx 54'31	0°-50'-37
minimum elong	3943 Sep 06 23:22	15° \cap 35'58	8°06'17	minimum elong	3946 Jan 30 03:25	9° \approx 19'05	0°50'10
min. Earth dist.	3943 Sep 07 08:30	15° \cap 21'42	0.29036 AU	max. Earth dist.	3946 Jan 30 18:16	10° \approx 05'46	1.71110 AU
morning rise	3943 Sep 10 19:00	13° \cap 14'30			3946 Feb 15 13:57	0° \times	
direct	3943 Sep 28 20:40	7° \cap 08'07			3946 Mar 11 11:12	0° Υ	
greatest brilliancy	3943 Oct 13 04:08	10° \cap 45'12	-4.5m	evening rise	3946 Mar 12 16:06	1° Υ 30'33	
	3943 Nov 08 14:55	0° $\underline{\cap}$			3946 Apr 04 11:18	0° \mathcal{B}	
asc. node	3943 Nov 14 12:36	5° $\underline{\cap}$ 33'33			3946 Apr 28 16:22	0° Π	
morning max el	3943 Nov 17 14:25	8° $\underline{\cap}$ 34'16	46°17'35	asc. node	3946 May 01 07:50	3° Π 15'22	
	3943 Dec 07 22:29	0° \cap			3946 May 23 04:27	0° \mathcal{C}	
	3944 Jan 03 02:08	0° \nearrow			3946 Jun 17 02:00	0° Ω	
	3944 Jan 28 01:59	0° $\overline{\cap}$			3946 Jul 12 13:31	0° \cap	
	3944 Feb 21 13:33	0° \approx			3946 Aug 08 01:05	0° $\underline{\cap}$	
desc. node	3944 Mar 05 02:47	15° \approx 30'11		desc. node	3946 Aug 20 21:50	13° $\underline{\cap}$ 53'46	
	3944 Mar 16 19:39	0° \times			3946 Sep 05 17:11	0° \cap	
	3944 Apr 09 23:53	0° Υ		evening max el	3946 Sep 08 14:03	2° \cap 46'19	45°48'11
	3944 May 04 04:29	0° \mathcal{B}			3946 Oct 15 00:50	0° \nearrow	
morning set	3944 May 22 15:51	22° \mathcal{B} 51'24		greatest brilliancy	3946 Oct 16 16:07	0° \nearrow 38'52	-4.5m
	3944 May 28 10:39	0° Π		retrograde	3946 Oct 27 11:36	2° \nearrow 45'29	
	3944 Jun 21 18:36	0° \mathcal{C}			3946 Nov 08 08:45	30° $\mathcal{R}\cap$	
asc. node	3944 Jun 26 05:24	5° \mathcal{C} 28'42		evening set	3946 Nov 12 14:40	27° \cap 49'42	
				inferior conj	3946 Nov 17 10:03	24° \cap 57'40	-5°-43'-7
superior conj	3944 Jun 29 05:35	9° \mathcal{C} 10'49	0°07'13	minimum elong	3946 Nov 17 20:16	24° \cap 41'57	5°40'43
minimum elong	3944 Jun 29 04:02	9° \mathcal{C} 06'03	0°07'08	min. Earth dist.	3946 Nov 18 09:08	24° \cap 22'10	0.27491 AU
behind sun begin	3944 Jun 28 07:16	8° \mathcal{C} 02'08		morning rise	3946 Nov 23 01:08	21° \cap 36'17	
behind sun end	3944 Jun 30 00:48	10° \mathcal{C} 09'59		direct	3946 Dec 08 08:55	16° \cap 59'35	
max. Earth dist.	3944 Jun 30 08:59	10° \mathcal{C} 35'08	1.73372 AU	asc. node	3946 Dec 12 00:20	17° \cap 15'15	
	3944 Jul 16 03:44	0° Ω		greatest brilliancy	3946 Dec 22 09:18	20° \cap 33'57	-4.6m
evening rise	3944 Aug 04 15:23	23° Ω 57'04			3947 Jan 05 23:19	0° \nearrow	

morning max el	3947 Jan 28 00:20	20° ♁ 11'12	46°55'59		3949 Aug 19 12:26	0° ♁	
	3947 Feb 06 09:44	0° ♁			3949 Sep 13 20:05	0° ♁	
	3947 Mar 05 04:30	0° \approx		desc. node	3949 Sep 17 09:48	4° ♁ 10'51	
	3947 Mar 30 15:29	0° ♁			3949 Oct 09 19:02	0° ♁	
desc. node	3947 Apr 02 14:52	3° ♁ 33'30			3949 Nov 05 22:57	0° ♁	
	3947 Apr 24 13:37	0° ♁		evening max el	3949 Nov 20 13:02	15° ♁ 02'10	46°49'03
	3947 May 19 06:24	0° ♁			3949 Dec 06 16:11	0° \approx	
	3947 Jun 12 21:14	0° ♁		greatest brilliancy	3949 Dec 29 03:46	14° \approx 55'46	-4.7m
	3947 Jul 07 11:06	0° ♁		asc. node	3950 Jan 08 12:15	17° \approx 27'28	
asc. node	3947 Jul 24 17:15	21° ♁ 06'18		retrograde	3950 Jan 09 21:12	17° \approx 29'46	
morning set	3947 Jul 31 09:59	29° ♁ 18'45		evening set	3950 Jan 24 17:17	13° \approx 06'46	
	3947 Jul 31 23:26	0° ♁		inferior conj	3950 Jan 30 10:15	9° \approx 45'02	5°20'53
	3947 Aug 25 09:23	0° ♁		minimum elong	3950 Jan 30 00:02	10° \approx 00'38	5°18'12
max. Earth dist.	3947 Sep 03 12:47	11° ♁ 16'12	1.73261 AU	min. Earth dist.	3950 Jan 29 21:54	10° \approx 03'53	0.26627 AU
				morning rise	3950 Feb 04 07:00	6° \approx 51'52	
superior conj	3947 Sep 05 21:23	14° ♁ 10'48	1°19'46	direct	3950 Feb 19 20:44	2° \approx 05'09	
minimum elong	3947 Sep 05 15:26	13° ♁ 52'27	1°19'40	greatest brilliancy	3950 Mar 03 06:17	4° \approx 31'30	-4.7m
	3947 Sep 18 16:49	0° ♁			3950 Apr 06 10:43	0° ♁	
evening rise	3947 Oct 12 08:55	29° ♁ 17'50		morning max el	3950 Apr 11 03:05	4° ♁ 35'14	46°43'26
	3947 Oct 12 22:32	0° ♁		desc. node	3950 Apr 30 02:34	24° ♁ 27'21	
	3947 Nov 06 03:38	0° ♁			3950 May 05 04:01	0° ♁	
desc. node	3947 Nov 13 07:35	8° ♁ 52'35			3950 May 31 15:29	0° ♁	
	3947 Nov 30 08:46	0° ♁			3950 Jun 26 07:10	0° ♁	
	3947 Dec 24 14:30	0° \approx			3950 Jul 21 12:53	0° ♁	
	3948 Jan 17 22:29	0° ♁			3950 Aug 15 11:19	0° ♁	
	3948 Feb 11 13:07	0° ♁		asc. node	3950 Aug 21 05:08	6° ♁ 57'31	
asc. node	3948 Mar 05 09:59	27° ♁ 12'25			3950 Sep 09 02:53	0° ♁	
	3948 Mar 07 19:30	0° ♁			3950 Oct 03 12:08	0° ♁	
	3948 Apr 03 13:41	0° ♁		morning set	3950 Oct 07 17:01	5° ♁ 11'53	
evening max el	3948 Apr 16 02:08	12° ♁ 55'49	46°18'00		3950 Oct 27 16:33	0° ♁	
	3948 May 04 21:23	0° ♁		max. Earth dist.	3950 Nov 11 07:53	18° ♁ 14'30	1.72029 AU
greatest brilliancy	3948 May 21 02:41	10° ♁ 42'04	-4.5m				
retrograde	3948 Jun 04 19:11	14° ♁ 32'44		superior conj	3950 Nov 14 02:28	21° ♁ 42'13	0°58'20
evening set	3948 Jun 19 20:48	10° ♁ 07'06		minimum elong	3950 Nov 14 12:36	22° ♁ 13'51	0°57'58
desc. node	3948 Jun 25 00:07	7° ♁ 03'54			3950 Nov 20 17:54	0° ♁	
inferior conj	3948 Jun 26 05:09	6° ♁ 18'29	0°-17'-24	desc. node	3950 Dec 10 19:23	25° ♁ 05'28	
minimum elong	3948 Jun 26 04:30	6° ♁ 19'30	0°17'13		3950 Dec 14 17:30	0° ♁	
min. Earth dist.	3948 Jun 25 23:34	6° ♁ 27'14	0.28669 AU	evening rise	3950 Dec 23 17:47	11° ♁ 17'15	
morning rise	3948 Jul 02 12:29	2° ♁ 31'18			3951 Jan 07 16:12	0° \approx	
	3948 Jul 07 20:45	30° ♁			3951 Jan 31 14:58	0° ♁	
direct	3948 Jul 17 14:37	28° ♁ 06'56			3951 Feb 24 15:51	0° ♁	
	3948 Jul 27 20:53	0° ♁			3951 Mar 20 22:08	0° ♁	
greatest brilliancy	3948 Jul 30 13:14	1° ♁ 02'35	-4.5m	asc. node	3951 Apr 02 21:54	15° ♁ 52'25	
morning max el	3948 Sep 04 07:23	27° ♁ 44'34	45°43'44		3951 Apr 14 14:31	0° ♁	
	3948 Sep 06 15:40	0° ♁			3951 May 10 00:03	0° ♁	
	3948 Oct 05 07:20	0° ♁			3951 Jun 05 17:22	0° ♁	
asc. node	3948 Oct 16 02:53	12° ♁ 09'10		evening max el	3951 Jun 26 18:10	21° ♁ 36'48	45°31'44
	3948 Oct 31 12:57	0° ♁			3951 Jul 05 19:27	0° ♁	
	3948 Nov 25 15:03	0° ♁		desc. node	3951 Jul 23 12:06	13° ♁ 41'40	
	3948 Dec 20 02:13	0° ♁		greatest brilliancy	3951 Jul 31 22:12	18° ♁ 16'56	-4.5m
	3949 Jan 13 05:30	0° ♁		retrograde	3951 Aug 14 10:32	21° ♁ 27'55	
desc. node	3949 Feb 04 17:02	28° ♁ 07'22		evening set	3951 Aug 31 16:47	15° ♁ 51'00	
	3949 Feb 06 04:58	0° \approx		inferior conj	3951 Sep 04 21:52	13° ♁ 15'43	-7°-59'-50
	3949 Mar 02 02:56	0° ♁		minimum elong	3951 Sep 04 14:55	13° ♁ 26'36	7°59'05
morning set	3949 Mar 07 09:10	6° ♁ 35'59		min. Earth dist.	3951 Sep 04 23:35	13° ♁ 13'02	0.29050 AU
	3949 Mar 26 01:07	0° ♁		morning rise	3951 Sep 08 12:59	11° ♁ 01'09	
				direct	3951 Sep 26 13:13	4° ♁ 57'56	
superior conj	3949 Apr 16 18:23	27° ♁ 09'07	-1°-19'-42	greatest brilliancy	3951 Oct 10 18:09	8° ♁ 31'43	-4.5m
minimum elong	3949 Apr 17 02:29	27° ♁ 34'24	1°19'34		3951 Nov 08 16:24	0° ♁	
	3949 Apr 19 01:11	0° ♁		asc. node	3951 Nov 13 14:32	4° ♁ 42'46	
max. Earth dist.	3949 Apr 20 15:06	1° ♁ 58'08	1.72040 AU	morning max el	3951 Nov 15 05:02	6° ♁ 17'29	46°16'00
	3949 May 13 04:27	0° ♁			3951 Dec 07 15:09	0° ♁	
evening rise	3949 May 25 22:36	15° ♁ 46'40			3952 Jan 02 16:06	0° ♁	
asc. node	3949 May 28 19:35	19° ♁ 19'28			3952 Jan 27 14:43	0° ♁	
	3949 Jun 06 11:32	0° ♁			3952 Feb 21 01:36	0° \approx	
	3949 Jun 30 22:39	0° ♁		desc. node	3952 Mar 04 04:57	15° \approx 00'15	
	3949 Jul 25 14:22	0° ♁			3952 Mar 16 07:17	0° ♁	

	3952 Apr 09 11:14	0° Υ		evening max el	3954 Sep 06 03:00	0° \mathbb{M} 26'34	45°46'37
	3952 May 03 15:37	0° \mathcal{B}		greatest brilliancy	3954 Oct 14 04:01	28° \mathbb{M} 17'26	-4.5m
morning set	3952 May 20 07:22	20° \mathcal{B} 37'04			3954 Oct 20 07:12	0° \mathcal{A}	
	3952 May 27 21:37	0° \mathbb{I}		retrograde	3954 Oct 25 00:49	0° \mathcal{A} 25'33	
	3952 Jun 21 05:27	0° \mathcal{E}			3954 Oct 29 16:04	30° $\mathbb{R}\mathbb{M}$	
asc. node	3952 Jun 25 07:27	5° \mathcal{E} 01'38		evening set	3954 Nov 10 07:16	25° \mathbb{M} 24'31	
				inferior conj	3954 Nov 14 23:48	22° \mathbb{M} 36'39	-5°-59'-38
superior conj	3952 Jun 26 22:28	7° \mathcal{E} 01'41	0°03'55	minimum elong	3954 Nov 15 10:07	22° \mathbb{M} 20'47	5°57'18
minimum elong	3952 Jun 26 21:38	6° \mathcal{E} 59'06	0°03'53	min. Earth dist.	3954 Nov 15 23:22	22° \mathbb{M} 00'27	0.27562 AU
behind sun begin	3952 Jun 25 23:09	5° \mathcal{E} 49'56		morning rise	3954 Nov 20 12:16	19° \mathbb{M} 19'01	
behind sun end	3952 Jun 27 20:06	8° \mathcal{E} 08'17		direct	3954 Dec 05 23:09	14° \mathbb{M} 37'14	
max. Earth dist.	3952 Jun 28 05:51	8° \mathcal{E} 38'17	1.73345 AU	asc. node	3954 Dec 11 02:24	15° \mathbb{M} 08'09	
	3952 Jul 15 14:34	0° \mathcal{Q}		greatest brilliancy	3954 Dec 20 02:43	18° \mathbb{M} 15'25	-4.6m
evening rise	3952 Aug 02 09:43	21° \mathcal{Q} 52'29			3955 Jan 06 12:32	0° \mathcal{A}	
	3952 Aug 09 00:26	0° \mathbb{M}		morning max el	3955 Jan 25 14:53	17° \mathcal{A} 48'37	46°55'26
	3952 Sep 02 11:18	0° \mathcal{A}			3955 Feb 06 05:15	0° \mathcal{B}	
	3952 Sep 27 00:06	0° \mathbb{M}			3955 Mar 04 19:54	0° \approx	
desc. node	3952 Oct 14 21:40	21° \mathbb{M} 47'35			3955 Mar 30 05:02	0° \mathcal{H}	
	3952 Oct 21 16:00	0° \mathcal{A}		desc. node	3955 Apr 01 16:46	2° \mathcal{H} 58'57	
	3952 Nov 15 12:14	0° \mathcal{B}			3955 Apr 24 02:07	0° Υ	
	3952 Dec 10 15:43	0° \approx			3955 May 18 18:13	0° \mathcal{B}	
	3953 Jan 05 11:25	0° \mathcal{H}			3955 Jun 12 08:37	0° \mathbb{I}	
evening max el	3953 Feb 01 04:12	28° \mathcal{H} 58'39	47°10'27		3955 Jul 06 22:12	0° \mathcal{E}	
	3953 Feb 02 04:23	0° Υ		asc. node	3955 Jul 23 19:21	20° \mathcal{E} 39'09	
asc. node	3953 Feb 05 00:12	2° Υ 49'42		morning set	3955 Jul 29 03:44	27° \mathcal{E} 12'28	
greatest brilliancy	3953 Mar 10 20:25	29° Υ 13'25	-4.6m		3955 Jul 31 10:23	0° \mathcal{Q}	
	3953 Mar 12 15:42	0° \mathcal{B}			3955 Aug 24 20:16	0° \mathbb{M}	
retrograde	3953 Mar 23 22:37	2° \mathcal{B} 23'25		max. Earth dist.	3955 Sep 01 09:53	9° \mathbb{M} 19'40	1.73293 AU
	3953 Apr 03 18:09	30° $\mathbb{R}\Upsilon$					
evening set	3953 Apr 10 16:31	26° Υ 18'16		superior conj	3955 Sep 03 15:26	12° \mathbb{M} 04'47	1°18'36
inferior conj	3953 Apr 13 21:27	24° Υ 18'51	8°21'39	minimum elong	3955 Sep 03 08:59	11° \mathbb{M} 44'56	1°18'28
minimum elong	3953 Apr 14 04:28	24° Υ 07'52	8°20'53		3955 Sep 18 03:44	0° \mathcal{A}	
min. Earth dist.	3953 Apr 13 14:34	24° Υ 29'39	0.27746 AU	evening rise	3955 Oct 10 01:20	27° \mathcal{A} 05'53	
morning rise	3953 Apr 17 16:38	21° Υ 58'36			3955 Oct 12 09:35	0° \mathbb{M}	
direct	3953 May 04 18:21	16° Υ 22'56			3955 Nov 05 14:54	0° \mathcal{A}	
greatest brilliancy	3953 May 15 22:39	18° Υ 40'05	-4.6m	desc. node	3955 Nov 12 09:33	8° \mathcal{A} 23'33	
desc. node	3953 May 27 14:16	24° Υ 55'18			3955 Nov 29 20:21	0° \mathcal{B}	
	3953 Jun 03 15:13	0° \mathcal{B}			3955 Dec 24 02:28	0° \approx	
morning max el	3953 Jun 22 23:41	17° \mathcal{B} 03'52	45°58'34		3956 Jan 17 10:58	0° \mathcal{H}	
	3953 Jul 05 21:15	0° \mathbb{I}			3956 Feb 11 02:24	0° Υ	
	3953 Aug 02 14:06	0° \mathcal{E}		asc. node	3956 Mar 04 11:58	26° Υ 35'30	
	3953 Aug 28 19:11	0° \mathcal{Q}			3956 Mar 07 10:21	0° \mathcal{B}	
asc. node	3953 Sep 17 17:01	23° \mathcal{Q} 28'35			3956 Apr 03 08:18	0° \mathbb{I}	
	3953 Sep 23 04:01	0° \mathbb{M}		evening max el	3956 Apr 13 17:37	10° \mathbb{I} 40'42	46°20'23
	3953 Oct 17 22:39	0° \mathcal{A}			3956 May 05 09:19	0° \mathcal{E}	
	3953 Nov 11 07:13	0° \mathbb{M}		greatest brilliancy	3956 May 18 18:31	8° \mathcal{E} 30'03	-4.5m
	3953 Dec 05 09:23	0° \mathcal{A}		retrograde	3956 Jun 02 12:04	12° \mathcal{E} 21'50	
morning set	3953 Dec 18 03:27	15° \mathcal{A} 57'47		evening set	3956 Jun 17 13:41	7° \mathcal{E} 55'00	
	3953 Dec 29 07:58	0° \mathcal{B}		inferior conj	3956 Jun 23 21:15	4° \mathcal{E} 07'30	0°02'57
desc. node	3954 Jan 07 07:14	11° \mathcal{B} 15'55		minimum elong	3956 Jun 23 21:21	4° \mathcal{E} 07'19	0°02'55
	3954 Jan 22 04:47	0° \approx		transit middle	3956 Jun 23 21:21	4° \mathcal{E} 07'19	0°02'55
				transit begin	3956 Jun 23 17:22	4° \mathcal{E} 13'34	
superior conj	3954 Jan 28 00:58	7° \approx 20'55	0°-47'-19	transit end	3956 Jun 24 01:21	4° \mathcal{E} 01'05	
minimum elong	3954 Jan 27 14:07	6° \approx 46'47	0°46'52	min. Earth dist.	3956 Jun 23 15:37	4° \mathcal{E} 16'18	0.28643 AU
max. Earth dist.	3954 Jan 27 20:31	7° \approx 06'55	1.71112 AU	desc. node	3956 Jun 24 02:10	3° \mathcal{E} 59'47	
	3954 Feb 15 01:05	0° \mathcal{H}		morning rise	3956 Jun 30 05:23	0° \mathcal{E} 19'37	
evening rise	3954 Mar 10 02:48	28° \mathcal{H} 58'47			3956 Jun 30 19:56	30° $\mathbb{R}\mathbb{I}$	
	3954 Mar 10 22:20	0° Υ		direct	3956 Jul 15 06:38	25° \mathbb{I} 56'15	
	3954 Apr 03 22:28	0° \mathcal{B}		greatest brilliancy	3956 Jul 28 04:20	28° \mathbb{I} 51'39	-4.5m
	3954 Apr 28 03:41	0° \mathbb{I}			3956 Jul 30 16:03	0° \mathcal{E}	
asc. node	3954 Apr 30 09:46	2° \mathbb{I} 46'26		morning max el	3956 Sep 02 00:00	25° \mathcal{E} 36'03	45°43'17
	3954 May 22 16:06	0° \mathcal{E}			3956 Sep 06 12:55	0° \mathcal{Q}	
	3954 Jun 16 14:17	0° \mathcal{Q}			3956 Oct 04 22:45	0° \mathbb{M}	
	3954 Jul 12 02:58	0° \mathbb{M}		asc. node	3956 Oct 15 04:49	11° \mathbb{M} 33'41	
	3954 Aug 07 17:00	0° \mathcal{A}			3956 Oct 31 02:16	0° \mathcal{A}	
desc. node	3954 Aug 19 23:58	13° \mathcal{A} 11'54			3956 Nov 25 03:23	0° \mathbb{M}	
	3954 Sep 05 15:54	0° \mathbb{M}			3956 Dec 19 14:03	0° \mathcal{A}	

	3957 Jan 12 17:04	0°☾		desc. node	3959 Jul 22 14:13	12°☾24'58	
desc. node	3957 Feb 03 19:05	27°☾38'10		greatest brilliancy	3959 Jul 29 13:15	16°☾06'34	-4.5m
	3957 Feb 05 16:20	0°☾		retrograde	3959 Aug 12 02:05	19°☾18'37	
	3957 Mar 01 14:09	0°☾		evening set	3959 Aug 29 05:56	13°☾46'16	
morning set	3957 Mar 04 19:15	4°☾01'51		inferior conj	3959 Sep 02 14:08	11°☾06'13	-7°-52'00
	3957 Mar 25 12:15	0°☾		minimum elong	3959 Sep 02 06:40	11°☾17'56	7°51'08
				min. Earth dist.	3959 Sep 02 15:09	11°☾04'37	0.29062 AU
superior conj	3957 Apr 14 07:00	24°☾44'09	-1°-21'-7	morning rise	3959 Sep 06 07:20	8°☾48'17	
minimum elong	3957 Apr 14 14:27	25°☾07'25	1°21'00	direct	3959 Sep 24 05:20	2°☾48'27	
max. Earth dist.	3957 Apr 18 03:46	29°☾33'31	1.71987 AU	greatest brilliancy	3959 Oct 08 08:41	6°☾19'27	-4.5m
	3957 Apr 18 12:15	0°☾			3959 Nov 08 16:31	0°☾	
	3957 May 12 15:28	0°☾		asc. node	3959 Nov 12 16:40	3°☾53'36	
evening rise	3957 May 23 13:45	13°☾31'17		morning max el	3959 Nov 12 18:54	3°☾59'08	46°14'20
asc. node	3957 May 27 21:42	18°☾52'04			3959 Dec 07 07:29	0°☾	
	3957 Jun 05 22:34	0°☾			3960 Jan 02 05:58	0°☾	
	3957 Jun 30 09:49	0°☾			3960 Jan 27 03:27	0°☾	
	3957 Jul 25 01:52	0°☾			3960 Feb 20 13:41	0°☾	
	3957 Aug 19 00:33	0°☾		desc. node	3960 Mar 03 06:55	14°☾29'37	
	3957 Sep 13 09:18	0°☾			3960 Mar 15 18:55	0°☾	
desc. node	3957 Sep 16 11:42	3°☾37'20			3960 Apr 08 22:33	0°☾	
	3957 Oct 09 10:13	0°☾			3960 May 03 02:39	0°☾	
	3957 Nov 05 18:22	0°☾		morning set	3960 May 17 22:43	18°☾22'25	
evening max el	3957 Nov 18 03:45	12°☾41'21	46°47'05		3960 May 27 08:28	0°☾	
	3957 Dec 07 03:52	0°☾			3960 Jun 20 16:11	0°☾	
greatest brilliancy	3957 Dec 26 17:08	12°☾27'47	-4.7m	asc. node	3960 Jun 24 09:32	4°☾34'59	
retrograde	3958 Jan 07 10:02	15°☾00'21					
asc. node	3958 Jan 07 14:21	15°☾00'19		superior conj	3960 Jun 24 15:28	4°☾53'17	0°00'36
evening set	3958 Jan 22 03:07	10°☾41'35		minimum elong	3960 Jun 24 15:19	4°☾52'48	0°00'36
inferior conj	3958 Jan 27 22:32	7°☾16'16	5°00'43	behind sun begin	3960 Jun 23 16:19	3°☾42'03	
minimum elong	3958 Jan 27 12:41	7°☾31'18	4°58'03	behind sun end	3960 Jun 25 14:18	6°☾03'33	
min. Earth dist.	3958 Jan 27 10:51	7°☾34'06	0.26606 AU	max. Earth dist.	3960 Jun 26 01:19	6°☾37'29	1.73317 AU
morning rise	3958 Feb 01 22:30	4°☾18'40			3960 Jul 15 01:17	0°☾	
	3958 Feb 13 01:48	30°☾		evening rise	3960 Jul 31 04:15	19°☾48'57	
direct	3958 Feb 17 09:37	29°☾36'53			3960 Aug 08 11:14	0°☾	
	3958 Feb 21 19:17	0°☾			3960 Sep 01 22:17	0°☾	
greatest brilliancy	3958 Feb 28 19:16	2°☾03'37	-4.7m		3960 Sep 26 11:26	0°☾	
	3958 Apr 06 11:32	0°☾		desc. node	3960 Oct 13 23:43	21°☾18'20	
morning max el	3958 Apr 08 16:17	2°☾10'33	46°44'38		3960 Oct 21 03:52	0°☾	
desc. node	3958 Apr 29 04:37	23°☾44'12			3960 Nov 15 00:55	0°☾	
	3958 May 04 20:58	0°☾			3960 Dec 10 05:44	0°☾	
	3958 May 31 05:37	0°☾			3961 Jan 05 03:55	0°☾	
	3958 Jun 25 19:52	0°☾		evening max el	3961 Jan 29 17:13	26°☾32'42	47°11'00
	3958 Jul 21 00:44	0°☾			3961 Feb 02 03:36	0°☾	
	3958 Aug 14 22:38	0°☾		asc. node	3961 Feb 04 02:08	1°☾54'48	
asc. node	3958 Aug 20 07:10	6°☾29'35		greatest brilliancy	3961 Mar 08 13:08	26°☾54'32	-4.7m
	3958 Sep 08 13:53	0°☾			3961 Mar 20 03:10	0°☾	
	3958 Oct 02 23:01	0°☾		retrograde	3961 Mar 21 12:41	0°☾02'22	
morning set	3958 Oct 05 09:51	3°☾01'52			3961 Mar 22 22:00	30°☾	
	3958 Oct 27 03:27	0°☾		evening set	3961 Apr 08 09:13	23°☾54'03	
max. Earth dist.	3958 Nov 08 19:21	15°☾46'29	1.72079 AU	inferior conj	3961 Apr 11 11:42	21°☾58'31	8°29'28
				minimum elong	3961 Apr 11 18:02	21°☾48'35	8°28'51
superior conj	3958 Nov 11 17:10	19°☾24'11	1°00'52	min. Earth dist.	3961 Apr 11 04:36	22°☾09'38	0.27707 AU
minimum elong	3958 Nov 12 03:16	19°☾55'41	1°00'31	morning rise	3961 Apr 15 03:03	19°☾43'57	
	3958 Nov 20 04:53	0°☾		direct	3961 May 02 07:25	14°☾03'08	
desc. node	3958 Dec 09 21:33	24°☾37'33		greatest brilliancy	3961 May 13 12:11	16°☾20'22	-4.6m
	3958 Dec 14 04:36	0°☾		desc. node	3961 May 26 16:23	23°☾37'35	
evening rise	3958 Dec 21 05:37	8°☾49'02			3961 Jun 04 02:44	0°☾	
	3959 Jan 07 03:25	0°☾		morning max el	3961 Jun 20 13:20	14°☾45'38	45°59'56
	3959 Jan 31 02:21	0°☾			3961 Jul 05 15:45	0°☾	
	3959 Feb 24 03:27	0°☾			3961 Aug 02 04:30	0°☾	
	3959 Mar 20 10:05	0°☾			3961 Aug 28 07:49	0°☾	
asc. node	3959 Apr 01 23:51	15°☾21'12		asc. node	3961 Sep 16 18:57	22°☾58'53	
	3959 Apr 14 03:07	0°☾			3961 Sep 22 15:45	0°☾	
	3959 May 09 13:56	0°☾			3961 Oct 17 09:53	0°☾	
	3959 Jun 05 10:15	0°☾			3961 Nov 10 18:11	0°☾	
evening max el	3959 Jun 24 09:36	19°☾24'42	45°32'25		3961 Dec 04 20:15	0°☾	
	3959 Jul 05 23:06	0°☾		morning set	3961 Dec 15 16:14	13°☾33'26	

	3961 Dec 28 18:49	0°☾		min. Earth dist.	3964 Jun 21 07:27	2°☾05'47	0.28614 AU
desc. node	3962 Jan 06 09:17	10°☾48'17		desc. node	3964 Jun 23 04:13	0°☾55'57	
	3962 Jan 21 15:40	0°≈			3964 Jun 24 16:45	30°☾II	
superior conj	3962 Jan 25 11:17	4°≈48'11	0°-43'-55	morning rise	3964 Jun 27 21:59	28°II08'25	
minimum elong	3962 Jan 25 00:57	4°≈15'42	0°43'29	direct	3964 Jul 12 22:48	23°II46'09	
max. Earth dist.	3962 Jan 25 02:04	4°≈19'11	1.71124 AU	greatest brilliancy	3964 Jul 25 18:19	26°II40'01	-4.5m
	3962 Feb 14 12:00	0°☾			3964 Aug 01 08:29	0°☾	
evening rise	3962 Mar 07 13:15	26°☾26'48		morning max el	3964 Aug 30 16:21	23°☾27'55	45°42'55
	3962 Mar 10 09:17	0°☾			3964 Sep 06 09:01	0°☾	
	3962 Apr 03 09:28	0°☾		asc. node	3964 Oct 04 13:30	0°☾	
	3962 Apr 27 14:50	0°II			3964 Oct 30 15:03	0°☾	
asc. node	3962 Apr 29 11:52	2°II18'34			3964 Nov 24 15:16	0°☾	
	3962 May 22 03:34	0°☾			3964 Dec 19 01:29	0°☾	
	3962 Jun 16 02:21	0°☾			3965 Jan 12 04:13	0°☾	
	3962 Jul 11 16:14	0°☾		desc. node	3965 Feb 02 21:02	27°☾09'53	
desc. node	3962 Aug 07 08:49	0°☾			3965 Feb 05 03:18	0°≈	
evening max el	3962 Aug 19 01:52	12°☾29'59			3965 Mar 01 00:58	0°☾	
	3962 Sep 03 16:57	28°☾10'35	45°45'09	morning set	3965 Mar 02 05:43	1°☾30'12	
	3962 Sep 05 15:06	0°☾			3965 Mar 24 22:57	0°☾	
greatest brilliancy	3962 Oct 11 15:30	25°☾57'25	-4.5m				
retrograde	3962 Oct 22 14:51	28°☾07'37		superior conj	3965 Apr 11 19:46	22°☾20'56	-1°-22'-22
evening set	3962 Nov 08 00:08	23°☾01'24		minimum elong	3965 Apr 12 02:31	22°☾42'00	1°22'18
inferior conj	3962 Nov 12 13:46	20°☾17'36	-6°-15'-20	max. Earth dist.	3965 Apr 15 18:46	27°☾17'26	1.71938 AU
minimum elong	3962 Nov 13 00:09	20°☾01'40	6°13'05		3965 Apr 17 22:54	0°☾	
min. Earth dist.	3962 Nov 13 13:25	19°☾41'20	0.27631 AU		3965 May 12 02:06	0°II	
morning rise	3962 Nov 17 23:31	17°☾04'00		evening rise	3965 May 21 04:49	11°II16'44	
direct	3962 Dec 03 14:03	12°☾17'05		asc. node	3965 May 26 23:45	18°II25'34	
asc. node	3962 Dec 10 04:26	13°☾07'49			3965 Jun 05 09:15	0°☾	
greatest brilliancy	3962 Dec 17 19:24	15°☾57'57	-4.6m		3965 Jun 29 20:39	0°☾	
	3963 Jan 06 21:41	0°☾			3965 Jul 24 13:03	0°☾	
morning max el	3963 Jan 23 06:21	15°☾29'58	46°54'45		3965 Aug 18 12:22	0°☾	
	3963 Feb 05 23:44	0°☾			3965 Sep 12 22:13	0°☾	
	3963 Mar 04 10:40	0°≈		desc. node	3965 Sep 15 13:47	3°☾05'17	
	3963 Mar 29 18:09	0°☾			3965 Oct 09 01:10	0°☾	
desc. node	3963 Mar 31 18:48	2°☾26'03			3965 Nov 05 13:54	0°☾	
	3963 Apr 23 14:16	0°☾		evening max el	3965 Nov 15 18:00	10°☾20'37	46°44'58
	3963 May 18 05:45	0°☾			3965 Dec 07 18:47	0°≈	
	3963 Jun 11 19:43	0°II		greatest brilliancy	3965 Dec 24 07:30	10°≈02'12	-4.6m
	3963 Jul 06 08:59	0°☾		retrograde	3966 Jan 04 22:24	12°≈32'06	
asc. node	3963 Jul 22 21:19	20°☾12'37		asc. node	3966 Jan 06 16:21	12°≈28'23	
morning set	3963 Jul 26 21:26	25°☾07'07		evening set	3966 Jan 19 13:15	8°≈17'21	
	3963 Jul 30 20:58	0°☾		inferior conj	3966 Jan 25 10:52	4°≈48'51	4°39'55
	3963 Aug 24 06:46	0°☾		minimum elong	3966 Jan 25 01:27	5°≈03'14	4°37'17
max. Earth dist.	3963 Aug 30 08:07	7°☾27'47	1.73319 AU	min. Earth dist.	3966 Jan 25 00:18	5°≈05'01	0.26587 AU
				morning rise	3966 Jan 30 13:54	1°≈46'46	
superior conj	3963 Sep 01 09:30	10°☾00'05	1°17'19		3966 Feb 03 01:28	30°☾☾	
minimum elong	3963 Sep 01 02:37	9°☾38'49	1°17'11	direct	3966 Feb 14 22:03	27°☾09'48	
	3963 Sep 17 14:16	0°☾		greatest brilliancy	3966 Feb 26 08:52	29°☾37'23	-4.7m
evening rise	3963 Oct 07 18:01	24°☾55'55			3966 Feb 27 06:19	0°≈	
	3963 Oct 11 20:17	0°☾		morning max el	3966 Apr 06 04:37	29°≈44'40	46°45'58
	3963 Nov 05 01:50	0°☾			3966 Apr 06 10:45	0°☾	
desc. node	3963 Nov 11 11:41	7°☾56'11		desc. node	3966 Apr 28 06:45	23°☾02'58	
	3963 Nov 29 07:33	0°☾			3966 May 04 13:11	0°☾	
	3963 Dec 23 14:02	0°≈			3966 May 30 19:14	0°☾	
	3964 Jan 16 23:02	0°☾			3966 Jun 25 08:09	0°II	
	3964 Feb 10 15:20	0°☾			3966 Jul 20 12:14	0°☾	
asc. node	3964 Mar 03 13:56	25°☾59'33			3966 Aug 14 09:39	0°☾	
	3964 Mar 07 00:56	0°☾		asc. node	3966 Aug 19 09:08	6°☾02'17	
	3964 Apr 03 03:01	0°II			3966 Sep 08 00:38	0°☾	
evening max el	3964 Apr 11 09:48	8°II28'15	46°22'30		3966 Oct 02 09:39	0°☾	
	3964 May 06 00:56	0°☾		morning set	3966 Oct 03 02:38	0°☾52'29	
greatest brilliancy	3964 May 16 11:30	6°☾20'03	-4.5m		3966 Oct 26 14:04	0°☾	
retrograde	3964 May 31 04:55	10°☾11'04		max. Earth dist.	3966 Nov 06 07:53	13°☾22'48	1.72128 AU
evening set	3964 Jun 15 06:39	5°☾43'13					
inferior conj	3964 Jun 21 13:12	1°☾56'48	0°23'28	superior conj	3966 Nov 09 07:59	17°☾07'32	1°03'17
minimum elong	3964 Jun 21 14:04	1°☾55'26	0°23'12	minimum elong	3966 Nov 09 17:58	17°☾38'41	1°02'57

	3966 Nov 19 15:34	0°♊		desc. node	3969 May 25 18:20	22°♑21'31	
desc. node	3966 Dec 08 23:30	24°♊09'57			3969 Jun 04 11:24	0°♋	
	3966 Dec 13 15:25	0°♌		morning max el	3969 Jun 18 03:46	12°♋28'53	46°01'30
evening rise	3966 Dec 18 17:38	6°♌22'23			3969 Jul 05 09:52	0°♌	
	3967 Jan 06 14:24	0°♍			3969 Aug 01 18:48	0°♍	
	3967 Jan 30 13:32	0°♎			3969 Aug 27 20:26	0°♎	
	3967 Feb 23 14:52	0°♏		asc. node	3969 Sep 15 21:07	22°♎29'47	
	3967 Mar 19 21:51	0°♐			3969 Sep 22 03:30	0°♏	
asc. node	3967 Apr 01 02:00	14°♐51'13			3969 Oct 16 21:12	0°♐	
	3967 Apr 13 15:30	0°♑			3969 Nov 10 05:18	0°♑	
	3967 May 09 03:39	0°♒			3969 Dec 04 07:16	0°♒	
	3967 Jun 05 03:09	0°♓		morning set	3969 Dec 13 04:58	11°♒08'28	
evening max el	3967 Jun 22 00:20	17°♓11'43	45°33'06		3969 Dec 28 05:49	0°♌	
	3967 Jul 06 04:16	0°♈		desc. node	3970 Jan 05 11:15	10°♌19'53	
desc. node	3967 Jul 21 16:07	11°♈06'13			3970 Jan 21 02:41	0°♍	
greatest brilliancy	3967 Jul 27 03:19	13°♈55'32	-4.5m				
retrograde	3967 Aug 09 17:39	17°♈10'06		superior conj	3970 Jan 22 21:23	2°♍14'18	0°-40'-24
evening set	3967 Aug 26 18:59	11°♈42'04		minimum elong	3970 Jan 22 11:40	1°♍43'45	0°39'59
inferior conj	3967 Aug 31 06:26	8°♈57'23	-7°-43'-27	max. Earth dist.	3970 Jan 22 10:41	1°♍40'40	1.71134 AU
minimum elong	3967 Aug 30 22:29	9°♈09'51	7°42'27		3970 Feb 13 23:02	0°♎	
min. Earth dist.	3967 Aug 31 06:57	8°♈56'34	0.29075 AU	evening rise	3970 Mar 04 23:39	23°♎54'12	
morning rise	3967 Sep 04 01:51	6°♈35'59			3970 Mar 09 20:21	0°♏	
direct	3967 Sep 21 21:10	0°♈39'24			3970 Apr 02 20:38	0°♐	
greatest brilliancy	3967 Oct 06 00:30	4°♈09'21	-4.5m		3970 Apr 27 02:11	0°♑	
	3967 Nov 08 15:24	0°♒		asc. node	3970 Apr 28 13:54	1°♑49'52	
morning max el	3967 Nov 10 09:05	1°♒42'07	46°12'48		3970 May 21 15:16	0°♒	
asc. node	3967 Nov 11 18:42	3°♒05'27			3970 Jun 15 14:41	0°♓	
	3967 Dec 06 23:21	0°♈			3970 Jul 11 05:46	0°♈	
	3968 Jan 01 19:32	0°♉			3970 Aug 07 01:04	0°♉	
	3968 Jan 26 15:55	0°♊		desc. node	3970 Aug 18 03:58	11°♉47'34	
	3968 Feb 20 01:32	0°♋		evening max el	3970 Sep 01 07:43	25°♉56'09	45°43'42
desc. node	3968 Mar 02 08:55	13°♋59'41			3970 Sep 05 15:38	0°♌	
	3968 Mar 15 06:24	0°♎		greatest brilliancy	3970 Oct 09 02:42	23°♌36'41	-4.5m
	3968 Apr 08 09:44	0°♏		retrograde	3970 Oct 20 04:49	25°♌48'49	
	3968 May 02 13:36	0°♐		evening set	3970 Nov 05 17:00	20°♌37'38	
morning set	3968 May 15 14:02	16°♐07'52		inferior conj	3970 Nov 10 03:41	17°♌57'43	-6°-30'-15
	3968 May 26 19:12	0°♑		minimum elong	3970 Nov 10 14:02	17°♌41'50	6°28'07
	3968 Jun 20 02:49	0°♒		min. Earth dist.	3970 Nov 11 03:06	17°♌21'47	0.27703 AU
				morning rise	3970 Nov 15 10:32	14°♌48'13	
superior conj	3968 Jun 22 08:31	2°♒45'21	0°-2'-42	direct	3970 Dec 01 05:16	9°♌56'15	
minimum elong	3968 Jun 22 09:06	2°♒47'10	0°02'42	asc. node	3970 Dec 09 06:25	11°♌11'01	
behind sun begin	3968 Jun 21 10:14	1°♒36'45		greatest brilliancy	3970 Dec 15 11:11	13°♌38'20	-4.6m
behind sun end	3968 Jun 23 07:59	3°♒57'35			3971 Jan 07 04:47	0°♍	
asc. node	3968 Jun 23 11:29	4°♒08'24		morning max el	3971 Jan 20 21:54	13°♍10'28	46°53'55
max. Earth dist.	3968 Jun 23 19:49	4°♒34'01	1.73287 AU		3971 Feb 05 18:11	0°♎	
	3968 Jul 14 11:53	0°♓			3971 Mar 04 01:37	0°♏	
evening rise	3968 Jul 28 22:56	17°♓46'09			3971 Mar 29 07:27	0°♐	
	3968 Aug 07 21:57	0°♈		desc. node	3971 Mar 30 20:58	1°♐52'45	
	3968 Sep 01 09:14	0°♉			3971 Apr 23 02:38	0°♑	
	3968 Sep 25 22:46	0°♌			3971 May 17 17:31	0°♒	
desc. node	3968 Oct 13 01:48	20°♌49'06			3971 Jun 11 07:04	0°♓	
	3968 Oct 20 15:46	0°♈			3971 Jul 05 20:04	0°♈	
	3968 Nov 14 13:41	0°♉		asc. node	3971 Jul 21 23:21	19°♉45'20	
	3968 Dec 09 19:52	0°♊		morning set	3971 Jul 24 15:10	23°♉00'51	
	3969 Jan 04 20:44	0°♋			3971 Jul 30 07:52	0°♌	
evening max el	3969 Jan 27 06:11	24°♋06'40	47°11'32		3971 Aug 23 17:35	0°♍	
	3969 Feb 02 03:52	0°♎		max. Earth dist.	3971 Aug 28 05:40	5°♍32'57	1.73339 AU
asc. node	3969 Feb 03 04:10	0°♏					
greatest brilliancy	3969 Mar 06 04:38	24°♏33'42	-4.7m	superior conj	3971 Aug 30 03:40	7°♏54'44	1°15'55
retrograde	3969 Mar 19 02:55	27°♏40'49		minimum elong	3971 Aug 29 20:23	7°♏32'17	1°15'46
evening set	3969 Apr 06 01:26	21°♏29'24			3971 Sep 17 01:06	0°♐	
inferior conj	3969 Apr 09 01:46	19°♏37'24	8°36'23	evening rise	3971 Oct 05 10:50	22°♐45'35	
minimum elong	3969 Apr 09 07:23	19°♏28'38	8°35'55		3971 Oct 11 07:15	0°♑	
min. Earth dist.	3969 Apr 08 18:16	19°♏49'08	0.27672 AU		3971 Nov 04 13:04	0°♒	
morning rise	3969 Apr 12 13:27	17°♏28'30		desc. node	3971 Nov 10 13:40	7°♒27'21	
direct	3969 Apr 29 20:29	11°♏42'21			3971 Nov 28 19:08	0°♓	
greatest brilliancy	3969 May 11 01:47	14°♏00'10	-4.6m		3971 Dec 23 02:01	0°♈	

	3972 Jan 16 11:35	0° H			3974 Jun 24 20:49	0° II		
	3972 Feb 10 04:48	0° Y			3974 Jul 20 00:06	0° S		
asc. node	3972 Mar 02 16:04	25° $\text{Y}22'27$			3974 Aug 13 21:02	0° Q		
	3972 Mar 06 16:12	0° B		asc. node	3974 Aug 18 11:15	5° $\text{Q}34'20$		
	3972 Apr 02 22:46	0° II			3974 Sep 07 11:45	0° np		
evening max el	3972 Apr 09 01:52	6° $\text{II}14'00$	46°24'43	morning set	3974 Sep 30 19:21	28° $\text{np}41'47$		
	3972 May 06 22:56	0° S			3974 Oct 01 20:40	0° L		
greatest brilliancy	3972 May 14 05:15	4° $\text{S}09'36$	-4.5m		3974 Oct 26 01:04	0° ML		
retrograde	3972 May 28 21:24	7° $\text{S}58'32$		max. Earth dist.	3974 Nov 03 21:46	11° $\text{ML}02'13$	1.72176 AU	
evening set	3972 Jun 12 23:41	3° $\text{S}29'42$						
	3972 Jun 18 19:09	30° $\text{R}II$		superior conj	3974 Nov 06 23:03	14° $\text{ML}50'35$	1°05'34	
inferior conj	3972 Jun 19 05:02	29° $\text{II}44'31$	0°44'00	minimum elong	3974 Nov 07 08:54	15° $\text{ML}21'17$	1°05'16	
minimum elong	3972 Jun 19 06:40	29° $\text{II}41'58$	0°43'31		3974 Nov 19 02:37	0° X		
min. Earth dist.	3972 Jun 18 23:20	29° $\text{II}53'26$	0.28583 AU	desc. node	3974 Dec 08 01:30	23° $\text{X}41'26$		
desc. node	3972 Jun 22 06:12	27° $\text{II}51'12$			3974 Dec 13 02:33	0° Z		
morning rise	3972 Jun 25 14:14	25° $\text{II}55'34$		evening rise	3974 Dec 16 06:03	3° $\text{Z}56'09$		
direct	3972 Jul 10 14:46	21° $\text{II}34'31$			3975 Jan 06 01:41	0° \approx		
greatest brilliancy	3972 Jul 23 07:20	24° $\text{II}25'37$	-4.5m		3975 Jan 30 01:00	0° H		
	3972 Aug 02 13:15	0° S			3975 Feb 23 02:35	0° Y		
morning max el	3972 Aug 28 08:00	21° $\text{S}16'50$	45°42'40		3975 Mar 19 09:58	0° B		
	3972 Sep 06 04:58	0° Q		asc. node	3975 Mar 31 03:57	14° $\text{B}19'25$		
	3972 Oct 04 04:27	0° np			3975 Apr 13 04:21	0° II		
asc. node	3972 Oct 13 08:57	10° $\text{np}25'31$			3975 May 08 17:57	0° S		
	3972 Oct 30 04:06	0° L			3975 Jun 04 20:55	0° Q		
	3972 Nov 24 03:27	0° ML		evening max el	3975 Jun 19 14:54	14° $\text{Q}57'03$	45°34'02	
	3972 Dec 18 13:13	0° X			3975 Jul 06 12:21	0° np		
	3973 Jan 11 15:44	0° Z		desc. node	3975 Jul 20 18:12	9° $\text{np}44'03$		
desc. node	3973 Feb 01 23:08	26° $\text{Z}40'48$		greatest brilliancy	3975 Jul 24 16:18	11° $\text{np}42'00$	-4.5m	
	3973 Feb 04 14:40	0° \approx		retrograde	3975 Aug 07 09:35	15° $\text{np}00'34$		
morning set	3973 Feb 27 15:40	28° $\approx55'29$		evening set	3975 Aug 24 07:57	9° $\text{np}36'33$		
	3973 Feb 28 12:13	0° H		inferior conj	3975 Aug 28 22:40	6° $\text{np}47'20$	-7°-34'-19	
	3973 Mar 24 10:08	0° Y		minimum elong	3975 Aug 28 14:16	7° $\text{np}00'29$	7°33'10	
				min. Earth dist.	3975 Aug 28 22:33	6° $\text{np}47'31$	0.29086 AU	
superior conj	3973 Apr 09 07:58	19° $\text{Y}54'23$	-1°-23'-29	morning rise	3975 Sep 01 20:27	4° $\text{np}22'29$		
minimum elong	3973 Apr 09 13:55	20° $\text{Y}13'00$	1°23'26		3975 Sep 10 19:04	30° RQ		
max. Earth dist.	3973 Apr 13 09:01	24° $\text{Y}57'25$	1.71883 AU	direct	3975 Sep 19 12:56	28° $\text{Q}29'03$		
	3973 Apr 17 10:00	0° B			3975 Sep 28 16:00	0° np		
	3973 May 11 13:10	0° II		greatest brilliancy	3975 Oct 03 17:01	1° $\text{np}59'14$	-4.5m	
evening rise	3973 May 18 19:18	8° $\text{II}58'54$		morning max el	3975 Nov 08 00:13	29° $\text{np}26'39$	46°11'21	
asc. node	3973 May 26 01:40	17° $\text{II}57'20$			3975 Nov 08 13:44	0° L		
	3973 Jun 04 20:22	0° S		asc. node	3975 Nov 10 20:39	2° $\text{L}16'54$		
	3973 Jun 29 07:57	0° Q			3975 Dec 06 15:17	0° ML		
	3973 Jul 24 00:43	0° np			3976 Jan 01 09:13	0° X		
	3973 Aug 18 00:42	0° L			3976 Jan 26 04:32	0° Z		
	3973 Sep 12 11:41	0° ML			3976 Feb 19 13:32	0° \approx		
desc. node	3973 Sep 14 15:53	2° $\text{ML}31'48$		desc. node	3976 Mar 01 11:03	13° $\approx29'44$		
	3973 Oct 08 16:45	0° X			3976 Mar 14 18:00	0° H		
	3973 Nov 05 10:25	0° Z			3976 Apr 07 21:03	0° Y		
evening max el	3973 Nov 13 07:17	7° $\text{Z}56'38$	46°42'52		3976 May 02 00:42	0° B		
	3973 Dec 08 15:14	0° \approx		morning set	3976 May 13 05:08	13° $\text{B}51'48$		
greatest brilliancy	3973 Dec 21 22:10	7° $\approx36'05$	-4.6m		3976 May 26 06:10	0° II		
retrograde	3974 Jan 02 10:15	10° $\approx03'04$			3976 Jun 19 13:40	0° S		
asc. node	3974 Jan 05 18:20	9° $\approx49'30$						
evening set	3974 Jan 16 23:36	5° $\approx51'42$		superior conj	3976 Jun 20 01:15	0° $\text{S}35'39$	0°-6'-1	
inferior conj	3974 Jan 22 23:15	2° $\approx20'37$	4°18'39	minimum elong	3976 Jun 20 02:33	0° $\text{S}39'41$	0°05'59	
minimum elong	3974 Jan 22 14:21	2° $\approx34'15$	4°16'05	behind sun begin	3976 Jun 19 04:51	29° $\text{II}32'51$		
min. Earth dist.	3974 Jan 22 14:09	2° $\approx34'34$	0.26576 AU	behind sun end	3976 Jun 21 00:15	1° $\text{S}46'30$		
	3974 Jan 26 20:50	30° RZ		max. Earth dist.	3976 Jun 21 13:31	2° $\text{S}27'21$	1.73259 AU	
morning rise	3974 Jan 28 05:13	29° $\text{Z}14'09$		asc. node	3976 Jun 22 13:33	3° $\text{S}41'21$		
direct	3974 Feb 12 10:06	24° $\text{Z}41'31$			3976 Jul 13 22:44	0° Q		
greatest brilliancy	3974 Feb 23 23:34	27° $\text{Z}11'12$	-4.7m	evening rise	3976 Jul 26 17:18	15° $\text{Q}41'48$		
	3974 Mar 01 17:17	0° \approx			3976 Aug 07 08:53	0° np		
morning max el	3974 Apr 03 16:36	27° $\approx16'14$	46°47'09		3976 Aug 31 20:24	0° L		
	3974 Apr 06 09:35	0° H			3976 Sep 25 10:19	0° ML		
desc. node	3974 Apr 27 08:40	22° $\text{H}20'10$		desc. node	3976 Oct 12 03:44	20° $\text{ML}18'45$		
	3974 May 04 05:40	0° Y			3976 Oct 20 03:55	0° X		
	3974 May 30 09:13	0° B			3976 Nov 14 02:44	0° Z		

	3976 Dec 09 10:21	0°≈		morning set	3979 Jul 22 09:06	20°☾56'04	
	3977 Jan 04 14:00	0°✕			3979 Jul 29 18:31	0°♈	
evening max el	3977 Jan 24 20:17	21°✕43'28	47°12'10		3979 Aug 23 04:10	0°♍	
asc. node	3977 Feb 02 06:17	0°♑02'05		max. Earth dist.	3979 Aug 26 01:46	3°♍34'20	1.73363 AU
	3977 Feb 02 05:25	0°♑					
greatest brilliancy	3977 Mar 03 19:16	22°♑11'58	-4.7m	superior conj	3979 Aug 27 21:58	5°♍50'30	1°14'27
retrograde	3977 Mar 16 17:47	25°♑19'35		minimum elong	3979 Aug 27 14:19	5°♍26'57	1°14'15
evening set	3977 Apr 03 17:31	19°♑05'17			3979 Sep 16 11:44	0°♊	
inferior conj	3977 Apr 06 15:55	17°♑16'27	8°42'30	evening rise	3979 Oct 03 03:42	20°♊36'01	
minimum elong	3977 Apr 06 20:46	17°♑08'53	8°42'08		3979 Oct 10 18:03	0°♌	
min. Earth dist.	3977 Apr 06 07:36	17°♑29'25	0.27635 AU		3979 Nov 04 00:06	0°♎	
morning rise	3977 Apr 10 00:10	15°♑13'01		desc. node	3979 Nov 09 15:38	6°♎59'06	
direct	3977 Apr 27 10:06	9°♑21'54			3979 Nov 28 06:30	0°♏	
greatest brilliancy	3977 May 08 14:39	11°♑39'28	-4.6m		3979 Dec 22 13:48	0°≈	
desc. node	3977 May 24 20:23	21°♑08'06			3980 Jan 15 23:58	0°✕	
	3977 Jun 04 17:35	0°♐			3980 Feb 09 18:09	0°♑	
morning max el	3977 Jun 15 19:11	10°♐14'30	46°02'51	asc. node	3980 Mar 01 18:01	24°♑45'15	
	3977 Jul 05 03:37	0°♐			3980 Mar 06 07:24	0°♐	
	3977 Aug 01 09:02	0°♏			3980 Apr 02 18:48	0°♐	
	3977 Aug 27 09:03	0°♏		evening max el	3980 Apr 06 17:39	3°♐59'47	46°26'57
asc. node	3977 Sep 14 23:05	22°♏00'01			3980 May 08 04:36	0°♏	
	3977 Sep 21 15:17	0°♍		greatest brilliancy	3980 May 11 23:40	2°♏01'08	-4.6m
	3977 Oct 16 08:31	0°♊		retrograde	3980 May 26 13:32	5°♏47'26	
	3977 Nov 09 16:23	0°♌		evening set	3980 Jun 10 17:02	1°♏17'34	
	3977 Dec 03 18:17	0°♎			3980 Jun 12 22:40	30°♌♐	
morning set	3977 Dec 10 17:49	8°♎43'58		inferior conj	3980 Jun 16 21:05	27°♐33'58	1°04'25
	3977 Dec 27 16:51	0°♏		minimum elong	3980 Jun 16 23:28	27°♐30'14	1°03'42
desc. node	3978 Jan 04 13:21	9°♏51'53		min. Earth dist.	3980 Jun 16 15:44	27°♐42'21	0.28549 AU
				desc. node	3980 Jun 21 08:16	24°♐49'45	
superior conj	3978 Jan 20 07:35	29°♏40'40	0°-36'-49	morning rise	3980 Jun 23 06:27	23°♐44'29	
minimum elong	3978 Jan 19 22:33	29°♏12'18	0°36'25	direct	3980 Jul 08 06:33	19°♐24'40	
max. Earth dist.	3978 Jan 19 19:59	29°♏04'14	1.71142 AU	greatest brilliancy	3980 Jul 20 20:28	22°♐12'48	-4.5m
	3978 Jan 20 13:43	0°≈			3980 Aug 03 09:21	0°♏	
	3978 Feb 13 10:04	0°✕		morning max el	3980 Aug 25 22:56	19°♏05'17	45°42'22
evening rise	3978 Mar 02 10:12	21°✕22'10			3980 Sep 05 23:50	0°♏	
	3978 Mar 09 07:23	0°♑			3980 Oct 03 18:50	0°♍	
	3978 Apr 02 07:43	0°♐		asc. node	3980 Oct 12 10:54	9°♍51'55	
	3978 Apr 26 13:26	0°♐			3980 Oct 29 16:46	0°♊	
asc. node	3978 Apr 27 15:51	1°♐21'14			3980 Nov 23 15:18	0°♌	
	3978 May 21 02:51	0°♏			3980 Dec 18 00:39	0°♎	
	3978 Jun 15 02:56	0°♏			3981 Jan 11 02:55	0°♏	
	3978 Jul 10 19:20	0°♍		desc. node	3981 Feb 01 01:11	26°♏12'37	
	3978 Aug 06 17:33	0°♊			3981 Feb 04 01:41	0°≈	
desc. node	3978 Aug 17 06:03	11°♊04'43		morning set	3981 Feb 25 01:30	26°≈21'22	
evening max el	3978 Aug 29 23:08	23°♊43'37	45°42'15		3981 Feb 27 23:09	0°✕	
	3978 Sep 05 17:22	0°♌			3981 Mar 23 20:59	0°♑	
greatest brilliancy	3978 Oct 06 14:47	21°♌17'40	-4.5m				
retrograde	3978 Oct 17 18:34	23°♌30'44		superior conj	3981 Apr 06 20:07	17°♑28'39	-1°-24'-27
evening set	3978 Nov 03 10:00	18°♌14'57		minimum elong	3981 Apr 07 01:13	17°♑44'35	1°24'24
inferior conj	3978 Nov 07 17:47	15°♌38'48	-6°-44'-23	max. Earth dist.	3981 Apr 10 21:02	22°♑31'22	1.71829 AU
minimum elong	3978 Nov 08 04:00	15°♌23'04	6°42'23		3981 Apr 16 20:48	0°♐	
min. Earth dist.	3978 Nov 08 16:53	15°♌03'15	0.27773 AU		3981 May 10 23:55	0°♐	
morning rise	3978 Nov 12 21:32	12°♌33'24		evening rise	3981 May 16 09:41	6°♐41'40	
direct	3978 Nov 28 20:38	7°♌36'33		asc. node	3981 May 25 03:48	17°♐30'44	
asc. node	3978 Dec 08 08:29	9°♌19'23			3981 Jun 04 07:07	0°♏	
greatest brilliancy	3978 Dec 13 02:04	11°♌18'14	-4.6m		3981 Jun 28 18:52	0°♏	
	3979 Jan 07 09:33	0°♎			3981 Jul 23 11:59	0°♍	
morning max el	3979 Jan 18 12:52	10°♎50'05	46°52'56		3981 Aug 17 12:38	0°♊	
	3979 Feb 05 12:02	0°♏			3981 Sep 12 00:49	0°♌	
	3979 Mar 03 16:13	0°≈		desc. node	3981 Sep 13 17:47	1°♌58'51	
	3979 Mar 28 20:30	0°✕			3981 Oct 08 08:10	0°♎	
desc. node	3979 Mar 29 22:50	1°✕19'16			3981 Nov 05 07:17	0°♏	
	3979 Apr 22 14:45	0°♑		evening max el	3981 Nov 10 19:54	5°♏31'59	46°40'38
	3979 May 17 05:02	0°♐			3981 Dec 09 18:37	0°≈	
	3979 Jun 10 18:10	0°♐		greatest brilliancy	3981 Dec 19 12:33	5°≈10'19	-4.6m
	3979 Jul 05 06:53	0°♏		retrograde	3981 Dec 30 21:56	7°≈34'59	
asc. node	3979 Jul 21 01:26	19°♏19'02		asc. node	3982 Jan 04 20:26	7°≈05'14	

evening set	3982 Jan 14 10:05	3° \approx 26'14		minimum elong	3984 Jun 17 19:44	28° Π 32'03	0°09'17
inferior conj	3982 Jan 20 11:35	29° Ξ 53'11	3°56'42	behind sun begin	3984 Jun 17 00:36	27° Π 33'06	
minimum elong	3982 Jan 20 03:15	0° \approx 05'55	3°54'15	behind sun end	3984 Jun 18 14:52	29° Π 31'00	
min. Earth dist.	3982 Jan 20 04:09	0° \approx 04'33	0.26569 AU		3984 Jun 19 00:16	0° Ξ	
	3982 Jan 20 07:08	30° \mathcal{R} Ξ		max. Earth dist.	3984 Jun 19 08:38	0° Ξ 25'44	1.73230 AU
morning rise	3982 Jan 25 20:24	26° Ξ 42'38		asc. node	3984 Jun 21 15:37	3° Ξ 15'04	
direct	3982 Feb 09 21:53	22° Ξ 13'46			3984 Jul 13 09:21	0° Ω	
greatest brilliancy	3982 Feb 21 15:10	24° Ξ 46'56	-4.7m	evening rise	3984 Jul 24 11:41	13° Ω 38'15	
	3982 Mar 03 06:35	0° \approx			3984 Aug 06 19:35	0° \mathcal{M}	
morning max el	3982 Apr 01 04:49	24° \approx 49'18	46°48'23		3984 Aug 31 07:18	0° $\underline{\mathcal{A}}$	
	3982 Apr 06 07:08	0° \mathcal{H}			3984 Sep 24 21:35	0° \mathcal{M}	
desc. node	3982 Apr 26 10:45	21° \mathcal{H} 39'23		desc. node	3984 Oct 11 05:50	19° \mathcal{M} 49'48	
	3982 May 03 21:28	0° \mathcal{V}			3984 Oct 19 15:46	0° \mathcal{A}	
	3982 May 29 22:42	0° \mathcal{B}			3984 Nov 13 15:31	0° Ξ	
	3982 Jun 24 09:02	0° Π			3984 Dec 09 00:41	0° \approx	
	3982 Jul 19 11:32	0° Ξ			3985 Jan 04 07:23	0° \mathcal{H}	
	3982 Aug 13 07:59	0° Ω		evening max el	3985 Jan 22 11:15	19° \mathcal{H} 22'54	47°12'27
asc. node	3982 Aug 17 13:14	5° Ω 07'18		asc. node	3985 Feb 01 08:13	29° \mathcal{H} 03'48	
	3982 Sep 06 22:25	0° \mathcal{M}			3985 Feb 02 08:16	0° \mathcal{V}	
morning set	3982 Sep 28 12:27	26° \mathcal{M} 33'38		greatest brilliancy	3985 Mar 01 09:48	19° \mathcal{V} 49'48	-4.7m
	3982 Oct 01 07:14	0° $\underline{\mathcal{A}}$		retrograde	3985 Mar 14 08:41	22° \mathcal{V} 57'23	
	3982 Oct 25 11:39	0° \mathcal{M}		evening set	3985 Apr 01 08:59	16° \mathcal{V} 40'53	
max. Earth dist.	3982 Nov 01 14:24	8° \mathcal{M} 51'29	1.72229 AU	inferior conj	3985 Apr 04 05:46	14° \mathcal{V} 54'36	8°47'40
				minimum elong	3985 Apr 04 09:50	14° \mathcal{V} 48'17	8°47'25
superior conj	3982 Nov 04 14:23	12° \mathcal{M} 35'44	1°07'44	min. Earth dist.	3985 Apr 03 20:26	15° \mathcal{V} 09'08	0.27598 AU
minimum elong	3982 Nov 05 00:02	13° \mathcal{M} 05'46	1°07'27	morning rise	3985 Apr 07 10:50	12° \mathcal{V} 56'11	
	3982 Nov 18 13:18	0° \mathcal{A}		direct	3985 Apr 24 23:52	7° \mathcal{V} 00'46	
desc. node	3982 Dec 07 03:39	23° \mathcal{A} 14'24		greatest brilliancy	3985 May 06 02:24	9° \mathcal{V} 17'04	-4.6m
	3982 Dec 12 13:23	0° Ξ		desc. node	3985 May 23 22:29	19° \mathcal{V} 56'56	
evening rise	3982 Dec 13 18:34	1° Ξ 31'16			3985 Jun 04 21:44	0° \mathcal{B}	
	3983 Jan 05 12:41	0° \approx		morning max el	3985 Jun 13 10:34	8° \mathcal{B} 00'11	46°04'14
	3983 Jan 29 12:11	0° \mathcal{H}			3985 Jul 04 20:50	0° Π	
	3983 Feb 22 14:02	0° \mathcal{V}			3985 Jul 31 22:57	0° Ξ	
	3983 Mar 18 21:49	0° \mathcal{B}			3985 Aug 26 21:27	0° Ω	
asc. node	3983 Mar 30 05:56	13° \mathcal{B} 48'34		asc. node	3985 Sep 14 01:01	21° Ω 30'42	
	3983 Apr 12 16:56	0° Π			3985 Sep 21 02:53	0° \mathcal{M}	
	3983 May 08 08:03	0° Ξ			3985 Oct 15 19:39	0° $\underline{\mathcal{A}}$	
	3983 Jun 04 14:44	0° Ω			3985 Nov 09 03:17	0° \mathcal{M}	
evening max el	3983 Jun 17 06:11	12° Ω 45'13	45°35'08	greatest brilliancy	3985 Nov 19 21:42	13° \mathcal{M} 23'13	-3.9m
	3983 Jul 06 22:44	0° \mathcal{M}			3985 Dec 03 05:06	0° \mathcal{A}	
desc. node	3983 Jul 19 20:18	8° \mathcal{M} 20'30		greatest brilliancy	3985 Dec 04 04:29	1° \mathcal{A} 13'06	-3.9m
greatest brilliancy	3983 Jul 22 04:58	9° \mathcal{M} 29'22	-4.5m	morning set	3985 Dec 08 07:19	6° \mathcal{A} 22'12	
retrograde	3983 Aug 05 02:08	12° \mathcal{M} 52'31			3985 Dec 27 03:39	0° Ξ	
evening set	3983 Aug 21 21:03	7° \mathcal{M} 32'26		desc. node	3986 Jan 03 15:23	9° Ξ 24'21	
inferior conj	3983 Aug 26 14:59	4° \mathcal{M} 38'43	-7°-24'-31	max. Earth dist.	3986 Jan 17 05:01	26° Ξ 27'37	1.71156 AU
minimum elong	3983 Aug 26 06:13	4° \mathcal{M} 52'27	7°23'14				
min. Earth dist.	3983 Aug 26 13:58	4° \mathcal{M} 40'19	0.29092 AU	superior conj	3986 Jan 17 18:10	27° Ξ 08'58	0°-33'-11
morning rise	3983 Aug 30 15:16	2° \mathcal{M} 10'23		minimum elong	3986 Jan 17 09:55	26° Ξ 43'01	0°32'49
	3983 Sep 03 12:44	30° \mathcal{R} Ω			3986 Jan 20 00:34	0° \approx	
direct	3983 Sep 17 05:05	26° Ω 20'18			3986 Feb 12 20:58	0° \mathcal{H}	
greatest brilliancy	3983 Oct 01 09:24	29° Ω 50'45	-4.5m	evening rise	3986 Feb 27 20:41	18° \mathcal{H} 50'07	
	3983 Oct 01 17:19	0° \mathcal{M}			3986 Mar 08 18:20	0° \mathcal{V}	
morning max el	3983 Nov 05 16:07	27° \mathcal{M} 14'47	46°09'52		3986 Apr 01 18:47	0° \mathcal{B}	
	3983 Nov 08 10:39	0° $\underline{\mathcal{A}}$			3986 Apr 26 00:42	0° Π	
asc. node	3983 Nov 09 22:46	1° $\underline{\mathcal{A}}$ 31'02		asc. node	3986 Apr 26 17:57	0° Π 53'03	
	3983 Dec 06 06:31	0° \mathcal{M}			3986 May 20 14:28	0° Ξ	
	3983 Dec 31 22:27	0° \mathcal{A}			3986 Jun 14 15:15	0° Ω	
	3984 Jan 25 16:49	0° Ξ			3986 Jul 10 09:03	0° \mathcal{M}	
	3984 Feb 19 01:18	0° \approx			3986 Aug 06 10:23	0° $\underline{\mathcal{A}}$	
desc. node	3984 Feb 29 12:59	12° \approx 59'53		desc. node	3986 Aug 16 07:58	10° $\underline{\mathcal{A}}$ 20'52	
	3984 Mar 14 05:24	0° \mathcal{H}		evening max el	3986 Aug 27 14:05	21° $\underline{\mathcal{A}}$ 29'55	45°40'51
	3984 Apr 07 08:09	0° \mathcal{V}			3986 Sep 05 20:37	0° \mathcal{M}	
	3984 May 01 11:34	0° \mathcal{B}		greatest brilliancy	3986 Oct 04 04:02	19° \mathcal{M} 00'11	-4.5m
morning set	3984 May 10 19:47	11° \mathcal{B} 35'06		retrograde	3986 Oct 15 07:55	21° \mathcal{M} 13'05	
	3984 May 25 16:51	0° Π		evening set	3986 Nov 01 03:07	15° \mathcal{M} 52'52	
				inferior conj	3986 Nov 05 07:58	13° \mathcal{M} 20'34	-6°-57'-52
superior conj	3984 Jun 17 17:41	28° Π 25'45	0°-9'-22	minimum elong	3986 Nov 05 18:00	13° \mathcal{M} 05'05	6°56'00

min. Earth dist.	3986 Nov 06 07:01	12° \mathbb{M} 45'02	0.27837 AU		3989 May 10 10:48	0° \mathbb{I}	
morning rise	3986 Nov 10 08:27	10° \mathbb{M} 19'21		evening rise	3989 May 14 00:08	4° \mathbb{I} 24'10	
direct	3986 Nov 26 11:41	5° \mathbb{M} 17'33		asc. node	3989 May 24 05:49	17° \mathbb{I} 03'16	
asc. node	3986 Dec 07 10:31	7° \mathbb{M} 32'24			3989 Jun 03 18:06	0° \mathfrak{S}	
greatest brilliancy	3986 Dec 10 16:37	8° \mathbb{M} 58'14	-4.6m		3989 Jun 28 06:03	0° Ω	
	3987 Jan 07 12:23	0° \mathfrak{A}			3989 Jul 22 23:35	0° \mathfrak{M}	
morning max el	3987 Jan 16 02:50	8° \mathfrak{A} 27'39	46°52'01		3989 Aug 17 00:58	0° \mathfrak{L}	
	3987 Feb 05 05:18	0° \mathfrak{Z}			3989 Sep 11 14:25	0° \mathbb{M}	
	3987 Mar 03 06:32	0° \approx		desc. node	3989 Sep 12 19:53	1° \mathbb{M} 25'17	
	3987 Mar 28 09:24	0° \mathfrak{H}			3989 Oct 08 00:12	0° \mathfrak{A}	
desc. node	3987 Mar 29 00:55	0° \mathfrak{H} 46'47			3989 Nov 05 05:17	0° \mathfrak{Z}	
	3987 Apr 22 02:50	0° \mathbb{Y}		evening max el	3989 Nov 08 08:17	3° \mathfrak{Z} 06'08	46°38'32
	3987 May 16 16:35	0° \mathfrak{B}			3989 Dec 11 10:15	0° \approx	
	3987 Jun 10 05:21	0° \mathbb{I}		greatest brilliancy	3989 Dec 17 02:00	2° \approx 42'37	-4.6m
	3987 Jul 04 17:47	0° \mathfrak{S}		retrograde	3989 Dec 28 09:55	5° \approx 06'16	
morning set	3987 Jul 20 02:37	18° \mathfrak{S} 49'40		asc. node	3990 Jan 03 22:24	4° \approx 14'13	
asc. node	3987 Jul 20 03:23	18° \mathfrak{S} 52'02		evening set	3990 Jan 11 20:46	0° \approx 59'25	
	3987 Jul 29 05:14	0° Ω			3990 Jan 13 15:49	30° \mathfrak{R} \mathfrak{Z}	
	3987 Aug 22 14:50	0° \mathfrak{M}		inferior conj	3990 Jan 17 23:51	27° \mathfrak{Z} 24'49	3°34'10
max. Earth dist.	3987 Aug 23 20:18	1° \mathfrak{M} 30'43	1.73383 AU	minimum elong	3990 Jan 17 16:10	27° \mathfrak{Z} 36'32	3°31'52
				min. Earth dist.	3990 Jan 17 17:56	27° \mathfrak{Z} 33'52	0.26562 AU
superior conj	3987 Aug 25 15:59	3° \mathfrak{M} 45'17	1°12'51	morning rise	3990 Jan 23 11:27	24° \mathfrak{Z} 10'38	
minimum elong	3987 Aug 25 08:01	3° \mathfrak{M} 20'44	1°12'38	direct	3990 Feb 07 09:49	19° \mathfrak{Z} 44'55	
	3987 Sep 15 22:29	0° \mathfrak{L}		greatest brilliancy	3990 Feb 19 06:54	22° \mathfrak{Z} 22'06	-4.7m
evening rise	3987 Sep 30 20:31	18° \mathfrak{L} 26'05			3990 Mar 04 09:18	0° \approx	
	3987 Oct 10 04:58	0° \mathbb{M}		morning max el	3990 Mar 29 18:01	22° \approx 24'10	46°49'46
	3987 Nov 03 11:16	0° \mathfrak{A}			3990 Apr 06 04:08	0° \mathfrak{H}	
desc. node	3987 Nov 08 17:46	6° \mathfrak{A} 31'01		desc. node	3990 Apr 25 12:52	20° \mathfrak{H} 58'44	
	3987 Nov 27 17:57	0° \mathfrak{Z}			3990 May 03 13:11	0° \mathbb{Y}	
	3987 Dec 22 01:39	0° \approx			3990 May 29 12:13	0° \mathfrak{B}	
	3988 Jan 15 12:24	0° \mathfrak{H}			3990 Jun 23 21:23	0° \mathbb{I}	
	3988 Feb 09 07:34	0° \mathbb{Y}			3990 Jul 18 23:12	0° \mathfrak{S}	
asc. node	3988 Feb 29 20:01	24° \mathbb{Y} 07'57			3990 Aug 12 19:14	0° Ω	
	3988 Mar 05 22:48	0° \mathfrak{B}		asc. node	3990 Aug 16 15:14	4° Ω 39'20	
	3988 Apr 02 15:34	0° \mathbb{I}			3990 Sep 06 09:27	0° \mathfrak{M}	
evening max el	3988 Apr 04 08:24	1° \mathbb{I} 42'32	46°28'55	morning set	3990 Sep 26 05:23	24° \mathfrak{M} 23'54	
greatest brilliancy	3988 May 09 17:34	29° \mathbb{I} 51'00	-4.6m		3990 Sep 30 18:10	0° \mathfrak{L}	
	3988 May 10 01:04	0° \mathfrak{S}			3990 Oct 24 22:35	0° \mathbb{M}	
retrograde	3988 May 24 05:03	3° \mathfrak{S} 35'14		max. Earth dist.	3990 Oct 30 07:44	6° \mathbb{M} 41'50	1.72277 AU
	3988 Jun 06 16:16	30° \mathfrak{R} \mathbb{I}					
evening set	3988 Jun 08 10:21	29° \mathbb{I} 03'50		superior conj	3990 Nov 02 05:34	10° \mathbb{M} 19'18	1°09'48
inferior conj	3988 Jun 14 12:58	25° \mathbb{I} 22'13	1°24'57	minimum elong	3990 Nov 02 14:55	10° \mathbb{M} 48'26	1°09'31
minimum elong	3988 Jun 14 16:05	25° \mathbb{I} 17'19	1°24'00		3990 Nov 18 00:19	0° \mathfrak{A}	
min. Earth dist.	3988 Jun 14 08:18	25° \mathbb{I} 29'34	0.28521 AU	desc. node	3990 Dec 06 05:36	22° \mathfrak{A} 45'43	
desc. node	3988 Jun 20 10:18	21° \mathbb{I} 48'55		evening rise	3990 Dec 11 07:01	29° \mathfrak{A} 05'15	
morning rise	3988 Jun 20 22:20	21° \mathbb{I} 32'22			3990 Dec 12 00:32	0° \mathfrak{Z}	
direct	3988 Jul 05 21:46	17° \mathbb{I} 13'21			3991 Jan 05 00:01	0° \approx	
greatest brilliancy	3988 Jul 18 10:35	19° \mathbb{I} 59'50	-4.5m		3991 Jan 28 23:44	0° \mathfrak{H}	
	3988 Aug 04 00:47	0° \mathfrak{S}			3991 Feb 22 01:49	0° \mathbb{Y}	
morning max el	3988 Aug 23 13:23	16° \mathfrak{S} 51'34	45°42'12		3991 Mar 18 09:59	0° \mathfrak{B}	
	3988 Sep 05 18:32	0° Ω		asc. node	3991 Mar 29 08:04	13° \mathfrak{B} 17'17	
	3988 Oct 03 09:19	0° \mathfrak{M}			3991 Apr 12 05:51	0° \mathbb{I}	
asc. node	3988 Oct 11 13:04	9° \mathfrak{M} 18'28			3991 May 07 22:33	0° \mathfrak{S}	
	3988 Oct 29 05:34	0° \mathfrak{L}			3991 Jun 04 09:14	0° Ω	
	3988 Nov 23 03:19	0° \mathbb{M}		evening max el	3991 Jun 14 22:18	10° Ω 34'47	45°36'11
	3988 Dec 17 12:15	0° \mathfrak{A}			3991 Jul 07 13:11	0° \mathfrak{M}	
	3989 Jan 10 14:16	0° \mathfrak{Z}		desc. node	3991 Jul 18 22:12	6° \mathfrak{M} 53'14	
desc. node	3989 Jan 31 03:08	25° \mathfrak{Z} 43'40		greatest brilliancy	3991 Jul 19 18:01	7° \mathfrak{M} 16'31	-4.5m
	3989 Feb 03 12:52	0° \approx		retrograde	3991 Aug 02 18:53	10° \mathfrak{M} 43'30	
morning set	3989 Feb 22 11:38	23° \approx 47'44		evening set	3991 Aug 19 10:12	5° \mathfrak{M} 27'25	
	3989 Feb 27 10:11	0° \mathfrak{H}		inferior conj	3991 Aug 24 07:19	2° \mathfrak{M} 29'06	-7°-13'-59
	3989 Mar 23 07:56	0° \mathbb{Y}		minimum elong	3991 Aug 23 22:13	2° \mathfrak{M} 43'17	7°12'35
				min. Earth dist.	3991 Aug 24 05:08	2° \mathfrak{M} 32'30	0.29101 AU
superior conj	3989 Apr 04 08:35	15° \mathbb{Y} 03'32	-1°-25'-14	morning rise	3991 Aug 28 10:11	29° Ω 57'07	
minimum elong	3989 Apr 04 12:47	15° \mathbb{Y} 16'39	1°25'14		3991 Aug 28 08:15	30° \mathfrak{R} Ω	
max. Earth dist.	3989 Apr 08 07:47	20° \mathbb{Y} 01'01	1.71776 AU	direct	3991 Sep 14 21:51	24° Ω 10'38	
	3989 Apr 16 07:41	0° \mathfrak{B}		greatest brilliancy	3991 Sep 29 01:31	27° Ω 40'50	-4.5m

	3991 Oct 03 12:59	0°♎		asc. node	3994 Apr 25 19:58	0°♊23'45	
morning max el	3991 Nov 03 08:31	25°♎03'00	46°08'18		3994 Apr 25 12:14	0°♊	
	3991 Nov 08 07:24	0°♊			3994 May 20 02:23	0°♊	
asc. node	3991 Nov 09 00:47	0°♊44'17			3994 Jun 14 03:51	0°♊	
	3991 Dec 05 21:59	0°♋			3994 Jul 09 23:02	0°♎	
	3991 Dec 31 11:59	0°♌			3994 Aug 06 03:40	0°♊	
	3992 Jan 25 05:24	0°♍		desc. node	3994 Aug 15 10:06	9°♊36'46	
	3992 Feb 18 13:21	0°♎		evening max el	3994 Aug 25 04:14	19°♊14'06	45°39'29
desc. node	3992 Feb 28 15:02	12°♎29'26			3994 Sep 06 01:42	0°♋	
	3992 Mar 13 17:05	0°♏		greatest brilliancy	3994 Oct 01 17:31	16°♋43'09	-4.5m
	3992 Apr 06 19:33	0°♐		retrograde	3994 Oct 12 21:06	18°♋55'58	
	3992 Apr 30 22:43	0°♑		evening set	3994 Oct 29 20:20	13°♋31'12	
morning set	3992 May 08 10:39	9°♑18'01		inferior conj	3994 Nov 02 22:25	11°♋02'43	-7°-10'-18
	3992 May 25 03:50	0°♒		minimum elong	3994 Nov 03 08:11	10°♋47'36	7°08'36
				min. Earth dist.	3994 Nov 03 21:34	10°♋26'56	0.27908 AU
superior conj	3992 Jun 15 10:24	26°♒15'49	0°-12'-40	morning rise	3994 Nov 07 19:35	8°♋05'45	
minimum elong	3992 Jun 15 13:10	26°♒24'21	0°12'32	direct	3994 Nov 24 02:33	2°♋58'42	
behind sun begin	3992 Jun 14 22:37	25°♒39'27		asc. node	3994 Dec 06 12:30	5°♋49'04	
behind sun end	3992 Jun 16 03:44	27°♒09'15		greatest brilliancy	3994 Dec 08 08:27	6°♋39'36	-4.6m
max. Earth dist.	3992 Jun 17 06:03	28°♒30'20	1.73196 AU		3995 Jan 07 14:06	0°♌	
	3992 Jun 18 11:09	0°♊		morning max el	3995 Jan 13 16:12	6°♌02'44	46°50'56
asc. node	3992 Jun 20 17:35	2°♊47'40			3995 Feb 04 22:35	0°♍	
	3992 Jul 12 20:13	0°♋			3995 Mar 02 21:00	0°♎	
evening rise	3992 Jul 22 06:24	11°♋34'54			3995 Mar 27 22:28	0°♏	
	3992 Aug 06 06:34	0°♎		desc. node	3995 Mar 28 03:03	0°♏13'51	
	3992 Aug 30 18:32	0°♏			3995 Apr 21 15:04	0°♐	
	3992 Sep 24 09:15	0°♐			3995 May 16 04:16	0°♑	
desc. node	3992 Oct 10 07:54	19°♐19'29			3995 Jun 09 16:39	0°♒	
	3992 Oct 19 04:06	0°♑			3995 Jul 04 04:49	0°♊	
	3992 Nov 13 04:49	0°♒		morning set	3995 Jul 17 20:21	16°♊43'32	
	3992 Dec 08 15:36	0°♓		asc. node	3995 Jul 19 05:26	18°♊24'54	
	3993 Jan 04 01:35	0°♏			3995 Jul 28 16:04	0°♋	
evening max el	3993 Jan 20 02:39	17°♏02'19	47°12'42	max. Earth dist.	3995 Aug 21 14:36	29°♋26'11	1.73400 AU
asc. node	3993 Jan 31 10:15	28°♏03'26			3995 Aug 22 01:35	0°♎	
	3993 Feb 02 13:18	0°♐					
greatest brilliancy	3993 Feb 27 01:02	17°♐27'30	-4.7m	superior conj	3995 Aug 23 10:29	1°♎41'16	1°11'09
retrograde	3993 Mar 11 23:24	20°♐33'56		minimum elong	3995 Aug 23 02:14	1°♎15'53	1°10'56
evening set	3993 Mar 30 00:06	14°♐16'04			3995 Sep 15 09:17	0°♏	
inferior conj	3993 Apr 01 19:36	12°♐31'42	8°51'58	evening rise	3995 Sep 28 13:56	16°♏17'56	
minimum elong	3993 Apr 01 22:50	12°♐26'40	8°51'49		3995 Oct 09 15:56	0°♐	
min. Earth dist.	3993 Apr 01 09:15	12°♐47'49	0.27555 AU		3995 Nov 02 22:29	0°♑	
morning rise	3993 Apr 04 21:43	10°♐37'46		desc. node	3995 Nov 07 19:45	6°♑02'15	
direct	3993 Apr 22 13:52	4°♐38'45			3995 Nov 27 05:32	0°♒	
greatest brilliancy	3993 May 03 13:43	6°♐53'01	-4.6m		3995 Dec 21 13:41	0°♓	
desc. node	3993 May 23 00:27	18°♐46'40			3996 Jan 15 01:06	0°♏	
	3993 Jun 05 00:36	0°♑			3996 Feb 08 21:21	0°♐	
morning max el	3993 Jun 11 01:25	5°♑43'41	46°05'44	asc. node	3996 Feb 28 22:09	23°♐30'05	
	3993 Jul 04 13:58	0°♒			3996 Mar 05 14:42	0°♑	
	3993 Jul 31 12:58	0°♓		evening max el	3996 Apr 01 22:12	29°♑22'14	46°31'07
	3993 Aug 26 10:00	0°♋			3996 Apr 02 13:20	0°♒	
asc. node	3993 Sep 13 03:12	21°♋01'36		greatest brilliancy	3996 May 07 10:41	27°♒39'17	-4.6m
	3993 Sep 20 14:38	0°♎			3996 May 13 07:10	0°♓	
	3993 Oct 15 07:01	0°♏		retrograde	3996 May 21 20:42	1°♓22'47	
	3993 Nov 08 14:28	0°♐			3996 May 30 03:21	30°♒♊	
	3993 Dec 02 16:15	0°♑		evening set	3996 Jun 06 03:44	26°♒49'21	
morning set	3993 Dec 05 20:38	3°♑58'53		inferior conj	3996 Jun 12 04:50	23°♒10'07	1°45'17
	3993 Dec 26 14:49	0°♒		minimum elong	3996 Jun 12 08:41	23°♒04'04	1°44'09
desc. node	3994 Jan 02 17:22	8°♒55'33		min. Earth dist.	3996 Jun 12 00:53	23°♒16'21	0.28491 AU
max. Earth dist.	3994 Jan 14 10:20	23°♒38'21	1.71168 AU	morning rise	3996 Jun 18 14:02	19°♒20'18	
				desc. node	3996 Jun 19 12:18	18°♒50'36	
superior conj	3994 Jan 15 04:32	24°♒35'33	0°-29'-28	direct	3996 Jul 03 12:37	15°♒01'32	
minimum elong	3994 Jan 14 21:07	24°♒12'14	0°29'08	greatest brilliancy	3996 Jul 16 01:38	17°♒47'44	-4.5m
	3994 Jan 19 11:44	0°♓			3996 Aug 04 12:19	0°♓	
	3994 Feb 12 08:08	0°♏		morning max el	3996 Aug 21 04:16	14°♓38'52	45°42'18
evening rise	3994 Feb 25 06:52	16°♏16'11			3996 Sep 05 12:43	0°♋	
	3994 Mar 08 05:34	0°♐			3996 Oct 02 23:34	0°♎	
	3994 Apr 01 06:07	0°♑		asc. node	3996 Oct 10 15:01	8°♎44'49	

	3996 Oct 28 18:13	0°♄			3999 Jun 04 04:07	0°♄	
	3996 Nov 22 15:11	0°♍		evening max el	3999 Jun 12 14:53	8°♄25'46	45°37'20
	3996 Dec 16 23:44	0°♎			3999 Jul 08 08:26	0°♎	
	3997 Jan 10 01:32	0°♏		greatest brilliancy	3999 Jul 17 08:32	5°♎05'50	-4.5m
desc. node	3997 Jan 30 05:15	25°♏15'13		desc. node	3999 Jul 18 00:19	5°♎23'42	
	3997 Feb 03 00:01	0°♐		retrograde	3999 Jul 31 11:33	8°♎34'42	
morning set	3997 Feb 19 21:20	21°♐12'30		evening set	3999 Aug 16 23:23	3°♎22'56	
	3997 Feb 26 21:17	0°♑		inferior conj	3999 Aug 21 23:32	0°♎19'56	-7°-2'-57
	3997 Mar 22 18:57	0°♒		minimum elong	3999 Aug 21 14:11	0°♎34'33	7°01'25
				min. Earth dist.	3999 Aug 21 20:08	0°♎25'15	0.29101 AU
superior conj	3997 Apr 01 20:25	12°♒36'07	-1°-25'-52		3999 Aug 22 12:17	30°♎♄	
minimum elong	3997 Apr 01 23:41	12°♒46'19	1°25'53	morning rise	3999 Aug 26 04:59	27°♎44'13	
max. Earth dist.	3997 Apr 05 15:05	17°♒19'36	1.71725 AU	direct	3999 Sep 12 14:44	22°♎01'44	
	3997 Apr 15 18:38	0°♓		greatest brilliancy	3999 Sep 26 16:15	25°♎30'01	-4.5m
	3997 May 09 21:43	0°♈			3999 Oct 04 18:16	0°♈	
evening rise	3997 May 11 14:02	2°♈04'50		morning max el	3999 Nov 01 00:32	22°♈51'29	46°06'46
asc. node	3997 May 23 07:46	16°♈35'31		asc. node	3999 Nov 08 02:45	29°♈59'10	
	3997 Jun 03 05:04	0°♉			3999 Nov 08 03:04	0°♉	
	3997 Jun 27 17:13	0°♊			3999 Dec 05 12:50	0°♊	
	3997 Jul 22 11:09	0°♋			3999 Dec 31 01:00	0°♋	
	3997 Aug 16 13:14	0°♌			4000 Jan 24 17:31	0°♌	
	3997 Sep 11 03:57	0°♍			4000 Feb 18 00:56	0°♍	
desc. node	3997 Sep 11 21:58	0°♍52'00		desc. node	4000 Feb 27 17:08	12°♍00'32	
	3997 Oct 07 16:13	0°♎			4000 Mar 13 04:19	0°♎	
	3997 Nov 05 03:47	0°♏			4000 Apr 06 06:32	0°♏	
evening max el	3997 Nov 05 21:24	0°♏43'20	46°36'32		4000 Apr 30 09:31	0°♏	
	3997 Dec 13 23:27	0°♐		morning set	4000 May 06 01:19	7°♏01'17	
greatest brilliancy	3997 Dec 14 14:29	0°♐15'25	-4.6m		4000 May 24 14:30	0°♈	
retrograde	3997 Dec 25 22:37	2°♐39'15					
asc. node	3998 Jan 03 00:25	1°♐19'12		superior conj	4000 Jun 13 02:40	24°♈05'16	0°-15'-59
	3998 Jan 06 09:43	30°♐♄		minimum elong	4000 Jun 13 06:09	24°♈16'01	0°15'50
evening set	3998 Jan 09 07:57	28°♐33'43		behind sun begin	4000 Jun 13 03:40	24°♈08'21	
inferior conj	3998 Jan 15 12:19	24°♐57'47	3°11'23	behind sun end	4000 Jun 13 08:39	24°♈23'41	
minimum elong	3998 Jan 15 05:20	25°♐08'25	3°09'14	max. Earth dist.	4000 Jun 15 03:27	26°♈35'40	1.73164 AU
min. Earth dist.	3998 Jan 15 07:30	25°♐05'06	0.26566 AU		4000 Jun 17 21:45	0°♉	
morning rise	3998 Jan 21 02:36	21°♐40'20		asc. node	4000 Jun 19 19:40	2°♉21'28	
direct	3998 Feb 04 22:36	17°♐17'25			4000 Jul 12 06:49	0°♊	
greatest brilliancy	3998 Feb 16 22:20	19°♐58'00	-4.7m	evening rise	4000 Jul 20 00:34	9°♊30'42	
	3998 Mar 05 04:33	0°♋			4000 Aug 05 17:16	0°♋	
morning max el	3998 Mar 27 08:14	20°♋01'55	46°50'46		4000 Aug 30 05:28	0°♌	
	3998 Apr 06 00:21	0°♌			4000 Sep 23 20:36	0°♍	
desc. node	3998 Apr 24 14:47	20°♌18'05		desc. node	4000 Oct 09 09:50	18°♍49'51	
	3998 May 03 04:39	0°♍			4000 Oct 18 16:07	0°♎	
	3998 May 29 01:36	0°♎			4000 Nov 12 17:51	0°♏	
	3998 Jun 23 09:36	0°♏			4000 Dec 08 06:17	0°♐	
	3998 Jul 18 10:42	0°♐			4001 Jan 03 19:43	0°♑	
	3998 Aug 12 06:17	0°♑		evening max el	4001 Jan 17 17:49	14°♑42'23	47°12'52
asc. node	3998 Aug 15 17:20	4°♑12'19		asc. node	4001 Jan 30 12:24	27°♑03'26	
	3998 Sep 05 20:16	0°♒			4001 Feb 02 19:43	0°♒	
morning set	3998 Sep 23 22:28	22°♒15'26		greatest brilliancy	4001 Feb 24 17:09	15°♒07'51	-4.7m
	3998 Sep 30 04:52	0°♓		retrograde	4001 Mar 09 13:46	18°♒11'54	
	3998 Oct 24 09:17	0°♔		evening set	4001 Mar 27 14:53	11°♒53'37	
max. Earth dist.	3998 Oct 28 00:40	4°♔31'48	1.72320 AU	inferior conj	4001 Mar 30 09:31	10°♒10'26	8°55'21
				minimum elong	4001 Mar 30 11:52	10°♒06'47	8°55'16
superior conj	3998 Oct 30 21:08	8°♔04'57	1°11'43	min. Earth dist.	4001 Mar 29 22:17	10°♒27'57	0.27513 AU
minimum elong	3998 Oct 31 06:09	8°♔33'01	1°11'29	morning rise	4001 Apr 02 09:01	8°♒20'22	
	3998 Nov 17 11:04	0°♕		direct	4001 Apr 20 03:48	2°♒18'30	
desc. node	3998 Dec 05 07:37	22°♕18'07		greatest brilliancy	4001 May 01 01:14	4°♒30'35	-4.6m
evening rise	3998 Dec 08 19:58	26°♕41'43		desc. node	4001 May 22 02:30	17°♒39'57	
	3998 Dec 11 11:24	0°♖			4001 Jun 05 01:29	0°♓	
	3999 Jan 04 11:03	0°♗		morning max el	4001 Jun 08 15:16	3°♓25'48	46°07'01
	3999 Jan 28 10:58	0°♘			4001 Jul 04 06:23	0°♈	
	3999 Feb 21 13:20	0°♙			4001 Jul 31 02:32	0°♉	
	3999 Mar 17 21:58	0°♚			4001 Aug 25 22:11	0°♊	
asc. node	3999 Mar 28 10:02	12°♚46'00		asc. node	4001 Sep 12 05:09	20°♊32'43	
	3999 Apr 11 18:40	0°♈			4001 Sep 20 02:04	0°♋	
	3999 May 07 13:05	0°♉			4001 Oct 14 18:01	0°♌	

	4001 Nov 08 01:17	0°♌		inferior conj	4004 Jun 09 20:41	20°♊58'38	2°05'31
	4001 Dec 02 03:00	0°♏		minimum elong	4004 Jun 10 01:14	20°♊51'30	2°04'11
morning set	4001 Dec 03 09:58	1°♏36'48		min. Earth dist.	4004 Jun 09 17:11	21°♊04'07	0.28462 AU
	4001 Dec 26 01:35	0°♑		morning rise	4004 Jun 16 05:35	17°♊09'19	
desc. node	4002 Jan 01 19:28	8°♑28'17		desc. node	4004 Jun 18 14:22	15°♊56'19	
max. Earth dist.	4002 Jan 11 13:33	20°♑43'42	1.71184 AU	direct	4004 Jul 01 03:31	12°♊50'16	
				greatest brilliancy	4004 Jul 13 17:05	15°♊36'58	-4.5m
superior conj	4002 Jan 12 15:05	22°♑03'57	0°-25'-42		4004 Aug 04 20:26	0°♑	
minimum elong	4002 Jan 12 08:33	21°♑43'25	0°25'24	morning max el	4004 Aug 18 19:48	12°♑28'27	45°42'20
	4002 Jan 18 22:32	0°♒			4004 Sep 05 06:12	0°♒	
	4002 Feb 11 18:57	0°♓			4004 Oct 02 13:30	0°♓	
evening rise	4002 Feb 22 17:13	13°♓43'53		asc. node	4004 Oct 09 17:01	8°♓11'56	
	4002 Mar 07 16:25	0°♈			4004 Oct 28 06:42	0°♈	
	4002 Mar 31 17:04	0°♉			4004 Nov 22 02:57	0°♌	
asc. node	4002 Apr 24 21:56	29°♉55'39			4004 Dec 16 11:07	0°♏	
	4002 Apr 24 23:21	0°♊			4005 Jan 09 12:42	0°♑	
	4002 May 19 13:53	0°♑		desc. node	4005 Jan 29 07:16	24°♑46'56	
	4002 Jun 13 16:07	0°♒			4005 Feb 02 11:02	0°♒	
	4002 Jul 09 12:51	0°♓		morning set	4005 Feb 17 06:58	18°♓37'31	
	4002 Aug 05 21:03	0°♈			4005 Feb 26 08:13	0°♓	
desc. node	4002 Aug 14 12:09	8°♈52'33			4005 Mar 22 05:49	0°♈	
evening max el	4002 Aug 22 17:35	16°♈57'08	45°38'09				
	4002 Sep 06 08:40	0°♌		superior conj	4005 Mar 30 08:07	10°♈08'36	-1°-26'-21
greatest brilliancy	4002 Sep 29 06:46	14°♌26'32	-4.5m	minimum elong	4005 Mar 30 10:23	10°♈15'43	1°26'21
retrograde	4002 Oct 10 10:23	16°♌39'49		max. Earth dist.	4005 Apr 02 22:23	14°♈38'29	1.71678 AU
evening set	4002 Oct 27 13:24	11°♌10'23			4005 Apr 15 05:28	0°♉	
inferior conj	4002 Oct 31 12:50	8°♌45'47	-7°-21'-56	evening rise	4005 May 09 03:53	29°♉45'38	
minimum elong	4002 Oct 31 22:16	8°♌31'11	7°20'25		4005 May 09 08:32	0°♊	
min. Earth dist.	4002 Nov 01 12:09	8°♌09'43	0.27976 AU	asc. node	4005 May 22 09:53	16°♊08'35	
morning rise	4002 Nov 05 06:40	5°♌53'22			4005 Jun 02 15:56	0°♑	
direct	4002 Nov 21 16:59	0°♌40'38			4005 Jun 27 04:17	0°♒	
asc. node	4002 Dec 05 14:35	4°♌10'33			4005 Jul 21 22:38	0°♓	
greatest brilliancy	4002 Dec 06 01:02	4°♌23'05	-4.6m		4005 Aug 16 01:29	0°♈	
	4003 Jan 07 14:09	0°♏		desc. node	4005 Sep 10 23:52	0°♌18'09	
morning max el	4003 Jan 11 05:38	3°♏39'05	46°49'55		4005 Sep 10 17:34	0°♌	
	4003 Feb 04 15:08	0°♑			4005 Oct 07 08:35	0°♏	
	4003 Mar 02 10:56	0°♒		evening max el	4005 Nov 03 11:18	28°♏22'16	46°34'22
desc. node	4003 Mar 27 04:54	29°♒41'16			4005 Nov 05 03:26	0°♑	
	4003 Mar 27 11:06	0°♓		greatest brilliancy	4005 Dec 12 02:39	27°♑47'06	-4.6m
	4003 Apr 21 02:55	0°♈			4005 Dec 20 10:33	0°♒	
	4003 May 15 15:35	0°♉		retrograde	4005 Dec 23 11:22	0°♒10'59	
	4003 Jun 09 03:35	0°♊			4005 Dec 26 11:09	30°♒♑	
	4003 Jul 03 15:29	0°♑		asc. node	4006 Jan 02 02:31	28°♑17'15	
morning set	4003 Jul 15 14:04	14°♑38'14		evening set	4006 Jan 06 19:09	26°♑06'45	
asc. node	4003 Jul 18 07:31	17°♑58'55		inferior conj	4006 Jan 13 00:28	22°♑29'32	2°48'02
	4003 Jul 28 02:36	0°♒		minimum elong	4006 Jan 12 18:15	22°♑38'59	2°46'05
max. Earth dist.	4003 Aug 19 09:46	27°♒25'03	1.73424 AU	min. Earth dist.	4006 Jan 12 20:37	22°♑35'23	0.26569 AU
				morning rise	4006 Jan 18 17:17	19°♑09'03	
superior conj	4003 Aug 21 04:48	29°♒37'33	1°09'23	direct	4006 Feb 02 11:33	14°♑49'01	
minimum elong	4003 Aug 20 20:20	29°♒11'29	1°09'08	greatest brilliancy	4006 Feb 14 12:32	17°♑31'43	-4.7m
	4003 Aug 21 12:05	0°♓			4006 Mar 05 19:07	0°♒	
	4003 Sep 14 19:52	0°♈		morning max el	4006 Mar 24 22:23	17°♒39'24	46°51'46
evening rise	4003 Sep 26 07:09	14°♈09'58			4006 Apr 05 20:00	0°♓	
	4003 Oct 09 02:42	0°♌		desc. node	4006 Apr 23 16:53	19°♓38'25	
	4003 Nov 02 09:30	0°♏			4006 May 02 19:52	0°♈	
desc. node	4003 Nov 06 21:45	5°♏34'10			4006 May 28 14:52	0°♉	
	4003 Nov 26 16:53	0°♑			4006 Jun 22 21:46	0°♊	
	4003 Dec 21 01:31	0°♒			4006 Jul 17 22:12	0°♑	
	4004 Jan 14 13:37	0°♓			4006 Aug 11 17:22	0°♒	
	4004 Feb 08 10:59	0°♈		asc. node	4006 Aug 14 19:18	3°♒44'47	
asc. node	4004 Feb 28 00:05	22°♈52'03			4006 Sep 05 07:06	0°♓	
	4004 Mar 05 06:35	0°♉		morning set	4006 Sep 21 15:47	20°♓07'39	
evening max el	4004 Mar 30 12:06	27°♉02'51	46°33'22		4006 Sep 29 15:37	0°♈	
	4004 Apr 02 11:41	0°♊			4006 Oct 23 20:03	0°♌	
greatest brilliancy	4004 May 05 02:58	25°♊27'06	-4.6m	max. Earth dist.	4006 Oct 25 16:45	2°♌18'58	1.72369 AU
retrograde	4004 May 19 12:43	29°♊11'08					
evening set	4004 Jun 03 21:13	24°♊35'11		superior conj	4006 Oct 28 12:52	5°♌50'52	1°13'30

minimum elong	4006 Oct 28 21:29	6° \mathbb{M} 17'42	1°13'18	direct	4009 Apr 17 16:51	29° \mathbb{X} 55'47	
	4006 Nov 16 21:57	0° \mathbb{X}			4009 Apr 19 14:10	0° \mathbb{Y}	
desc. node	4006 Dec 04 09:45	21° \mathbb{X} 50'19		greatest brilliancy	4009 Apr 28 13:29	2° \mathbb{Y} 06'43	-4.6m
evening rise	4006 Dec 06 08:44	24° \mathbb{X} 17'07		desc. node	4009 May 21 04:36	16° \mathbb{Y} 33'31	
	4006 Dec 10 22:28	0° \mathbb{Z}			4009 Jun 05 01:48	0° \mathbb{X}	
	4007 Jan 03 22:18	0° \approx		morning max el	4009 Jun 06 04:05	1° \mathbb{X} 03'42	46°08'33
	4007 Jan 27 22:26	0° \mathbb{X}			4009 Jul 03 22:55	0° \mathbb{II}	
	4007 Feb 21 01:04	0° \mathbb{Y}			4009 Jul 30 16:19	0° \mathbb{Z}	
	4007 Mar 17 10:09	0° \mathbb{X}			4009 Aug 25 10:37	0° \mathbb{Q}	
asc. node	4007 Mar 27 12:01	12° \mathbb{X} 14'13		asc. node	4009 Sep 11 07:07	20° \mathbb{Q} 02'59	
	4007 Apr 11 07:44	0° \mathbb{II}			4009 Sep 19 13:46	0° \mathbb{M}	
	4007 May 07 03:56	0° \mathbb{Z}			4009 Oct 14 05:20	0° \mathbb{L}	
	4007 Jun 03 23:43	0° \mathbb{Q}			4009 Nov 07 12:25	0° \mathbb{M}	
evening max el	4007 Jun 10 07:33	6° \mathbb{Q} 16'30	45°38'31	morning set	4009 Nov 30 23:50	29° \mathbb{M} 15'30	
	4007 Jul 09 11:05	0° \mathbb{M}			4009 Dec 01 14:04	0° \mathbb{X}	
greatest brilliancy	4007 Jul 15 00:13	2° \mathbb{M} 56'20	-4.5m		4009 Dec 25 12:40	0° \mathbb{Z}	
desc. node	4007 Jul 17 02:23	3° \mathbb{M} 50'48		desc. node	4009 Dec 31 21:28	7° \mathbb{Z} 59'48	
retrograde	4007 Jul 29 04:00	6° \mathbb{M} 25'42		max. Earth dist.	4010 Jan 08 18:44	17° \mathbb{Z} 54'22	1.71208 AU
evening set	4007 Aug 14 12:49	1° \mathbb{M} 18'26					
	4007 Aug 16 17:35	30° \mathbb{R} \mathbb{Q}		superior conj	4010 Jan 10 02:04	19° \mathbb{Z} 32'48	0°-21'-56
inferior conj	4007 Aug 19 15:54	28° \mathbb{Q} 10'48	-6°-51'-24	minimum elong	4010 Jan 09 20:27	19° \mathbb{Z} 15'08	0°21'40
minimum elong	4007 Aug 19 06:21	28° \mathbb{Q} 25'45	6°49'43		4010 Jan 18 09:38	0° \approx	
min. Earth dist.	4007 Aug 19 11:34	28° \mathbb{Q} 17'35	0.29097 AU		4010 Feb 11 06:07	0° \mathbb{X}	
morning rise	4007 Aug 23 23:56	25° \mathbb{Q} 31'09		evening rise	4010 Feb 20 03:39	11° \mathbb{X} 10'44	
direct	4007 Sep 10 07:36	19° \mathbb{Q} 53'00			4010 Mar 07 03:40	0° \mathbb{Y}	
greatest brilliancy	4007 Sep 24 06:03	23° \mathbb{Q} 17'54	-4.5m		4010 Mar 31 04:27	0° \mathbb{X}	
	4007 Oct 05 15:31	0° \mathbb{M}		asc. node	4010 Apr 24 00:02	29° \mathbb{X} 26'28	
morning max el	4007 Oct 29 15:41	20° \mathbb{M} 37'35	46°05'12		4010 Apr 24 10:57	0° \mathbb{II}	
asc. node	4007 Nov 07 04:53	29° \mathbb{M} 14'47			4010 May 19 01:52	0° \mathbb{Z}	
	4007 Nov 07 22:18	0° \mathbb{L}			4010 Jun 13 04:53	0° \mathbb{Q}	
	4007 Dec 05 03:41	0° \mathbb{M}			4010 Jul 09 03:13	0° \mathbb{M}	
	4007 Dec 30 14:12	0° \mathbb{X}			4010 Aug 05 15:17	0° \mathbb{L}	
	4008 Jan 24 05:54	0° \mathbb{Z}		desc. node	4010 Aug 13 14:04	8° \mathbb{L} 06'20	
	4008 Feb 17 12:51	0° \approx		evening max el	4010 Aug 20 06:48	14° \mathbb{L} 38'57	45°37'03
desc. node	4008 Feb 26 19:04	11° \approx 30'02			4010 Sep 06 18:46	0° \mathbb{M}	
	4008 Mar 12 15:53	0° \mathbb{X}		greatest brilliancy	4010 Sep 26 19:13	12° \mathbb{M} 08'28	-4.5m
	4008 Apr 05 17:49	0° \mathbb{Y}		retrograde	4010 Oct 08 00:15	14° \mathbb{M} 23'31	
	4008 Apr 29 20:35	0° \mathbb{X}		evening set	4010 Oct 25 06:34	8° \mathbb{M} 49'10	
morning set	4008 May 03 15:40	4° \mathbb{X} 42'42		inferior conj	4010 Oct 29 03:26	6° \mathbb{M} 28'27	-7°-32'-50
	4008 May 24 01:25	0° \mathbb{II}		minimum elong	4010 Oct 29 12:28	6° \mathbb{M} 14'28	7°31'27
				min. Earth dist.	4010 Oct 30 02:45	5° \mathbb{M} 52'25	0.28045 AU
superior conj	4008 Jun 10 18:50	21° \mathbb{II} 53'36	0°-19'-18	morning rise	4010 Nov 02 17:55	3° \mathbb{M} 40'51	
minimum elong	4008 Jun 10 23:02	22° \mathbb{II} 06'33	0°19'07		4010 Nov 10 08:29	30° \mathbb{R} \mathbb{L}	
max. Earth dist.	4008 Jun 13 01:02	24° \mathbb{II} 40'43	1.73126 AU	direct	4010 Nov 19 07:39	28° \mathbb{L} 22'04	
	4008 Jun 17 08:36	0° \mathbb{Z}			4010 Nov 28 15:33	0° \mathbb{M}	
asc. node	4008 Jun 18 21:42	1° \mathbb{Z} 54'17		greatest brilliancy	4010 Dec 03 18:17	2° \mathbb{M} 07'05	-4.6m
	4008 Jul 11 17:41	0° \mathbb{Q}		asc. node	4010 Dec 04 16:35	2° \mathbb{M} 34'55	
evening rise	4008 Jul 17 18:47	7° \mathbb{Q} 25'49			4011 Jan 07 13:25	0° \mathbb{X}	
	4008 Aug 05 04:14	0° \mathbb{M}		morning max el	4011 Jan 08 20:06	1° \mathbb{X} 17'26	46°48'59
	4008 Aug 29 16:41	0° \mathbb{L}			4011 Feb 04 07:38	0° \mathbb{Z}	
	4008 Sep 23 08:15	0° \mathbb{M}			4011 Mar 02 01:02	0° \approx	
desc. node	4008 Oct 08 11:55	18° \mathbb{M} 19'50		desc. node	4011 Mar 26 07:01	29° \approx 08'34	
	4008 Oct 18 04:26	0° \mathbb{X}			4011 Mar 26 23:59	0° \mathbb{X}	
	4008 Nov 12 07:13	0° \mathbb{Z}			4011 Apr 20 15:06	0° \mathbb{Y}	
	4008 Dec 07 21:27	0° \approx			4011 May 15 03:17	0° \mathbb{X}	
	4009 Jan 03 14:45	0° \mathbb{X}			4011 Jun 08 14:55	0° \mathbb{II}	
evening max el	4009 Jan 15 07:49	12° \mathbb{X} 18'04	47°12'38		4011 Jul 03 02:32	0° \mathbb{Z}	
asc. node	4009 Jan 29 14:18	25° \mathbb{X} 59'51		morning set	4011 Jul 13 07:29	12° \mathbb{Z} 30'47	
	4009 Feb 03 05:26	0° \mathbb{Y}		asc. node	4011 Jul 17 09:27	17° \mathbb{Z} 31'15	
greatest brilliancy	4009 Feb 22 09:55	12° \mathbb{Y} 46'43	-4.7m		4011 Jul 27 13:29	0° \mathbb{Q}	
retrograde	4009 Mar 07 03:26	15° \mathbb{Y} 47'20		max. Earth dist.	4011 Aug 17 06:47	25° \mathbb{Q} 28'37	1.73441 AU
evening set	4009 Mar 25 04:57	9° \mathbb{Y} 29'28					
inferior conj	4009 Mar 27 23:10	7° \mathbb{Y} 46'49	8°57'49	superior conj	4011 Aug 18 22:56	27° \mathbb{Q} 32'13	1°07'29
minimum elong	4009 Mar 28 00:37	7° \mathbb{Y} 44'34	8°57'47	minimum elong	4011 Aug 18 14:15	27° \mathbb{Q} 05'31	1°07'13
min. Earth dist.	4009 Mar 27 11:30	8° \mathbb{Y} 05'02	0.27469 AU		4011 Aug 20 22:56	0° \mathbb{M}	
morning rise	4009 Mar 30 20:26	5° \mathbb{Y} 59'58			4011 Sep 14 06:47	0° \mathbb{L}	
	4009 Apr 15 19:55	30° \mathbb{R} \mathbb{X}		evening rise	4011 Sep 24 00:31	12° \mathbb{L} 01'31	

	4011 Oct 08 13:48	0°♌			4014 May 28 04:03	0°♏		
	4011 Nov 01 20:52	0°♏			4014 Jun 22 09:55	0°♐		
desc. node	4011 Nov 05 23:52	5°♏05'25			4014 Jul 17 09:43	0°♑		
	4011 Nov 26 04:36	0°♑			4014 Aug 11 04:30	0°♒		
	4011 Dec 20 13:41	0°♒		asc. node	4014 Aug 13 21:19	3°♒17'07		
	4012 Jan 14 02:28	0°♓			4014 Sep 04 18:01	0°♓		
	4012 Feb 08 00:58	0°♓		morning set	4014 Sep 19 09:03	17°♓59'32		
asc. node	4012 Feb 27 02:06	22°♓13'17			4014 Sep 29 02:26	0°♐		
	4012 Mar 04 22:59	0°♏			4014 Oct 23 06:52	0°♌		
evening max el	4012 Mar 28 02:42	24°♏44'23	46°35'29	max. Earth dist.	4014 Oct 23 06:53	0°♌00'03	1.72414 AU	
	4012 Apr 02 11:18	0°♐						
greatest brilliancy	4012 May 02 18:46	23°♐13'13	-4.6m	superior conj	4014 Oct 26 04:42	3°♌37'06	1°15'11	
retrograde	4012 May 17 05:06	26°♐58'08		minimum elong	4014 Oct 26 12:52	4°♌02'31	1°14'59	
evening set	4012 Jun 01 14:46	22°♐19'24			4014 Nov 16 08:51	0°♏		
inferior conj	4012 Jun 07 12:25	18°♐45'37	2°25'46	desc. node	4014 Dec 03 11:42	21°♏21'58		
minimum elong	4012 Jun 07 17:39	18°♐37'25	2°24'14	evening rise	4014 Dec 03 21:38	21°♏52'59		
min. Earth dist.	4012 Jun 07 09:06	18°♐50'48	0.28436 AU		4014 Dec 10 09:32	0°♑		
morning rise	4012 Jun 13 20:54	14°♐57'16			4015 Jan 03 09:34	0°♒		
desc. node	4012 Jun 17 16:23	13°♐04'31			4015 Jan 27 09:55	0°♓		
direct	4012 Jun 28 18:44	10°♐37'29			4015 Feb 20 12:51	0°♓		
greatest brilliancy	4012 Jul 11 08:13	13°♐24'33	-4.5m		4015 Mar 16 22:24	0°♏		
	4012 Aug 05 02:44	0°♑		asc. node	4015 Mar 26 14:09	11°♏42'49		
morning max el	4012 Aug 16 12:11	10°♑19'02	45°42'27		4015 Apr 10 20:51	0°♐		
	4012 Sep 04 23:42	0°♒			4015 May 06 18:56	0°♑		
	4012 Oct 02 03:35	0°♓			4015 Jun 03 19:50	0°♒		
asc. node	4012 Oct 08 19:10	7°♓38'55		evening max el	4015 Jun 07 23:38	4°♒05'56	45°39'40	
	4012 Oct 27 19:20	0°♐			4015 Jul 11 01:04	0°♓		
	4012 Nov 21 14:54	0°♌		greatest brilliancy	4015 Jul 12 16:04	0°♓47'13	-4.5m	
	4012 Dec 15 22:41	0°♏		desc. node	4015 Jul 16 04:17	2°♓14'44		
	4013 Jan 09 00:04	0°♑		retrograde	4015 Jul 26 20:01	4°♓16'58		
desc. node	4013 Jan 28 09:13	24°♑17'43			4015 Aug 10 17:31	30°♒♌		
	4013 Feb 01 22:17	0°♒		evening set	4015 Aug 12 02:22	29°♒14'06		
morning set	4013 Feb 14 16:59	16°♒03'07		inferior conj	4015 Aug 17 08:19	26°♒02'04	-6°-39'-12	
	4013 Feb 25 19:21	0°♓		minimum elong	4015 Aug 16 22:38	26°♒17'17	6°37'25	
	4013 Mar 21 16:52	0°♓		min. Earth dist.	4015 Aug 17 03:28	26°♒09'41	0.29093 AU	
				morning rise	4015 Aug 21 18:57	23°♒18'18		
superior conj	4013 Mar 27 20:01	7°♓41'06	-1°-26'-39	direct	4015 Sep 08 00:03	17°♒44'34		
minimum elong	4013 Mar 27 21:16	7°♓44'59	1°26'40	greatest brilliancy	4015 Sep 21 20:08	21°♒06'11	-4.5m	
max. Earth dist.	4013 Mar 31 08:18	12°♓04'56	1.71633 AU		4015 Oct 06 07:14	0°♓		
	4013 Apr 14 16:26	0°♏		morning max el	4015 Oct 27 06:12	18°♓22'12	46°03'41	
evening rise	4013 May 06 17:53	27°♏26'18		asc. node	4015 Nov 06 06:51	28°♓30'41		
	4013 May 08 19:30	0°♐			4015 Nov 07 17:00	0°♐		
asc. node	4013 May 21 11:54	15°♐40'47			4015 Dec 04 18:19	0°♌		
	4013 Jun 02 03:00	0°♑			4015 Dec 30 03:12	0°♏		
	4013 Jun 26 15:35	0°♒			4016 Jan 23 18:07	0°♑		
	4013 Jul 21 10:23	0°♓			4016 Feb 17 00:35	0°♒		
	4013 Aug 15 14:00	0°♐		desc. node	4016 Feb 25 21:09	11°♒00'28		
desc. node	4013 Sep 10 02:00	29°♐44'11			4016 Mar 12 03:18	0°♓		
	4013 Sep 10 07:30	0°♌			4016 Apr 05 04:59	0°♓		
	4013 Oct 07 01:25	0°♏			4016 Apr 29 07:32	0°♏		
evening max el	4013 Nov 01 01:51	26°♏02'41	46°32'12	morning set	4016 May 01 05:52	2°♏23'51		
	4013 Nov 05 04:22	0°♑			4016 May 23 12:14	0°♐		
greatest brilliancy	4013 Dec 09 15:20	25°♑19'33	-4.6m					
retrograde	4013 Dec 21 00:09	27°♑42'35		superior conj	4016 Jun 08 11:01	19°♐42'24	0°-22'-35	
asc. node	4014 Jan 01 04:28	25°♑10'21		minimum elong	4016 Jun 08 15:54	19°♐57'28	0°22'22	
evening set	4014 Jan 04 06:46	23°♑39'40		max. Earth dist.	4016 Jun 10 21:04	22°♐41'28	1.73083 AU	
inferior conj	4014 Jan 10 12:44	20°♑01'16	2°24'20		4016 Jun 16 19:19	0°♑		
minimum elong	4014 Jan 10 07:19	20°♑09'30	2°22'38	asc. node	4016 Jun 17 23:40	1°♑27'21		
min. Earth dist.	4014 Jan 10 09:54	20°♑05'34	0.26573 AU		4016 Jul 11 04:22	0°♒		
morning rise	4014 Jan 16 07:52	16°♑37'47		evening rise	4016 Jul 15 13:02	5°♒21'30		
direct	4014 Jan 31 00:41	12°♑20'44			4016 Aug 04 15:02	0°♓		
greatest brilliancy	4014 Feb 12 02:10	15°♑04'24	-4.7m		4016 Aug 29 03:46	0°♐		
	4014 Mar 06 06:08	0°♒			4016 Sep 22 19:48	0°♌		
morning max el	4014 Mar 22 12:19	15°♒15'56	46°52'47	desc. node	4016 Oct 07 13:59	17°♌50'02		
	4014 Apr 05 15:10	0°♓			4016 Oct 17 16:43	0°♏		
desc. node	4014 Apr 22 18:57	18°♓58'53			4016 Nov 11 20:35	0°♑		
	4014 May 02 10:56	0°♓			4016 Dec 07 12:40	0°♒		




































































































































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asc. node	4017 Jan 28 16:21	24° H 55'46		morning set	4019 Jul 11 00:54	10° S 24'16		
	4017 Feb 03 18:05	0° Y		asc. node	4019 Jul 16 11:31	17° S 04'56		
greatest brilliancy	4017 Feb 20 02:17	10° Y 25'39	-4.7m		4019 Jul 27 00:04	0° Ω		
retrograde	4017 Mar 04 16:52	13° Y 23'32		max. Earth dist.	4019 Aug 15 04:57	23° Ω 36'40	1.73456 AU	
evening set	4017 Mar 22 18:28	7° Y 06'45						
min. Earth dist.	4017 Mar 25 00:57	5° Y 42'28	0.27428 AU	superior conj	4019 Aug 16 17:09	25° Ω 28'05	1°05'30	
inferior conj	4017 Mar 25 12:50	5° Y 23'55	8°59'14	minimum elong	4019 Aug 16 08:20	25° Ω 00'56	1°05'13	
minimum elong	4017 Mar 25 13:21	5° Y 23'06	8°59'14		4019 Aug 20 09:28	0° M		
morning rise	4017 Mar 28 08:23	3° Y 39'35			4019 Sep 13 17:23	0° A		
	4017 Apr 04 05:16	30° R H		evening rise	4019 Sep 21 18:09	9° A 54'57		
direct	4017 Apr 15 05:27	27° H 33'27			4019 Oct 08 00:34	0° M		
greatest brilliancy	4017 Apr 26 02:46	29° H 44'32	-4.6m		4019 Nov 01 07:54	0° A		
	4017 Apr 26 18:32	0° Y		desc. node	4019 Nov 05 01:50	4° A 37'20		
desc. node	4017 May 20 06:34	15° Y 29'13			4019 Nov 25 16:00	0° S		
morning max el	4017 Jun 03 17:00	28° Y 42'19	46°10'11		4019 Dec 20 01:37	0° \approx		
	4017 Jun 05 00:45	0° B			4020 Jan 13 15:08	0° H		
	4017 Jul 03 14:55	0° II			4020 Feb 07 14:52	0° Y		
	4017 Jul 30 05:42	0° S		asc. node	4020 Feb 26 04:14	21° Y 35'08		
	4017 Aug 24 22:43	0° Ω			4020 Mar 04 15:26	0° B		
asc. node	4017 Sep 10 09:17	19° Ω 34'47		evening max el	4020 Mar 25 18:08	22° B 28'41	46°37'45	
	4017 Sep 19 01:10	0° M			4020 Apr 02 11:46	0° II		
	4017 Oct 13 16:22	0° A		greatest brilliancy	4020 Apr 30 10:59	21° II 00'32	-4.6m	
	4017 Nov 06 23:19	0° M		retrograde	4020 May 14 21:41	24° II 45'29		
morning set	4017 Nov 28 13:37	26° M 54'34		evening set	4020 May 30 08:23	20° II 03'59		
	4017 Dec 01 00:57	0° A		inferior conj	4020 Jun 05 04:01	16° II 32'57	2°45'50	
	4017 Dec 24 23:32	0° S		minimum elong	4020 Jun 05 09:55	16° II 23'43	2°44'07	
desc. node	4017 Dec 30 23:29	7° S 31'56		min. Earth dist.	4020 Jun 05 00:37	16° II 38'16	0.28408 AU	
max. Earth dist.	4018 Jan 06 01:57	15° S 12'01	1.71232 AU	morning rise	4020 Jun 11 11:54	12° II 45'51		
				desc. node	4020 Jun 16 18:24	10° II 17'20		
superior conj	4018 Jan 07 12:48	17° S 01'30	0°-18'-5	direct	4020 Jun 26 10:17	8° II 25'15		
minimum elong	4018 Jan 07 08:08	16° S 46'50	0°17'52	greatest brilliancy	4020 Jul 08 22:08	11° II 11'22	-4.5m	
	4018 Jan 17 20:31	0° \approx			4020 Aug 05 06:39	0° S		
	4018 Feb 10 17:02	0° H		morning max el	4020 Aug 14 04:48	8° S 11'05	45°42'34	
evening rise	4018 Feb 17 13:54	8° H 37'51			4020 Sep 04 16:29	0° Ω		
	4018 Mar 06 14:39	0° Y			4020 Oct 01 17:12	0° M		
	4018 Mar 30 15:33	0° B		asc. node	4020 Oct 07 21:05	7° M 06'20		
asc. node	4018 Apr 23 02:02	28° B 57'49			4020 Oct 27 07:35	0° A		
	4018 Apr 23 22:17	0° II			4020 Nov 21 02:28	0° M		
	4018 May 18 13:38	0° S			4020 Dec 15 09:54	0° A		
	4018 Jun 12 17:27	0° Ω			4021 Jan 08 11:05	0° S		
	4018 Jul 08 17:28	0° M		desc. node	4021 Jan 27 11:21	23° S 50'01		
	4018 Aug 05 09:36	0° A			4021 Feb 01 09:13	0° \approx		
desc. node	4018 Aug 12 16:14	7° A 21'03		morning set	4021 Feb 12 02:51	13° \approx 29'05		
evening max el	4018 Aug 17 20:42	12° A 23'36	45°36'06		4021 Feb 25 06:14	0° H		
	4018 Sep 07 07:43	0° M			4021 Mar 21 03:41	0° Y		
greatest brilliancy	4018 Sep 24 06:16	9° M 50'15	-4.5m					
retrograde	4018 Oct 05 14:35	12° M 08'29		superior conj	4021 Mar 25 07:22	5° Y 12'25	-1°-26'-46	
evening set	4018 Oct 22 23:35	6° M 29'14		minimum elong	4021 Mar 25 07:34	5° Y 13'02	1°26'48	
inferior conj	4018 Oct 26 18:01	4° M 12'12	-7°-42'-50	max. Earth dist.	4021 Mar 28 18:57	9° Y 34'14	1.71589 AU	
minimum elong	4018 Oct 27 02:38	3° M 58'53	7°41'37		4021 Apr 14 03:12	0° B		
min. Earth dist.	4018 Oct 27 16:57	3° M 36'47	0.28116 AU	evening rise	4021 May 04 07:15	25° B 05'41		
morning rise	4018 Oct 31 05:14	1° M 29'32			4021 May 08 06:15	0° II		
	4018 Nov 02 21:35	30° R A		asc. node	4021 May 20 13:50	15° II 13'29		
direct	4018 Nov 16 22:53	26° A 04'39			4021 Jun 01 13:50	0° S		
greatest brilliancy	4018 Dec 01 11:31	29° A 52'15	-4.6m		4021 Jun 26 02:40	0° Ω		
	4018 Dec 01 17:49	0° M			4021 Jul 20 21:55	0° M		
asc. node	4018 Dec 03 18:35	1° M 03'34			4021 Aug 15 02:21	0° A		
morning max el	4019 Jan 06 11:34	28° M 59'11	46°47'52	desc. node	4021 Sep 09 04:03	29° A 10'34		
	4019 Jan 07 11:29	0° A			4021 Sep 09 21:20	0° M		
	4019 Feb 03 23:39	0° S			4021 Oct 06 18:17	0° A		
	4019 Mar 01 14:46	0° \approx		evening max el	4021 Oct 29 16:26	23° A 44'14	46°30'03	
desc. node	4019 Mar 25 09:08	28° \approx 36'51			4021 Nov 05 06:10	0° S		
	4019 Mar 26 12:32	0° H		greatest brilliancy	4021 Dec 07 04:57	22° S 54'32	-4.6m	
	4019 Apr 20 02:55	0° Y		retrograde	4021 Dec 18 12:36	25° S 15'36		
	4019 May 14 14:37	0° B		asc. node	4021 Dec 31 06:30	22° S 00'13		

evening set	4022 Jan 01 18:48	21°☾13'54		max. Earth dist.	4024 Jun 08 15:00	20°♊35'47	1.73044 AU
inferior conj	4022 Jan 08 01:09	17°☾34'42	2°00'31		4024 Jun 16 05:59	0°☾	
minimum elong	4022 Jan 07 20:35	17°☾41'39	1°59'04	asc. node	4024 Jun 17 01:45	1°☾00'55	
min. Earth dist.	4022 Jan 07 23:38	17°☾37'01	0.26580 AU		4024 Jul 10 15:03	0°♌	
morning rise	4022 Jan 13 22:20	14°☾08'10		evening rise	4024 Jul 13 07:06	3°♌16'42	
direct	4022 Jan 28 13:41	9°☾54'06			4024 Aug 04 01:51	0°♍	
greatest brilliancy	4022 Feb 09 16:02	12°☾38'32	-4.7m		4024 Aug 28 14:52	0°♎	
	4022 Mar 06 13:48	0°♎			4024 Sep 22 07:23	0°♏	
morning max el	4022 Mar 20 01:23	12°♎51'01	46°53'30	desc. node	4024 Oct 06 15:56	17°♏19'49	
	4022 Apr 05 09:34	0°♐			4024 Oct 17 05:03	0°♑	
desc. node	4022 Apr 21 20:54	18°♐19'56			4024 Nov 11 10:04	0°♒	
	4022 May 02 01:37	0°♑			4024 Dec 07 04:08	0°♓	
	4022 May 27 17:00	0°♒			4025 Jan 03 06:00	0°♈	
	4022 Jun 21 21:51	0°♊		evening max el	4025 Jan 10 09:58	7°♈25'57	47°12'25
	4022 Jul 16 21:01	0°♋		asc. node	4025 Jan 27 18:29	23°♈50'16	
	4022 Aug 10 15:26	0°♌			4025 Feb 04 10:54	0°♑	
asc. node	4022 Aug 12 23:25	2°♌50'23		greatest brilliancy	4025 Feb 17 17:57	8°♑03'50	-4.7m
	4022 Sep 04 04:44	0°♍		retrograde	4025 Mar 02 06:37	11°♑00'23	
morning set	4022 Sep 17 02:12	15°♍51'39		evening set	4025 Mar 20 07:33	4°♑45'11	
	4022 Sep 28 13:04	0°♎		min. Earth dist.	4025 Mar 22 14:26	3°♑20'32	0.27384 AU
max. Earth dist.	4022 Oct 20 19:48	27°♎37'53	1.72460 AU	inferior conj	4025 Mar 23 02:38	3°♑01'30	8°59'40
	4022 Oct 22 17:32	0°♏		minimum elong	4025 Mar 23 02:12	3°♑02'10	8°59'41
				morning rise	4025 Mar 25 20:59	1°♑19'07	
superior conj	4022 Oct 23 20:42	1°♏24'28	1°16'44		4025 Mar 28 02:45	30°♏	
minimum elong	4022 Oct 24 04:22	1°♏48'18	1°16'34	direct	4025 Apr 12 18:06	25°♏11'29	
	4022 Nov 15 19:37	0°♑		greatest brilliancy	4025 Apr 23 16:23	27°♏23'18	-4.6m
evening rise	4022 Dec 01 10:46	19°♑30'16			4025 Apr 29 08:08	0°♑	
desc. node	4022 Dec 02 13:43	20°♑54'22		desc. node	4025 May 19 08:38	14°♑27'10	
	4022 Dec 09 20:26	0°♒		morning max el	4025 Jun 01 06:49	26°♑23'19	46°11'47
	4023 Jan 02 20:38	0°♓			4025 Jun 04 22:41	0°♒	
	4023 Jan 26 21:11	0°♈			4025 Jul 03 06:37	0°♊	
	4023 Feb 20 00:24	0°♑			4025 Jul 29 19:02	0°♋	
	4023 Mar 16 10:30	0°♒			4025 Aug 24 10:51	0°♌	
asc. node	4023 Mar 25 16:05	11°♒11'18		asc. node	4025 Sep 09 11:13	19°♌05'34	
	4023 Apr 10 09:55	0°♊			4025 Sep 18 12:38	0°♍	
	4023 May 06 10:02	0°♋			4025 Oct 13 03:30	0°♎	
	4023 Jun 03 16:33	0°♌			4025 Nov 06 10:18	0°♏	
evening max el	4023 Jun 05 14:57	1°♌53'33	45°40'53	morning set	4025 Nov 26 03:32	24°♏33'54	
greatest brilliancy	4023 Jul 10 07:31	28°♌37'35	-4.5m		4025 Nov 30 11:54	0°♑	
	4023 Jul 13 13:47	0°♍			4025 Dec 24 10:31	0°♒	
desc. node	4023 Jul 15 06:26	0°♍35'34		desc. node	4025 Dec 30 01:35	7°♒03'58	
retrograde	4023 Jul 24 11:47	2°♍08'31		max. Earth dist.	4026 Jan 03 11:32	12°♒36'46	1.71259 AU
	4023 Aug 03 22:15	30°♎					
evening set	4023 Aug 09 15:57	27°♎09'42		superior conj	4026 Jan 04 23:34	14°♒29'59	0°-14'-12
inferior conj	4023 Aug 15 00:45	23°♎53'38	-6°-26'-24	minimum elong	4026 Jan 04 19:53	14°♒18'24	0°14'02
minimum elong	4023 Aug 14 14:57	24°♎09'01	6°24'31	behind sun begin	4026 Jan 04 06:33	13°♒36'29	
min. Earth dist.	4023 Aug 14 19:41	24°♎01'35	0.29088 AU	behind sun end	4026 Jan 05 09:14	15°♒00'19	
morning rise	4023 Aug 19 13:58	21°♎05'47			4026 Jan 17 07:32	0°♓	
direct	4023 Sep 05 16:00	15°♎36'15			4026 Feb 10 04:07	0°♈	
greatest brilliancy	4023 Sep 19 10:50	18°♎55'30	-4.5m	evening rise	4026 Feb 15 00:18	6°♈04'58	
	4023 Oct 06 18:47	0°♏			4026 Mar 06 01:48	0°♑	
morning max el	4023 Oct 24 20:24	16°♏06'21	46°02'15		4026 Mar 30 02:47	0°♒	
asc. node	4023 Nov 05 08:52	27°♏47'31		asc. node	4026 Apr 22 04:01	28°♏28'53	
	4023 Nov 07 11:07	0°♎			4026 Apr 23 09:43	0°♊	
	4023 Dec 04 08:42	0°♏			4026 May 18 01:29	0°♋	
	4023 Dec 29 16:04	0°♑			4026 Jun 12 06:10	0°♌	
	4024 Jan 23 06:12	0°♒			4026 Jul 08 07:59	0°♍	
	4024 Feb 16 12:11	0°♓			4026 Aug 05 04:37	0°♎	
desc. node	4024 Feb 24 23:14	10°♓31'17		desc. node	4026 Aug 11 18:15	6°♎34'12	
	4024 Mar 11 14:33	0°♈		evening max el	4026 Aug 15 11:46	10°♎10'42	45°35'07
	4024 Apr 04 15:59	0°♑			4026 Sep 08 01:27	0°♏	
morning set	4024 Apr 28 20:05	0°♑05'20		greatest brilliancy	4026 Sep 21 17:13	7°♏31'44	-4.5m
	4024 Apr 28 18:23	0°♒		retrograde	4026 Oct 03 05:23	9°♏53'15	
	4024 May 22 22:57	0°♊		evening set	4026 Oct 20 16:39	4°♏09'31	
				inferior conj	4026 Oct 24 08:45	1°♏55'47	-7°-51'-55
superior conj	4024 Jun 06 03:10	17°♊31'12	0°-25'-50	minimum elong	4026 Oct 24 16:52	1°♏43'15	7°50'53
minimum elong	4024 Jun 06 08:43	17°♊48'20	0°25'36	min. Earth dist.	4026 Oct 25 06:53	1°♏21'37	0.28185 AU

	4026 Oct 27 12:22	30°R♄			4029 May 07 17:22	0°II	
morning rise	4026 Oct 28 16:43	29°♄17'58		asc. node	4029 May 19 15:59	14°II45'43	
direct	4026 Nov 14 14:41	23°♄47'22			4029 Jun 01 01:03	0°♄	
greatest brilliancy	4026 Nov 29 03:58	27°♄36'17	-4.6m		4029 Jun 25 14:05	0°♄	
asc. node	4026 Dec 02 20:40	29°♄35'09			4029 Jul 20 09:47	0°♄	
	4026 Dec 03 13:33	0°♄			4029 Aug 14 15:01	0°♄	
morning max el	4027 Jan 04 03:35	26°♄41'59	46°46'34	desc. node	4029 Sep 08 05:59	28°♄35'37	
	4027 Jan 07 08:56	0°♄			4029 Sep 09 11:34	0°♄	
	4027 Feb 03 15:36	0°♄			4029 Oct 06 11:51	0°♄	
	4027 Mar 01 04:36	0°♄		evening max el	4029 Oct 27 06:19	21°♄23'05	46°27'38
desc. node	4027 Mar 24 10:59	28°♄03'42			4029 Nov 05 10:01	0°♄	
	4027 Mar 26 01:16	0°♄		greatest brilliancy	4029 Dec 04 19:13	20°♄28'58	-4.6m
	4027 Apr 19 14:57	0°♄		retrograde	4029 Dec 16 00:20	22°♄47'22	
	4027 May 14 02:08	0°♄		evening set	4029 Dec 30 07:01	18°♄46'27	
	4027 Jun 07 13:02	0°II		asc. node	4029 Dec 30 08:36	18°♄44'21	
	4027 Jul 02 00:09	0°♄		inferior conj	4030 Jan 05 13:34	15°♄06'58	1°36'29
morning set	4027 Jul 08 18:42	8°♄18'21		minimum elong	4030 Jan 05 09:53	15°♄12'35	1°35'18
asc. node	4027 Jul 15 13:36	16°♄38'06		min. Earth dist.	4030 Jan 05 13:45	15°♄06'42	0.26593 AU
	4027 Jul 26 10:50	0°♄		morning rise	4030 Jan 11 12:37	11°♄37'30	
max. Earth dist.	4027 Aug 13 04:11	21°♄47'21	1.73471 AU	direct	4030 Jan 26 02:15	7°♄26'02	
				greatest brilliancy	4030 Feb 07 06:59	10°♄12'30	-4.7m
superior conj	4027 Aug 14 11:35	23°♄23'59	1°03'27		4030 Mar 06 19:47	0°♄	
minimum elong	4027 Aug 14 02:41	22°♄56'34	1°03'09	morning max el	4030 Mar 17 13:33	10°♄22'25	46°54'14
	4027 Aug 19 20:14	0°♄			4030 Apr 05 03:56	0°♄	
	4027 Sep 13 04:15	0°♄		desc. node	4030 Apr 20 23:01	17°♄40'42	
evening rise	4027 Sep 19 11:56	7°♄48'05			4030 May 01 16:29	0°♄	
	4027 Oct 07 11:36	0°♄			4030 May 27 06:12	0°♄	
	4027 Oct 31 19:13	0°♄			4030 Jun 21 10:06	0°II	
desc. node	4027 Nov 04 03:51	4°♄08'29			4030 Jul 16 08:39	0°♄	
	4027 Nov 25 03:43	0°♄			4030 Aug 10 02:40	0°♄	
	4027 Dec 19 13:52	0°♄		asc. node	4030 Aug 12 01:23	2°♄22'15	
	4028 Jan 13 04:10	0°♄			4030 Sep 03 15:44	0°♄	
	4028 Feb 07 05:13	0°♄		morning set	4030 Sep 14 19:43	13°♄44'05	
asc. node	4028 Feb 25 06:10	20°♄55'04			4030 Sep 27 23:57	0°♄	
	4028 Mar 04 08:34	0°♄		max. Earth dist.	4030 Oct 18 11:14	25°♄22'53	1.72509 AU
evening max el	4028 Mar 23 10:24	20°♄13'53	46°39'54				
	4028 Apr 02 13:59	0°II		superior conj	4030 Oct 21 13:09	29°♄12'28	1°18'07
greatest brilliancy	4028 Apr 28 04:22	18°II48'21	-4.6m	minimum elong	4030 Oct 21 20:17	29°♄34'40	1°18'00
retrograde	4028 May 12 14:12	22°II31'39			4030 Oct 22 04:26	0°♄	
evening set	4028 May 28 02:11	17°II47'38			4030 Nov 15 06:39	0°♄	
inferior conj	4028 Jun 02 19:38	14°II19'24	3°05'39	evening rise	4030 Nov 29 00:12	17°♄07'37	
minimum elong	4028 Jun 03 02:10	14°II09'10	3°03'48	desc. node	4030 Dec 01 15:52	20°♄26'15	
min. Earth dist.	4028 Jun 02 16:07	14°II24'54	0.28374 AU		4030 Dec 09 07:40	0°♄	
morning rise	4028 Jun 09 02:40	10°II33'39			4031 Jan 02 08:04	0°♄	
desc. node	4028 Jun 15 20:28	7°II33'48			4031 Jan 26 08:51	0°♄	
direct	4028 Jun 24 02:01	6°II12'24			4031 Feb 19 12:24	0°♄	
greatest brilliancy	4028 Jul 06 10:53	8°II56'04	-4.5m		4031 Mar 15 23:02	0°♄	
	4028 Aug 05 09:12	0°♄		asc. node	4031 Mar 24 18:07	10°♄38'45	
morning max el	4028 Aug 11 20:56	6°♄01'22	45°42'44		4031 Apr 09 23:29	0°II	
	4028 Sep 04 09:11	0°♄			4031 May 06 01:46	0°♄	
	4028 Oct 01 06:59	0°♄		evening max el	4031 Jun 03 05:40	29°♄38'33	45°42'14
asc. node	4028 Oct 06 23:06	6°♄33'23			4031 Jun 03 14:29	0°♄	
	4028 Oct 26 20:06	0°♄		greatest brilliancy	4031 Jul 07 22:07	26°♄25'48	-4.5m
	4028 Nov 20 14:20	0°♄		desc. node	4031 Jul 14 08:28	28°♄51'40	
	4028 Dec 14 21:27	0°♄		retrograde	4031 Jul 22 03:44	29°♄59'20	
	4029 Jan 07 22:27	0°♄		evening set	4031 Aug 07 05:36	25°♄04'06	
desc. node	4029 Jan 26 13:22	23°♄20'54		inferior conj	4031 Aug 12 17:10	21°♄44'22	-6°-13'-7
	4029 Jan 31 20:29	0°♄		minimum elong	4031 Aug 12 07:19	21°♄59'50	6°11'08
morning set	4029 Feb 09 12:36	10°♄53'42		min. Earth dist.	4031 Aug 12 11:58	21°♄52'33	0.29079 AU
	4029 Feb 24 17:25	0°♄		morning rise	4031 Aug 17 09:00	18°♄52'38	
	4029 Mar 20 14:50	0°♄		direct	4031 Sep 03 07:44	13°♄27'01	
				greatest brilliancy	4031 Sep 17 02:30	16°♄45'27	-4.5m
superior conj	4029 Mar 22 18:33	2°♄42'07	-1°-26'-44		4031 Oct 07 03:32	0°♄	
minimum elong	4029 Mar 22 17:41	2°♄39'25	1°26'45	morning max el	4031 Oct 22 11:00	13°♄51'08	46°01'02
max. Earth dist.	4029 Mar 26 06:21	7°♄04'42	1.71546 AU	asc. node	4031 Nov 04 10:59	27°♄04'44	
	4029 Apr 13 14:18	0°♄			4031 Nov 07 04:59	0°♄	
evening rise	4029 May 01 20:28	22°♄43'15			4031 Dec 03 23:04	0°♄	

	4031 Dec 29 05:02	0°♊			4034 Jun 11 19:05	0°♎	
	4032 Jan 22 18:28	0°♋			4034 Jul 07 22:48	0°♏	
	4032 Feb 16 00:01	0°♌			4034 Aug 05 00:17	0°♐	
desc. node	4032 Feb 24 01:11	10°♌00'49		desc. node	4034 Aug 10 20:11	5°♐46'08	
	4032 Mar 11 02:05	0°♍		evening max el	4034 Aug 13 03:12	7°♐58'32	45°34'14
	4032 Apr 04 03:17	0°♎			4034 Sep 09 01:35	0°♑	
morning set	4032 Apr 26 09:43	27°♎43'53		greatest brilliancy	4034 Sep 19 04:50	5°♑14'01	-4.5m
	4032 Apr 28 05:30	0°♏		retrograde	4034 Sep 30 19:58	7°♑37'46	
	4032 May 22 09:57	0°♐		evening set	4034 Oct 18 09:33	1°♑50'04	
					4034 Oct 21 10:03	30°♑♌	
superior conj	4032 Jun 03 18:55	15°♐17'55	0°-29'-5	inferior conj	4034 Oct 21 23:24	29°♑39'23	-8°00'-25
minimum elong	4032 Jun 04 01:07	15°♐37'05	0°28'49	minimum elong	4034 Oct 22 06:58	29°♑27'41	7°59'32
max. Earth dist.	4032 Jun 06 07:41	18°♐25'29	1.73003 AU	min. Earth dist.	4034 Oct 22 20:35	29°♑06'38	0.28247 AU
	4032 Jun 15 16:55	0°♑		morning rise	4034 Oct 26 04:05	27°♑06'18	
asc. node	4032 Jun 16 03:48	0°♑33'32		direct	4034 Nov 12 06:35	21°♑30'20	
	4032 Jul 10 01:59	0°♒		greatest brilliancy	4034 Nov 26 19:13	25°♑18'55	-4.6m
evening rise	4032 Jul 11 01:01	1°♒10'42		asc. node	4034 Dec 01 22:41	28°♑09'41	
	4032 Aug 03 12:55	0°♓			4034 Dec 04 19:19	0°♒	
	4032 Aug 28 02:12	0°♌		morning max el	4035 Jan 01 19:06	24°♒24'08	46°45'25
	4032 Sep 21 19:11	0°♍			4035 Jan 07 05:28	0°♊	
desc. node	4032 Oct 05 18:02	16°♍49'39			4035 Feb 03 07:05	0°♋	
	4032 Oct 16 17:33	0°♊			4035 Feb 28 18:05	0°♌	
	4032 Nov 10 23:43	0°♋		desc. node	4035 Mar 23 13:08	27°♌32'12	
	4032 Dec 06 19:53	0°♌			4035 Mar 25 13:42	0°♍	
	4033 Jan 03 02:42	0°♍			4035 Apr 19 02:45	0°♎	
evening max el	4033 Jan 07 23:17	5°♍00'10	47°12'03		4035 May 13 13:30	0°♏	
asc. node	4033 Jan 26 20:22	22°♍41'40			4035 Jun 07 00:05	0°♐	
	4033 Feb 05 10:10	0°♎			4035 Jul 01 10:58	0°♑	
greatest brilliancy	4033 Feb 15 08:09	5°♎38'55	-4.7m	morning set	4035 Jul 06 12:01	6°♑11'14	
retrograde	4033 Feb 27 20:25	8°♎35'29		asc. node	4035 Jul 14 15:33	16°♑11'07	
evening set	4033 Mar 17 19:42	2°♎22'25			4035 Jul 25 21:30	0°♒	
min. Earth dist.	4033 Mar 20 03:20	0°♎56'51	0.27347 AU	max. Earth dist.	4035 Aug 11 02:05	19°♒54'15	1.73480 AU
inferior conj	4033 Mar 20 16:04	0°♎37'04	8°59'04				
minimum elong	4033 Mar 20 14:42	0°♎39'12	8°59'02	superior conj	4035 Aug 12 05:33	21°♒18'47	1°01'17
	4033 Mar 21 15:58	30°♏♋		minimum elong	4035 Aug 11 20:36	20°♒51'16	1°00'58
morning rise	4033 Mar 23 09:49	28°♋55'50			4035 Aug 19 06:53	0°♓	
direct	4033 Apr 10 06:50	22°♋47'25			4035 Sep 12 14:59	0°♌	
greatest brilliancy	4033 Apr 21 05:43	25°♋00'08	-4.6m	evening rise	4035 Sep 17 05:26	5°♌40'43	
	4033 Apr 30 23:44	0°♎			4035 Oct 06 22:31	0°♍	
desc. node	4033 May 18 10:43	13°♎25'30			4035 Oct 31 06:25	0°♊	
morning max el	4033 May 29 21:12	24°♎04'39	46°13'26	desc. node	4035 Nov 03 05:57	3°♊40'19	
	4033 Jun 04 20:10	0°♏			4035 Nov 24 15:18	0°♋	
	4033 Jul 02 22:19	0°♐			4035 Dec 19 01:58	0°♌	
	4033 Jul 29 08:25	0°♑			4036 Jan 12 17:00	0°♍	
	4033 Aug 23 23:03	0°♒			4036 Feb 06 19:22	0°♎	
asc. node	4033 Sep 08 13:13	18°♒36'17		asc. node	4036 Feb 24 08:13	20°♎16'06	
	4033 Sep 18 00:11	0°♓			4036 Mar 04 01:37	0°♏	
	4033 Oct 12 14:41	0°♌		evening max el	4036 Mar 21 02:14	17°♏58'56	46°41'51
	4033 Nov 05 21:19	0°♍			4036 Apr 02 17:16	0°♐	
morning set	4033 Nov 23 17:57	22°♍14'49		greatest brilliancy	4036 Apr 25 22:21	16°♐37'39	-4.6m
	4033 Nov 29 22:51	0°♊		retrograde	4036 May 10 06:07	20°♐18'13	
	4033 Dec 23 21:27	0°♋		evening set	4036 May 25 20:04	15°♐31'40	
desc. node	4033 Dec 29 03:35	6°♋35'52		inferior conj	4036 May 31 11:11	12°♐06'21	3°25'21
max. Earth dist.	4033 Dec 31 23:22	10°♋08'42	1.71284 AU	minimum elong	4036 May 31 18:18	11°♐55'11	3°23'20
				min. Earth dist.	4036 May 31 07:45	12°♐11'44	0.28345 AU
superior conj	4034 Jan 02 10:49	12°♋00'05	0°-10'-21	morning rise	4036 Jun 06 17:07	8°♐21'58	
minimum elong	4034 Jan 02 08:08	11°♋51'38	0°10'14	desc. node	4036 Jun 14 22:29	4°♐55'20	
behind sun begin	4034 Jan 01 11:44	10°♋47'34		direct	4036 Jun 21 17:36	4°♐00'01	
behind sun end	4034 Jan 03 04:32	12°♋55'43		greatest brilliancy	4036 Jul 03 23:35	6°♐40'54	-4.5m
	4034 Jan 16 18:30	0°♌			4036 Aug 05 10:11	0°♑	
	4034 Feb 09 15:09	0°♍		morning max el	4036 Aug 09 12:13	3°♑49'57	45°42'51
evening rise	4034 Feb 12 10:58	3°♋33'01			4036 Sep 04 01:23	0°♒	
	4034 Mar 05 12:56	0°♎			4036 Sep 30 20:25	0°♓	
	4034 Mar 29 14:05	0°♏		asc. node	4036 Oct 06 01:16	6°♓01'37	
asc. node	4034 Apr 21 06:07	28°♏00'00			4036 Oct 26 08:17	0°♌	
	4034 Apr 22 21:15	0°♐			4036 Nov 20 01:54	0°♍	
	4034 May 17 13:29	0°♑			4036 Dec 14 08:41	0°♊	

	4037 Jan 07 09:31	0°☾		evening set	4039 Aug 04 19:28	22°♌59'53	
desc. node	4037 Jan 25 15:19	22°☾52'32		inferior conj	4039 Aug 10 09:41	19°♌36'42	-5°-59'-16
	4037 Jan 31 07:26	0°≈		minimum elong	4039 Aug 09 23:51	19°♌52'07	5°57'12
morning set	4037 Feb 06 22:33	8°≈19'55		min. Earth dist.	4039 Aug 10 04:04	19°♌45'31	0.29074 AU
	4037 Feb 24 04:16	0°☿		morning rise	4039 Aug 15 04:11	16°♌41'15	
				direct	4039 Aug 31 23:46	11°♌19'15	
superior conj	4037 Mar 20 06:03	0°♍14'02	-1°-26'-31	greatest brilliancy	4039 Sep 14 19:14	14°♌38'10	-4.5m
minimum elong	4037 Mar 20 04:07	0°♍07'59	1°26'32		4039 Oct 07 09:19	0°♍	
	4037 Mar 20 01:35	0°♍		morning max el	4039 Oct 20 02:36	11°♍39'31	45°59'42
max. Earth dist.	4037 Mar 23 17:32	4°♍35'43	1.71498 AU	asc. node	4039 Nov 03 12:57	26°♍22'56	
	4037 Apr 13 00:59	0°♎			4039 Nov 06 22:07	0°♎	
evening rise	4037 Apr 29 09:51	20°♎22'34			4039 Dec 03 13:01	0°♎	
	4037 May 07 04:04	0°♎			4039 Dec 28 17:38	0°♎	
asc. node	4037 May 18 17:59	14°♎18'44			4040 Jan 22 06:22	0°♎	
	4037 May 31 11:52	0°♎			4040 Feb 15 11:29	0°≈	
	4037 Jun 25 01:11	0°♏		desc. node	4040 Feb 23 03:16	9°≈31'54	
	4037 Jul 19 21:21	0°♏			4040 Mar 10 13:15	0°♏	
	4037 Aug 14 03:28	0°♏			4040 Apr 03 14:14	0°♏	
desc. node	4037 Sep 07 08:06	28°♏01'49		morning set	4040 Apr 23 23:16	25°♏23'11	
	4037 Sep 09 01:40	0°♏			4040 Apr 27 16:17	0°♏	
	4037 Oct 06 05:30	0°♏			4040 May 21 20:35	0°♏	
evening max el	4037 Oct 24 19:03	19°♏00'08	46°25'19				
	4037 Nov 05 15:18	0°♏		superior conj	4040 Jun 01 10:47	13°♏06'04	0°-32'-17
greatest brilliancy	4037 Dec 02 09:25	18°♏04'20	-4.6m	minimum elong	4040 Jun 01 17:36	13°♏27'10	0°31'59
retrograde	4037 Dec 13 11:46	20°♏20'21		max. Earth dist.	4040 Jun 04 00:38	16°♏17'06	1.72958 AU
evening set	4037 Dec 27 19:23	16°♏19'30		asc. node	4040 Jun 15 05:45	0°♏07'06	
asc. node	4037 Dec 29 10:33	15°♏25'56			4040 Jun 15 03:27	0°♏	
inferior conj	4038 Jan 03 01:56	12°♏40'17	1°12'12	evening rise	4040 Jul 08 19:10	29°♏06'44	
minimum elong	4038 Jan 02 23:10	12°♏44'30	1°11'19		4040 Jul 09 12:31	0°♏	
min. Earth dist.	4038 Jan 03 04:02	12°♏37'05	0.26609 AU		4040 Aug 02 23:35	0°♏	
morning rise	4038 Jan 09 02:39	9°♏08'13			4040 Aug 27 13:11	0°♏	
direct	4038 Jan 23 14:24	4°♏58'42			4040 Sep 21 06:42	0°♏	
greatest brilliancy	4038 Feb 04 22:53	7°♏48'38	-4.7m	desc. node	4040 Oct 04 20:04	16°♏20'01	
	4038 Mar 06 23:23	0°≈			4040 Oct 16 05:52	0°♏	
morning max el	4038 Mar 15 01:45	7°≈54'53	46°55'11		4040 Nov 10 13:17	0°♏	
	4038 Apr 04 21:24	0°♏			4040 Dec 06 11:42	0°≈	
desc. node	4038 Apr 20 01:03	17°♏02'58			4041 Jan 02 23:54	0°♏	
	4038 May 01 06:41	0°♏		evening max el	4041 Jan 05 13:30	2°♏37'24	47°11'45
	4038 May 26 18:48	0°♏		asc. node	4041 Jan 25 22:27	21°♏32'09	
	4038 Jun 20 21:48	0°♏			4041 Feb 06 18:03	0°♏	
	4038 Jul 15 19:49	0°♏		greatest brilliancy	4041 Feb 12 21:41	3°♏13'50	-4.7m
	4038 Aug 09 13:28	0°♏		retrograde	4041 Feb 25 10:36	6°♏11'00	
asc. node	4038 Aug 11 03:24	1°♏55'31		evening set	4041 Mar 15 07:17	0°♏00'44	
	4038 Sep 03 02:21	0°♏			4041 Mar 15 07:46	30°♏	
morning set	4038 Sep 12 13:00	11°♏36'51		min. Earth dist.	4041 Mar 17 15:48	28°♏34'02	0.27305 AU
	4038 Sep 27 10:30	0°♏		inferior conj	4041 Mar 18 05:24	28°♏12'58	8°57'29
max. Earth dist.	4038 Oct 16 03:54	23°♏12'41	1.72559 AU	minimum elong	4041 Mar 18 03:07	28°♏16'30	8°57'24
				morning rise	4041 Mar 20 23:05	26°♏32'07	
superior conj	4038 Oct 19 05:21	27°♏00'48	1°19'25	direct	4041 Apr 07 20:02	20°♏23'53	
minimum elong	4038 Oct 19 11:56	27°♏21'15	1°19'18	greatest brilliancy	4041 Apr 18 18:09	22°♏36'34	-4.6m
	4038 Oct 21 15:01	0°♏			4041 May 02 03:01	0°♏	
	4038 Nov 14 17:22	0°♏		desc. node	4041 May 17 12:41	12°♏25'46	
evening rise	4038 Nov 26 13:29	14°♏45'44		morning max el	4041 May 27 12:08	21°♏48'03	46°15'07
desc. node	4038 Nov 30 17:47	19°♏58'30			4041 Jun 04 16:36	0°♏	
	4038 Dec 08 18:33	0°♏			4041 Jul 02 13:28	0°♏	
	4039 Jan 01 19:09	0°≈			4041 Jul 28 21:23	0°♏	
	4039 Jan 25 20:11	0°♏			4041 Aug 23 10:52	0°♏	
	4039 Feb 19 00:04	0°♏		asc. node	4041 Sep 07 15:22	18°♏08'25	
	4039 Mar 15 11:15	0°♏			4041 Sep 17 11:24	0°♏	
asc. node	4039 Mar 23 20:14	10°♏07'37			4041 Oct 12 01:36	0°♏	
	4039 Apr 09 12:42	0°♏			4041 Nov 05 08:08	0°♏	
	4039 May 05 17:11	0°♏		morning set	4041 Nov 21 08:23	19°♏56'25	
evening max el	4039 May 31 20:30	27°♏25'32	45°43'46		4041 Nov 29 09:39	0°♏	
	4039 Jun 03 12:36	0°♏			4041 Dec 23 08:17	0°♏	
greatest brilliancy	4039 Jul 05 11:48	24°♏14'38	-4.5m	desc. node	4041 Dec 28 05:35	6°♏08'05	
desc. node	4039 Jul 13 10:23	27°♏05'39		max. Earth dist.	4041 Dec 29 08:50	7°♏33'36	1.71311 AU
retrograde	4039 Jul 19 20:15	27°♏52'03					

superior conj	4041 Dec 30 21:52	9°  29'54	0°-6'-28	morning rise	4044 Jun 04 07:14	6°  09'29	
minimum elong	4041 Dec 30 20:12	9°  24'38	0°06'23	desc. node	4044 Jun 14 00:29	2°  20'38	
behind sun begin	4041 Dec 29 20:13	8°  09'21		direct	4044 Jun 19 08:39	1°  46'40	
behind sun end	4041 Dec 31 20:10	10°  39'56		greatest brilliancy	4044 Jul 01 12:45	4°  25'23	-4.5m
	4042 Jan 16 05:24	0°  ≈			4044 Aug 05 10:11	0°  ☿	
	4042 Feb 09 02:07	0°  ✕		morning max el	4044 Aug 07 02:37	1°  ☿35'49	45°43'09
evening rise	4042 Feb 09 21:16	1°  ✕00'09			4044 Sep 03 17:28	0°  ♊	
	4042 Mar 04 23:59	0°  ♊			4044 Sep 30 09:51	0°  ♊	
	4042 Mar 29 01:15	0°  ♋		asc. node	4044 Oct 05 03:08	5°  ♊28'51	
asc. node	4042 Apr 20 08:06	27°  ♋31'08			4044 Oct 25 20:31	0°  ♌	
	4042 Apr 22 08:40	0°  ♌			4044 Nov 19 13:31	0°  ♌	
	4042 May 17 01:23	0°  ☿			4044 Dec 13 19:59	0°  ♍	
	4042 Jun 11 07:55	0°  ♊			4045 Jan 06 20:41	0°  ♋	
	4042 Jul 07 13:36	0°  ♊		desc. node	4045 Jan 24 17:27	22°  ♋24'17	
	4042 Aug 04 20:17	0°  ♌			4045 Jan 30 18:33	0°  ≈	
desc. node	4042 Aug 09 22:21	4°  ♌58'37		morning set	4045 Feb 04 08:29	5°  ≈45'23	
evening max el	4042 Aug 10 18:52	5°  ♌47'44	45°33'27		4045 Feb 23 15:22	0°  ✕	
	4042 Sep 10 10:30	0°  ♌					
greatest brilliancy	4042 Sep 16 17:37	2°  ♌59'02	-4.5m	superior conj	4045 Mar 17 17:08	27°  ✕43'37	-1°-26'-7
retrograde	4042 Sep 28 10:25	5°  ♌23'59		minimum elong	4045 Mar 17 14:07	27°  ✕34'12	1°26'08
	4042 Oct 15 08:07	30°  ♌			4045 Mar 19 12:37	0°  ♊	
evening set	4042 Oct 16 02:37	29°  ♌32'48		max. Earth dist.	4045 Mar 21 00:36	1°  ♊52'48	1.71457 AU
inferior conj	4042 Oct 19 14:25	27°  ♌24'47	-8°-7'-59		4045 Apr 12 12:01	0°  ♋	
minimum elong	4042 Oct 19 21:23	27°  ♌13'58	8°07'14	evening rise	4045 Apr 26 22:28	17°  ♋58'26	
min. Earth dist.	4042 Oct 20 10:40	26°  ♌53'25	0.28311 AU		4045 May 06 15:06	0°  ♌	
morning rise	4042 Oct 23 15:55	24°  ♌56'05		asc. node	4045 May 17 19:56	13°  ♌50'37	
direct	4042 Nov 09 22:44	19°  ♌15'09			4045 May 30 23:01	0°  ☿	
greatest brilliancy	4042 Nov 24 10:05	23°  ♌02'08	-4.6m		4045 Jun 24 12:35	0°  ♊	
asc. node	4042 Dec 01 00:40	26°  ♌47'43			4045 Jul 19 09:15	0°  ♊	
	4042 Dec 05 16:26	0°  ♌			4045 Aug 13 16:17	0°  ♌	
morning max el	4042 Dec 30 09:53	22°  ♌04'37	46°43'53	desc. node	4045 Sep 06 10:08	27°  ♌26'41	
	4043 Jan 07 01:19	0°  ♍			4045 Sep 08 16:12	0°  ♌	
	4043 Feb 02 22:25	0°  ♋			4045 Oct 05 23:49	0°  ♍	
	4043 Feb 28 07:34	0°  ≈		evening max el	4045 Oct 22 07:23	16°  ♍36'01	46°23'12
desc. node	4043 Mar 22 15:12	27°  ≈00'16			4045 Nov 05 22:57	0°  ♋	
	4043 Mar 25 02:11	0°  ✕		greatest brilliancy	4045 Nov 29 23:07	15°  ♋39'22	-4.6m
	4043 Apr 18 14:35	0°  ♊		retrograde	4045 Dec 10 23:47	17°  ♋54'08	
	4043 May 13 00:53	0°  ♋		evening set	4045 Dec 25 08:13	13°  ♋52'34	
	4043 Jun 06 11:07	0°  ♌		asc. node	4045 Dec 28 12:35	12°  ♋05'31	
	4043 Jun 30 21:47	0°  ☿		inferior conj	4045 Dec 31 14:35	10°  ♋14'03	0°48'00
morning set	4043 Jul 04 05:24	4°  ☿04'16		minimum elong	4045 Dec 31 12:44	10°  ♋16'52	0°47'25
asc. node	4043 Jul 13 17:37	15°  ☿44'29		min. Earth dist.	4045 Dec 31 18:25	10°  ♋08'13	0.26632 AU
	4043 Jul 25 08:12	0°  ♊		morning rise	4046 Jan 06 16:49	6°  ♋39'54	
max. Earth dist.	4043 Aug 08 22:24	17°  ♊56'19	1.73485 AU	direct	4046 Jan 21 02:50	2°  ♋31'37	
				greatest brilliancy	4046 Feb 02 15:28	5°  ♋25'46	-4.7m
superior conj	4043 Aug 09 23:48	19°  ♊14'29	0°59'02		4046 Mar 07 01:38	0°  ≈	
minimum elong	4043 Aug 09 14:52	18°  ♊46'59	0°58'42	morning max el	4046 Mar 12 14:43	5°  ≈28'34	46°55'49
	4043 Aug 18 17:32	0°  ♊			4046 Apr 04 14:50	0°  ✕	
	4043 Sep 12 01:42	0°  ♌		desc. node	4046 Apr 19 02:59	16°  ✕24'05	
evening rise	4043 Sep 14 23:20	3°  ♌34'43			4046 Apr 30 21:09	0°  ♊	
	4043 Oct 06 09:25	0°  ♌			4046 May 26 07:48	0°  ♋	
	4043 Oct 30 17:36	0°  ♍			4046 Jun 20 09:55	0°  ♌	
desc. node	4043 Nov 02 07:55	3°  ♍11'47			4046 Jul 15 07:21	0°  ☿	
	4043 Nov 24 02:55	0°  ♋			4046 Aug 09 00:38	0°  ♊	
	4043 Dec 18 14:11	0°  ≈		asc. node	4046 Aug 10 05:31	1°  ♊27'58	
	4044 Jan 12 06:05	0°  ✕			4046 Sep 02 13:18	0°  ♊	
	4044 Feb 06 09:54	0°  ♊		morning set	4046 Sep 10 06:14	9°  ♊28'31	
asc. node	4044 Feb 23 10:19	19°  ♊35'57			4046 Sep 26 21:23	0°  ♌	
	4044 Mar 03 19:21	0°  ♋		max. Earth dist.	4046 Oct 13 22:23	21°  ♌07'09	1.72605 AU
evening max el	4044 Mar 18 17:06	15°  ♋40'24	46°43'49				
	4044 Apr 02 22:50	0°  ♌		superior conj	4046 Oct 16 21:45	24°  ♌48'44	1°20'35
greatest brilliancy	4044 Apr 23 16:48	14°  ♌26'23	-4.6m	minimum elong	4046 Oct 17 03:43	25°  ♌07'17	1°20'29
retrograde	4044 May 07 21:29	18°  ♌03'39			4046 Oct 21 01:57	0°  ♌	
evening set	4044 May 23 13:57	13°  ♌14'25			4046 Nov 14 04:24	0°  ♍	
inferior conj	4044 May 29 02:40	9°  ♌52'22	3°44'48	evening rise	4046 Nov 24 03:15	12°  ♍24'26	
minimum elong	4044 May 29 10:20	9°  ♌40'19	3°42'40	desc. node	4046 Nov 29 19:49	19°  ♍30'12	
min. Earth dist.	4044 May 28 23:35	9°  ♌57'12	0.28312 AU		4046 Dec 08 05:44	0°  ♋	

	4047 Jan 01 06:30	0°♊			4049 Jul 28 10:36	0°♉		
	4047 Jan 25 07:46	0°♋			4049 Aug 22 23:02	0°♏		
	4047 Feb 18 12:02	0°♌		asc. node	4049 Sep 06 17:17	17°♏38'45		
asc. node	4047 Mar 14 23:50	0°♍			4049 Sep 16 22:58	0°♐		
	4047 Mar 22 22:08	9°♌34'44			4049 Oct 11 12:52	0°♑		
	4047 Apr 09 02:25	0°♒			4049 Nov 04 19:15	0°♒		
	4047 May 05 09:22	0°♉		morning set	4049 Nov 18 22:48	17°♒37'07		
evening max el	4047 May 29 11:58	25°♉12'25	45°45'18		4049 Nov 28 20:43	0°♊		
	4047 Jun 03 12:25	0°♏			4049 Dec 22 19:23	0°♋		
greatest brilliancy	4047 Jul 03 01:42	22°♏01'49	-4.5m	max. Earth dist.	4049 Dec 26 16:30	4°♋52'09	1.71338 AU	
desc. node	4047 Jul 12 12:32	25°♏13'48		desc. node	4049 Dec 27 07:41	5°♋39'48		
retrograde	4047 Jul 17 13:07	25°♏42'38						
evening set	4047 Aug 02 09:17	20°♏53'29		superior conj	4049 Dec 28 09:04	6°♋59'28	0°-2'-34	
inferior conj	4047 Aug 08 01:59	17°♏26'55	-5°-44'-45	minimum elong	4049 Dec 28 08:24	6°♋57'23	0°02'33	
minimum elong	4047 Aug 07 16:13	17°♏42'12	5°42'38	behind sun begin	4049 Dec 27 06:56	5°♋37'26		
min. Earth dist.	4047 Aug 07 19:42	17°♏36'45	0.29064 AU	behind sun end	4049 Dec 29 09:53	8°♋17'22		
morning rise	4047 Aug 12 23:11	14°♏27'54			4050 Jan 15 16:33	0°♊		
direct	4047 Aug 29 15:58	9°♏09'33		evening rise	4050 Feb 07 07:40	28°♊26'45		
greatest brilliancy	4047 Sep 12 11:23	12°♏28'43	-4.5m		4050 Feb 08 13:20	0°♋		
	4047 Oct 07 13:44	0°♐			4050 Mar 04 11:16	0°♌		
morning max el	4047 Oct 17 18:44	9°♐28'08	45°58'26		4050 Mar 28 12:39	0°♍		
asc. node	4047 Nov 02 14:59	25°♐40'40		asc. node	4050 Apr 19 10:06	27°♍01'41		
	4047 Nov 06 15:20	0°♑			4050 Apr 21 20:18	0°♒		
	4047 Dec 03 03:11	0°♒			4050 May 16 13:31	0°♉		
	4047 Dec 28 06:30	0°♊			4050 Jun 10 21:04	0°♏		
	4048 Jan 21 18:32	0°♋			4050 Jul 07 04:54	0°♐		
	4048 Feb 14 23:13	0°♌			4050 Aug 04 17:22	0°♑		
desc. node	4048 Feb 22 05:20	9°♌02'04		evening max el	4050 Aug 08 09:48	3°♑34'04	45°32'29	
	4048 Mar 10 00:41	0°♋		desc. node	4050 Aug 09 00:21	4°♑08'43		
	4048 Apr 03 01:27	0°♌			4050 Sep 12 13:21	0°♒		
morning set	4048 Apr 21 12:52	23°♌01'34		greatest brilliancy	4050 Sep 14 07:18	0°♒43'43	-4.5m	
	4048 Apr 27 03:21	0°♍		retrograde	4050 Sep 26 00:22	3°♒08'53		
	4048 May 21 07:34	0°♒			4050 Oct 08 17:54	30°♒♑		
				evening set	4050 Oct 13 19:21	27°♑14'41		
superior conj	4048 May 30 02:23	10°♒52'07	0°-35'-27	inferior conj	4050 Oct 17 05:20	25°♑09'04	-8°-14'-41	
minimum elong	4048 May 30 09:48	11°♒15'04	0°35'09	minimum elong	4050 Oct 17 11:39	24°♑59'14	8°14'06	
max. Earth dist.	4048 Jun 01 18:36	14°♒10'33	1.72921 AU	min. Earth dist.	4050 Oct 18 00:57	24°♑38'34	0.28370 AU	
asc. node	4048 Jun 14 07:52	29°♒39'55		morning rise	4050 Oct 21 03:44	22°♑44'35		
	4048 Jun 14 14:23	0°♉		direct	4050 Nov 07 14:09	16°♑58'50		
evening rise	4048 Jul 06 12:57	27°♉00'15		greatest brilliancy	4050 Nov 22 00:52	20°♑44'15	-4.6m	
	4048 Jul 08 23:29	0°♏		asc. node	4050 Nov 30 02:45	25°♑27'26		
	4048 Aug 02 10:42	0°♐			4050 Dec 06 08:33	0°♒		
	4048 Aug 27 00:38	0°♑		morning max el	4050 Dec 27 23:36	19°♒41'46	46°42'30	
	4048 Sep 20 18:40	0°♒			4051 Jan 06 20:49	0°♊		
desc. node	4048 Oct 03 22:00	15°♒48'51			4051 Feb 02 13:43	0°♋		
	4048 Oct 15 18:38	0°♊			4051 Feb 27 21:06	0°♌		
	4048 Nov 10 03:21	0°♋		desc. node	4051 Mar 21 17:05	26°♌27'30		
	4048 Dec 06 04:08	0°♌			4051 Mar 24 14:44	0°♍		
	4049 Jan 02 22:17	0°♋			4051 Apr 18 02:30	0°♌		
evening max el	4049 Jan 03 04:36	0°♋16'00	47°11'23		4051 May 12 12:20	0°♍		
asc. node	4049 Jan 25 00:34	20°♋19'52			4051 Jun 05 22:13	0°♒		
	4049 Feb 08 17:57	0°♌			4051 Jun 30 08:39	0°♉		
greatest brilliancy	4049 Feb 10 11:51	0°♌48'54	-4.7m	morning set	4051 Jul 01 22:57	1°♉57'30		
retrograde	4049 Feb 23 01:02	3°♌45'48		asc. node	4051 Jul 12 19:40	15°♉17'39		
	4049 Mar 08 15:25	30°♌♋			4051 Jul 24 18:58	0°♏		
evening set	4049 Mar 12 18:31	27°♋39'20		max. Earth dist.	4051 Aug 06 17:55	15°♏55'43	1.73494 AU	
min. Earth dist.	4049 Mar 15 04:09	26°♋11'01	0.27260 AU					
inferior conj	4049 Mar 15 18:48	25°♋48'20	8°54'53	superior conj	4051 Aug 07 18:08	17°♏10'13	0°56'43	
minimum elong	4049 Mar 15 15:38	25°♋53'15	8°54'45	minimum elong	4051 Aug 07 09:16	16°♏42'55	0°56'23	
morning rise	4049 Mar 18 12:54	24°♋07'02			4051 Aug 18 04:18	0°♐		
direct	4049 Apr 05 09:39	18°♋00'09			4051 Sep 11 12:35	0°♑		
greatest brilliancy	4049 Apr 16 05:36	20°♋11'26	-4.6m	evening rise	4051 Sep 12 17:13	1°♑28'18		
	4049 May 02 23:09	0°♌			4051 Oct 05 20:30	0°♒		
desc. node	4049 May 16 14:46	11°♌27'09			4051 Oct 30 05:00	0°♊		
morning max el	4049 May 25 02:48	19°♌30'10	46°16'35	desc. node	4051 Nov 01 09:57	2°♊42'54		
	4049 Jun 04 12:36	0°♍			4051 Nov 23 14:44	0°♋		
	4049 Jul 02 04:41	0°♒			4051 Dec 18 02:34	0°♌		

	4052 Jan 11 19:20	0° X			4054 Aug 08 11:33	0° Ω		
	4052 Feb 06 00:38	0° Υ		asc. node	4054 Aug 09 07:27	1° Ω 00'39		
asc. node	4052 Feb 22 12:13	18° Υ 54'45			4054 Sep 01 23:59	0° M		
	4052 Mar 03 13:32	0° X		morning set	4054 Sep 07 23:53	7° M 22'16		
evening max el	4052 Mar 16 07:03	13° X 19'20	46°45'47		4054 Sep 26 08:00	0° Ω		
	4052 Apr 03 06:42	0° Π		max. Earth dist.	4054 Oct 11 18:21	19° Ω 07'05	1.72651 AU	
greatest brilliancy	4052 Apr 21 10:53	12° Π 14'27	-4.6m					
retrograde	4052 May 05 12:47	15° Π 49'17		superior conj	4054 Oct 14 14:28	22° Ω 38'31	1°21'36	
evening set	4052 May 21 07:58	10° Π 56'58		minimum elong	4054 Oct 14 19:49	22° Ω 55'07	1°21'32	
inferior conj	4052 May 26 18:12	7° Π 38'31	4°03'49		4054 Oct 20 12:37	0° M		
minimum elong	4052 May 27 02:22	7° Π 25'41	4°01'36		4054 Nov 13 15:13	0° X		
min. Earth dist.	4052 May 26 15:38	7° Π 42'33	0.28279 AU	evening rise	4054 Nov 21 17:11	10° X 04'23		
morning rise	4052 Jun 01 21:14	3° Π 57'29		desc. node	4054 Nov 28 21:57	19° X 02'49		
	4052 Jun 12 05:29	30° R X			4054 Dec 07 16:44	0° Z		
desc. node	4052 Jun 13 02:34	29° X 50'59			4054 Dec 31 17:43	0° \approx		
direct	4052 Jun 16 23:17	29° X 33'19			4055 Jan 24 19:15	0° X		
	4052 Jun 21 19:46	0° Π			4055 Feb 17 23:53	0° Υ		
greatest brilliancy	4052 Jun 29 02:51	2° Π 11'03	-4.5m		4055 Mar 14 12:16	0° X		
morning max el	4052 Aug 04 16:54	29° Π 21'28	45°43'34	asc. node	4055 Mar 22 00:11	9° X 02'42		
	4052 Aug 05 09:01	0° S			4055 Apr 08 16:00	0° Π		
	4052 Sep 03 09:12	0° Ω			4055 May 05 01:30	0° S		
	4052 Sep 29 23:10	0° M		evening max el	4055 May 27 04:18	23° S 02'23	45°46'57	
asc. node	4052 Oct 04 05:12	4° M 56'48			4055 Jun 03 12:55	0° Ω		
	4052 Oct 25 08:43	0° Ω		greatest brilliancy	4055 Jun 30 16:33	19° Ω 51'30	-4.5m	
	4052 Nov 19 01:10	0° M		desc. node	4055 Jul 11 14:33	23° Ω 19'05		
	4052 Dec 13 07:21	0° X		retrograde	4055 Jul 15 06:13	23° Ω 34'27		
	4053 Jan 06 07:54	0° Z		evening set	4055 Jul 30 23:25	18° Ω 48'24		
desc. node	4053 Jan 23 19:28	21° Z 55'39		inferior conj	4055 Aug 05 18:24	15° Ω 18'28	-5°-29'-50	
	4053 Jan 30 05:40	0° \approx		minimum elong	4055 Aug 05 08:46	15° Ω 33'33	5°27'40	
morning set	4053 Feb 01 18:15	3° \approx 10'23		min. Earth dist.	4055 Aug 05 11:18	15° Ω 29'34	0.29050 AU	
	4053 Feb 23 02:23	0° X		morning rise	4055 Aug 10 18:13	12° Ω 15'54		
				direct	4055 Aug 27 08:42	7° Ω 01'24		
superior conj	4053 Mar 15 04:05	25° X 13'04	-1°-25'-33	greatest brilliancy	4055 Sep 10 02:39	10° Ω 19'34	-4.5m	
minimum elong	4053 Mar 15 00:03	25° X 00'23	1°25'33		4055 Oct 07 15:56	0° M		
max. Earth dist.	4053 Mar 18 05:34	29° X 03'32	1.71416 AU	morning max el	4055 Oct 15 11:08	7° M 18'51	45°57'12	
	4053 Mar 18 23:35	0° Υ		asc. node	4055 Nov 01 17:04	25° M 00'16		
	4053 Apr 11 22:56	0° X			4055 Nov 06 07:45	0° Ω		
evening rise	4053 Apr 24 11:07	15° X 34'34			4055 Dec 02 16:50	0° M		
	4053 May 06 02:04	0° Π			4055 Dec 27 18:58	0° X		
asc. node	4053 May 16 22:04	13° Π 23'19			4056 Jan 21 06:22	0° Z		
	4053 May 30 10:06	0° S			4056 Feb 14 10:41	0° \approx		
	4053 Jun 23 23:54	0° Ω		desc. node	4056 Feb 21 07:16	8° \approx 32'35		
	4053 Jul 18 21:03	0° M			4056 Mar 09 11:53	0° X		
	4053 Aug 13 05:01	0° Ω			4056 Apr 02 12:27	0° Υ		
desc. node	4053 Sep 05 12:05	26° Ω 51'34		morning set	4056 Apr 19 01:58	20° Υ 39'07		
	4053 Sep 08 06:46	0° M			4056 Apr 26 14:10	0° X		
	4053 Oct 05 18:31	0° X			4056 May 20 18:14	0° Π		
evening max el	4053 Oct 19 19:55	14° X 12'44	46°20'53					
	4053 Nov 06 09:24	0° Z		superior conj	4056 May 27 17:40	8° Π 38'04	0°-38'-36	
greatest brilliancy	4053 Nov 27 11:44	13° Z 12'50	-4.6m	minimum elong	4056 May 28 01:39	9° Π 02'46	0°38'16	
retrograde	4053 Dec 08 12:02	15° Z 27'21		max. Earth dist.	4056 May 30 14:19	12° Π 10'17	1.72877 AU	
evening set	4053 Dec 22 21:01	11° Z 24'34		asc. node	4056 Jun 13 09:51	29° Π 13'24		
asc. node	4053 Dec 27 14:40	8° Z 42'02			4056 Jun 14 00:58	0° S		
inferior conj	4053 Dec 29 02:57	7° Z 47'01	0°23'33	evening rise	4056 Jul 04 06:42	24° S 54'41		
minimum elong	4053 Dec 29 02:02	7° Z 48'24	0°23'15		4056 Jul 08 10:07	0° Ω		
min. Earth dist.	4053 Dec 29 08:19	7° Z 38'50	0.26660 AU		4056 Aug 01 21:30	0° M		
morning rise	4054 Jan 04 06:34	4° Z 11'16			4056 Aug 26 11:44	0° Ω		
direct	4054 Jan 18 15:26	0° Z 03'42			4056 Sep 20 06:16	0° M		
greatest brilliancy	4054 Jan 31 07:39	3° Z 02'07	-4.7m	desc. node	4056 Oct 03 00:08	15° M 19'21		
	4054 Mar 07 02:31	0° \approx			4056 Oct 15 07:02	0° X		
morning max el	4054 Mar 10 04:33	3° \approx 04'33	46°56'36		4056 Nov 09 17:05	0° Z		
	4054 Apr 04 07:46	0° X			4056 Dec 05 20:25	0° \approx		
desc. node	4054 Apr 18 05:08	15° X 46'39		evening max el	4056 Dec 31 19:36	27° \approx 55'26	47°10'37	
	4054 Apr 30 11:15	0° Υ			4057 Jan 02 21:09	0° X		
	4054 May 25 20:28	0° X		asc. node	4057 Jan 24 02:27	19° X 05'41		
	4054 Jun 19 21:45	0° Π		greatest brilliancy	4057 Feb 08 02:46	28° X 25'19	-4.7m	
	4054 Jul 14 18:38	0° S			4057 Feb 12 07:13	0° Υ		

retrograde	4057 Feb 20 14:57	1°Υ20'23		asc. node	4059 Jul 11 21:38	14°♄51'09	
	4057 Feb 28 15:17	30°♁18'45			4059 Jul 24 05:30	0°♂	
evening set	4057 Mar 10 05:05	25°♁18'45		max. Earth dist.	4059 Aug 04 12:43	13°♂53'38	1.73499 AU
min. Earth dist.	4057 Mar 12 16:36	23°♁47'31	0.27217 AU				
inferior conj	4057 Mar 13 08:00	23°♁23'40	8°51'19	superior conj	4059 Aug 05 12:18	15°♂06'10	0°54'19
minimum elong	4057 Mar 13 03:55	23°♁29'59	8°51'05	minimum elong	4059 Aug 05 03:32	14°♂39'12	0°53'58
morning rise	4057 Mar 16 02:57	21°♁41'05			4059 Aug 17 14:50	0°♁	
direct	4057 Apr 02 23:02	15°♁36'29		evening rise	4059 Sep 10 11:10	29°♁22'59	
greatest brilliancy	4057 Apr 13 17:05	17°♁46'13	-4.6m		4059 Sep 10 23:11	0°♂	
	4057 May 03 14:01	0°Υ			4059 Oct 05 07:18	0°♂	
desc. node	4057 May 15 16:50	10°Υ30'12			4059 Oct 29 16:08	0°♂	
morning max el	4057 May 22 16:29	17°Υ10'15	46°18'10	desc. node	4059 Oct 31 12:03	2°♂15'00	
	4057 Jun 04 07:46	0°♂			4059 Nov 23 02:20	0°♂	
	4057 Jul 01 19:23	0°♂			4059 Dec 17 14:45	0°♂	
	4057 Jul 27 23:21	0°♄			4060 Jan 11 08:22	0°♁	
	4057 Aug 22 10:46	0°♂			4060 Feb 05 15:14	0°Υ	
asc. node	4057 Sep 05 19:18	17°♂10'36		asc. node	4060 Feb 21 14:20	18°Υ14'38	
	4057 Sep 16 10:08	0°♁			4060 Mar 03 07:48	0°♂	
	4057 Oct 10 23:45	0°♂		evening max el	4060 Mar 13 20:28	10°♂57'49	46°47'42
	4057 Nov 04 05:59	0°♂			4060 Apr 03 16:56	0°♂	
morning set	4057 Nov 16 13:43	15°♂20'38		greatest brilliancy	4060 Apr 19 03:47	10°♂01'39	-4.6m
	4057 Nov 28 07:24	0°♂		retrograde	4060 May 03 04:15	13°♂35'40	
	4057 Dec 22 06:05	0°♂		evening set	4060 May 19 02:01	8°♂39'44	
max. Earth dist.	4057 Dec 23 23:33	2°♂10'05	1.71367 AU	inferior conj	4060 May 24 09:44	5°♂25'11	4°22'32
				minimum elong	4060 May 24 18:21	5°♂11'38	4°20'14
superior conj	4057 Dec 25 20:54	4°♂32'22	0°01'18	min. Earth dist.	4060 May 24 07:38	5°♂28'28	0.28253 AU
minimum elong	4057 Dec 25 21:14	4°♂33'26	0°01'17	morning rise	4060 May 30 11:03	1°♂46'25	
behind sun begin	4057 Dec 24 19:42	3°♂13'18			4060 Jun 02 23:30	30°♁	
behind sun end	4057 Dec 26 22:46	5°♂53'34		desc. node	4060 Jun 12 04:34	27°♂26'53	
desc. node	4057 Dec 26 09:43	5°♂12'35		direct	4060 Jun 14 13:42	27°♂20'12	
	4058 Jan 15 03:19	0°♂		greatest brilliancy	4060 Jun 26 17:47	29°♂58'04	-4.5m
evening rise	4058 Feb 04 18:22	25°♂55'30			4060 Jun 26 19:40	0°♂	
	4058 Feb 08 00:11	0°♁		morning max el	4060 Aug 02 08:00	27°♂09'21	45°44'03
	4058 Mar 03 22:14	0°Υ			4060 Aug 05 06:49	0°♄	
	4058 Mar 27 23:46	0°♂			4060 Sep 03 00:34	0°♂	
asc. node	4058 Apr 18 12:12	26°♂33'18			4060 Sep 29 12:13	0°♁	
	4058 Apr 21 07:42	0°♂		asc. node	4060 Oct 03 07:20	4°♁25'32	
	4058 May 16 01:27	0°♄			4060 Oct 24 20:41	0°♂	
	4058 Jun 10 10:02	0°♂			4060 Nov 18 12:35	0°♂	
	4058 Jul 06 20:05	0°♁			4060 Dec 12 18:31	0°♂	
	4058 Aug 04 14:48	0°♂			4061 Jan 05 18:57	0°♂	
evening max el	4058 Aug 05 23:57	1°♂19'39	45°31'45	desc. node	4061 Jan 22 21:26	21°♂27'22	
desc. node	4058 Aug 08 02:18	3°♂18'57			4061 Jan 29 16:38	0°♂	
greatest brilliancy	4058 Sep 11 20:58	28°♂29'52	-4.5m	morning set	4061 Jan 30 04:15	0°♂36'30	
	4058 Sep 16 11:28	0°♂			4061 Feb 22 13:16	0°♁	
retrograde	4058 Sep 23 14:24	0°♂55'50					
	4058 Sep 30 11:48	30°♁		superior conj	4061 Mar 12 15:10	22°♁43'16	-1°-24'-49
evening set	4058 Oct 11 12:01	24°♂58'46		minimum elong	4061 Mar 12 10:07	22°♁27'22	1°24'46
inferior conj	4058 Oct 14 20:30	22°♂55'19	-8°-20'-34	max. Earth dist.	4061 Mar 15 10:03	26°♁13'08	1.71377 AU
minimum elong	4058 Oct 15 02:07	22°♂46'35	8°20'07		4061 Mar 18 10:23	0°Υ	
min. Earth dist.	4058 Oct 15 15:45	22°♂25'21	0.28428 AU		4061 Apr 11 09:43	0°♂	
morning rise	4058 Oct 18 15:57	20°♂34'54		evening rise	4061 Apr 21 23:56	13°♂11'40	
direct	4058 Nov 05 05:18	14°♂44'14			4061 May 05 12:54	0°♂	
greatest brilliancy	4058 Nov 19 16:39	18°♂29'13	-4.6m	asc. node	4061 May 16 00:04	12°♂56'02	
asc. node	4058 Nov 29 04:46	24°♂10'47			4061 May 29 21:03	0°♄	
	4058 Dec 06 19:59	0°♂			4061 Jun 23 11:08	0°♂	
morning max el	4058 Dec 25 13:18	17°♂20'06	46°41'15		4061 Jul 18 08:49	0°♁	
	4059 Jan 06 15:21	0°♂			4061 Aug 12 17:47	0°♂	
	4059 Feb 02 04:24	0°♂		desc. node	4061 Sep 04 14:13	26°♂16'49	
	4059 Feb 27 10:07	0°♂			4061 Sep 07 21:28	0°♂	
desc. node	4059 Mar 20 19:14	25°♂56'46			4061 Oct 05 13:39	0°♂	
	4059 Mar 24 02:52	0°♁		evening max el	4061 Oct 17 09:29	11°♂52'35	46°18'47
	4059 Apr 17 14:04	0°Υ			4061 Nov 06 23:07	0°♂	
	4059 May 11 23:29	0°♂		greatest brilliancy	4061 Nov 24 23:45	10°♂46'38	-4.6m
	4059 Jun 05 09:05	0°♂		retrograde	4061 Dec 06 00:52	13°♂01'32	
morning set	4059 Jun 29 16:11	29°♂50'24		evening set	4061 Dec 20 10:16	8°♂57'19	
	4059 Jun 29 19:19	0°♄		inferior conj	4061 Dec 26 15:28	5°♂20'45	0°00'-44

minimum elong	4061 Dec 26 15:30	5°☾20'42	0°00'44	superior conj	4064 May 25 08:53	6°♂22'54	0°-41'-42
transit middle	4061 Dec 26 15:30	5°☾20'42	0°00'44	minimum elong	4064 May 25 17:23	6°♂49'12	0°41'20
transit begin	4061 Dec 26 11:25	5°☾26'54		max. Earth dist.	4064 May 28 10:09	10°♂09'28	1.72829 AU
transit end	4061 Dec 26 19:34	5°☾14'31		asc. node	4064 Jun 12 11:51	28°♂46'02	
asc. node	4061 Dec 26 16:37	5°☾19'00			4064 Jun 13 11:50	0°☾	
min. Earth dist.	4061 Dec 26 22:02	5°☾10'46	0.26691 AU	evening rise	4064 Jul 02 00:23	22°☾48'05	
morning rise	4062 Jan 01 20:16	1°☾43'45			4064 Jul 07 21:01	0°♂	
	4062 Jan 05 09:49	30°♂47			4064 Aug 01 08:34	0°♂	
direct	4062 Jan 16 04:48	27°♂36'40			4064 Aug 25 23:08	0°♂	
	4062 Jan 27 11:12	0°☾			4064 Sep 19 18:13	0°♂	
greatest brilliancy	4062 Jan 28 23:07	0°☾38'09	-4.7m	desc. node	4064 Oct 02 02:09	14°♂48'24	
	4062 Mar 07 02:11	0°☾			4064 Oct 14 19:52	0°♂	
morning max el	4062 Mar 07 19:24	0°☾43'17	46°57'12		4064 Nov 09 07:21	0°☾	
	4062 Apr 04 00:21	0°♂			4064 Dec 05 13:25	0°☾	
desc. node	4062 Apr 17 07:09	15°♂09'13		evening max el	4064 Dec 29 10:03	25°☾32'17	47°09'52
	4062 Apr 30 01:12	0°♂			4065 Jan 02 21:31	0°♂	
	4062 May 25 09:04	0°♂		asc. node	4065 Jan 23 04:34	17°♂48'37	
	4062 Jun 19 09:31	0°♂		greatest brilliancy	4065 Feb 05 18:24	26°♂01'31	-4.7m
	4062 Jul 14 05:53	0°☾		retrograde	4065 Feb 18 04:21	28°♂53'44	
	4062 Aug 07 22:28	0°♂		evening set	4065 Mar 07 15:18	22°♂57'42	
asc. node	4062 Aug 08 09:31	0°♂33'38		min. Earth dist.	4065 Mar 10 05:25	21°♂22'28	0.27173 AU
	4062 Sep 01 10:45	0°♂		inferior conj	4065 Mar 10 21:11	20°♂58'00	8°46'47
morning set	4062 Sep 05 17:28	5°♂15'39		minimum elong	4065 Mar 10 16:15	21°♂05'39	8°46'25
	4062 Sep 25 18:43	0°♂		morning rise	4065 Mar 13 17:24	19°♂13'23	
max. Earth dist.	4062 Oct 09 12:30	17°♂01'12	1.72693 AU	direct	4065 Mar 31 11:54	13°♂11'44	
				greatest brilliancy	4065 Apr 11 05:13	15°♂20'27	-4.6m
superior conj	4062 Oct 12 07:08	20°♂27'52	1°22'30		4065 May 04 01:34	0°♂	
minimum elong	4062 Oct 12 11:50	20°♂42'27	1°22'26	desc. node	4065 May 14 18:49	9°♂33'15	
	4062 Oct 19 23:24	0°♂		morning max el	4065 May 20 05:19	14°♂46'59	46°19'43
	4062 Nov 13 02:07	0°♂			4065 Jun 04 02:49	0°♂	
evening rise	4062 Nov 19 07:03	7°♂43'54			4065 Jul 01 10:17	0°♂	
desc. node	4062 Nov 27 23:52	18°♂34'33			4065 Jul 27 12:24	0°☾	
	4062 Dec 07 03:48	0°☾			4065 Aug 21 22:48	0°♂	
	4062 Dec 31 05:01	0°☾		asc. node	4065 Sep 04 21:28	16°♂41'55	
	4063 Jan 24 06:50	0°♂			4065 Sep 15 21:37	0°♂	
	4063 Feb 17 11:53	0°♂			4065 Oct 10 10:57	0°♂	
	4063 Mar 14 00:56	0°♂			4065 Nov 03 17:04	0°♂	
asc. node	4063 Mar 21 02:17	8°♂30'13		morning set	4065 Nov 14 04:31	13°♂02'35	
	4063 Apr 08 05:51	0°♂			4065 Nov 27 18:29	0°♂	
	4063 May 04 18:06	0°☾		max. Earth dist.	4065 Dec 21 05:47	29°♂24'09	1.71402 AU
evening max el	4063 May 24 21:06	20°☾53'02	45°48'39		4065 Dec 21 17:12	0°☾	
	4063 Jun 03 14:55	0°♂					
greatest brilliancy	4063 Jun 28 08:23	17°♂42'02	-4.5m	superior conj	4065 Dec 23 08:32	2°☾03'21	0°05'10
desc. node	4063 Jul 10 16:29	21°♂19'39		minimum elong	4065 Dec 23 09:51	2°☾07'28	0°05'07
retrograde	4063 Jul 12 23:05	21°♂25'39		behind sun begin	4065 Dec 22 09:23	0°☾50'43	
evening set	4063 Jul 28 13:44	16°♂42'47		behind sun end	4065 Dec 24 10:19	3°☾24'14	
inferior conj	4063 Aug 03 10:48	13°♂09'32	-5°-14'-31	desc. node	4065 Dec 25 11:42	4°☾43'54	
minimum elong	4063 Aug 03 01:21	13°♂24'20	5°12'19		4066 Jan 14 14:31	0°☾	
min. Earth dist.	4063 Aug 03 03:00	13°♂21'46	0.29034 AU	evening rise	4066 Feb 02 04:42	23°☾21'48	
morning rise	4063 Aug 08 13:10	10°♂03'21			4066 Feb 07 11:27	0°♂	
direct	4063 Aug 25 01:33	4°♂52'57			4066 Mar 03 09:35	0°♂	
greatest brilliancy	4063 Sep 07 16:44	8°♂08'26	-4.5m		4066 Mar 27 11:16	0°♂	
	4063 Oct 07 17:03	0°♂		asc. node	4066 Apr 17 14:10	26°♂03'13	
morning max el	4063 Oct 13 03:08	5°♂08'00	45°55'52		4066 Apr 20 19:31	0°♂	
asc. node	4063 Oct 31 19:03	24°♂19'14			4066 May 15 13:51	0°☾	
	4063 Nov 06 00:10	0°♂			4066 Jun 09 23:33	0°♂	
	4063 Dec 02 06:38	0°♂			4066 Jul 06 11:58	0°♂	
	4063 Dec 27 07:36	0°♂		evening max el	4066 Aug 03 13:45	29°♂03'16	45°31'13
	4064 Jan 20 18:22	0°☾			4066 Aug 04 13:35	0°♂	
	4064 Feb 13 22:18	0°☾		desc. node	4066 Aug 07 04:29	2°♂27'38	
desc. node	4064 Feb 20 09:24	8°☾03'14		greatest brilliancy	4066 Sep 09 09:29	26°♂13'53	-4.5m
	4064 Mar 08 23:16	0°♂		retrograde	4066 Sep 21 04:40	28°♂42'13	
	4064 Apr 01 23:39	0°♂		evening set	4066 Oct 09 04:28	22°♂42'22	
morning set	4064 Apr 16 14:56	18°♂15'27		inferior conj	4066 Oct 12 11:44	20°♂40'50	-8°-25'-39
	4064 Apr 26 01:14	0°♂		minimum elong	4066 Oct 12 16:37	20°♂33'14	8°25'18
	4064 May 20 05:10	0°♂		min. Earth dist.	4066 Oct 13 06:33	20°♂11'33	0.28486 AU
				morning rise	4066 Oct 16 04:30	18°♂24'21	

direct	4066 Nov 02 20:25	12°♄28'46			4069 May 05 00:02	0°♈	
greatest brilliancy	4066 Nov 17 09:19	16°♄14'39	-4.6m	asc. node	4069 May 15 02:01	12°♈27'39	
asc. node	4066 Nov 28 06:46	22°♄55'24			4069 May 29 08:18	0°♉	
	4066 Dec 07 04:50	0°♊			4069 Jun 22 22:40	0°♊	
morning max el	4066 Dec 23 03:31	14°♊58'41	46°39'50		4069 Jul 17 20:55	0°♋	
	4067 Jan 06 09:53	0°♌			4069 Aug 12 06:57	0°♌	
	4067 Feb 01 19:23	0°♍		desc. node	4069 Sep 03 16:12	25°♌40'33	
	4067 Feb 26 23:33	0°♎			4069 Sep 07 12:40	0°♍	
desc. node	4067 Mar 19 21:17	25°♎24'26			4069 Oct 05 09:39	0°♌	
	4067 Mar 23 15:25	0°♏		evening max el	4069 Oct 15 00:03	9°♌34'26	46°16'44
	4067 Apr 17 02:00	0°♐			4069 Nov 07 17:45	0°♍	
	4067 May 11 11:00	0°♑		greatest brilliancy	4069 Nov 22 11:58	8°♍20'38	-4.6m
	4067 Jun 04 20:18	0°♒		retrograde	4069 Dec 03 13:50	10°♍35'32	
morning set	4067 Jun 27 09:11	27°♒41'18		evening set	4069 Dec 17 23:51	6°♍30'01	
	4067 Jun 29 06:21	0°♓		inferior conj	4069 Dec 24 04:04	2°♍54'29	0°-24'-58
asc. node	4067 Jul 10 23:42	14°♓23'52		minimum elong	4069 Dec 24 05:01	2°♍53'01	0°24'40
	4067 Jul 23 16:27	0°♈		min. Earth dist.	4069 Dec 24 11:40	2°♍42'55	0.26721 AU
max. Earth dist.	4067 Aug 02 08:05	11°♈52'04	1.73504 AU	asc. node	4069 Dec 25 18:41	1°♍55'55	
					4069 Dec 29 01:54	30°♌♌	
superior conj	4067 Aug 03 06:22	13°♈00'35	0°51'49	morning rise	4069 Dec 30 09:47	29°♌16'25	
minimum elong	4067 Aug 02 21:43	12°♈34'01	0°51'28	direct	4070 Jan 13 18:31	25°♌09'57	
	4067 Aug 17 01:45	0°♎		greatest brilliancy	4070 Jan 26 13:36	28°♌12'58	-4.7m
evening rise	4067 Sep 08 05:14	27°♎16'56			4070 Jan 30 03:42	0°♍	
	4067 Sep 10 10:10	0°♏		morning max el	4070 Mar 05 09:58	28°♍21'11	46°57'34
	4067 Oct 04 18:29	0°♐			4070 Mar 07 00:55	0°♎	
	4067 Oct 29 03:38	0°♑			4070 Apr 03 16:45	0°♏	
desc. node	4067 Oct 30 14:00	1°♑45'36		desc. node	4070 Apr 16 09:06	14°♏31'30	
	4067 Nov 22 14:17	0°♒			4070 Apr 29 15:10	0°♐	
	4067 Dec 17 03:20	0°♓			4070 May 24 21:46	0°♑	
	4068 Jan 10 21:54	0°♔			4070 Jun 18 21:27	0°♒	
	4068 Feb 05 06:29	0°♕			4070 Jul 13 17:16	0°♓	
asc. node	4068 Feb 20 16:23	17°♕32'22		asc. node	4070 Aug 07 11:36	0°♈06'21	
	4068 Mar 03 03:08	0°♖			4070 Aug 07 09:31	0°♈	
evening max el	4068 Mar 11 10:20	8°♖35'49	46°49'40		4070 Aug 31 21:35	0°♎	
	4068 Apr 04 07:43	0°♗		morning set	4070 Sep 03 10:53	3°♎08'19	
greatest brilliancy	4068 Apr 16 19:38	7°♗45'32	-4.6m		4070 Sep 25 05:31	0°♏	
retrograde	4068 Apr 30 19:53	11°♗19'56		max. Earth dist.	4070 Oct 07 04:55	14°♏49'41	1.72736 AU
evening set	4068 May 16 19:54	6°♗20'01					
inferior conj	4068 May 22 00:59	3°♗09'37	4°41'01	superior conj	4070 Oct 09 23:48	18°♏17'05	1°23'16
minimum elong	4068 May 22 10:01	2°♗55'26	4°38'40	minimum elong	4070 Oct 10 03:49	18°♏29'31	1°23'14
min. Earth dist.	4068 May 21 23:06	3°♗12'33	0.28225 AU		4070 Oct 19 10:16	0°♐	
	4068 May 27 05:43	30°♗♒			4070 Nov 12 13:07	0°♑	
morning rise	4068 May 28 00:27	29°♗33'38		evening rise	4070 Nov 16 21:00	5°♑23'30	
desc. node	4068 Jun 11 06:35	25°♗05'47		desc. node	4070 Nov 27 01:55	18°♑06'24	
direct	4068 Jun 12 04:03	25°♗04'51			4070 Dec 06 14:57	0°♒	
greatest brilliancy	4068 Jun 24 08:21	27°♗43'05	-4.5m		4070 Dec 30 16:21	0°♓	
	4068 Jun 29 04:17	0°♘			4071 Jan 23 18:27	0°♔	
morning max el	4068 Jul 30 23:45	24°♘57'39	45°44'35		4071 Feb 16 23:53	0°♕	
	4068 Aug 05 04:16	0°♙			4071 Mar 13 13:36	0°♖	
	4068 Sep 02 16:04	0°♈		asc. node	4071 Mar 20 04:13	7°♖57'13	
	4068 Sep 29 01:30	0°♉			4071 Apr 07 19:48	0°♗	
asc. node	4068 Oct 02 09:13	3°♉52'42			4071 May 04 11:00	0°♙	
	4068 Oct 24 08:54	0°♊		evening max el	4071 May 22 13:43	18°♙42'59	45°50'13
	4068 Nov 18 00:15	0°♋			4071 Jun 03 18:32	0°♈	
	4068 Dec 12 05:55	0°♌		greatest brilliancy	4071 Jun 26 01:08	15°♈33'24	-4.5m
	4069 Jan 05 06:13	0°♍		desc. node	4071 Jul 09 18:38	19°♈15'34	
desc. node	4069 Jan 21 23:33	20°♍58'55		retrograde	4071 Jul 10 15:32	19°♈16'27	
morning set	4069 Jan 27 14:25	28°♍02'29		evening set	4071 Jul 26 04:12	14°♈36'49	
	4069 Jan 29 03:49	0°♎		inferior conj	4071 Aug 01 03:11	11°♈00'32	-4°-58'-37
	4069 Feb 22 00:25	0°♏		minimum elong	4071 Jul 31 17:59	11°♈14'57	4°56'25
				min. Earth dist.	4071 Jul 31 19:04	11°♈13'16	0.29016 AU
superior conj	4069 Mar 10 01:54	20°♏11'18	-1°-23'-53	morning rise	4071 Aug 06 08:01	7°♈50'35	
minimum elong	4069 Mar 09 19:50	19°♏52'15	1°23'49	direct	4071 Aug 22 18:07	2°♈44'29	
max. Earth dist.	4069 Mar 12 15:48	23°♏25'37	1.71347 AU	greatest brilliancy	4071 Sep 05 06:06	5°♈56'21	-4.5m
	4069 Mar 17 21:30	0°♐			4071 Oct 07 16:56	0°♉	
	4069 Apr 10 20:50	0°♑		morning max el	4071 Oct 10 18:09	2°♉54'59	45°54'32
evening rise	4069 Apr 19 12:12	10°♑46'02		asc. node	4071 Oct 30 21:05	23°♉39'01	

	4071 Nov 05 16:13	0°♄			4074 Jun 09 12:40	0°♂	
	4071 Dec 01 20:13	0°♌			4074 Jul 06 03:35	0°♍	
	4071 Dec 26 20:04	0°♊	evening max el		4074 Aug 01 03:52	26°♍49'02	45°30'40
	4072 Jan 20 06:14	0°♈			4074 Aug 04 12:48	0°♄	
	4072 Feb 13 09:46	0°♊	desc. node		4074 Aug 06 06:25	1°♄36'05	
desc. node	4072 Feb 19 11:24	7°♊33'55	greatest brilliancy		4074 Sep 06 21:03	23°♄58'12	-4.5m
	4072 Mar 08 10:28	0°♋	retrograde		4074 Sep 18 19:32	26°♄30'11	
	4072 Apr 01 10:39	0°♌	evening set		4074 Oct 06 20:41	20°♄27'45	
morning set	4072 Apr 14 04:09	15°♌53'11	inferior conj		4074 Oct 10 03:03	18°♄27'44	-8°-29'-48
	4072 Apr 25 12:04	0°♍	minimum elong		4074 Oct 10 07:12	18°♄21'16	8°29'33
	4072 May 19 15:53	0°♌	min. Earth dist.		4074 Oct 10 21:11	17°♄59'32	0.28546 AU
			morning rise		4074 Oct 13 17:27	16°♄14'54	
superior conj	4072 May 23 00:14	4°♌08'44	direct		4074 Oct 31 11:57	10°♄14'42	
minimum elong	4072 May 23 09:11	4°♌36'26	greatest brilliancy		4074 Nov 15 02:35	14°♄02'25	-4.6m
max. Earth dist.	4072 May 26 05:56	8°♌09'07	asc. node		4074 Nov 27 08:50	21°♄43'31	
asc. node	4072 Jun 11 13:57	28°♌19'39			4074 Dec 07 10:42	0°♌	
	4072 Jun 12 22:31	0°♍	morning max el		4074 Dec 20 18:42	12°♌41'06	46°38'25
evening rise	4072 Jun 29 17:56	20°♍41'33			4075 Jan 06 03:32	0°♊	
	4072 Jul 07 07:45	0°♈			4075 Feb 01 09:47	0°♈	
	4072 Jul 31 19:28	0°♍			4075 Feb 26 12:29	0°♊	
	4072 Aug 25 10:22	0°♄	desc. node		4075 Mar 18 23:10	24°♊52'54	
	4072 Sep 19 06:01	0°♌			4075 Mar 23 03:31	0°♋	
desc. node	4072 Oct 01 04:05	14°♌17'45			4075 Apr 16 13:32	0°♌	
	4072 Oct 14 08:34	0°♊			4075 May 10 22:06	0°♍	
	4072 Nov 08 21:34	0°♈			4075 Jun 04 07:06	0°♌	
	4072 Dec 05 06:33	0°♊	morning set		4075 Jun 25 02:28	25°♌34'23	
evening max el	4072 Dec 26 23:37	23°♊07'28	asc. node		4075 Jun 28 16:56	0°♍	
	4073 Jan 02 22:52	0°♋			4075 Jul 10 01:45	13°♍57'57	
asc. node	4073 Jan 22 06:39	16°♋29'36			4075 Jul 23 02:54	0°♈	
greatest brilliancy	4073 Feb 03 10:28	23°♋38'39	max. Earth dist.		4075 Jul 31 05:59	9°♈59'43	1.73510 AU
retrograde	4073 Feb 15 17:23	26°♋27'48					
evening set	4073 Mar 05 01:08	20°♋37'56	superior conj		4075 Aug 01 00:39	10°♈57'08	0°49'16
inferior conj	4073 Mar 08 10:22	18°♋33'15	minimum elong		4075 Jul 31 16:12	10°♈31'08	0°48'56
minimum elong	4073 Mar 08 04:36	18°♋42'11			4075 Aug 16 12:12	0°♍	
min. Earth dist.	4073 Mar 07 18:40	18°♋57'37	evening rise		4075 Sep 05 23:36	25°♍13'11	
morning rise	4073 Mar 11 08:15	16°♋46'00			4075 Sep 09 20:44	0°♄	
direct	4073 Mar 29 00:11	10°♋47'42			4075 Oct 04 05:17	0°♌	
greatest brilliancy	4073 Apr 08 18:18	12°♋56'38			4075 Oct 28 14:48	0°♊	
	4073 May 04 09:35	0°♌	desc. node		4075 Oct 29 16:04	1°♊17'36	
desc. node	4073 May 13 20:52	8°♌38'51			4075 Nov 22 01:55	0°♈	
morning max el	4073 May 17 17:45	12°♌23'40			4075 Dec 16 15:36	0°♊	
	4073 Jun 03 20:54	0°♍			4076 Jan 10 11:09	0°♋	
	4073 Jul 01 00:35	0°♌			4076 Feb 04 21:32	0°♌	
	4073 Jul 27 00:59	0°♍	asc. node		4076 Feb 19 18:18	16°♌50'23	
	4073 Aug 21 10:29	0°♈			4076 Mar 02 22:36	0°♍	
asc. node	4073 Sep 03 23:20	16°♈13'23	evening max el		4076 Mar 09 01:13	6°♍17'31	46°51'34
	4073 Sep 15 08:47	0°♍			4076 Apr 05 02:55	0°♌	
	4073 Oct 09 21:50	0°♄	greatest brilliancy		4076 Apr 14 11:21	5°♌30'19	-4.6m
	4073 Nov 03 03:49	0°♌	retrograde		4076 Apr 28 11:55	9°♌05'07	
morning set	4073 Nov 11 19:20	10°♌45'41	evening set		4076 May 14 13:53	4°♌01'07	
	4073 Nov 27 05:13	0°♊	inferior conj		4076 May 19 16:11	0°♌54'54	4°59'05
max. Earth dist.	4073 Dec 18 14:39	26°♊47'40	minimum elong		4076 May 20 01:36	0°♌40'11	4°56'42
			min. Earth dist.		4076 May 19 14:13	0°♌57'59	0.28194 AU
superior conj	4073 Dec 20 20:14	29°♊35'40			4076 May 21 03:22	30°♌	
minimum elong	4073 Dec 20 22:30	29°♊42'48	morning rise		4076 May 25 13:38	27°♌22'09	
behind sun begin	4073 Dec 20 00:54	28°♊35'03	direct		4076 Jun 09 18:52	22°♌50'32	
behind sun end	4073 Dec 21 20:06	0°♈50'33	desc. node		4076 Jun 10 08:40	22°♌50'56	
	4073 Dec 21 03:59	0°♈	greatest brilliancy		4076 Jun 21 22:06	25°♌28'21	-4.5m
desc. node	4073 Dec 24 13:47	4°♈16'33			4076 Jun 30 15:59	0°♌	
	4074 Jan 14 01:24	0°♊	morning max el		4076 Jul 28 16:11	22°♌48'58	45°45'16
evening rise	4074 Jan 30 15:11	20°♊49'38			4076 Aug 05 00:24	0°♍	
	4074 Feb 06 22:26	0°♋			4076 Sep 02 06:50	0°♈	
	4074 Mar 02 20:38	0°♌			4076 Sep 28 14:12	0°♍	
	4074 Mar 26 22:27	0°♍	asc. node		4076 Oct 01 11:18	3°♍22'02	
asc. node	4074 Apr 16 16:11	25°♍34'27			4076 Oct 23 20:39	0°♄	
	4074 Apr 20 06:58	0°♌			4076 Nov 17 11:33	0°♌	
	4074 May 15 01:51	0°♍			4076 Dec 11 16:59	0°♊	

	4077 Jan 04 17:10	0°☾		retrograde	4079 Jul 08 07:23	17°♌07'21	
desc. node	4077 Jan 21 01:33	20°☾31'02		desc. node	4079 Jul 08 20:37	17°♌06'59	
morning set	4077 Jan 25 00:36	25°☾29'31		evening set	4079 Jul 23 18:43	12°♌30'37	
	4077 Jan 28 14:41	0°≈		inferior conj	4079 Jul 29 19:31	8°♌51'41	-4°-42'-15
	4077 Feb 21 11:13	0°☿		minimum elong	4079 Jul 29 10:37	9°♌05'40	4°40'05
				min. Earth dist.	4079 Jul 29 11:26	9°♌04'22	0.28994 AU
superior conj	4077 Mar 07 12:24	17°☿39'37	-1°-22'-46	morning rise	4079 Aug 04 02:43	5°♌38'01	
minimum elong	4077 Mar 07 05:24	17°☿17'36	1°22'41	direct	4079 Aug 20 10:10	0°♌36'02	
max. Earth dist.	4077 Mar 10 00:43	20°☿49'02	1.71318 AU	greatest brilliancy	4079 Sep 02 20:04	3°♌45'02	-4.5m
	4077 Mar 17 08:17	0°☿			4079 Oct 07 15:37	0°♍	
	4077 Apr 10 07:37	0°♊		morning max el	4079 Oct 08 08:28	0°♍40'35	45°53'30
evening rise	4077 Apr 17 00:21	8°♊20'56		asc. node	4079 Oct 29 23:10	22°♍59'48	
	4077 May 04 10:52	0°♋			4079 Nov 05 07:51	0°♎	
asc. node	4077 May 14 04:09	12°♋00'45			4079 Dec 01 09:33	0°♏	
	4077 May 28 19:16	0°♌			4079 Dec 26 08:21	0°♐	
	4077 Jun 22 09:54	0°♍			4080 Jan 19 17:58	0°♑	
	4077 Jul 17 08:42	0°♎			4080 Feb 12 21:12	0°≈	
	4077 Aug 11 19:47	0°♏		desc. node	4080 Feb 18 13:22	7°≈04'35	
desc. node	4077 Sep 02 18:11	25°♏05'15			4080 Mar 07 21:42	0°♋	
	4077 Sep 07 03:39	0°♐			4080 Mar 31 21:43	0°♌	
	4077 Oct 05 05:51	0°♑		morning set	4080 Apr 11 16:38	13°♌28'15	
evening max el	4077 Oct 12 14:50	7°♑18'00	46°14'26		4080 Apr 24 22:58	0°♊	
	4077 Nov 08 18:21	0°☾			4080 May 19 02:40	0°♋	
greatest brilliancy	4077 Nov 20 00:40	5°☾56'15	-4.6m				
retrograde	4077 Dec 01 02:19	8°☾10'08		superior conj	4080 May 20 15:01	1°♋52'34	0°-47'-41
evening set	4077 Dec 15 13:39	4°☾03'18		minimum elong	4080 May 21 00:23	2°♋21'33	0°47'20
inferior conj	4077 Dec 21 16:38	0°☾28'57	0°-49'-9	max. Earth dist.	4080 May 23 23:50	6°♋02'38	1.72731 AU
minimum elong	4077 Dec 21 18:31	0°☾26'04	0°48'32	asc. node	4080 Jun 10 15:55	27°♋52'34	
min. Earth dist.	4077 Dec 22 01:24	0°☾15'35	0.26757 AU		4080 Jun 12 09:16	0°♌	
	4077 Dec 22 11:39	30°♌♑		evening rise	4080 Jun 27 11:04	18°♌33'28	
asc. node	4077 Dec 24 20:44	28°♑34'18			4080 Jul 06 18:34	0°♍	
morning rise	4077 Dec 27 23:00	26°♑49'49			4080 Jul 31 06:29	0°♎	
direct	4078 Jan 11 08:09	22°♑43'56			4080 Aug 24 21:44	0°♏	
greatest brilliancy	4078 Jan 24 03:59	25°♑47'58	-4.7m		4080 Sep 18 17:56	0°♐	
	4078 Jan 31 19:36	0°☾		desc. node	4080 Sep 30 06:13	13°♌47'21	
morning max el	4078 Mar 02 23:40	25°☾57'14	46°57'52		4080 Oct 13 21:23	0°♑	
	4078 Mar 06 22:36	0°≈			4080 Nov 08 11:56	0°☾	
	4078 Apr 03 08:40	0°☿			4080 Dec 05 00:01	0°≈	
desc. node	4078 Apr 15 11:14	13°☿55'16		evening max el	4080 Dec 24 12:20	20°≈40'38	47°07'59
	4078 Apr 29 04:48	0°♌			4081 Jan 03 01:37	0°☿	
	4078 May 24 10:10	0°♊		asc. node	4081 Jan 21 08:31	15°☿07'35	
	4078 Jun 18 09:05	0°♋		greatest brilliancy	4081 Feb 01 01:32	21°☿14'09	-4.7m
	4078 Jul 13 04:24	0°♌		retrograde	4081 Feb 13 06:08	24°☿01'28	
asc. node	4078 Aug 06 13:31	29°♌39'18		evening set	4081 Mar 02 10:30	18°☿17'47	
	4078 Aug 06 20:18	0°♍		inferior conj	4081 Mar 05 23:28	16°☿07'49	8°34'27
	4078 Aug 31 08:12	0°♎		minimum elong	4081 Mar 05 16:54	16°☿18'00	8°33'48
morning set	4078 Sep 01 04:36	1°♎02'41		min. Earth dist.	4081 Mar 05 07:55	16°☿31'56	0.27087 AU
	4078 Sep 24 16:05	0°♏		morning rise	4081 Mar 08 23:26	14°☿17'29	
max. Earth dist.	4078 Oct 04 20:48	12°♏37'29	1.72776 AU	direct	4081 Mar 26 12:20	8°☿22'34	
				greatest brilliancy	4081 Apr 06 08:32	10°☿33'13	-4.6m
superior conj	4078 Oct 07 16:58	16°♏08'42	1°23'54		4081 May 04 15:39	0°♌	
minimum elong	4078 Oct 07 20:16	16°♏18'57	1°23'53	desc. node	4081 May 12 22:57	7°♌44'46	
	4078 Oct 18 20:53	0°♐		morning max el	4081 May 15 06:30	10°♌00'07	46°23'06
	4078 Nov 11 23:52	0°♑			4081 Jun 03 14:52	0°♊	
evening rise	4078 Nov 14 11:23	3°♑05'14			4081 Jun 30 15:00	0°♋	
desc. node	4078 Nov 26 04:02	17°♑39'09			4081 Jul 26 13:44	0°♌	
	4078 Dec 06 01:55	0°☾			4081 Aug 20 22:20	0°♍	
	4078 Dec 30 03:34	0°≈		asc. node	4081 Sep 03 01:23	15°♌44'51	
	4079 Jan 23 05:59	0°☿			4081 Sep 14 20:08	0°♎	
	4079 Feb 16 11:51	0°♌			4081 Oct 09 08:54	0°♏	
	4079 Mar 13 02:15	0°♊			4081 Nov 02 14:45	0°♐	
asc. node	4079 Mar 19 06:15	7°♊24'38		morning set	4081 Nov 09 10:28	8°♌29'15	
	4079 Apr 07 09:48	0°♋			4081 Nov 26 16:07	0°♑	
	4079 May 04 04:11	0°♌		max. Earth dist.	4081 Dec 16 02:39	24°♑20'29	1.71476 AU
evening max el	4079 May 20 05:24	16°♌30'41	45°51'52				
	4079 Jun 03 23:58	0°♍		superior conj	4081 Dec 18 08:25	27°♑09'02	0°12'46
greatest brilliancy	4079 Jun 23 17:53	13°♍24'43	-4.5m	minimum elong	4081 Dec 18 11:36	27°♑19'03	0°12'36

behind sun begin	4081 Dec 17 19:21	26°♂28'05		direct	4084 Jun 07 10:16	20°♂35'43	
behind sun end	4081 Dec 19 03:51	28°♂10'00		desc. node	4084 Jun 09 10:39	20°♂40'29	
	4081 Dec 20 14:56	0°♂		greatest brilliancy	4084 Jun 19 11:07	23°♂11'54	-4.5m
desc. node	4081 Dec 23 15:46	3°♂48'24			4084 Jul 01 17:41	0°♂	
	4082 Jan 13 12:24	0°♂		morning max el	4084 Jul 26 08:35	20°♂39'04	45°45'42
evening rise	4082 Jan 28 02:11	18°♂18'45			4084 Aug 04 20:23	0°♂	
	4082 Feb 06 09:31	0°♂			4084 Sep 01 21:51	0°♂	
	4082 Mar 02 07:50	0°♂			4084 Sep 28 03:16	0°♂	
	4082 Mar 26 09:51	0°♂		asc. node	4084 Sep 30 13:24	2°♂50'14	
asc. node	4082 Apr 15 18:16	25°♂04'59			4084 Oct 23 08:46	0°♂	
	4082 Apr 19 18:43	0°♂			4084 Nov 16 23:11	0°♂	
	4082 May 14 14:15	0°♂			4084 Dec 11 04:24	0°♂	
	4082 Jun 09 02:17	0°♂			4085 Jan 04 04:28	0°♂	
	4082 Jul 05 19:54	0°♂		desc. node	4085 Jan 20 03:31	20°♂01'54	
evening max el	4082 Jul 29 18:31	24°♂35'06	45°30'19	morning set	4085 Jan 22 10:52	22°♂55'44	
	4082 Aug 04 13:40	0°♂			4085 Jan 28 01:54	0°♂	
desc. node	4082 Aug 05 08:25	0°♂42'29			4085 Feb 20 22:21	0°♂	
greatest brilliancy	4082 Sep 04 07:55	21°♂40'43	-4.5m				
retrograde	4082 Sep 16 10:45	24°♂16'56		superior conj	4085 Mar 04 23:02	15°♂07'15	-1°-21'-29
evening set	4082 Oct 04 12:29	18°♂12'21		minimum elong	4085 Mar 04 15:09	14°♂42'30	1°21'22
inferior conj	4082 Oct 07 18:13	16°♂13'18	-8°-33'-11	max. Earth dist.	4085 Mar 07 10:55	18°♂15'26	1.71282 AU
minimum elong	4082 Oct 07 21:36	16°♂08'02	8°33'03		4085 Mar 16 19:22	0°♂	
min. Earth dist.	4082 Oct 08 11:17	15°♂46'49	0.28601 AU		4085 Apr 09 18:41	0°♂	
morning rise	4082 Oct 11 06:30	14°♂03'49		evening rise	4085 Apr 14 12:40	5°♂55'23	
direct	4082 Oct 29 03:50	7°♂59'29			4085 May 03 21:57	0°♂	
greatest brilliancy	4082 Nov 12 19:27	11°♂48'45	-4.6m	asc. node	4085 May 13 06:06	11°♂32'27	
asc. node	4082 Nov 26 10:51	20°♂32'32			4085 May 28 06:29	0°♂	
	4082 Dec 07 15:04	0°♂			4085 Jun 21 21:27	0°♂	
morning max el	4082 Dec 18 10:33	10°♂24'28	46°37'07		4085 Jul 16 20:54	0°♂	
	4083 Jan 05 21:06	0°♂			4085 Aug 11 09:10	0°♂	
	4083 Feb 01 00:15	0°♂		desc. node	4085 Sep 01 20:19	24°♂28'48	
	4083 Feb 26 01:33	0°♂			4085 Sep 06 19:19	0°♂	
desc. node	4083 Mar 18 01:20	24°♂21'47			4085 Oct 05 03:16	0°♂	
	4083 Mar 22 15:45	0°♂		evening max el	4085 Oct 10 04:52	4°♂58'33	46°12'09
	4083 Apr 16 01:14	0°♂			4085 Nov 10 05:41	0°♂	
	4083 May 10 09:27	0°♂		greatest brilliancy	4085 Nov 17 14:16	3°♂31'49	-4.6m
	4083 Jun 03 18:13	0°♂		retrograde	4085 Nov 28 14:15	5°♂43'42	
morning set	4083 Jun 22 19:25	23°♂25'17		evening set	4085 Dec 13 03:39	1°♂35'19	
	4083 Jun 28 03:53	0°♂			4085 Dec 15 23:19	30°♂	
asc. node	4083 Jul 09 03:42	13°♂30'30		inferior conj	4085 Dec 19 05:14	28°♂02'32	-1°-13'-2
	4083 Jul 22 13:45	0°♂		minimum elong	4085 Dec 19 08:01	27°♂58'16	1°12'09
max. Earth dist.	4083 Jul 29 04:16	8°♂07'20	1.73512 AU	min. Earth dist.	4085 Dec 19 15:27	27°♂46'57	0.26794 AU
				asc. node	4085 Dec 23 22:40	25°♂13'37	
superior conj	4083 Jul 29 18:30	8°♂51'07	0°46'37	morning rise	4085 Dec 25 11:57	24°♂22'26	
minimum elong	4083 Jul 29 10:18	8°♂25'52	0°46'17	direct	4086 Jan 08 21:21	20°♂16'54	
	4083 Aug 15 23:02	0°♂		greatest brilliancy	4086 Jan 21 18:49	23°♂22'20	-4.7m
evening rise	4083 Sep 03 17:40	23°♂07'21			4086 Feb 02 00:00	0°♂	
	4083 Sep 09 07:41	0°♂		morning max el	4086 Feb 28 12:25	23°♂29'42	46°58'13
	4083 Oct 03 16:29	0°♂			4086 Mar 06 19:54	0°♂	
	4083 Oct 28 02:22	0°♂			4086 Apr 03 00:41	0°♂	
desc. node	4083 Oct 28 18:08	0°♂48'23		desc. node	4086 Apr 14 13:13	13°♂17'59	
	4083 Nov 21 13:58	0°♂			4086 Apr 28 18:35	0°♂	
	4083 Dec 16 04:17	0°♂			4086 May 23 22:45	0°♂	
	4084 Jan 10 00:48	0°♂			4086 Jun 17 20:55	0°♂	
	4084 Feb 04 13:04	0°♂			4086 Jul 12 15:44	0°♂	
asc. node	4084 Feb 18 20:25	16°♂07'51		asc. node	4086 Aug 05 15:35	29°♂11'55	
	4084 Mar 02 18:54	0°♂			4086 Aug 06 07:21	0°♂	
evening max el	4084 Mar 06 16:52	4°♂00'30	46°53'30	morning set	4086 Aug 29 22:19	28°♂56'06	
	4084 Apr 06 05:31	0°♂			4086 Aug 30 19:06	0°♂	
greatest brilliancy	4084 Apr 12 03:35	3°♂15'23	-4.6m		4086 Sep 24 02:58	0°♂	
retrograde	4084 Apr 26 04:09	6°♂49'41		max. Earth dist.	4086 Oct 02 11:57	10°♂21'58	1.72822 AU
evening set	4084 May 12 08:04	1°♂41'42					
	4084 May 15 03:49	30°♂		superior conj	4086 Oct 05 10:07	13°♂59'18	1°24'25
inferior conj	4084 May 17 07:28	28°♂39'32	5°16'38	minimum elong	4086 Oct 05 12:43	14°♂07'23	1°24'24
minimum elong	4084 May 17 17:11	28°♂24'21	5°14'15		4086 Oct 18 07:51	0°♂	
min. Earth dist.	4084 May 17 05:06	28°♂43'15	0.28167 AU		4086 Nov 11 10:57	0°♂	
morning rise	4084 May 23 02:42	25°♂10'11		evening rise	4086 Nov 12 01:39	0°♂45'43	

desc. node	4086 Nov 25 05:57	17°♊10'14		4089 Jun 03 08:27	0°♎		
	4086 Dec 05 13:11	0°♎		4089 Jun 30 05:15	0°♎		
	4086 Dec 29 15:06	0°♎		4089 Jul 26 02:23	0°♎		
	4087 Jan 22 17:50	0°♎		4089 Aug 20 10:06	0°♎		
	4087 Feb 16 00:09	0°♎		4089 Sep 02 03:31	15°♎16'47		
	4087 Mar 12 15:16	0°♎		4089 Sep 14 07:23	0°♎		
asc. node	4087 Mar 18 08:20	6°♎51'11		4089 Oct 08 19:53	0°♎		
	4087 Apr 07 00:11	0°♎		4089 Nov 02 01:38	0°♎		
	4087 May 03 21:56	0°♎		4089 Nov 07 01:55	6°♎14'02		
evening max el	4087 May 17 20:23	14°♎16'10	45°53'42	4089 Nov 26 03:02	0°♎		
	4087 Jun 04 07:46	0°♎		4089 Dec 13 15:31	21°♎55'55	1.71517 AU	
greatest brilliancy	4087 Jun 21 10:04	11°♎15'18	-4.5m				
retrograde	4087 Jul 05 23:30	14°♎58'52		superior conj	4089 Dec 15 20:34	24°♎42'12	0°16'30
desc. node	4087 Jul 07 22:34	14°♎54'20		minimum elong	4089 Dec 16 00:39	24°♎55'00	0°16'18
evening set	4087 Jul 21 09:39	10°♎24'27			4089 Dec 20 01:55	0°♎	
min. Earth dist.	4087 Jul 27 04:13	6°♎55'47	0.28975 AU	desc. node	4089 Dec 22 17:49	3°♎20'24	
inferior conj	4087 Jul 27 12:08	6°♎43'19	-4°-25'-41		4090 Jan 12 23:29	0°♎	
minimum elong	4087 Jul 27 03:34	6°♎56'47	4°23'32	evening rise	4090 Jan 25 12:52	15°♎46'39	
morning rise	4087 Aug 01 21:39	3°♎26'09			4090 Feb 05 20:40	0°♎	
	4087 Aug 09 05:48	30°♎			4090 Mar 01 19:05	0°♎	
direct	4087 Aug 18 02:07	28°♎27'54			4090 Mar 25 21:17	0°♎	
	4087 Aug 27 07:24	0°♎		asc. node	4090 Apr 14 20:14	24°♎35'09	
greatest brilliancy	4087 Aug 31 11:23	1°♎35'25	-4.5m		4090 Apr 19 06:30	0°♎	
morning max el	4087 Oct 05 23:00	28°♎26'16	45°52'19		4090 May 14 02:39	0°♎	
	4087 Oct 07 13:37	0°♎			4090 Jun 08 15:56	0°♎	
asc. node	4087 Oct 29 01:07	22°♎19'58			4090 Jul 05 12:21	0°♎	
	4087 Nov 04 23:31	0°♎		evening max el	4090 Jul 27 10:19	22°♎24'35	45°30'09
	4087 Nov 30 23:03	0°♎		desc. node	4090 Aug 04 10:35	29°♎48'59	
	4087 Dec 25 20:51	0°♎			4090 Aug 04 15:33	0°♎	
	4088 Jan 19 05:55	0°♎		greatest brilliancy	4090 Sep 01 19:37	19°♎25'35	-4.5m
	4088 Feb 12 08:49	0°♎		retrograde	4090 Sep 14 02:27	22°♎05'17	
desc. node	4088 Feb 17 15:30	6°♎35'13		evening set	4090 Oct 02 04:20	15°♎59'21	
	4088 Mar 07 09:05	0°♎		inferior conj	4090 Oct 05 09:44	14°♎00'39	-8°-35'-48
	4088 Mar 31 08:55	0°♎		minimum elong	4090 Oct 05 12:20	13°♎56'36	8°35'43
morning set	4088 Apr 09 04:56	11°♎02'05		min. Earth dist.	4090 Oct 06 01:17	13°♎36'29	0.28652 AU
	4088 Apr 24 10:01	0°♎		morning rise	4090 Oct 08 20:10	11°♎54'00	
				direct	4090 Oct 26 20:22	5°♎46'24	
superior conj	4088 May 18 05:56	29°♎36'13	0°-50'-36	greatest brilliancy	4090 Nov 10 11:27	9°♎35'33	-4.6m
minimum elong	4088 May 18 15:39	0°♎06'21	0°50'14	asc. node	4090 Nov 25 12:50	19°♎24'35	
	4088 May 18 13:36	0°♎			4090 Dec 07 17:22	0°♎	
max. Earth dist.	4088 May 21 15:33	3°♎48'56	1.72677 AU	morning max el	4090 Dec 16 02:35	8°♎09'19	46°35'27
asc. node	4088 Jun 09 17:55	27°♎25'12			4091 Jan 05 14:07	0°♎	
	4088 Jun 11 20:08	0°♎			4091 Jan 31 14:30	0°♎	
evening rise	4088 Jun 25 04:25	16°♎25'48			4091 Feb 25 14:29	0°♎	
	4088 Jul 06 05:28	0°♎		desc. node	4091 Mar 17 03:22	23°♎50'24	
	4088 Jul 30 17:33	0°♎			4091 Mar 22 03:54	0°♎	
	4088 Aug 24 09:09	0°♎			4091 Apr 15 12:51	0°♎	
	4088 Sep 18 05:58	0°♎			4091 May 09 20:41	0°♎	
desc. node	4088 Sep 29 08:13	13°♎16'12			4091 Jun 03 05:10	0°♎	
	4088 Oct 13 10:24	0°♎		morning set	4091 Jun 20 12:18	21°♎16'29	
	4088 Nov 08 02:39	0°♎			4091 Jun 27 14:38	0°♎	
	4088 Dec 04 18:09	0°♎		asc. node	4091 Jul 08 05:48	13°♎04'07	
evening max el	4088 Dec 22 01:10	18°♎13'34	47°06'59		4091 Jul 22 00:24	0°♎	
	4089 Jan 03 06:22	0°♎		max. Earth dist.	4091 Jul 27 02:55	6°♎16'39	1.73508 AU
asc. node	4089 Jan 20 10:39	13°♎42'33					
greatest brilliancy	4089 Jan 29 15:39	18°♎47'44	-4.7m	superior conj	4091 Jul 27 12:27	6°♎45'57	0°43'55
retrograde	4089 Feb 10 19:10	21°♎34'32		minimum elong	4091 Jul 27 04:31	6°♎21'35	0°43'34
evening set	4089 Feb 27 19:35	15°♎56'55			4091 Aug 15 09:40	0°♎	
min. Earth dist.	4089 Mar 02 20:48	14°♎05'45	0.27047 AU	evening rise	4091 Sep 01 12:03	21°♎03'13	
inferior conj	4089 Mar 03 12:28	13°♎41'32	8°26'47		4091 Sep 08 18:24	0°♎	
minimum elong	4089 Mar 03 05:08	13°♎52'52	8°25'56		4091 Oct 03 03:25	0°♎	
morning rise	4089 Mar 06 14:50	11°♎47'52		desc. node	4091 Oct 27 20:06	0°♎19'50	
direct	4089 Mar 24 00:33	5°♎56'36			4091 Oct 27 13:38	0°♎	
greatest brilliancy	4089 Apr 03 22:33	8°♎09'07	-4.6m		4091 Nov 21 01:43	0°♎	
	4089 May 04 19:50	0°♎			4091 Dec 15 16:44	0°♎	
desc. node	4089 May 12 00:55	6°♎51'22			4092 Jan 09 14:22	0°♎	
morning max el	4089 May 12 20:06	7°♎38'21	46°24'51		4092 Feb 04 04:42	0°♎	

asc. node	4092 Feb 17 22:28	15° Υ 24'47		asc. node	4094 Aug 04 17:41	28° \ominus 45'29	
	4092 Mar 02 15:52	0° \mathcal{B}			4094 Aug 05 18:05	0° \mathcal{Q}	
evening max el	4092 Mar 04 08:40	1° \mathcal{B} 43'47	46°55'08	morning set	4094 Aug 27 15:46	26° \mathcal{Q} 49'43	
	4092 Apr 07 19:55	0° Π			4094 Aug 30 05:41	0° \mathcal{M}	
greatest brilliancy	4092 Apr 09 20:58	1° Π 01'26	-4.6m		4094 Sep 23 13:31	0° $\underline{\mathcal{A}}$	
retrograde	4092 Apr 23 19:55	4° Π 33'18		max. Earth dist.	4094 Sep 30 05:07	8° $\underline{\mathcal{A}}$ 13'50	1.72865 AU
	4092 May 08 23:12	30° $\mathcal{R}\mathcal{B}$					
evening set	4092 May 10 02:07	29° \mathcal{B} 21'36		superior conj	4094 Oct 03 03:15	11° $\underline{\mathcal{A}}$ 50'59	1°24'48
inferior conj	4092 May 14 22:29	26° \mathcal{B} 23'33	5°33'56	minimum elong	4094 Oct 03 05:08	11° $\underline{\mathcal{A}}$ 56'51	1°24'48
minimum elong	4092 May 15 08:26	26° \mathcal{B} 07'58	5°31'33		4094 Oct 17 18:28	0° \mathcal{M}	
min. Earth dist.	4092 May 14 19:46	26° \mathcal{B} 27'47	0.28134 AU	evening rise	4094 Nov 09 16:12	28° \mathcal{M} 28'14	
morning rise	4092 May 20 15:14	22° \mathcal{B} 57'45			4094 Nov 10 21:42	0° \mathcal{A}	
direct	4092 Jun 05 01:25	18° \mathcal{B} 20'32		desc. node	4094 Nov 24 08:02	16° \mathcal{A} 42'54	
desc. node	4092 Jun 08 12:41	18° \mathcal{B} 34'31			4094 Dec 05 00:07	0° \mathcal{B}	
greatest brilliancy	4092 Jun 16 23:14	20° \mathcal{B} 54'09	-4.5m		4094 Dec 29 02:15	0° \approx	
	4092 Jul 02 12:27	0° Π			4095 Jan 22 05:17	0° \mathcal{H}	
morning max el	4092 Jul 23 23:55	18° Π 27'03	45°46'19		4095 Feb 15 12:02	0° Υ	
	4092 Aug 04 15:30	0° \mathcal{B}			4095 Mar 12 03:55	0° \mathcal{B}	
	4092 Sep 01 12:22	0° \mathcal{Q}		asc. node	4095 Mar 17 10:17	6° \mathcal{B} 18'25	
	4092 Sep 27 15:55	0° \mathcal{M}			4095 Apr 06 14:21	0° Π	
asc. node	4092 Sep 29 15:17	2° \mathcal{M} 18'55			4095 May 03 15:49	0° \mathcal{B}	
	4092 Oct 22 20:30	0° $\underline{\mathcal{A}}$		evening max el	4095 May 15 10:45	12° \mathcal{B} 00'41	45°55'22
	4092 Nov 16 10:27	0° \mathcal{M}			4095 Jun 04 18:18	0° \mathcal{Q}	
	4092 Dec 10 15:26	0° \mathcal{A}		greatest brilliancy	4095 Jun 19 01:15	9° \mathcal{Q} 04'29	-4.5m
	4093 Jan 03 15:22	0° \mathcal{B}		retrograde	4095 Jul 03 15:41	12° \mathcal{Q} 50'05	
desc. node	4093 Jan 19 05:40	19° \mathcal{B} 34'35		desc. node	4095 Jul 07 00:44	12° \mathcal{Q} 36'31	
morning set	4093 Jan 19 21:33	20° \mathcal{B} 24'27		evening set	4095 Jul 19 00:22	8° \mathcal{Q} 17'31	
	4093 Jan 27 12:45	0° \approx		inferior conj	4095 Jul 25 04:26	4° \mathcal{Q} 34'33	-4°-8'-26
	4093 Feb 20 09:11	0° \mathcal{H}		minimum elong	4095 Jul 24 20:15	4° \mathcal{Q} 47'24	4°06'20
				min. Earth dist.	4095 Jul 24 20:42	4° \mathcal{Q} 46'42	0.28957 AU
superior conj	4093 Mar 02 09:35	12° \mathcal{H} 35'32	-1°-20'-3	morning rise	4095 Jul 30 16:15	1° \mathcal{Q} 14'09	
minimum elong	4093 Mar 02 00:53	12° \mathcal{H} 08'14	1°19'53		4095 Aug 01 22:58	30° $\mathcal{R}\mathcal{B}$	
max. Earth dist.	4093 Mar 04 19:10	15° \mathcal{H} 36'28	1.71257 AU	direct	4095 Aug 15 17:37	26° \mathcal{B} 19'16	
	4093 Mar 16 06:12	0° Υ		greatest brilliancy	4095 Aug 29 03:25	29° \mathcal{B} 26'52	-4.5m
	4093 Apr 09 05:32	0° \mathcal{B}			4095 Aug 30 08:33	0° \mathcal{Q}	
evening rise	4093 Apr 12 00:24	3° \mathcal{B} 28'32		morning max el	4095 Oct 03 13:52	26° \mathcal{Q} 13'32	45°51'22
	4093 May 03 08:51	0° Π			4095 Oct 07 10:32	0° \mathcal{M}	
asc. node	4093 May 12 08:06	11° Π 04'53		asc. node	4095 Oct 28 03:12	21° \mathcal{M} 41'48	
	4093 May 27 17:31	0° \mathcal{B}			4095 Nov 04 14:38	0° $\underline{\mathcal{A}}$	
	4093 Jun 21 08:48	0° \mathcal{Q}			4095 Nov 30 12:06	0° \mathcal{M}	
	4093 Jul 16 08:53	0° \mathcal{M}			4095 Dec 25 08:56	0° \mathcal{A}	
	4093 Aug 10 22:19	0° $\underline{\mathcal{A}}$			4096 Jan 18 17:29	0° \mathcal{B}	
desc. node	4093 Aug 31 22:18	23° $\underline{\mathcal{A}}$ 52'42			4096 Feb 11 20:03	0° \approx	
	4093 Sep 06 10:51	0° \mathcal{M}		desc. node	4096 Feb 16 17:29	6° \approx 06'31	
	4093 Oct 05 00:59	0° \mathcal{A}			4096 Mar 06 20:05	0° \mathcal{H}	
evening max el	4093 Oct 07 18:15	2° \mathcal{A} 38'54	46°10'02		4096 Mar 30 19:44	0° Υ	
	4093 Nov 12 09:24	0° \mathcal{B}		morning set	4096 Apr 06 17:24	8° Υ 37'33	
greatest brilliancy	4093 Nov 15 04:42	1° \mathcal{B} 10'25	-4.6m		4096 Apr 23 20:41	0° \mathcal{B}	
retrograde	4093 Nov 26 02:14	3° \mathcal{B} 20'07					
	4093 Dec 09 03:00	30° $\mathcal{R}\mathcal{A}$		superior conj	4096 May 15 20:51	27° \mathcal{B} 20'56	0°-53'-25
evening set	4093 Dec 10 18:10	29° \mathcal{A} 09'42		minimum elong	4096 May 16 06:52	27° \mathcal{B} 51'59	0°53'03
inferior conj	4093 Dec 16 18:14	25° \mathcal{A} 38'58	-1°-36'-31		4096 May 18 00:11	0° Π	
minimum elong	4093 Dec 16 21:54	25° \mathcal{A} 33'22	1°35'22	max. Earth dist.	4096 May 19 06:36	1° Π 34'11	1.72630 AU
min. Earth dist.	4093 Dec 17 06:04	25° \mathcal{A} 20'52	0.26832 AU	asc. node	4096 Jun 08 20:02	26° Π 59'04	
morning rise	4093 Dec 23 01:04	21° \mathcal{A} 58'12			4096 Jun 11 06:43	0° \mathcal{B}	
asc. node	4093 Dec 23 00:46	21° \mathcal{A} 58'36		evening rise	4096 Jun 22 21:35	14° \mathcal{B} 18'24	
direct	4094 Jan 06 10:26	17° \mathcal{A} 52'32			4096 Jul 05 16:09	0° \mathcal{Q}	
greatest brilliancy	4094 Jan 19 10:38	21° \mathcal{A} 00'20	-4.7m		4096 Jul 30 04:26	0° \mathcal{M}	
	4094 Feb 02 19:44	0° \mathcal{B}			4096 Aug 23 20:24	0° $\underline{\mathcal{A}}$	
morning max el	4094 Feb 26 00:45	21° \mathcal{B} 02'41	46°58'22		4096 Sep 17 17:49	0° \mathcal{M}	
	4094 Mar 06 15:53	0° \approx		desc. node	4096 Sep 28 10:11	12° \mathcal{M} 45'31	
	4094 Apr 02 15:58	0° \mathcal{H}			4096 Oct 12 23:17	0° \mathcal{A}	
desc. node	4094 Apr 13 15:12	12° \mathcal{H} 42'12			4096 Nov 07 17:18	0° \mathcal{B}	
	4094 Apr 28 07:55	0° Υ			4096 Dec 04 12:25	0° \approx	
	4094 May 23 11:00	0° \mathcal{B}		evening max el	4096 Dec 19 14:40	15° \approx 49'12	47°06'01
	4094 Jun 17 08:27	0° Π			4097 Jan 03 12:46	0° \mathcal{H}	
	4094 Jul 12 02:48	0° \mathcal{B}		asc. node	4097 Jan 19 12:44	12° \mathcal{H} 15'24	

greatest brilliancy	4097 Jan 27 05:07	16° K 21'22	-4.7m	minimum elong	4099 Jul 24 22:54	4° Ω 17'48	0°40'49
retrograde	4097 Feb 08 08:48	19° K 08'24		max. Earth dist.	4099 Jul 25 01:32	4° Ω 25'54	1.73504 AU
evening set	4097 Feb 25 04:27	13° K 36'53			4099 Aug 14 20:19	0° M	
min. Earth dist.	4097 Feb 28 09:21	11° K 40'36	0.27006 AU	evening rise	4099 Aug 30 06:26	18° M 58'59	
inferior conj	4097 Mar 01 01:23	11° K 15'53	8°18'02		4099 Sep 08 05:13	0° Ω	
minimum elong	4097 Feb 28 17:23	11° K 28'13	8°17'01		4099 Oct 02 14:29	0° M	
morning rise	4097 Mar 04 06:29	9° K 18'30		desc. node	4099 Oct 26 22:10	29° M 51'01	
direct	4097 Mar 21 13:10	3° K 31'22			4099 Oct 27 01:06	0° K	
greatest brilliancy	4097 Apr 01 11:36	5° K 44'53	-4.6m		4099 Nov 20 13:41	0° Ω	
	4097 May 04 21:58	0° Y			4099 Dec 15 05:25	0° \approx	
morning max el	4097 May 10 10:21	5° Y 19'15	46°26'34		4100 Jan 09 04:10	0° K	
desc. node	4097 May 11 03:00	6° Y 00'17			4100 Feb 03 20:42	0° Y	
	4097 Jun 03 01:18	0° B		asc. node	4100 Feb 17 00:23	14° Y 40'38	
	4097 Jun 29 19:04	0° II		evening max el	4100 Mar 02 23:44	29° Y 24'43	46°56'43
	4097 Jul 25 14:46	0° Ω			4100 Mar 03 13:43	0° B	
	4097 Aug 19 21:40	0° Ω		greatest brilliancy	4100 Apr 08 15:10	28° B 48'02	-4.6m
asc. node	4097 Sep 01 05:24	14° Ω 48'25			4100 Apr 11 09:47	0° II	
	4097 Sep 13 18:30	0° M		retrograde	4100 Apr 22 11:10	2° II 16'18	
	4097 Oct 08 06:44	0° Ω			4100 May 03 00:27	30° R B	
	4097 Nov 01 12:24	0° M		evening set	4100 May 08 20:14	27° B 00'55	
morning set	4097 Nov 04 17:14	3° M 58'52		inferior conj	4100 May 13 13:29	24° B 07'07	5°50'46
	4097 Nov 25 13:47	0° K		minimum elong	4100 May 13 23:37	23° B 51'14	5°48'24
max. Earth dist.	4097 Dec 11 04:11	19° K 31'22	1.71554 AU	min. Earth dist.	4100 May 13 10:40	24° B 11'33	0.28100 AU
				morning rise	4100 May 19 03:29	20° B 44'57	
superior conj	4097 Dec 13 08:40	22° K 15'48	0°20'13	direct	4100 Jun 03 16:16	16° B 04'53	
minimum elong	4097 Dec 13 13:36	22° K 31'15	0°19'59	desc. node	4100 Jun 08 14:46	16° B 32'52	
	4097 Dec 19 12:45	0° Ω		greatest brilliancy	4100 Jun 15 11:27	18° B 35'54	-4.5m
desc. node	4097 Dec 21 19:53	2° Ω 52'54			4100 Jul 04 02:37	0° II	
	4098 Jan 12 10:24	0° \approx		morning max el	4100 Jul 22 14:23	16° II 12'29	45°47'03
evening rise	4098 Jan 22 23:34	13° \approx 15'06			4100 Aug 05 10:13	0° Ω	
	4098 Feb 05 07:41	0° K			4100 Sep 02 02:50	0° Ω	
	4098 Mar 01 06:13	0° Y			4100 Sep 28 04:38	0° M	
	4098 Mar 25 08:35	0° B		asc. node	4100 Sep 29 17:23	1° M 47'58	
asc. node	4098 Apr 13 22:16	24° B 05'59			4100 Oct 23 08:23	0° Ω	
	4098 Apr 18 18:08	0° II			4100 Nov 16 21:57	0° M	
	4098 May 13 14:56	0° Ω			4100 Dec 11 02:44	0° K	
	4098 Jun 08 05:31	0° Ω					
	4098 Jul 05 04:59	0° M					
evening max el	4098 Jul 25 02:18	20° M 14'39	45°29'46				
desc. node	4098 Aug 03 12:31	28° M 53'53					
	4098 Aug 04 18:58	0° Ω					
greatest brilliancy	4098 Aug 30 08:20	17° Ω 11'22	-4.5m				
retrograde	4098 Sep 11 17:41	19° Ω 52'58					
evening set	4098 Sep 29 19:45	13° Ω 46'30					
inferior conj	4098 Oct 03 01:05	11° Ω 47'34	-8°-37'-40				
minimum elong	4098 Oct 03 02:55	11° Ω 44'44	8°37'38				
min. Earth dist.	4098 Oct 03 15:17	11° Ω 25'30	0.28701 AU				
morning rise	4098 Oct 06 09:57	9° Ω 43'08					
direct	4098 Oct 24 12:47	3° Ω 33'00					
greatest brilliancy	4098 Nov 08 02:17	7° Ω 20'25	-4.6m				
asc. node	4098 Nov 24 14:56	18° Ω 18'22					
	4098 Dec 07 18:25	0° M					
morning max el	4098 Dec 13 17:54	5° M 52'20	46°33'51				
	4099 Jan 05 06:50	0° K					
	4099 Jan 31 04:34	0° Ω					
	4099 Feb 25 03:17	0° \approx					
desc. node	4099 Mar 16 05:16	23° \approx 18'56					
	4099 Mar 21 15:57	0° K					
	4099 Apr 15 00:25	0° Y					
	4099 May 09 07:53	0° B					
	4099 Jun 02 16:06	0° II					
morning set	4099 Jun 18 05:22	19° II 08'16					
	4099 Jun 27 01:23	0° Ω					
asc. node	4099 Jul 07 07:49	12° Ω 37'32					
	4099 Jul 21 11:02	0° Ω					
superior conj	4099 Jul 25 06:30	4° Ω 41'09	0°41'09				

superior conj	4101 Feb 28 19:53	10° ✕ 02'21	-1°-18'-24	minimum elong	4103 Jul 23 13:02	2° Ω 36'59	3°48'46
minimum elong	4101 Feb 28 10:27	9° ✕ 32'40	1°18'13	min. Earth dist.	4103 Jul 23 12:58	2° Ω 37'06	0.28936 AU
max. Earth dist.	4101 Mar 03 00:29	12° ✕ 47'38	1.71227 AU		4103 Jul 27 18:42	30° ℞ ☿	
	4101 Mar 16 17:15	0° Υ		morning rise	4103 Jul 29 10:52	29° ☿ 01'30	
	4101 Apr 09 16:36	0° ♄		direct	4103 Aug 14 09:23	24° ☿ 09'40	
evening rise	4101 Apr 10 11:58	1° ♄ 00'25		greatest brilliancy	4103 Aug 27 19:45	27° ☿ 17'52	-4.5m
	4101 May 03 19:59	0° ♁			4103 Sep 02 04:06	0° ♁	
asc. node	4101 May 12 10:14	10° ♁ 36'58		morning max el	4103 Oct 02 05:50	24° ♁ 02'41	45°50'32
	4101 May 28 04:48	0° ☿			4103 Oct 08 07:06	0° ♊	
	4101 Jun 21 20:25	0° ♁		asc. node	4103 Oct 28 05:14	21° ♊ 03'02	
	4101 Jul 16 21:09	0° ♊			4103 Nov 05 05:50	0° ♊	
	4101 Aug 11 11:49	0° ♊			4103 Dec 01 01:22	0° ♋	
desc. node	4101 Sep 01 00:17	23° ♊ 15'41			4103 Dec 25 21:18	0° ♋	
	4101 Sep 07 02:54	0° ♋			4104 Jan 19 05:22	0° ♌	
	4101 Oct 05 23:56	0° ♋			4104 Feb 12 07:41	0° ♌	
evening max el	4101 Oct 06 06:38	0° ♋ 16'10	46°07'46	desc. node	4104 Feb 16 19:27	5° ♌ 36'32	
greatest brilliancy	4101 Nov 13 18:22	28° ♋ 46'51	-4.6m		4104 Mar 07 07:32	0° ♌	
	4101 Nov 17 14:24	0° ♌			4104 Mar 31 07:00	0° ♍	
retrograde	4101 Nov 24 14:03	0° ♌ 55'07		morning set	4104 Apr 05 05:16	6° ♍ 09'34	
	4101 Dec 01 08:49	30° ♌ ♋			4104 Apr 24 07:48	0° ♍	
evening set	4101 Dec 09 08:36	26° ♋ 41'55					
inferior conj	4101 Dec 15 07:01	23° ♋ 13'38	-1°-59'-55	superior conj	4104 May 14 11:15	25° ♄ 02'37	0°-56'-11
minimum elong	4101 Dec 15 11:32	23° ♋ 06'45	1°58'30	minimum elong	4104 May 14 21:32	25° ♄ 34'29	0°55'49
min. Earth dist.	4101 Dec 15 20:35	22° ♋ 52'54	0.26880 AU	max. Earth dist.	4104 May 17 21:27	29° ♄ 17'24	1.72578 AU
morning rise	4101 Dec 21 13:46	19° ♋ 32'39			4104 May 18 11:12	0° ♁	
asc. node	4101 Dec 23 02:48	18° ♋ 44'59		asc. node	4104 Jun 08 22:00	26° ♁ 31'15	
direct	4102 Jan 04 23:06	15° ♋ 26'01			4104 Jun 11 17:42	0° ☿	
greatest brilliancy	4102 Jan 18 03:19	18° ♋ 37'41	-4.7m	evening rise	4104 Jun 21 14:31	12° ☿ 09'06	
	4102 Feb 04 11:15	0° ♌			4104 Jul 06 03:12	0° ♁	
morning max el	4102 Feb 24 13:37	18° ♌ 35'19	46°58'40		4104 Jul 30 15:41	0° ♊	
	4102 Mar 07 11:50	0° ♌			4104 Aug 24 08:01	0° ♊	
	4102 Apr 03 07:30	0° ♌			4104 Sep 18 06:04	0° ♋	
desc. node	4102 Apr 13 17:20	12° ♌ 05'56		desc. node	4104 Sep 28 12:18	12° ♋ 14'13	
	4102 Apr 28 21:30	0° ♍			4104 Oct 13 12:34	0° ♋	
	4102 May 23 23:29	0° ♄			4104 Nov 08 08:25	0° ♌	
	4102 Jun 17 20:15	0° ♁			4104 Dec 05 07:26	0° ♌	
	4102 Jul 12 14:08	0° ☿		evening max el	4104 Dec 18 05:03	13° ♌ 26'29	47°04'52
asc. node	4102 Aug 04 19:35	28° ☿ 17'33			4105 Jan 04 22:00	0° ♌	
	4102 Aug 06 05:08	0° ♁		asc. node	4105 Jan 19 14:35	10° ♌ 43'56	
morning set	4102 Aug 26 09:26	24° ♁ 43'04		greatest brilliancy	4105 Jan 25 18:08	13° ♌ 53'33	-4.7m
	4102 Aug 30 16:35	0° ♊		retrograde	4105 Feb 06 22:35	16° ♌ 40'50	
	4102 Sep 24 00:22	0° ♊		evening set	4105 Feb 23 13:07	11° ♌ 15'40	
max. Earth dist.	4102 Sep 29 00:35	6° ♊ 11'55	1.72907 AU	min. Earth dist.	4105 Feb 26 21:38	9° ♌ 14'12	0.26969 AU
				inferior conj	4105 Feb 27 14:11	8° ♌ 48'44	8°08'12
superior conj	4102 Oct 01 20:40	9° ♊ 42'41	1°25'04	minimum elong	4105 Feb 27 05:34	9° ♌ 01'59	8°07'01
minimum elong	4102 Oct 01 21:50	9° ♊ 46'18	1°25'04	morning rise	4105 Mar 02 22:14	6° ♌ 47'15	
	4102 Oct 18 05:22	0° ♋		direct	4105 Mar 20 02:15	1° ♌ 04'47	
evening rise	4102 Nov 08 07:05	26° ♋ 10'59		greatest brilliancy	4105 Mar 30 23:58	3° ♌ 18'17	-4.6m
	4102 Nov 11 08:46	0° ♋			4105 May 05 23:20	0° ♍	
desc. node	4102 Nov 24 10:07	16° ♋ 14'34		morning max el	4105 May 09 00:50	2° ♍ 59'07	46°28'10
	4102 Dec 05 11:24	0° ♌		desc. node	4105 May 11 05:02	5° ♍ 08'38	
	4102 Dec 29 13:50	0° ♌			4105 Jun 03 18:20	0° ♄	
	4103 Jan 22 17:13	0° ♌			4105 Jun 30 09:11	0° ♁	
	4103 Feb 16 00:27	0° ♍			4105 Jul 26 03:26	0° ☿	
	4103 Mar 12 17:07	0° ♄			4105 Aug 20 09:31	0° ♁	
asc. node	4103 Mar 17 12:20	5° ♄ 44'25		asc. node	4105 Sep 01 07:29	14° ♁ 19'51	
	4103 Apr 07 05:09	0° ♁			4105 Sep 14 05:52	0° ♊	
	4103 May 04 10:37	0° ☿			4105 Oct 08 17:51	0° ♊	
evening max el	4103 May 14 01:32	9° ☿ 45'08	45°57'22		4105 Nov 01 23:24	0° ♋	
	4103 Jun 06 09:05	0° ♁		morning set	4105 Nov 03 08:51	1° ♋ 43'57	
greatest brilliancy	4103 Jun 17 15:49	6° ♁ 51'58	-4.5m		4105 Nov 26 00:48	0° ♋	
retrograde	4103 Jul 02 08:25	10° ♁ 40'33		max. Earth dist.	4105 Dec 09 15:07	17° ♋ 00'46	1.71589 AU
desc. node	4103 Jul 07 02:40	10° ♁ 13'20					
evening set	4103 Jul 17 15:20	6° ♁ 09'26		superior conj	4105 Dec 11 21:20	19° ♋ 50'32	0°23'50
inferior conj	4103 Jul 23 20:47	2° ♁ 24'50	-3°-50'-48	minimum elong	4105 Dec 12 03:02	20° ♋ 08'25	0°23'33

	4105 Dec 19 23:49	0°☾		morning max el	4108 Jul 20 04:32	13°☿57'04	45°47'46
desc. node	4105 Dec 21 21:52	2°☾24'24			4108 Aug 05 04:25	0°☿	
	4106 Jan 12 21:31	0°☿			4108 Sep 01 17:07	0°♊	
evening rise	4106 Jan 21 10:42	10°☿44'19			4108 Sep 27 17:15	0°♋	
	4106 Feb 05 18:53	0°♋		asc. node	4108 Sep 28 19:28	1°♋17'09	
	4106 Mar 01 17:33	0°♌			4108 Oct 22 20:10	0°♍	
	4106 Mar 25 20:10	0°♎			4108 Nov 16 09:19	0°♏	
asc. node	4106 Apr 14 00:20	23°♎36'03			4108 Dec 10 13:53	0°♐	
	4106 Apr 19 06:06	0°♑			4109 Jan 03 13:37	0°☾	
	4106 May 14 03:35	0°☿		morning set	4109 Jan 15 18:25	15°☾18'49	
	4106 Jun 08 19:33	0°♊		desc. node	4109 Jan 18 09:37	18°☾37'20	
	4106 Jul 05 22:17	0°♋			4109 Jan 27 10:52	0°☿	
evening max el	4106 Jul 23 18:06	18°♋03'30	45°29'36		4109 Feb 20 07:14	0°♌	
desc. node	4106 Aug 03 14:30	27°♋57'09					
	4106 Aug 06 00:31	0°♍		superior conj	4109 Feb 26 06:20	7°♌29'55	-1°-16'-37
greatest brilliancy	4106 Aug 28 22:02	14°♍58'00	-4.5m	minimum elong	4109 Feb 25 20:14	6°♌58'12	1°16'24
retrograde	4106 Sep 10 08:37	17°♍40'41		max. Earth dist.	4109 Feb 28 02:35	9°♌49'01	1.71201 AU
evening set	4106 Sep 28 11:00	11°♍34'25			4109 Mar 16 04:11	0°♌	
inferior conj	4106 Oct 01 16:40	9°♍34'43	-8°-38'-43	evening rise	4109 Apr 07 23:38	28°♌33'02	
minimum elong	4106 Oct 01 17:42	9°♍33'07	8°38'43		4109 Apr 09 03:30	0°♎	
min. Earth dist.	4106 Oct 02 05:46	9°♍14'18	0.28745 AU		4109 May 03 06:55	0°♏	
morning rise	4106 Oct 05 00:15	7°♍31'55		asc. node	4109 May 11 12:11	10°♏09'05	
direct	4106 Oct 23 05:02	1°♍19'51			4109 May 27 15:54	0°☿	
greatest brilliancy	4106 Nov 06 16:39	5°♍04'35	-4.6m		4109 Jun 21 07:53	0°♊	
asc. node	4106 Nov 24 16:56	17°♍13'24			4109 Jul 16 09:18	0°♋	
	4106 Dec 08 18:25	0°♌			4109 Aug 11 01:17	0°♍	
morning max el	4106 Dec 12 08:33	3°♌33'22	46°32'15	desc. node	4109 Aug 31 02:24	22°♍39'07	
	4107 Jan 05 23:22	0°♎			4109 Sep 06 19:04	0°♏	
	4107 Jan 31 18:36	0°☾		evening max el	4109 Oct 03 19:11	27°♌54'34	46°05'45
	4107 Feb 25 16:05	0°☿			4109 Oct 05 23:42	0°♐	
desc. node	4107 Mar 16 07:26	22°☿48'07		greatest brilliancy	4109 Nov 11 07:15	26°♐23'31	-4.6m
	4107 Mar 22 04:01	0°♋		retrograde	4109 Nov 22 02:28	28°♐31'36	
	4107 Apr 15 12:01	0°♌		evening set	4109 Dec 06 23:19	24°♐15'03	
	4107 May 09 19:10	0°♎		inferior conj	4109 Dec 12 19:58	20°♐49'31	-2°-22'-47
	4107 Jun 03 03:09	0°♏		minimum elong	4109 Dec 13 01:17	20°♐41'24	2°21'09
morning set	4107 Jun 16 22:12	16°♏58'51		min. Earth dist.	4109 Dec 13 10:59	20°♐26'35	0.26932 AU
	4107 Jun 27 12:15	0°☿		morning rise	4109 Dec 19 02:27	17°♐08'52	
asc. node	4107 Jul 07 09:47	12°☿10'18		asc. node	4109 Dec 22 04:44	15°♐37'07	
	4107 Jul 21 21:48	0°♊		direct	4110 Jan 02 12:11	13°♐00'37	
				greatest brilliancy	4110 Jan 15 20:14	16°♐16'35	-4.7m
superior conj	4107 Jul 24 00:18	2°♊35'11	0°38'19		4110 Feb 04 22:28	0°☾	
minimum elong	4107 Jul 23 17:05	2°♊13'01	0°38'00	morning max el	4110 Feb 22 03:39	16°☾11'50	46°58'49
max. Earth dist.	4107 Jul 23 22:04	2°♊28'20	1.73495 AU		4110 Mar 07 06:56	0°☿	
	4107 Aug 15 07:05	0°♋			4110 Apr 02 22:34	0°♌	
evening rise	4107 Aug 29 00:38	16°♋53'54		desc. node	4110 Apr 12 19:18	11°♌30'11	
	4107 Sep 08 16:06	0°♍			4110 Apr 28 10:43	0°♌	
	4107 Oct 03 01:38	0°♎			4110 May 23 11:39	0°♎	
desc. node	4107 Oct 27 00:12	29°♎21'59			4110 Jun 17 07:43	0°♏	
	4107 Oct 27 12:37	0°♐			4110 Jul 12 01:09	0°☿	
	4107 Nov 21 01:44	0°☾		asc. node	4110 Aug 03 21:41	27°☿51'05	
	4107 Dec 15 18:12	0°☿			4110 Aug 05 15:53	0°♊	
	4108 Jan 09 18:08	0°♋		morning set	4110 Aug 24 03:09	22°♊37'21	
	4108 Feb 04 12:57	0°♌			4110 Aug 30 03:12	0°♋	
asc. node	4108 Feb 17 02:31	13°♌56'39			4110 Sep 23 10:59	0°♍	
evening max el	4108 Feb 29 13:54	27°♌03'26	46°58'17	max. Earth dist.	4110 Sep 26 20:39	4°♍12'36	1.72949 AU
	4108 Mar 03 12:20	0°♎					
greatest brilliancy	4108 Apr 06 09:19	26°♎34'47	-4.6m	superior conj	4110 Sep 29 14:02	7°♍34'55	1°25'11
retrograde	4108 Apr 20 02:08	29°♎59'49		minimum elong	4110 Sep 29 14:28	7°♍36'19	1°25'12
evening set	4108 May 06 14:26	24°♎40'37			4110 Oct 17 16:03	0°♏	
inferior conj	4108 May 11 04:36	21°♎51'14	6°06'52	evening rise	4110 Nov 05 21:57	23°♏54'29	
minimum elong	4108 May 11 14:50	21°♎35'10	6°04'36		4110 Nov 10 19:35	0°♐	
min. Earth dist.	4108 May 11 01:54	21°♎55'29	0.28068 AU	desc. node	4110 Nov 23 12:02	15°♐46'28	
morning rise	4108 May 16 15:40	18°♎32'53			4110 Dec 04 22:26	0°☾	
direct	4108 Jun 01 06:39	13°♎49'38			4110 Dec 29 01:08	0°☿	
desc. node	4108 Jun 07 16:43	14°♎36'11			4111 Jan 22 04:52	0°♋	
greatest brilliancy	4108 Jun 13 00:35	16°♎18'56	-4.5m		4111 Feb 15 12:36	0°♌	
	4108 Jul 04 13:02	0°♏			4111 Mar 12 06:06	0°♎	

asc. node	4111 Mar 16 14:24	5°♄11'14		asc. node	4113 Aug 31 09:34	13°♏52'23	
	4111 Apr 06 19:48	0°♈			4113 Sep 13 16:50	0°♎	
	4111 May 04 05:33	0°♊			4113 Oct 08 04:35	0°♌	
evening max el	4111 May 11 17:19	7°♊33'03	45°59'26	morning set	4113 Nov 01 00:35	29°♋30'32	
	4111 Jun 07 04:18	0°♏			4113 Nov 01 10:04	0°♍	
greatest brilliancy	4111 Jun 15 06:44	4°♏41'06	-4.5m		4113 Nov 25 11:30	0°♐	
retrograde	4111 Jun 30 01:30	8°♏32'03		max. Earth dist.	4113 Dec 06 23:29	14°♐23'08	1.71631 AU
desc. node	4111 Jul 06 04:39	7°♏46'38					
evening set	4111 Jul 15 06:31	4°♏02'19		superior conj	4113 Dec 09 10:02	17°♐26'21	0°27'24
min. Earth dist.	4111 Jul 21 04:57	0°♏28'59	0.28914 AU	minimum elong	4113 Dec 09 16:28	17°♐46'31	0°27'06
inferior conj	4111 Jul 21 13:08	0°♏16'12	-3°-32'-55		4113 Dec 19 10:36	0°♑	
minimum elong	4111 Jul 21 05:51	0°♏27'35	3°30'58	desc. node	4113 Dec 20 23:55	1°♑56'58	
	4111 Jul 21 23:29	30°♑♊			4114 Jan 12 08:24	0°♒	
morning rise	4111 Jul 27 05:24	26°♊50'08		evening rise	4114 Jan 18 21:27	8°♒13'04	
direct	4111 Aug 12 01:36	22°♊01'18			4114 Feb 05 05:51	0°♈	
greatest brilliancy	4111 Aug 25 11:09	25°♊09'05	-4.5m		4114 Mar 01 04:39	0°♎	
	4111 Sep 03 09:07	0°♏			4114 Mar 25 07:28	0°♄	
morning max el	4111 Sep 29 22:28	21°♏54'42	45°49'33	asc. node	4114 Apr 13 02:16	23°♄06'34	
	4111 Oct 08 02:36	0°♎			4114 Apr 18 17:48	0°♈	
asc. node	4111 Oct 27 07:12	20°♎25'23			4114 May 13 16:00	0°♊	
	4111 Nov 04 20:32	0°♌			4114 Jun 08 09:25	0°♏	
	4111 Nov 30 14:15	0°♍			4114 Jul 05 15:38	0°♎	
	4111 Dec 25 09:19	0°♐		evening max el	4114 Jul 21 09:18	15°♎51'40	45°29'27
	4112 Jan 18 16:55	0°♑		desc. node	4114 Aug 02 16:41	27°♎00'28	
	4112 Feb 11 18:56	0°♒			4114 Aug 06 07:54	0°♌	
desc. node	4112 Feb 15 21:36	5°♒08'14		greatest brilliancy	4114 Aug 26 11:59	12°♌45'55	-4.5m
	4112 Mar 06 18:34	0°♈		retrograde	4114 Sep 07 23:18	15°♌29'42	
	4112 Mar 30 17:53	0°♎		evening set	4114 Sep 26 01:57	9°♌24'13	
morning set	4112 Apr 02 16:57	3°♎42'09		inferior conj	4114 Sep 29 08:20	7°♌23'16	-8°-38'-57
	4112 Apr 23 18:34	0°♄		minimum elong	4114 Sep 29 08:32	7°♌22'58	8°38'58
				min. Earth dist.	4114 Sep 29 20:36	7°♌04'06	0.28785 AU
superior conj	4112 May 12 01:29	22°♄44'39	0°-58'-52	morning rise	4114 Oct 02 14:59	5°♌21'37	
minimum elong	4112 May 12 11:57	23°♄17'08	0°58'31		4114 Oct 14 06:39	30°♑♎	
max. Earth dist.	4112 May 15 13:05	27°♄03'57	1.72528 AU	direct	4114 Oct 20 20:48	29°♎08'01	
	4112 May 17 21:52	0°♈			4114 Oct 27 15:24	0°♌	
asc. node	4112 Jun 08 00:00	26°♈04'33		greatest brilliancy	4114 Nov 04 07:15	2°♌50'21	-4.6m
	4112 Jun 11 04:21	0°♊		asc. node	4114 Nov 23 18:55	16°♌11'09	
evening rise	4112 Jun 19 07:21	10°♊00'28			4114 Dec 08 16:59	0°♍	
	4112 Jul 05 13:54	0°♏		morning max el	4114 Dec 09 22:25	1°♍13'31	46°30'36
	4112 Jul 30 02:34	0°♎			4115 Jan 05 15:20	0°♐	
	4112 Aug 23 19:17	0°♌			4115 Jan 31 08:17	0°♑	
	4112 Sep 17 18:00	0°♍			4115 Feb 25 04:39	0°♒	
desc. node	4112 Sep 27 14:17	11°♍43'32		desc. node	4115 Mar 15 09:25	22°♒17'15	
	4112 Oct 13 01:38	0°♐			4115 Mar 21 15:54	0°♈	
	4112 Nov 07 23:28	0°♑			4115 Apr 14 23:26	0°♎	
	4112 Dec 05 02:43	0°♒			4115 May 09 06:15	0°♄	
evening max el	4112 Dec 15 20:05	11°♒06'07	47°03'37		4115 Jun 02 13:58	0°♈	
	4113 Jan 05 10:05	0°♈		morning set	4115 Jun 14 14:46	14°♈49'13	
asc. node	4113 Jan 18 16:45	9°♈10'10			4115 Jun 26 22:54	0°♊	
greatest brilliancy	4113 Jan 23 07:52	11°♈27'12	-4.7m	asc. node	4115 Jul 06 11:52	11°♊44'04	
retrograde	4113 Feb 04 12:07	14°♈13'27			4115 Jul 21 08:22	0°♏	
evening set	4113 Feb 20 21:41	8°♈55'06					
min. Earth dist.	4113 Feb 24 09:55	6°♈48'08	0.26927 AU	superior conj	4115 Jul 21 18:02	0°♏29'43	0°35'26
inferior conj	4113 Feb 25 02:51	6°♈22'04	7°57'30	minimum elong	4115 Jul 21 11:15	0°♏08'50	0°35'06
minimum elong	4113 Feb 24 17:41	6°♈36'11	7°56'06	max. Earth dist.	4115 Jul 21 17:19	0°♏27'31	1.73487 AU
morning rise	4113 Feb 28 13:57	4°♈16'12			4115 Aug 14 17:40	0°♎	
	4113 Mar 09 12:48	30°♑♒		evening rise	4115 Aug 26 18:59	14°♎49'52	
direct	4113 Mar 17 15:15	28°♒39'00			4115 Sep 08 02:49	0°♌	
	4113 Mar 26 00:37	0°♈			4115 Oct 02 12:36	0°♍	
greatest brilliancy	4113 Mar 28 11:35	0°♈51'32	-4.6m	desc. node	4115 Oct 26 02:11	28°♍53'22	
	4113 May 05 23:03	0°♎			4115 Oct 26 23:57	0°♐	
morning max el	4113 May 06 14:37	0°♎38'20	46°29'40		4115 Nov 20 13:35	0°♑	
desc. node	4113 May 10 07:02	4°♎18'57			4115 Dec 15 06:50	0°♒	
	4113 Jun 03 10:38	0°♄			4116 Jan 09 08:03	0°♈	
	4113 Jun 29 22:47	0°♈			4116 Feb 04 05:23	0°♎	
	4113 Jul 25 15:40	0°♊		asc. node	4116 Feb 16 04:31	13°♎11'54	
	4113 Aug 19 20:57	0°♏		evening max el	4116 Feb 27 03:24	24°♎40'21	46°59'43

	4116 Mar 03 11:58	0°♄		superior conj	4118 Sep 27 07:21	5°♁26'45	1°25'12
greatest brilliancy	4116 Apr 04 02:39	24°♄19'51	-4.6m	minimum elong	4118 Sep 27 07:06	5°♁25'57	1°25'13
retrograde	4116 Apr 17 16:53	27°♄42'45			4118 Oct 17 02:52	0°♄	
evening set	4116 May 04 08:28	22°♄19'24		evening rise	4118 Nov 03 12:57	21°♄37'58	
inferior conj	4116 May 08 19:33	19°♄34'44	6°22'33		4118 Nov 10 06:34	0°♄	
minimum elong	4116 May 09 05:49	19°♄18'37	6°20'22	desc. node	4118 Nov 22 14:07	15°♄18'26	
min. Earth dist.	4116 May 08 17:07	19°♄38'33	0.28036 AU		4118 Dec 04 09:38	0°♄	
morning rise	4116 May 14 03:29	16°♄20'36			4118 Dec 28 12:36	0°≈	
direct	4116 May 29 20:26	11°♄33'33			4119 Jan 21 16:40	0°♄	
desc. node	4116 Jun 06 18:46	12°♄43'32			4119 Feb 15 00:52	0°♄	
greatest brilliancy	4116 Jun 10 14:24	14°♄02'23	-4.5m		4119 Mar 11 19:13	0°♄	
	4116 Jul 04 20:39	0°♄		asc. node	4119 Mar 15 16:19	4°♄37'20	
morning max el	4116 Jul 17 18:46	11°♄41'50	45°48'38		4119 Apr 06 10:43	0°♄	
	4116 Aug 04 22:05	0°♄			4119 May 04 01:12	0°♄	
	4116 Sep 01 07:08	0°♄		evening max el	4119 May 09 09:56	5°♄22'31	46°01'21
	4116 Sep 27 05:42	0°♄			4119 Jun 08 07:10	0°♄	
asc. node	4116 Sep 27 21:20	0°♄46'04		greatest brilliancy	4119 Jun 12 22:44	2°♄30'58	-4.5m
	4116 Oct 22 07:50	0°♄		retrograde	4119 Jun 27 18:33	6°♄22'36	
	4116 Nov 15 20:34	0°♄		desc. node	4119 Jul 05 06:48	5°♄14'23	
	4116 Dec 10 00:55	0°♄		evening set	4119 Jul 12 21:55	1°♄54'20	
	4117 Jan 03 00:32	0°♄			4119 Jul 16 04:22	30°♄	
morning set	4117 Jan 13 05:24	12°♄48'15		inferior conj	4119 Jul 19 05:27	28°♄06'41	-3°-14'-37
desc. node	4117 Jan 17 11:45	18°♄09'45		minimum elong	4119 Jul 18 22:42	28°♄17'15	3°12'46
	4117 Jan 26 21:45	0°≈		min. Earth dist.	4119 Jul 18 20:55	28°♄20'02	0.28891 AU
	4117 Feb 19 18:07	0°♄		morning rise	4119 Jul 24 23:48	24°♄37'58	
				direct	4119 Aug 09 18:12	19°♄52'14	
superior conj	4117 Feb 23 16:47	4°♄57'42	-1°-14'-40	greatest brilliancy	4119 Aug 23 01:35	22°♄58'20	-4.5m
minimum elong	4117 Feb 23 06:07	4°♄24'09	1°14'24		4119 Sep 04 06:29	0°♄	
max. Earth dist.	4117 Feb 25 05:21	6°♄52'40	1.71185 AU	morning max el	4119 Sep 27 14:55	19°♄45'41	45°48'34
	4117 Mar 15 15:05	0°♄			4119 Oct 07 21:48	0°♄	
evening rise	4117 Apr 05 11:01	26°♄04'44		asc. node	4119 Oct 26 09:17	19°♄47'44	
	4117 Apr 08 14:25	0°♄			4119 Nov 04 11:15	0°♄	
	4117 May 02 17:54	0°♄			4119 Nov 30 03:15	0°♄	
asc. node	4117 May 10 14:10	9°♄41'12			4119 Dec 24 21:30	0°♄	
	4117 May 27 03:03	0°♄			4120 Jan 18 04:40	0°♄	
	4117 Jun 20 19:25	0°♄			4120 Feb 11 06:24	0°≈	
	4117 Jul 15 21:34	0°♄		desc. node	4120 Feb 14 23:33	4°≈38'36	
	4117 Aug 10 14:55	0°♄			4120 Mar 06 05:49	0°♄	
desc. node	4117 Aug 30 04:22	22°♄01'44			4120 Mar 30 04:57	0°♄	
	4117 Sep 06 11:35	0°♄		morning set	4120 Mar 31 04:56	1°♄15'02	
evening max el	4117 Oct 01 08:35	25°♄35'10	46°03'47		4120 Apr 23 05:29	0°♄	
	4117 Oct 06 00:42	0°♄					
greatest brilliancy	4117 Nov 08 19:14	23°♄59'27	-4.6m	superior conj	4120 May 09 15:55	20°♄26'40	-1°-1'-27
retrograde	4117 Nov 19 15:23	26°♄08'21		minimum elong	4120 May 10 02:29	20°♄59'30	1°01'06
evening set	4117 Dec 04 14:16	21°♄48'16		max. Earth dist.	4120 May 13 07:13	24°♄57'39	1.72479 AU
inferior conj	4117 Dec 10 08:55	18°♄25'33	-2°-45'-18		4120 May 17 08:44	0°♄	
minimum elong	4117 Dec 10 15:00	18°♄16'16	2°43'28	asc. node	4120 Jun 07 02:07	25°♄37'36	
min. Earth dist.	4117 Dec 11 01:04	18°♄00'56	0.26983 AU		4120 Jun 10 15:13	0°♄	
morning rise	4117 Dec 16 14:58	14°♄45'44		evening rise	4120 Jun 17 00:15	7°♄51'24	
asc. node	4117 Dec 21 06:50	12°♄34'03			4120 Jul 05 00:51	0°♄	
direct	4117 Dec 31 01:58	10°♄35'34			4120 Jul 29 13:44	0°♄	
greatest brilliancy	4118 Jan 13 12:33	13°♄55'07	-4.7m		4120 Aug 23 06:51	0°♄	
	4118 Feb 05 06:38	0°♄			4120 Sep 17 06:17	0°♄	
morning max el	4118 Feb 19 18:29	13°♄50'37	46°58'55	desc. node	4120 Sep 26 16:15	11°♄11'49	
	4118 Mar 07 01:29	0°≈			4120 Oct 12 15:06	0°♄	
	4118 Apr 02 13:26	0°♄			4120 Nov 07 15:01	0°♄	
desc. node	4118 Apr 11 21:17	10°♄54'40			4120 Dec 04 22:55	0°≈	
	4118 Apr 27 23:53	0°♄		evening max el	4120 Dec 13 10:50	8°≈44'11	47°02'10
	4118 May 22 23:51	0°♄			4121 Jan 06 02:42	0°♄	
	4118 Jun 16 19:17	0°♄		asc. node	4121 Jan 17 18:46	7°♄31'46	
	4118 Jul 11 12:17	0°♄		greatest brilliancy	4121 Jan 20 22:38	9°♄01'12	-4.7m
asc. node	4118 Aug 02 23:43	27°♄24'03		retrograde	4121 Feb 02 01:15	11°♄45'02	
	4118 Aug 05 02:45	0°♄		evening set	4121 Feb 18 06:20	6°♄33'45	
morning set	4118 Aug 21 20:44	20°♄30'58		min. Earth dist.	4121 Feb 21 22:45	4°♄20'36	0.26884 AU
	4118 Aug 29 13:57	0°♄		inferior conj	4121 Feb 22 15:34	3°♄54'40	7°45'52
	4118 Sep 22 21:43	0°♄		minimum elong	4121 Feb 22 05:56	4°♄09'31	7°44'17
max. Earth dist.	4118 Sep 24 17:08	2°♄14'16	1.72988 AU	morning rise	4121 Feb 26 05:49	1°♄44'04	




































































































































	4121 Mar 01 08:47	30° \mathbb{R} \approx		evening rise	4123 Aug 24 13:42	12° \mathbb{M} 46'18	
direct	4121 Mar 15 03:59	26° \approx 12'25			4123 Sep 07 13:49	0° \mathbb{L}	
greatest brilliancy	4121 Mar 25 23:59	28° \approx 24'33	-4.6m		4123 Oct 01 23:53	0° \mathbb{M}	
	4121 Mar 29 14:50	0° \mathbb{H}		desc. node	4123 Oct 25 04:16	28° \mathbb{M} 24'07	
morning max el	4121 May 04 03:33	28° \mathbb{H} 14'30	46°31'19		4123 Oct 26 11:38	0° \mathbb{J}	
	4121 May 05 22:01	0° \mathbb{Y}			4123 Nov 20 01:49	0° \mathbb{Z}	
desc. node	4121 May 09 09:06	3° \mathbb{Y} 29'38			4123 Dec 14 19:53	0° \approx	
	4121 Jun 03 02:52	0° \mathbb{B}			4124 Jan 08 22:26	0° \mathbb{H}	
	4121 Jun 29 12:29	0° \mathbb{II}			4124 Feb 03 22:28	0° \mathbb{Y}	
	4121 Jul 25 04:05	0° \mathbb{S}		asc. node	4124 Feb 15 06:28	12° \mathbb{Y} 25'26	
	4121 Aug 19 08:39	0° \mathbb{O}		evening max el	4124 Feb 24 16:44	22° \mathbb{Y} 15'55	47°01'10
asc. node	4121 Aug 30 11:28	13° \mathbb{O} 23'29			4124 Mar 03 13:08	0° \mathbb{B}	
	4121 Sep 13 04:07	0° \mathbb{M}		greatest brilliancy	4124 Apr 01 18:48	22° \mathbb{B} 02'16	-4.6m
	4121 Oct 07 15:38	0° \mathbb{L}		retrograde	4124 Apr 15 07:48	25° \mathbb{B} 24'35	
morning set	4121 Oct 29 16:23	27° \mathbb{L} 16'22		evening set	4124 May 02 02:27	19° \mathbb{B} 56'38	
	4121 Oct 31 21:03	0° \mathbb{M}		inferior conj	4124 May 06 10:23	17° \mathbb{B} 16'55	6°37'44
	4121 Nov 24 22:30	0° \mathbb{J}		minimum elong	4124 May 06 20:38	17° \mathbb{B} 00'51	6°35'37
max. Earth dist.	4121 Dec 04 08:07	11° \mathbb{J} 45'26	1.71675 AU	min. Earth dist.	4124 May 06 08:06	17° \mathbb{B} 20'30	0.28006 AU
				morning rise	4124 May 11 15:05	14° \mathbb{B} 07'27	
superior conj	4121 Dec 06 22:56	15° \mathbb{J} 02'01	0°30'54	direct	4124 May 27 10:09	9° \mathbb{B} 15'57	
minimum elong	4121 Dec 07 06:03	15° \mathbb{J} 24'16	0°30'34	desc. node	4124 Jun 05 20:53	10° \mathbb{B} 54'02	
	4121 Dec 18 21:41	0° \mathbb{Z}		greatest brilliancy	4124 Jun 08 04:37	11° \mathbb{B} 45'10	-4.5m
desc. node	4121 Dec 20 02:00	1° \mathbb{Z} 28'43			4124 Jul 05 02:24	0° \mathbb{II}	
	4122 Jan 11 19:35	0° \approx		morning max el	4124 Jul 15 09:52	9° \mathbb{II} 27'50	45°49'45
evening rise	4122 Jan 16 08:23	5° \approx 41'25			4124 Aug 04 15:37	0° \mathbb{S}	
	4122 Feb 04 17:10	0° \mathbb{H}			4124 Aug 31 21:13	0° \mathbb{O}	
	4122 Feb 28 16:07	0° \mathbb{Y}		asc. node	4124 Sep 26 23:28	0° \mathbb{M} 15'22	
	4122 Mar 24 19:09	0° \mathbb{B}			4124 Sep 26 18:16	0° \mathbb{M}	
asc. node	4122 Apr 12 04:20	22° \mathbb{B} 36'22			4124 Oct 21 19:40	0° \mathbb{L}	
	4122 Apr 18 05:51	0° \mathbb{II}			4124 Nov 15 08:02	0° \mathbb{M}	
	4122 May 13 04:46	0° \mathbb{S}			4124 Dec 09 12:13	0° \mathbb{J}	
	4122 Jun 07 23:42	0° \mathbb{O}			4125 Jan 02 11:45	0° \mathbb{Z}	
	4122 Jul 05 09:40	0° \mathbb{M}		morning set	4125 Jan 10 16:18	10° \mathbb{Z} 16'34	
evening max el	4122 Jul 18 23:45	13° \mathbb{M} 37'21	45°29'19	desc. node	4125 Jan 16 13:44	17° \mathbb{Z} 40'47	
desc. node	4122 Aug 01 18:36	26° \mathbb{M} 01'11			4125 Jan 26 08:56	0° \approx	
	4122 Aug 06 18:27	0° \mathbb{L}			4125 Feb 19 05:16	0° \mathbb{H}	
greatest brilliancy	4122 Aug 24 01:20	10° \mathbb{L} 32'26	-4.5m				
retrograde	4122 Sep 05 14:06	13° \mathbb{L} 18'28		superior conj	4125 Feb 21 02:52	2° \mathbb{H} 23'27	-1°-12'-32
evening set	4122 Sep 23 16:41	7° \mathbb{L} 13'59		minimum elong	4125 Feb 20 15:42	1° \mathbb{H} 48'19	1°12'14
inferior conj	4122 Sep 27 00:11	5° \mathbb{L} 11'25	-8°-38'-25	max. Earth dist.	4125 Feb 22 10:51	4° \mathbb{H} 03'59	1.71169 AU
minimum elong	4122 Sep 26 23:34	5° \mathbb{L} 12'23	8°38'26		4125 Mar 15 02:13	0° \mathbb{Y}	
min. Earth dist.	4122 Sep 27 11:50	4° \mathbb{L} 53'12	0.28828 AU	evening rise	4125 Apr 02 22:13	23° \mathbb{Y} 35'04	
morning rise	4122 Sep 30 06:17	3° \mathbb{L} 10'26			4125 Apr 08 01:34	0° \mathbb{B}	
	4122 Oct 06 00:39	30° \mathbb{R} \mathbb{M}			4125 May 02 05:07	0° \mathbb{II}	
direct	4122 Oct 18 12:27	26° \mathbb{M} 55'32		asc. node	4125 May 09 16:18	9° \mathbb{II} 13'00	
	4122 Oct 31 15:04	0° \mathbb{L}			4125 May 26 14:28	0° \mathbb{S}	
greatest brilliancy	4122 Nov 01 23:15	0° \mathbb{L} 37'10	-4.6m		4125 Jun 20 07:13	0° \mathbb{O}	
asc. node	4122 Nov 22 21:01	15° \mathbb{L} 09'40			4125 Jul 15 10:05	0° \mathbb{M}	
morning max el	4122 Dec 07 12:30	28° \mathbb{L} 53'11	46°29'02		4125 Aug 10 04:48	0° \mathbb{L}	
	4122 Dec 08 15:04	0° \mathbb{M}		desc. node	4125 Aug 29 06:24	21° \mathbb{L} 23'54	
	4123 Jan 05 07:23	0° \mathbb{J}			4125 Sep 06 04:30	0° \mathbb{M}	
	4123 Jan 30 22:10	0° \mathbb{Z}		evening max el	4125 Sep 28 22:52	23° \mathbb{M} 17'59	46°01'50
	4123 Feb 24 17:26	0° \approx			4125 Oct 06 03:05	0° \mathbb{J}	
desc. node	4123 Mar 14 11:23	21° \approx 45'29		greatest brilliancy	4125 Nov 06 06:37	21° \mathbb{J} 35'09	-4.6m
	4123 Mar 21 04:03	0° \mathbb{H}		retrograde	4125 Nov 17 04:35	23° \mathbb{J} 45'13	
	4123 Apr 14 11:09	0° \mathbb{Y}		evening set	4125 Dec 02 05:32	19° \mathbb{J} 21'37	
	4123 May 08 17:38	0° \mathbb{B}		inferior conj	4125 Dec 07 21:59	16° \mathbb{J} 01'35	-3°-7'-26
	4123 Jun 02 01:06	0° \mathbb{II}		minimum elong	4125 Dec 08 04:47	15° \mathbb{J} 51'13	3°05'24
morning set	4123 Jun 12 07:29	12° \mathbb{II} 39'00		min. Earth dist.	4125 Dec 08 14:52	15° \mathbb{J} 35'52	0.27041 AU
	4123 Jun 26 09:49	0° \mathbb{S}		morning rise	4125 Dec 14 03:21	12° \mathbb{J} 22'54	
asc. node	4123 Jul 05 13:54	11° \mathbb{S} 16'51		asc. node	4125 Dec 20 08:52	9° \mathbb{J} 36'15	
				direct	4125 Dec 28 16:20	8° \mathbb{J} 10'43	
superior conj	4123 Jul 19 12:04	28° \mathbb{S} 24'20	0°32'30	greatest brilliancy	4126 Jan 11 04:19	11° \mathbb{J} 32'42	-4.7m
minimum elong	4123 Jul 19 05:43	28° \mathbb{S} 04'48	0°32'12		4126 Feb 05 12:45	0° \mathbb{Z}	
max. Earth dist.	4123 Jul 19 12:54	28° \mathbb{S} 26'54	1.73476 AU	morning max el	4126 Feb 17 09:41	11° \mathbb{Z} 29'41	46°58'47
	4123 Jul 20 19:11	0° \mathbb{O}			4126 Mar 06 19:50	0° \approx	
	4123 Aug 14 04:31	0° \mathbb{M}			4126 Apr 02 04:19	0° \mathbb{H}	

desc. node	4126 Apr 10 23:26	10° Υ 19'17			4128 Nov 07 06:33	0° Θ	
	4126 Apr 27 13:08	0° Υ			4128 Dec 04 19:24	0° \approx	
	4126 May 22 12:07	0° Υ	evening max el		4128 Dec 11 00:41	6° \approx 21'01	47°00'44
	4126 Jun 16 06:56	0° Π			4129 Jan 07 00:18	0° Υ	
	4126 Jul 10 23:32	0° Θ	asc. node		4129 Jan 16 20:40	5° Υ 50'35	
asc. node	4126 Aug 02 01:40	26° Θ 56'20	greatest brilliancy		4129 Jan 18 13:40	6° Υ 36'37	-4.7m
	4126 Aug 04 13:44	0° Ω	retrograde		4129 Jan 30 13:49	9° Υ 17'46	
morning set	4126 Aug 19 14:31	18° Ω 24'55	evening set		4129 Feb 15 15:04	4° Υ 13'24	
	4126 Aug 29 00:46	0° \mathfrak{M}	min. Earth dist.		4129 Feb 19 12:00	1° Υ 53'43	0.26849 AU
	4126 Sep 22 08:29	0° $\underline{\Omega}$	inferior conj		4129 Feb 20 04:23	1° Υ 28'27	7°33'12
max. Earth dist.	4126 Sep 22 12:40	0° $\underline{\Omega}$ 12'57	minimum elong		4129 Feb 19 18:22	1° Υ 43'55	7°31'26
					4129 Feb 22 14:11	30° \mathfrak{R} \approx	
superior conj	4126 Sep 25 01:02	3° $\underline{\Omega}$ 19'35	1°25'06	morning rise	4129 Feb 23 21:54	29° \approx 12'53	
minimum elong	4126 Sep 25 00:04	3° $\underline{\Omega}$ 16'36	1°25'05	direct	4129 Mar 12 16:23	23° \approx 46'45	
	4126 Oct 16 13:41	0° \mathfrak{M}		greatest brilliancy	4129 Mar 23 13:41	25° \approx 59'42	-4.6m
evening rise	4126 Nov 01 04:21	19° \mathfrak{M} 22'46			4129 Mar 31 14:34	0° Υ	
	4126 Nov 09 17:32	0° \mathfrak{X}		morning max el	4129 May 01 15:43	25° Υ 48'58	46°32'45
desc. node	4126 Nov 21 16:12	14° \mathfrak{X} 50'29			4129 May 05 19:55	0° Υ	
	4126 Dec 03 20:51	0° Θ		desc. node	4129 May 08 11:09	2° Υ 41'27	
	4126 Dec 28 00:08	0° \approx			4129 Jun 02 18:44	0° Υ	
	4127 Jan 21 04:34	0° Υ			4129 Jun 29 01:58	0° Π	
	4127 Feb 14 13:18	0° Υ			4129 Jul 24 16:19	0° Θ	
	4127 Mar 11 08:36	0° Υ			4129 Aug 18 20:08	0° Ω	
asc. node	4127 Mar 14 18:25	4° \mathfrak{X} 03'15		asc. node	4129 Aug 29 13:34	12° Ω 55'48	
	4127 Apr 06 02:01	0° Π			4129 Sep 12 15:09	0° \mathfrak{M}	
	4127 May 03 21:40	0° Θ			4129 Oct 07 02:27	0° $\underline{\Omega}$	
evening max el	4127 May 07 02:29	3° Θ 11'16	46°03'19	morning set	4129 Oct 27 08:07	25° $\underline{\Omega}$ 02'41	
	4127 Jun 09 22:19	0° Ω			4129 Oct 31 07:48	0° \mathfrak{M}	
greatest brilliancy	4127 Jun 10 15:45	0° Ω 21'31	-4.5m		4129 Nov 24 09:16	0° \mathfrak{X}	
retrograde	4127 Jun 25 11:07	4° Ω 12'12		max. Earth dist.	4129 Dec 01 18:36	9° \mathfrak{X} 14'25	1.71715 AU
desc. node	4127 Jul 04 08:44	2° Ω 36'43					
	4127 Jul 10 02:42	30° \mathfrak{R} Θ		superior conj	4129 Dec 04 12:06	12° \mathfrak{X} 39'20	0°34'19
evening set	4127 Jul 10 13:20	29° Θ 45'30		minimum elong	4129 Dec 04 19:50	13° \mathfrak{X} 03'31	0°33'58
inferior conj	4127 Jul 16 21:34	25° Θ 56'27	-2°-55'-52		4129 Dec 18 08:29	0° Θ	
minimum elong	4127 Jul 16 15:24	26° Θ 06'08	2°54'09	desc. node	4129 Dec 19 03:57	1° Θ 00'58	
min. Earth dist.	4127 Jul 16 12:53	26° Θ 10'04	0.28863 AU		4130 Jan 11 06:27	0° \approx	
morning rise	4127 Jul 22 17:52	22° Θ 25'01		evening rise	4130 Jan 13 19:42	3° \approx 12'11	
direct	4127 Aug 07 10:40	17° Θ 42'36			4130 Feb 04 04:07	0° Υ	
greatest brilliancy	4127 Aug 20 15:04	20° Θ 45'54	-4.5m		4130 Feb 28 03:13	0° Υ	
	4127 Sep 04 22:27	0° Ω			4130 Mar 24 06:31	0° Υ	
morning max el	4127 Sep 25 06:32	17° Ω 34'41	45°47'47	asc. node	4130 Apr 11 06:24	22° \mathfrak{X} 07'09	
	4127 Oct 07 16:27	0° \mathfrak{M}			4130 Apr 17 17:38	0° Π	
asc. node	4127 Oct 25 11:20	19° \mathfrak{M} 10'33			4130 May 12 17:21	0° Θ	
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	4127 Nov 29 16:02	0° \mathfrak{M}			4130 Jul 05 03:57	0° \mathfrak{M}	
	4127 Dec 24 09:29	0° \mathfrak{X}		evening max el	4130 Jul 16 13:46	11° \mathfrak{M} 22'29	45°29'23
	4128 Jan 17 16:15	0° Θ		desc. node	4130 Jul 31 20:38	25° \mathfrak{M} 01'13	
	4128 Feb 10 17:45	0° \approx			4130 Aug 07 08:23	0° $\underline{\Omega}$	
desc. node	4128 Feb 14 01:33	4° \approx 09'31		greatest brilliancy	4130 Aug 21 13:32	8° $\underline{\Omega}$ 18'02	-4.5m
	4128 Mar 05 16:59	0° Υ		retrograde	4130 Sep 03 05:08	11° $\underline{\Omega}$ 07'44	
morning set	4128 Mar 28 16:23	28° Υ 46'14		evening set	4130 Sep 21 06:53	5° $\underline{\Omega}$ 04'27	
	4128 Mar 29 15:58	0° Υ		inferior conj	4130 Sep 24 15:50	2° $\underline{\Omega}$ 59'51	-8°-37'-5
	4128 Apr 22 16:23	0° Υ		minimum elong	4130 Sep 24 14:25	3° $\underline{\Omega}$ 02'04	8°37'04
				min. Earth dist.	4130 Sep 25 02:42	2° $\underline{\Omega}$ 42'53	0.28868 AU
superior conj	4128 May 07 05:44	18° \mathfrak{X} 06'48	-1°-3'-58	morning rise	4130 Sep 27 21:47	0° $\underline{\Omega}$ 59'11	
minimum elong	4128 May 07 16:20	18° \mathfrak{X} 39'43	1°03'37		4130 Sep 29 13:35	30° \mathfrak{R} \mathfrak{M}	
max. Earth dist.	4128 May 11 01:00	22° \mathfrak{X} 50'14	1.72426 AU	direct	4130 Oct 16 03:58	24° \mathfrak{M} 43'18	
	4128 May 16 19:33	0° Π		greatest brilliancy	4130 Oct 30 16:06	28° \mathfrak{M} 25'52	-4.6m
asc. node	4128 Jun 06 04:04	25° Π 10'16			4130 Nov 02 16:47	0° $\underline{\Omega}$	
	4128 Jun 10 02:01	0° Θ		asc. node	4130 Nov 21 23:01	14° $\underline{\Omega}$ 10'08	
evening rise	4128 Jun 14 16:34	5° Θ 40'33		morning max el	4130 Dec 05 03:07	26° $\underline{\Omega}$ 35'15	46°27'35
	4128 Jul 04 11:44	0° Ω			4130 Dec 08 12:02	0° \mathfrak{M}	
	4128 Jul 29 00:50	0° \mathfrak{M}			4131 Jan 04 22:50	0° \mathfrak{X}	
	4128 Aug 22 18:23	0° $\underline{\Omega}$			4131 Jan 30 11:33	0° Θ	
	4128 Sep 16 18:31	0° \mathfrak{M}			4131 Feb 24 05:44	0° \approx	
desc. node	4128 Sep 25 18:23	10° \mathfrak{M} 40'52		desc. node	4131 Mar 13 13:31	21° \approx 15'41	
	4128 Oct 12 04:30	0° \mathfrak{X}			4131 Mar 20 15:42	0° Υ	

	4131 Apr 13 22:23	0°Υ		evening set	4133 Nov 29 20:57	16°♂55'42	
	4131 May 08 04:35	0°Ϡ		inferior conj	4133 Dec 05 11:02	13°♂38'25	-3°-29'-5
	4131 Jun 01 11:49	0°Π		minimum elong	4133 Dec 05 18:29	13°♂27'01	3°26'54
morning set	4131 Jun 09 23:57	10°Π29'03		min. Earth dist.	4133 Dec 06 04:33	13°♂11'41	0.27097 AU
	4131 Jun 25 20:23	0°Ϡ		morning rise	4133 Dec 11 15:26	10°♂00'55	
asc. node	4131 Jul 04 15:51	10°Ϡ50'24		asc. node	4133 Dec 19 10:48	6°♂44'27	
				direct	4133 Dec 26 06:40	5°♂46'50	
superior conj	4131 Jul 17 05:42	26°Ϡ18'38	0°29'29	greatest brilliancy	4134 Jan 08 19:09	9°♂09'48	-4.7m
minimum elong	4131 Jul 16 23:50	26°Ϡ00'37	0°29'13		4134 Feb 05 16:36	0°♂	
max. Earth dist.	4131 Jul 17 08:08	26°Ϡ26'08	1.73469 AU	morning max el	4134 Feb 15 00:06	9°♂07'36	46°58'32
	4131 Jul 20 05:42	0°Ω			4134 Mar 06 13:27	0°≈	
	4131 Aug 13 15:04	0°η			4134 Apr 01 18:45	0°κ	
evening rise	4131 Aug 22 08:02	10°η42'35		desc. node	4134 Apr 10 01:22	9°κ44'19	
	4131 Sep 07 00:31	0°♄			4134 Apr 27 01:59	0°Υ	
	4131 Oct 01 10:51	0°♌			4134 May 22 00:01	0°Ϡ	
desc. node	4131 Oct 24 06:17	27°♌55'36			4134 Jun 15 18:13	0°Π	
	4131 Oct 25 23:01	0°♂			4134 Jul 10 10:25	0°Ϡ	
	4131 Nov 19 13:47	0°♂		asc. node	4134 Aug 01 03:46	26°Ϡ30'11	
	4131 Dec 14 08:41	0°≈			4134 Aug 04 00:23	0°Ω	
	4132 Jan 08 12:36	0°κ		morning set	4134 Aug 17 08:27	16°Ω20'21	
	4132 Feb 03 15:26	0°Υ			4134 Aug 28 11:19	0°η	
asc. node	4132 Feb 14 08:37	11°Υ40'15		max. Earth dist.	4134 Sep 20 06:24	28°η06'48	1.73058 AU
evening max el	4132 Feb 22 06:51	19°Υ54'55	47°02'46		4134 Sep 21 19:02	0°♄	
	4132 Mar 03 15:00	0°Ϡ					
greatest brilliancy	4132 Mar 30 10:10	19°Ϡ45'26	-4.6m	superior conj	4134 Sep 22 18:44	1°♄13'16	1°24'51
retrograde	4132 Apr 12 23:16	23°Ϡ08'20		minimum elong	4134 Sep 22 17:04	1°♄08'07	1°24'51
evening set	4132 Apr 29 20:31	17°Ϡ35'32			4134 Oct 16 00:20	0°♌	
inferior conj	4132 May 04 01:20	15°Ϡ00'46	6°52'04	evening rise	4134 Oct 29 19:34	17°♌07'34	
minimum elong	4132 May 04 11:30	14°Ϡ44'51	6°50'05		4134 Nov 09 04:22	0°♂	
min. Earth dist.	4132 May 03 22:45	15°Ϡ04'49	0.27977 AU	desc. node	4134 Nov 20 18:06	14°♂22'25	
morning rise	4132 May 09 02:43	11°Ϡ56'22			4134 Dec 03 07:55	0°♂	
direct	4132 May 25 00:31	7°Ϡ00'06			4134 Dec 27 11:30	0°≈	
desc. node	4132 Jun 04 22:49	9°Ϡ10'13			4135 Jan 20 16:19	0°κ	
greatest brilliancy	4132 Jun 05 18:29	9°Ϡ29'20	-4.5m		4135 Feb 14 01:38	0°Υ	
	4132 Jul 05 05:38	0°Π			4135 Mar 10 21:54	0°Ϡ	
morning max el	4132 Jul 13 01:46	7°Π17'02	45°50'37	asc. node	4135 Mar 13 20:26	3°Ϡ29'20	
	4132 Aug 04 08:22	0°Ϡ			4135 Apr 05 17:21	0°Π	
	4132 Aug 31 10:50	0°Ω			4135 May 03 18:35	0°Ϡ	
asc. node	4132 Sep 26 01:31	29°Ω45'19		evening max el	4135 May 04 18:36	0°Ϡ59'26	46°05'23
	4132 Sep 26 06:29	0°η		greatest brilliancy	4135 Jun 08 09:43	28°Ϡ14'15	-4.5m
	4132 Oct 21 07:10	0°♄			4135 Jun 12 12:31	0°Ω	
	4132 Nov 14 19:10	0°♌		retrograde	4135 Jun 23 03:29	2°Ω03'09	
	4132 Dec 08 23:09	0°♂		desc. node	4135 Jul 03 10:44	29°Ϡ56'04	
	4133 Jan 01 22:36	0°♂			4135 Jul 03 06:50	30°ϠϠ	
morning set	4133 Jan 08 03:13	7°♂46'08		evening set	4135 Jul 08 05:10	27°Ϡ37'51	
desc. node	4133 Jan 15 15:43	17°♂12'55		min. Earth dist.	4135 Jul 14 05:20	24°Ϡ01'17	0.28832 AU
	4133 Jan 25 19:46	0°≈		inferior conj	4135 Jul 14 13:57	23°Ϡ47'46	-2°-37'-3
				minimum elong	4135 Jul 14 08:22	23°Ϡ56'32	2°35'29
superior conj	4133 Feb 18 12:56	29°≈50'05	-1°-10'-15	morning rise	4135 Jul 20 12:01	20°Ϡ13'37	
minimum elong	4133 Feb 18 01:22	29°≈13'44	1°09'55	direct	4135 Aug 05 02:58	15°Ϡ34'34	
	4133 Feb 18 16:05	0°κ		greatest brilliancy	4135 Aug 18 04:33	18°Ϡ34'37	-4.5m
max. Earth dist.	4133 Feb 19 18:05	1°κ21'48	1.71153 AU		4135 Sep 05 09:50	0°Ω	
	4133 Mar 14 13:00	0°Υ		morning max el	4135 Sep 22 21:19	15°Ω22'27	45°46'51
evening rise	4133 Mar 31 09:34	21°Υ06'59			4135 Oct 07 10:23	0°η	
	4133 Apr 07 12:20	0°Ϡ		asc. node	4135 Oct 24 13:17	18°η33'50	
	4133 May 01 15:56	0°Π			4135 Nov 03 15:51	0°♄	
asc. node	4133 May 08 18:15	8°Π45'33			4135 Nov 29 04:42	0°♌	
	4133 May 26 01:29	0°Ϡ			4135 Dec 23 21:26	0°♂	
	4133 Jun 19 18:39	0°Ω			4136 Jan 17 03:48	0°♂	
	4133 Jul 14 22:17	0°η			4136 Feb 10 05:03	0°≈	
	4133 Aug 09 18:31	0°♄		desc. node	4136 Feb 13 03:42	3°≈40'58	
desc. node	4133 Aug 28 08:30	20°♄46'42			4136 Mar 05 04:05	0°κ	
	4133 Sep 05 21:30	0°♌		morning set	4136 Mar 26 03:34	26°κ16'46	
evening max el	4133 Sep 26 13:37	21°♌02'41	45°59'50		4136 Mar 29 02:55	0°Υ	
	4133 Oct 06 06:49	0°♂			4136 Apr 22 03:14	0°Ϡ	
greatest brilliancy	4133 Nov 03 18:46	19°♂12'32	-4.6m				
retrograde	4133 Nov 14 17:37	21°♂22'38		superior conj	4136 May 04 19:33	15°Ϡ46'59	-1°-6'-22

minimum elong	4136 May 05 06:06	16°♄19'47	1°06'03	morning rise	4138 Sep 25 13:57	28°♎47'53	
max. Earth dist.	4136 May 08 17:42	20°♄39'30	1.72370 AU	direct	4138 Oct 13 20:03	22°♎31'39	
	4136 May 16 06:21	0°♄		greatest brilliancy	4138 Oct 28 09:10	26°♎15'20	-4.5m
asc. node	4136 Jun 05 06:05	24°♄43'19			4138 Nov 04 01:34	0°♄	
	4136 Jun 09 12:48	0°♄		asc. node	4138 Nov 21 01:01	13°♄11'50	
evening rise	4136 Jun 12 08:53	3°♄29'48		morning max el	4138 Dec 02 18:43	24°♄19'47	46°25'59
	4136 Jul 03 22:34	0°♄			4138 Dec 08 08:24	0°♄	
	4136 Jul 28 11:52	0°♄			4139 Jan 04 14:16	0°♄	
	4136 Aug 22 05:51	0°♄			4139 Jan 30 01:06	0°♄	
	4136 Sep 16 06:45	0°♄			4139 Feb 23 18:21	0°♄	
desc. node	4136 Sep 24 20:21	10°♄09'30		desc. node	4139 Mar 12 15:29	20°♄44'09	
	4136 Oct 11 18:01	0°♄			4139 Mar 20 03:45	0°♄	
	4136 Nov 06 22:25	0°♄			4139 Apr 13 10:01	0°♄	
	4136 Dec 04 16:49	0°♄			4139 May 07 15:54	0°♄	
evening max el	4136 Dec 08 13:30	3°♄54'40	46°59'03		4139 May 31 22:53	0°♄	
	4137 Jan 08 06:42	0°♄		morning set	4139 Jun 07 16:07	8°♄17'01	
asc. node	4137 Jan 15 22:50	4°♄04'31			4139 Jun 25 07:18	0°♄	
greatest brilliancy	4137 Jan 16 04:36	4°♄10'40	-4.7m	asc. node	4139 Jul 03 17:57	10°♄23'23	
retrograde	4137 Jan 28 01:55	6°♄49'19					
evening set	4137 Feb 12 23:34	1°♄51'32		superior conj	4139 Jul 14 23:12	24°♄11'29	0°26'26
	4137 Feb 16 02:37	30°♄		minimum elong	4139 Jul 14 17:52	23°♄55'05	0°26'10
min. Earth dist.	4137 Feb 17 01:16	29°♄25'13	0.26813 AU	max. Earth dist.	4139 Jul 15 04:58	24°♄29'15	1.73457 AU
inferior conj	4137 Feb 17 16:58	29°♄01'01	7°19'31		4139 Jul 19 16:32	0°♄	
minimum elong	4137 Feb 17 06:36	29°♄16'59	7°17'34		4139 Aug 13 01:57	0°♄	
morning rise	4137 Feb 21 13:50	26°♄40'32		evening rise	4139 Aug 20 02:35	8°♄38'30	
direct	4137 Mar 10 04:10	21°♄19'37			4139 Sep 06 11:33	0°♄	
greatest brilliancy	4137 Mar 21 04:01	23°♄34'37	-4.6m		4139 Sep 30 22:08	0°♄	
	4137 Apr 01 23:10	0°♄		desc. node	4139 Oct 23 08:15	27°♄26'06	
morning max el	4137 Apr 29 03:40	23°♄22'18	46°34'23		4139 Oct 25 10:41	0°♄	
	4137 May 05 17:11	0°♄			4139 Nov 19 02:02	0°♄	
desc. node	4137 May 07 13:08	1°♄53'29			4139 Dec 13 21:50	0°♄	
	4137 Jun 02 10:28	0°♄			4140 Jan 08 03:16	0°♄	
	4137 Jun 28 15:26	0°♄			4140 Feb 03 09:13	0°♄	
	4137 Jul 24 04:33	0°♄		asc. node	4140 Feb 13 10:36	10°♄52'23	
	4137 Aug 18 07:39	0°♄		evening max el	4140 Feb 19 21:47	17°♄34'24	47°03'58
asc. node	4137 Aug 28 15:38	12°♄27'49			4140 Mar 03 19:13	0°♄	
	4137 Sep 12 02:14	0°♄		greatest brilliancy	4140 Mar 28 01:33	17°♄26'14	-4.6m
	4137 Oct 06 13:20	0°♄		retrograde	4140 Apr 10 14:46	20°♄49'01	
morning set	4137 Oct 25 00:16	22°♄50'09		evening set	4140 Apr 27 14:16	15°♄11'32	
	4137 Oct 30 18:38	0°♄		inferior conj	4140 May 01 15:52	12°♄41'36	7°05'57
	4137 Nov 23 20:10	0°♄		minimum elong	4140 May 02 01:53	12°♄25'57	7°04'06
max. Earth dist.	4137 Nov 29 08:08	6°♄52'30	1.71765 AU	min. Earth dist.	4140 May 01 12:40	12°♄46'36	0.27946 AU
				morning rise	4140 May 06 13:47	9°♄42'36	
superior conj	4137 Dec 02 01:29	10°♄16'52	0°37'39	direct	4140 May 22 14:58	4°♄41'30	
minimum elong	4137 Dec 02 09:45	10°♄42'44	0°37'17	greatest brilliancy	4140 Jun 03 07:11	7°♄09'48	-4.5m
	4137 Dec 17 19:29	0°♄		desc. node	4140 Jun 04 00:53	7°♄27'57	
desc. node	4137 Dec 18 06:01	0°♄33'01			4140 Jul 05 08:02	0°♄	
	4138 Jan 10 17:33	0°♄		morning max el	4140 Jul 10 17:35	5°♄04'28	45°51'38
evening rise	4138 Jan 11 06:55	0°♄41'54			4140 Aug 04 01:16	0°♄	
	4138 Feb 03 15:22	0°♄			4140 Aug 31 00:43	0°♄	
	4138 Feb 27 14:38	0°♄		asc. node	4140 Sep 25 03:24	29°♄13'51	
	4138 Mar 23 18:11	0°♄			4140 Sep 25 18:59	0°♄	
asc. node	4138 Apr 10 08:20	21°♄36'38			4140 Oct 20 18:58	0°♄	
	4138 Apr 17 05:43	0°♄			4140 Nov 14 06:35	0°♄	
	4138 May 12 06:16	0°♄			4140 Dec 08 10:22	0°♄	
	4138 Jun 07 04:33	0°♄			4141 Jan 01 09:44	0°♄	
	4138 Jul 04 22:58	0°♄		morning set	4141 Jan 05 14:52	5°♄17'12	
evening max el	4138 Jul 14 04:33	9°♄09'06	45°29'41	desc. node	4141 Jan 14 17:51	16°♄44'39	
desc. node	4138 Jul 30 22:47	23°♄59'37			4141 Jan 25 06:52	0°♄	
	4138 Aug 08 03:18	0°♄					
greatest brilliancy	4138 Aug 19 01:24	6°♄03'21	-4.5m	superior conj	4141 Feb 15 23:16	27°♄16'37	-1°-7'-49
retrograde	4138 Aug 31 21:08	8°♄57'31		minimum elong	4141 Feb 15 11:27	26°♄39'27	1°07'28
evening set	4138 Sep 18 21:03	2°♄55'49		max. Earth dist.	4141 Feb 17 03:14	28°♄44'37	1.71144 AU
inferior conj	4138 Sep 22 07:47	0°♄48'42	-8°-34'-56		4141 Feb 18 03:12	0°♄	
minimum elong	4138 Sep 22 05:35	0°♄52'07	8°34'54		4141 Mar 14 00:09	0°♄	
min. Earth dist.	4138 Sep 22 17:27	0°♄33'37	0.28904 AU	evening rise	4141 Mar 28 20:43	18°♄36'56	
	4138 Sep 23 15:02	30°♄			4141 Apr 06 23:31	0°♄	

	4141 May 01 03:13	0°♊			4143 Dec 23 09:31	0°♊	
asc. node	4141 May 07 20:15	8°♊16'49			4144 Jan 16 15:30	0°♊	
	4141 May 25 12:59	0°♊			4144 Feb 09 16:29	0°♊	
	4141 Jun 19 06:34	0°♊		desc. node	4144 Feb 12 05:36	3°♊11'12	
	4141 Jul 14 11:01	0°♊			4144 Mar 04 15:19	0°♊	
	4141 Aug 09 08:48	0°♊		morning set	4144 Mar 23 14:55	23°♊47'20	
desc. node	4141 Aug 27 10:26	20°♊07'29			4144 Mar 28 13:59	0°♊	
	4141 Sep 05 15:19	0°♊			4144 Apr 21 14:11	0°♊	
evening max el	4141 Sep 24 04:13	18°♊46'02	45°57'54				
	4141 Oct 06 12:55	0°♊		superior conj	4144 May 02 09:34	13°♊27'29	-1°-8'-38
greatest brilliancy	4141 Nov 01 08:05	16°♊50'42	-4.6m	minimum elong	4144 May 02 20:00	13°♊59'56	1°08'21
retrograde	4141 Nov 12 06:20	18°♊59'40		max. Earth dist.	4144 May 06 09:30	18°♊25'39	1.72315 AU
evening set	4141 Nov 27 12:41	14°♊29'27			4144 May 15 17:14	0°♊	
inferior conj	4141 Dec 03 00:16	11°♊15'07	-3°-50'-7	asc. node	4144 Jun 04 08:11	24°♊16'16	
minimum elong	4141 Dec 03 08:20	11°♊02'48	3°47'49		4144 Jun 08 23:41	0°♊	
min. Earth dist.	4141 Dec 03 18:35	10°♊47'06	0.27151 AU	evening rise	4144 Jun 10 01:11	1°♊18'35	
morning rise	4141 Dec 09 03:23	7°♊38'55			4144 Jul 03 09:34	0°♊	
asc. node	4141 Dec 18 12:55	3°♊57'46			4144 Jul 27 23:07	0°♊	
direct	4141 Dec 23 20:49	3°♊22'52			4144 Aug 21 17:34	0°♊	
greatest brilliancy	4142 Jan 06 09:48	6°♊46'11	-4.6m		4144 Sep 15 19:15	0°♊	
	4142 Feb 05 19:05	0°♊		desc. node	4144 Sep 23 22:20	9°♊37'28	
morning max el	4142 Feb 12 13:36	6°♊42'33	46°58'18		4144 Oct 11 07:50	0°♊	
	4142 Mar 06 06:56	0°♊			4144 Nov 06 14:42	0°♊	
	4142 Apr 01 09:16	0°♊			4144 Dec 04 15:09	0°♊	
desc. node	4142 Apr 09 03:22	9°♊08'56		evening max el	4144 Dec 06 01:43	1°♊26'46	46°57'28
	4142 Apr 26 15:03	0°♊			4145 Jan 10 03:05	0°♊	
	4142 May 21 12:15	0°♊		greatest brilliancy	4145 Jan 13 18:51	1°♊43'37	-4.7m
	4142 Jun 15 05:54	0°♊		asc. node	4145 Jan 15 00:49	2°♊13'46	
	4142 Jul 09 21:42	0°♊		retrograde	4145 Jan 25 14:18	4°♊20'51	
asc. node	4142 Jul 31 05:48	26°♊02'31			4145 Feb 09 09:50	30°♊	
	4142 Aug 03 11:25	0°♊		evening set	4145 Feb 10 08:08	29°♊28'59	
morning set	4142 Aug 15 02:01	14°♊13'27		min. Earth dist.	4145 Feb 14 14:28	26°♊56'25	0.26780 AU
	4142 Aug 27 22:13	0°♊		inferior conj	4145 Feb 15 05:31	26°♊33'18	7°04'58
max. Earth dist.	4142 Sep 17 23:29	25°♊57'45	1.73092 AU	minimum elong	4145 Feb 14 18:54	26°♊49'37	7°02'50
				morning rise	4145 Feb 19 05:49	24°♊07'59	
superior conj	4142 Sep 20 12:18	29°♊05'36	1°24'29	direct	4145 Mar 07 15:55	18°♊52'00	
minimum elong	4142 Sep 20 09:58	28°♊58'22	1°24'30	greatest brilliancy	4145 Mar 18 18:41	21°♊09'46	-4.6m
	4142 Sep 21 05:54	0°♊			4145 Apr 02 22:39	0°♊	
	4142 Oct 15 11:17	0°♊		morning max el	4145 Apr 26 16:26	20°♊57'34	46°36'09
evening rise	4142 Oct 27 10:53	14°♊51'49			4145 May 05 13:42	0°♊	
	4142 Nov 08 15:31	0°♊		desc. node	4145 May 06 15:12	1°♊06'31	
desc. node	4142 Nov 19 20:12	13°♊53'58			4145 Jun 02 01:53	0°♊	
	4142 Dec 02 19:19	0°♊			4145 Jun 28 04:43	0°♊	
	4142 Dec 26 23:10	0°♊			4145 Jul 23 16:42	0°♊	
	4143 Jan 20 04:20	0°♊			4145 Aug 17 19:08	0°♊	
	4143 Feb 13 14:11	0°♊		asc. node	4145 Aug 27 17:32	11°♊59'16	
	4143 Mar 10 11:29	0°♊			4145 Sep 11 13:21	0°♊	
asc. node	4143 Mar 12 22:23	2°♊54'30			4145 Oct 06 00:16	0°♊	
	4143 Apr 05 09:06	0°♊		morning set	4145 Oct 22 16:15	20°♊37'05	
evening max el	4143 May 02 09:37	28°♊43'57	46°07'12		4145 Oct 30 05:31	0°♊	
	4143 May 03 16:35	0°♊			4145 Nov 23 07:03	0°♊	
greatest brilliancy	4143 Jun 06 03:06	26°♊04'46	-4.5m	max. Earth dist.	4145 Nov 26 23:21	4°♊35'54	1.71810 AU
retrograde	4143 Jun 20 19:19	29°♊52'32					
desc. node	4143 Jul 02 12:52	27°♊09'06		superior conj	4145 Nov 29 14:44	7°♊54'05	0°40'55
evening set	4143 Jul 05 20:56	25°♊28'13		minimum elong	4145 Nov 29 23:29	8°♊21'29	0°40'32
inferior conj	4143 Jul 12 06:10	21°♊37'32	-2°-17'-50	desc. node	4145 Dec 17 08:04	0°♊05'08	
minimum elong	4143 Jul 12 01:13	21°♊45'18	2°16'26		4145 Dec 17 06:26	0°♊	
min. Earth dist.	4143 Jul 11 22:01	21°♊50'20	0.28806 AU	evening rise	4146 Jan 08 18:09	28°♊11'56	
morning rise	4143 Jul 18 05:53	18°♊00'44			4146 Jan 10 04:37	0°♊	
direct	4143 Aug 02 18:40	13°♊24'44			4146 Feb 03 02:33	0°♊	
greatest brilliancy	4143 Aug 15 19:00	16°♊22'54	-4.5m		4146 Feb 27 02:00	0°♊	
	4143 Sep 05 18:46	0°♊			4146 Mar 23 05:47	0°♊	
morning max el	4143 Sep 20 11:29	13°♊07'33	45°46'07	asc. node	4146 Apr 09 10:23	21°♊06'43	
	4143 Oct 07 04:15	0°♊			4146 Apr 16 17:44	0°♊	
asc. node	4143 Oct 23 15:23	17°♊56'55			4146 May 11 19:06	0°♊	
	4143 Nov 03 06:08	0°♊			4146 Jun 06 19:10	0°♊	
	4143 Nov 28 17:30	0°♊			4146 Jul 04 18:20	0°♊	

evening max el	4146 Jul 11 20:01	6°  57'52	45°29'55	desc. node	4149 Jan 13 19:48	16°  16'31	
desc. node	4146 Jul 30 00:40	22°  56'16			4149 Jan 24 17:47	0° 	
	4146 Aug 09 04:57	0° 					
greatest brilliancy	4146 Aug 16 13:03	3°  48'40	-4.5m	superior conj	4149 Feb 13 09:13	24°  42'43	-1°-5'-14
retrograde	4146 Aug 29 13:16	6°  47'08		minimum elong	4149 Feb 12 21:14	24°  05'03	1°04'51
evening set	4146 Sep 16 10:49	0°  47'36		max. Earth dist.	4149 Feb 14 10:09	26°  01'11	1.71129 AU
	4146 Sep 17 18:16	30° 			4149 Feb 17 14:05	0° 	
inferior conj	4146 Sep 19 23:34	28°  37'24	-8°-32'-5		4149 Mar 13 11:00	0° 	
minimum elong	4146 Sep 19 20:37	28°  42'01	8°31'59	evening rise	4149 Mar 26 07:31	16°  06'36	
min. Earth dist.	4146 Sep 20 07:49	28°  24'33	0.28941 AU		4149 Apr 06 10:22	0° 	
morning rise	4146 Sep 23 06:17	26°  35'54			4149 Apr 30 14:10	0° 	
direct	4146 Oct 11 12:27	20°  19'58		asc. node	4149 May 06 22:21	7°  49'26	
greatest brilliancy	4146 Oct 26 01:36	24°  04'03	-4.5m		4149 May 25 00:10	0° 	
	4146 Nov 05 01:00	0° 			4149 Jun 18 18:12	0° 	
asc. node	4146 Nov 20 03:05	12°  14'55			4149 Jul 13 23:26	0° 	
morning max el	4146 Nov 30 10:51	22°  05'53	46°24'24		4149 Aug 08 22:49	0° 	
	4146 Dec 08 04:07	0° 		desc. node	4149 Aug 26 12:29	19°  29'25	
	4147 Jan 04 05:24	0° 			4149 Sep 05 09:03	0° 	
	4147 Jan 29 14:24	0° 		evening max el	4149 Sep 21 18:02	16°  28'50	45°55'53
	4147 Feb 23 06:43	0° 			4149 Oct 06 20:43	0° 	
desc. node	4147 Mar 11 17:28	20°  13'22		greatest brilliancy	4149 Oct 29 21:52	14°  23'04	-4.6m
	4147 Mar 19 15:32	0° 		retrograde	4149 Nov 09 18:35	16°  23'15	
	4147 Apr 12 21:25	0° 		evening set	4149 Nov 25 04:33	12°  23'04	
	4147 May 07 02:59	0° 		inferior conj	4149 Nov 30 13:37	8°  23'19	-4°-10'-35
	4147 May 31 09:44	0° 		minimum elong	4149 Nov 30 22:11	8°  24'09	4°08'12
morning set	4147 Jun 05 08:23	6°  05'53		min. Earth dist.	4149 Dec 01 08:59	8°  23'35	0.27213 AU
	4147 Jun 24 17:58	0° 		morning rise	4149 Dec 06 15:12	5°  23'33	
asc. node	4147 Jul 02 19:56	9°  56'47		asc. node	4149 Dec 17 14:53	1°  23'17	
				direct	4149 Dec 21 10:34	1°  23'00	
superior conj	4147 Jul 12 16:47	22°  50'21	0°23'20	greatest brilliancy	4150 Jan 04 01:17	4°  24'32	-4.6m
minimum elong	4147 Jul 12 12:00	21°  50'39	0°23'06		4150 Feb 05 19:59	0° 	
max. Earth dist.	4147 Jul 13 03:33	22°  53'29	1.73443 AU	morning max el	4150 Feb 10 02:35	4°  23'16	46°57'57
	4147 Jul 19 03:07	0° 			4150 Mar 05 23:52	0° 	
	4147 Aug 12 12:34	0° 			4150 Mar 31 23:24	0° 	
evening rise	4147 Aug 17 21:17	6°  35'42		desc. node	4150 Apr 08 05:30	8°  23'45	
	4147 Sep 05 22:20	0° 			4150 Apr 26 03:46	0° 	
	4147 Sep 30 09:13	0° 			4150 May 21 00:05	0° 	
desc. node	4147 Oct 22 10:21	26°  35'28			4150 Jun 14 17:10	0° 	
	4147 Oct 24 22:13	0° 			4150 Jul 09 08:36	0° 	
	4147 Nov 18 14:12	0° 		asc. node	4150 Jul 30 07:43	25°  35'45	
	4147 Dec 13 10:56	0° 			4150 Aug 02 22:05	0° 	
	4148 Jan 07 17:54	0° 		morning set	4150 Aug 12 19:48	12°  23'08	
	4148 Feb 03 03:09	0° 			4150 Aug 27 08:45	0° 	
asc. node	4148 Feb 12 12:32	10°  04'28		max. Earth dist.	4150 Sep 15 16:57	23°  23'00	1.73125 AU
evening max el	4148 Feb 17 13:11	15°  05'51	47°05'16				
	4148 Mar 04 00:57	0° 		superior conj	4150 Sep 18 06:18	27°  23'00	1°24'02
greatest brilliancy	4148 Mar 25 17:49	15°  09'05	-4.6m	minimum elong	4150 Sep 18 03:18	26°  23'14	1°24'00
retrograde	4148 Apr 08 06:18	18°  30'23			4150 Sep 20 16:24	0° 	
evening set	4148 Apr 25 08:05	12°  48'28			4150 Oct 14 21:53	0° 	
inferior conj	4148 Apr 29 06:25	10°  23'15	7°19'17	evening rise	4150 Oct 25 02:45	12°  23'03	
minimum elong	4148 Apr 29 16:13	10°  07'56	7°17'33		4150 Nov 08 02:18	0° 	
min. Earth dist.	4148 Apr 29 02:24	10°  29'31	0.27912 AU	desc. node	4150 Nov 18 22:16	13°  23'40	
morning rise	4148 May 04 00:40	7°  29'43			4150 Dec 02 06:22	0° 	
direct	4148 May 20 05:38	2°  23'57			4150 Dec 26 10:32	0° 	
greatest brilliancy	4148 May 31 18:55	4°  49'59	-4.5m		4151 Jan 19 16:07	0° 	
desc. node	4148 Jun 03 02:57	5°  50'18			4151 Feb 13 02:36	0° 	
	4148 Jul 05 08:38	0° 			4151 Mar 10 00:59	0° 	
morning max el	4148 Jul 08 09:08	2°  52'12	45°52'40	asc. node	4151 Mar 12 00:28	2°  23'04	
	4148 Aug 03 17:27	0° 			4151 Apr 05 00:53	0° 	
	4148 Aug 30 14:07	0° 		evening max el	4151 Apr 29 23:57	26°  23'27	46°09'21
asc. node	4148 Sep 24 05:32	28°  44'16			4151 May 03 15:11	0° 	
	4148 Sep 25 07:05	0° 		greatest brilliancy	4151 Jun 03 19:38	23°  23'07	-4.5m
	4148 Oct 20 06:24	0° 		retrograde	4151 Jun 18 11:21	27°  23'16	
	4148 Nov 13 17:42	0° 		desc. node	4151 Jul 01 14:47	24°  23'40	
	4148 Dec 07 21:21	0° 		evening set	4151 Jul 03 12:56	23°  23'19	
	4148 Dec 31 20:40	0° 		inferior conj	4151 Jul 09 22:28	19°  23'29	-1°-58'-24
morning set	4149 Jan 03 02:16	2°  48'07		minimum elong	4151 Jul 09 18:11	19°  23'13	1°57'10

min. Earth dist.	4151 Jul 09 14:51	19° $\overline{54}$ 0'27	0.28778 AU	evening rise	4154 Jan 06 05:52	25° $\overline{3}$ 44'00	
morning rise	4151 Jul 15 23:43	15° $\overline{54}$ 49'22			4154 Jan 09 15:31	0° \approx	
direct	4151 Jul 31 10:03	11° $\overline{5}$ 15'57			4154 Feb 02 13:35	0° H	
greatest brilliancy	4151 Aug 13 10:25	14° $\overline{5}$ 13'31	-4.5m		4154 Feb 26 13:12	0° Y	
	4151 Sep 06 00:41	0° Ω			4154 Mar 22 17:16	0° B	
morning max el	4151 Sep 18 02:18	10° Ω 55'24	45°45'34	asc. node	4154 Apr 08 12:27	20° B 37'04	
	4151 Oct 06 21:17	0° M			4154 Apr 16 05:43	0° II	
asc. node	4151 Oct 22 17:23	17° M 21'13			4154 May 11 08:00	0° $\overline{5}$	
	4151 Nov 02 19:51	0° $\underline{5}$			4154 Jun 06 10:00	0° Ω	
	4151 Nov 28 05:51	0° M			4154 Jul 04 14:21	0° M	
	4151 Dec 22 21:13	0° J		evening max el	4154 Jul 09 12:25	4° M 48'54	45°30'20
	4152 Jan 16 02:50	0° $\overline{5}$		desc. node	4154 Jul 29 02:45	21° M 51'42	
	4152 Feb 09 03:36	0° \approx			4154 Aug 10 17:22	0° $\underline{5}$	
desc. node	4152 Feb 11 07:39	2° \approx 42'51		greatest brilliancy	4154 Aug 14 01:50	1° $\underline{5}$ 35'39	-4.5m
	4152 Mar 04 02:17	0° H		retrograde	4154 Aug 27 05:21	4° $\underline{5}$ 37'05	
morning set	4152 Mar 21 01:45	21° H 16'48			4154 Sep 11 17:23	30° R M	
	4152 Mar 28 00:50	0° Y		evening set	4154 Sep 14 00:32	28° M 40'21	
	4152 Apr 21 00:57	0° B		inferior conj	4154 Sep 17 15:30	26° M 26'39	-8°-28'-35
				minimum elong	4154 Sep 17 11:49	26° M 32'23	8°28'24
superior conj	4152 Apr 29 23:01	11° B 06'44	-1°-10'-50	min. Earth dist.	4154 Sep 17 22:12	26° M 16'10	0.28969 AU
minimum elong	4152 Apr 30 09:15	11° B 38'33	1°10'33	morning rise	4154 Sep 20 22:59	24° M 23'56	
max. Earth dist.	4152 May 03 21:40	16° B 01'01	1.72257 AU	direct	4154 Oct 09 05:14	18° M 09'04	
	4152 May 15 03:56	0° II		greatest brilliancy	4154 Oct 23 16:45	21° M 51'38	-4.5m
asc. node	4152 Jun 03 10:07	23° II 49'20			4154 Nov 05 18:04	0° $\underline{5}$	
evening rise	4152 Jun 07 17:01	29° II 06'34		asc. node	4154 Nov 19 05:06	11° $\underline{5}$ 19'18	
	4152 Jun 08 10:21	0° $\overline{5}$		morning max el	4154 Nov 28 02:56	19° $\underline{5}$ 52'18	46°22'43
	4152 Jul 02 20:19	0° Ω			4154 Dec 07 23:11	0° M	
	4152 Jul 27 10:08	0° M			4155 Jan 03 20:16	0° J	
	4152 Aug 21 05:04	0° $\underline{5}$			4155 Jan 29 03:34	0° $\overline{5}$	
	4152 Sep 15 07:33	0° M			4155 Feb 22 18:58	0° \approx	
desc. node	4152 Sep 23 00:27	9° M 06'30		desc. node	4155 Mar 10 19:37	19° \approx 43'23	
	4152 Oct 10 21:29	0° J			4155 Mar 19 03:15	0° H	
	4152 Nov 06 06:54	0° $\overline{5}$			4155 Apr 12 08:45	0° Y	
evening max el	4152 Dec 03 14:45	29° $\overline{5}$ 02'16	46°55'57		4155 May 06 14:02	0° B	
	4152 Dec 04 13:57	0° \approx			4155 May 30 20:34	0° II	
greatest brilliancy	4153 Jan 11 08:02	29° \approx 16'44	-4.7m	morning set	4155 Jun 03 00:39	3° II 54'41	
	4153 Jan 13 04:06	0° H			4155 Jun 24 04:41	0° $\overline{5}$	
asc. node	4153 Jan 14 02:44	0° H 19'48		asc. node	4155 Jul 01 21:56	9° $\overline{5}$ 30'01	
retrograde	4153 Jan 23 03:18	1° H 53'56					
	4153 Feb 01 17:55	30° R \approx		superior conj	4155 Jul 10 10:13	19° $\overline{5}$ 58'26	0°20'11
evening set	4153 Feb 07 16:58	27° \approx 07'24		minimum elong	4155 Jul 10 06:02	19° $\overline{5}$ 45'32	0°19'59
min. Earth dist.	4153 Feb 12 03:31	24° \approx 29'15	0.26754 AU	max. Earth dist.	4155 Jul 11 01:51	20° $\overline{5}$ 46'30	1.73427 AU
inferior conj	4153 Feb 12 18:10	24° \approx 06'47	6°49'30		4155 Jul 18 13:48	0° Ω	
minimum elong	4153 Feb 12 07:24	24° \approx 23'18	6°47'12		4155 Aug 11 23:18	0° M	
morning rise	4153 Feb 16 22:00	21° \approx 36'44		evening rise	4155 Aug 15 15:47	4° M 32'02	
direct	4153 Mar 05 04:15	16° \approx 25'32			4155 Sep 05 09:13	0° $\underline{5}$	
greatest brilliancy	4153 Mar 16 09:01	18° \approx 45'36	-4.6m		4155 Sep 29 20:23	0° M	
	4153 Apr 03 15:40	0° H		desc. node	4155 Oct 21 12:22	26° M 28'21	
morning max el	4153 Apr 24 06:24	18° H 36'13	46°37'39		4155 Oct 24 09:50	0° J	
	4153 May 05 09:26	0° Y			4155 Nov 18 02:29	0° $\overline{5}$	
desc. node	4153 May 05 17:15	0° Y 20'37			4155 Dec 13 00:12	0° \approx	
	4153 Jun 01 17:00	0° B			4156 Jan 07 08:48	0° H	
	4153 Jun 27 17:48	0° II			4156 Feb 02 21:35	0° Y	
	4153 Jul 23 04:40	0° $\overline{5}$		asc. node	4156 Feb 11 14:43	9° Y 16'11	
	4153 Aug 17 06:26	0° Ω		evening max el	4156 Feb 15 04:42	12° Y 57'13	47°06'25
asc. node	4153 Aug 26 19:39	11° Ω 32'00			4156 Mar 04 09:02	0° B	
	4153 Sep 11 00:16	0° M		greatest brilliancy	4156 Mar 23 11:05	12° B 53'09	-4.6m
	4153 Oct 05 11:01	0° $\underline{5}$		retrograde	4156 Apr 05 21:36	16° B 11'41	
morning set	4153 Oct 20 08:30	18° $\underline{5}$ 25'26		evening set	4156 Apr 23 02:01	10° B 25'43	
	4153 Oct 29 16:13	0° M		inferior conj	4156 Apr 26 21:06	8° B 05'05	7°31'47
	4153 Nov 22 17:47	0° J		minimum elong	4156 Apr 27 06:37	7° B 50'12	7°30'12
max. Earth dist.	4153 Nov 24 14:04	2° J 18'18	1.71851 AU	min. Earth dist.	4156 Apr 26 16:28	8° B 12'20	0.27877 AU
				morning rise	4156 May 01 11:33	5° B 16'56	
superior conj	4153 Nov 27 04:26	5° J 33'11	0°44'04	direct	4156 May 17 20:18	0° B 06'40	
minimum elong	4153 Nov 27 13:36	6° J 01'52	0°43'41	greatest brilliancy	4156 May 29 06:27	2° B 29'48	-4.5m
desc. node	4153 Dec 16 10:02	29° J 37'26		desc. node	4156 Jun 02 04:54	4° B 15'57	
	4153 Dec 16 17:14	0° $\overline{5}$			4156 Jul 05 08:13	0° II	

morning max el	4156 Jul 05 23:56	0° Π 37'41	45°53'36		4159 Feb 12 15:24	0° Υ	
	4156 Aug 03 09:32	0° \mathfrak{S}			4159 Mar 09 14:58	0° \mathfrak{B}	
	4156 Aug 30 03:36	0° Ω		asc. node	4159 Mar 11 02:30	1° \mathfrak{B} 44'50	
asc. node	4156 Sep 23 07:34	28° Ω 13'49			4159 Apr 04 17:21	0° Π	
	4156 Sep 24 19:21	0° \mathfrak{M}		evening max el	4159 Apr 27 14:18	24° Π 09'44	46°11'30
	4156 Oct 19 18:01	0° \mathfrak{A}			4159 May 03 15:19	0° \mathfrak{S}	
	4156 Nov 13 04:58	0° \mathfrak{M}		greatest brilliancy	4159 Jun 01 11:12	21° \mathfrak{S} 42'49	-4.5m
	4156 Dec 07 08:27	0° \mathfrak{A}		retrograde	4159 Jun 16 03:42	25° \mathfrak{S} 32'40	
	4156 Dec 31 07:44	0° \mathfrak{C}		desc. node	4159 Jun 30 16:51	21° \mathfrak{S} 25'01	
morning set	4156 Dec 31 13:47	0° \mathfrak{C} 18'59		evening set	4159 Jul 01 04:58	21° \mathfrak{S} 08'38	
desc. node	4157 Jan 12 21:49	15° \mathfrak{C} 48'07		inferior conj	4159 Jul 07 14:39	17° \mathfrak{S} 17'59	-1°-38'-40
	4157 Jan 24 04:51	0° \approx		minimum elong	4159 Jul 07 11:02	17° \mathfrak{S} 23'38	1°37'38
				min. Earth dist.	4159 Jul 07 07:27	17° \mathfrak{S} 29'16	0.28750 AU
superior conj	4157 Feb 10 19:18	22° \approx 08'40	-1°-2'-31	morning rise	4159 Jul 13 17:23	13° \mathfrak{S} 36'56	
minimum elong	4157 Feb 10 07:15	21° \approx 30'48	1°02'06	direct	4159 Jul 29 01:15	9° \mathfrak{S} 05'38	
max. Earth dist.	4157 Feb 11 13:58	23° \approx 07'22	1.71120 AU	greatest brilliancy	4159 Aug 11 02:06	12° \mathfrak{S} 03'22	-4.5m
	4157 Feb 17 01:09	0° \mathfrak{H}			4159 Sep 06 05:06	0° Ω	
	4157 Mar 12 22:04	0° Υ		morning max el	4159 Sep 15 17:52	8° Ω 44'02	45°45'03
evening rise	4157 Mar 23 18:20	13° Υ 35'35			4159 Oct 06 14:23	0° \mathfrak{M}	
	4157 Apr 05 21:27	0° \mathfrak{B}		asc. node	4159 Oct 21 19:22	16° \mathfrak{M} 44'32	
	4157 Apr 30 01:21	0° Π			4159 Nov 02 09:52	0° \mathfrak{A}	
asc. node	4157 May 06 00:18	7° Π 20'55			4159 Nov 27 18:35	0° \mathfrak{M}	
	4157 May 24 11:34	0° \mathfrak{S}			4159 Dec 22 09:19	0° \mathfrak{A}	
	4157 Jun 18 06:03	0° Ω			4160 Jan 15 14:34	0° \mathfrak{C}	
	4157 Jul 13 12:10	0° \mathfrak{M}			4160 Feb 08 15:05	0° \approx	
	4157 Aug 08 13:18	0° \mathfrak{A}		desc. node	4160 Feb 10 09:47	2° \approx 13'39	
desc. node	4157 Aug 25 14:35	18° \mathfrak{A} 50'07			4160 Mar 03 13:35	0° \mathfrak{H}	
	4157 Sep 05 03:36	0° \mathfrak{M}		morning set	4160 Mar 18 12:22	18° \mathfrak{H} 44'29	
evening max el	4157 Sep 19 07:12	14° \mathfrak{M} 09'14	45°53'57		4160 Mar 27 12:02	0° Υ	
	4157 Oct 07 07:50	0° \mathfrak{A}			4160 Apr 20 12:04	0° \mathfrak{B}	
greatest brilliancy	4157 Oct 27 11:47	12° \mathfrak{A} 10'28	-4.6m				
retrograde	4157 Nov 07 06:55	14° \mathfrak{A} 16'45		superior conj	4160 Apr 27 12:21	8° \mathfrak{B} 44'22	-1°-12'-53
evening set	4157 Nov 22 20:38	9° \mathfrak{A} 38'47		minimum elong	4160 Apr 27 22:19	9° \mathfrak{B} 15'23	1°12'39
inferior conj	4157 Nov 28 03:08	6° \mathfrak{A} 31'20	-4°-30'-26	max. Earth dist.	4160 May 01 08:48	13° \mathfrak{B} 32'02	1.72205 AU
minimum elong	4157 Nov 28 12:10	6° \mathfrak{A} 17'27	4°27'58		4160 May 14 14:59	0° Π	
min. Earth dist.	4157 Nov 28 23:45	5° \mathfrak{A} 59'40	0.27274 AU	asc. node	4160 Jun 02 12:10	23° Π 21'35	
morning rise	4157 Dec 04 02:59	2° \mathfrak{A} 58'26		evening rise	4160 Jun 05 08:49	26° Π 53'15	
	4157 Dec 10 18:12	30° \mathfrak{R} \mathfrak{M}			4160 Jun 07 21:25	0° \mathfrak{S}	
asc. node	4157 Dec 16 16:52	28° \mathfrak{M} 43'17			4160 Jul 02 07:28	0° Ω	
direct	4157 Dec 19 00:06	28° \mathfrak{M} 36'51			4160 Jul 26 21:32	0° \mathfrak{M}	
	4157 Dec 27 12:46	0° \mathfrak{A}			4160 Aug 20 16:56	0° \mathfrak{A}	
greatest brilliancy	4158 Jan 01 17:40	2° \mathfrak{A} 03'44	-4.6m		4160 Sep 14 20:15	0° \mathfrak{M}	
	4158 Feb 05 19:57	0° \mathfrak{C}		desc. node	4160 Sep 22 02:25	8° \mathfrak{M} 33'54	
morning max el	4158 Feb 07 15:38	1° \mathfrak{C} 50'13	46°57'33		4160 Oct 10 11:38	0° \mathfrak{A}	
	4158 Mar 05 16:42	0° \approx			4160 Nov 05 23:52	0° \mathfrak{C}	
	4158 Mar 31 13:39	0° \mathfrak{H}		evening max el	4160 Dec 01 04:43	26° \mathfrak{C} 38'52	46°54'15
desc. node	4158 Apr 07 07:27	7° \mathfrak{H} 59'35			4160 Dec 04 14:25	0° \approx	
	4158 Apr 25 16:40	0° Υ					
	4158 May 20 12:10	0° \mathfrak{B}		greatest brilliancy	4161 Jan 08 20:40	26° \approx 47'24	-4.7m
	4158 Jun 14 04:42	0° Π		asc. node	4161 Jan 13 04:54	28° \approx 19'22	
	4158 Jul 08 19:47	0° \mathfrak{S}		retrograde	4161 Jan 20 16:31	29° \approx 24'49	
asc. node	4158 Jul 29 09:51	25° \mathfrak{S} 08'44		evening set	4161 Feb 05 01:43	24° \approx 43'33	
	4158 Aug 02 09:02	0° Ω		min. Earth dist.	4161 Feb 09 16:08	22° \approx 00'10	0.26725 AU
morning set	4158 Aug 10 13:38	10° Ω 02'25		inferior conj	4161 Feb 10 06:34	21° \approx 38'05	6°33'01
	4158 Aug 26 19:35	0° \mathfrak{M}		minimum elong	4161 Feb 09 19:44	21° \approx 54'40	6°30'36
max. Earth dist.	4158 Sep 13 11:34	21° \mathfrak{M} 46'50	1.73163 AU	morning rise	4161 Feb 14 13:57	19° \approx 03'20	
				direct	4161 Mar 02 16:51	13° \approx 57'07	
superior conj	4158 Sep 16 00:16	24° \mathfrak{M} 54'15	1°23'26	greatest brilliancy	4161 Mar 13 22:16	16° \approx 18'30	-4.6m
minimum elong	4158 Sep 15 20:38	24° \mathfrak{M} 43'00	1°23'24		4161 Apr 04 05:00	0° \mathfrak{H}	
	4158 Sep 20 03:15	0° \mathfrak{A}		morning max el	4161 Apr 21 20:45	16° \mathfrak{H} 14'44	46°39'07
	4158 Oct 14 08:51	0° \mathfrak{M}		desc. node	4161 May 04 19:15	29° \mathfrak{H} 34'11	
evening rise	4158 Oct 22 18:35	10° \mathfrak{M} 25'08			4161 May 05 04:58	0° Υ	
	4158 Nov 07 13:28	0° \mathfrak{A}			4161 Jun 01 08:14	0° \mathfrak{B}	
desc. node	4158 Nov 18 00:12	12° \mathfrak{A} 57'43			4161 Jun 27 07:08	0° Π	
	4158 Dec 01 17:46	0° \mathfrak{C}			4161 Jul 22 16:55	0° \mathfrak{S}	
	4158 Dec 25 22:15	0° \approx			4161 Aug 16 18:02	0° Ω	
	4159 Jan 19 04:16	0° \mathfrak{H}		asc. node	4161 Aug 25 21:41	11° Ω 03'30	
					4161 Sep 10 11:30	0° \mathfrak{M}	

	4161 Oct 04 22:03	0°♄		retrograde	4164 Apr 03 12:04	13°♄51'28	
morning set	4161 Oct 18 01:00	16°♄13'47		evening set	4164 Apr 20 19:37	8°♄01'41	
	4161 Oct 29 03:12	0°♄		inferior conj	4164 Apr 24 11:32	5°♄45'39	7°43'34
max. Earth dist.	4161 Nov 22 03:34	29°♄56'09	1.71896 AU	minimum elong	4164 Apr 24 20:40	5°♄31'20	7°42'10
	4161 Nov 22 04:48	0°♄		min. Earth dist.	4164 Apr 24 06:38	5°♄53'19	0.27842 AU
				morning rise	4164 Apr 28 22:03	3°♄02'59	
superior conj	4161 Nov 24 18:18	3°♄12'05	0°47'08		4164 May 04 22:49	30°♄	
minimum elong	4161 Nov 25 03:48	3°♄41'44	0°46'44	direct	4164 May 15 10:15	27°♄48'04	
desc. node	4161 Dec 15 12:08	29°♄09'13			4164 May 26 09:11	0°♄	
	4161 Dec 16 04:21	0°♄		greatest brilliancy	4164 May 26 18:33	0°♄09'06	-4.5m
evening rise	4162 Jan 03 17:24	23°♄14'27		desc. node	4164 Jun 01 06:58	2°♄44'05	
	4162 Jan 09 02:45	0°♄		morning max el	4164 Jul 03 13:43	28°♄20'08	45°54'41
	4162 Feb 02 00:59	0°♄			4164 Jul 05 06:58	0°♄	
	4162 Feb 26 00:47	0°♄			4164 Aug 03 01:25	0°♄	
	4162 Mar 22 05:06	0°♄			4164 Aug 29 16:59	0°♄	
asc. node	4162 Apr 07 14:23	20°♄05'59		asc. node	4164 Sep 22 09:28	27°♄43'08	
	4162 Apr 15 18:02	0°♄			4164 Sep 24 07:32	0°♄	
	4162 May 10 21:17	0°♄			4164 Oct 19 05:34	0°♄	
	4162 Jun 06 01:21	0°♄			4164 Nov 12 16:11	0°♄	
	4162 Jul 04 11:23	0°♄			4164 Dec 06 19:30	0°♄	
evening max el	4162 Jul 07 04:57	2°♄39'18	45°30'42	morning set	4164 Dec 29 01:43	27°♄51'27	
desc. node	4162 Jul 28 04:52	20°♄44'39			4164 Dec 30 18:42	0°♄	
greatest brilliancy	4162 Aug 11 15:50	29°♄23'17	-4.5m	desc. node	4165 Jan 11 23:56	15°♄20'26	
	4162 Aug 13 03:17	0°♄			4165 Jan 23 15:48	0°♄	
retrograde	4162 Aug 24 21:05	2°♄26'13					
	4162 Sep 05 00:08	30°♄		superior conj	4165 Feb 08 05:42	19°♄36'03	0°-59'-40
evening set	4162 Sep 11 14:02	26°♄33'00		minimum elong	4165 Feb 07 17:42	18°♄58'21	0°59'16
inferior conj	4162 Sep 15 07:25	24°♄15'22	-8°-24'-17	max. Earth dist.	4165 Feb 08 17:08	20°♄12'01	1.71115 AU
minimum elong	4162 Sep 15 03:02	24°♄22'13	8°24'01		4165 Feb 16 12:05	0°♄	
min. Earth dist.	4162 Sep 15 12:49	24°♄06'55	0.28992 AU		4165 Mar 12 09:00	0°♄	
morning rise	4162 Sep 18 15:58	22°♄10'54		evening rise	4165 Mar 21 05:11	11°♄04'55	
direct	4162 Oct 06 21:54	15°♄57'51			4165 Apr 05 08:27	0°♄	
greatest brilliancy	4162 Oct 21 06:37	19°♄37'09	-4.5m		4165 Apr 29 12:28	0°♄	
	4162 Nov 06 06:59	0°♄		asc. node	4165 May 05 02:20	6°♄52'50	
asc. node	4162 Nov 18 07:05	10°♄24'20			4165 May 23 22:56	0°♄	
morning max el	4162 Nov 25 18:09	17°♄36'19	46°21'02		4165 Jun 17 17:52	0°♄	
	4162 Dec 07 17:52	0°♄			4165 Jul 13 00:53	0°♄	
	4163 Jan 03 11:05	0°♄			4165 Aug 08 03:49	0°♄	
	4163 Jan 28 16:49	0°♄		desc. node	4165 Aug 24 16:31	18°♄10'18	
	4163 Feb 22 07:24	0°♄			4165 Sep 04 22:31	0°♄	
desc. node	4163 Mar 09 21:33	19°♄12'05		evening max el	4165 Sep 16 19:55	11°♄49'06	45°52'08
	4163 Mar 18 15:10	0°♄			4165 Oct 07 22:30	0°♄	
	4163 Apr 11 20:17	0°♄		greatest brilliancy	4165 Oct 25 00:43	9°♄49'38	-4.6m
	4163 May 06 01:16	0°♄		retrograde	4165 Nov 04 19:31	11°♄56'03	
	4163 May 30 07:34	0°♄		evening set	4165 Nov 20 12:45	7°♄13'27	
morning set	4163 May 31 16:34	1°♄41'50		inferior conj	4165 Nov 25 16:38	4°♄09'54	-4°-49'-39
	4163 Jun 23 15:32	0°♄		minimum elong	4165 Nov 26 02:05	3°♄55'24	4°47'10
asc. node	4163 Jul 01 00:02	9°♄03'10		min. Earth dist.	4165 Nov 26 14:23	3°♄36'31	0.27338 AU
				morning rise	4165 Dec 01 14:35	0°♄39'26	
superior conj	4163 Jul 08 03:25	17°♄50'21	0°17'00		4165 Dec 02 20:07	30°♄	
minimum elong	4163 Jul 07 23:51	17°♄39'24	0°16'50	asc. node	4165 Dec 15 18:59	26°♄14'46	
max. Earth dist.	4163 Jul 08 23:52	18°♄53'18	1.73408 AU	direct	4165 Dec 16 13:43	26°♄14'02	
	4163 Jul 18 00:37	0°♄		greatest brilliancy	4165 Dec 30 10:46	29°♄44'39	-4.6m
	4163 Aug 11 10:11	0°♄			4165 Dec 30 23:29	0°♄	
evening rise	4163 Aug 13 10:12	2°♄27'38		morning max el	4166 Feb 05 05:27	29°♄26'35	46°57'22
	4163 Sep 04 20:15	0°♄			4166 Feb 05 18:36	0°♄	
	4163 Sep 29 07:42	0°♄			4166 Mar 05 08:54	0°♄	
desc. node	4163 Oct 20 14:20	25°♄58'48			4166 Mar 31 03:25	0°♄	
	4163 Oct 23 21:34	0°♄		desc. node	4166 Apr 06 09:28	7°♄25'41	
	4163 Nov 17 14:52	0°♄			4166 Apr 25 05:11	0°♄	
	4163 Dec 12 13:34	0°♄			4166 May 19 23:56	0°♄	
	4164 Jan 06 23:55	0°♄			4166 Jun 13 16:00	0°♄	
	4164 Feb 02 16:36	0°♄			4166 Jul 08 06:43	0°♄	
asc. node	4164 Feb 10 16:39	8°♄26'03		asc. node	4166 Jul 28 11:52	24°♄42'05	
evening max el	4164 Feb 12 19:19	10°♄35'47	47°07'15		4166 Aug 01 19:44	0°♄	
	4164 Mar 04 20:22	0°♄		morning set	4166 Aug 08 07:16	7°♄56'39	
greatest brilliancy	4164 Mar 21 04:39	10°♄36'25	-4.6m		4166 Aug 26 06:09	0°♄	

max. Earth dist.	4166 Sep 11 08:04	19° $\mathring{\text{M}}$ 49'16	1.73197 AU	direct	4169 Feb 28 05:47	11° \approx 29'50	
				greatest brilliancy	4169 Mar 11 11:04	13° \approx 51'44	-4.7m
superior conj	4166 Sep 13 18:06	22° $\mathring{\text{M}}$ 48'25	1°22'42		4169 Apr 04 14:26	0° $\mathring{\text{H}}$	
minimum elong	4166 Sep 13 13:50	22° $\mathring{\text{M}}$ 35'16	1°22'40	morning max el	4169 Apr 19 10:46	13° $\mathring{\text{H}}$ 53'36	46°40'40
	4166 Sep 19 13:50	0° $\underline{\text{A}}$		desc. node	4169 May 03 21:18	28° $\mathring{\text{H}}$ 49'51	
	4166 Oct 13 19:33	0° $\mathring{\text{M}}$			4169 May 04 23:30	0° $\mathring{\text{Y}}$	
evening rise	4166 Oct 20 10:30	8° $\mathring{\text{M}}$ 12'26			4169 May 31 22:47	0° $\mathring{\text{B}}$	
	4166 Nov 07 00:22	0° $\mathring{\text{A}}$			4169 Jun 26 19:50	0° $\mathring{\text{II}}$	
desc. node	4166 Nov 17 02:17	12° $\mathring{\text{A}}$ 30'07			4169 Jul 22 04:37	0° $\mathring{\text{S}}$	
	4166 Dec 01 04:57	0° $\mathring{\text{S}}$			4169 Aug 16 05:08	0° $\mathring{\text{O}}$	
	4166 Dec 25 09:44	0° \approx		asc. node	4169 Aug 24 23:36	10° $\mathring{\text{O}}$ 36'04	
	4167 Jan 18 16:08	0° $\mathring{\text{H}}$			4169 Sep 09 22:17	0° $\mathring{\text{M}}$	
	4167 Feb 12 03:55	0° $\mathring{\text{Y}}$			4169 Oct 04 08:41	0° $\underline{\text{A}}$	
	4167 Mar 09 04:38	0° $\mathring{\text{B}}$		morning set	4169 Oct 15 17:29	14° $\underline{\text{A}}$ 03'22	
asc. node	4167 Mar 10 04:27	1° $\mathring{\text{B}}$ 10'08			4169 Oct 28 13:48	0° $\mathring{\text{M}}$	
	4167 Apr 04 09:37	0° $\mathring{\text{II}}$		max. Earth dist.	4169 Nov 19 15:00	27° $\mathring{\text{M}}$ 28'49	1.71941 AU
evening max el	4167 Apr 25 05:23	21° $\mathring{\text{II}}$ 55'13	46°13'38		4169 Nov 21 15:26	0° $\mathring{\text{A}}$	
	4167 May 03 16:03	0° $\mathring{\text{S}}$					
greatest brilliancy	4167 May 30 02:19	19° $\mathring{\text{S}}$ 31'13	-4.5m	superior conj	4169 Nov 22 08:16	0° $\mathring{\text{A}}$ 52'33	0°50'06
retrograde	4167 Jun 13 20:26	23° $\mathring{\text{S}}$ 23'16		minimum elong	4169 Nov 22 18:00	1° $\mathring{\text{A}}$ 22'58	0°49'43
evening set	4167 Jun 28 21:13	18° $\mathring{\text{S}}$ 58'50		desc. node	4169 Dec 14 14:10	28° $\mathring{\text{A}}$ 42'01	
desc. node	4167 Jun 29 18:56	18° $\mathring{\text{S}}$ 28'33			4169 Dec 15 15:05	0° $\mathring{\text{S}}$	
inferior conj	4167 Jul 05 06:51	15° $\mathring{\text{S}}$ 08'32	-1°-18'-48	evening rise	4170 Jan 01 04:55	20° $\mathring{\text{S}}$ 46'05	
minimum elong	4167 Jul 05 03:57	15° $\mathring{\text{S}}$ 13'05	1°17'58		4170 Jan 08 13:38	0° \approx	
min. Earth dist.	4167 Jul 04 23:50	15° $\mathring{\text{S}}$ 19'32	0.28725 AU		4170 Feb 01 12:01	0° $\mathring{\text{H}}$	
morning rise	4167 Jul 11 10:59	11° $\mathring{\text{S}}$ 25'54			4170 Feb 25 12:01	0° $\mathring{\text{Y}}$	
direct	4167 Jul 26 16:57	6° $\mathring{\text{S}}$ 56'22			4170 Mar 21 16:37	0° $\mathring{\text{B}}$	
greatest brilliancy	4167 Aug 08 17:55	9° $\mathring{\text{S}}$ 54'29	-4.5m	asc. node	4170 Apr 06 16:28	19° $\mathring{\text{B}}$ 36'18	
	4167 Sep 06 07:22	0° $\mathring{\text{O}}$			4170 Apr 15 06:02	0° $\mathring{\text{II}}$	
morning max el	4167 Sep 13 10:18	6° $\mathring{\text{O}}$ 35'57	45°44'30		4170 May 10 10:14	0° $\mathring{\text{S}}$	
	4167 Oct 06 06:44	0° $\mathring{\text{M}}$			4170 Jun 05 16:26	0° $\mathring{\text{O}}$	
asc. node	4167 Oct 20 21:28	16° $\mathring{\text{M}}$ 09'35			4170 Jul 04 08:34	0° $\mathring{\text{M}}$	
	4167 Nov 01 23:22	0° $\underline{\text{A}}$		evening max el	4170 Jul 04 20:54	0° $\mathring{\text{M}}$ 29'45	45°31'08
	4167 Nov 27 06:51	0° $\mathring{\text{M}}$		desc. node	4170 Jul 27 06:45	19° $\mathring{\text{M}}$ 36'58	
	4167 Dec 21 20:59	0° $\mathring{\text{A}}$		greatest brilliancy	4170 Aug 09 06:25	27° $\mathring{\text{M}}$ 13'19	-4.5m
	4168 Jan 15 01:53	0° $\mathring{\text{S}}$			4170 Aug 18 14:23	0° $\underline{\text{A}}$	
	4168 Feb 08 02:10	0° \approx		retrograde	4170 Aug 22 12:33	0° $\underline{\text{A}}$ 17'20	
desc. node	4168 Feb 09 11:40	1° \approx 44'52			4170 Aug 26 08:51	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
	4168 Mar 03 00:31	0° $\mathring{\text{H}}$		evening set	4170 Sep 09 03:33	24° $\mathring{\text{M}}$ 27'57	
morning set	4168 Mar 15 23:11	16° $\mathring{\text{H}}$ 13'56		inferior conj	4170 Sep 12 23:35	22° $\mathring{\text{M}}$ 06'07	-8°-19'-19
	4168 Mar 26 22:48	0° $\mathring{\text{Y}}$		minimum elong	4170 Sep 12 18:30	22° $\mathring{\text{M}}$ 14'04	8°18'57
	4168 Apr 19 22:43	0° $\mathring{\text{B}}$		min. Earth dist.	4170 Sep 13 03:59	21° $\mathring{\text{M}}$ 59'13	0.29015 AU
				morning rise	4170 Sep 16 09:23	19° $\mathring{\text{M}}$ 59'28	
superior conj	4168 Apr 25 01:52	6° $\mathring{\text{B}}$ 23'53	-1°-14'-49	direct	4170 Oct 04 14:25	13° $\mathring{\text{M}}$ 48'33	
minimum elong	4168 Apr 25 11:30	6° $\mathring{\text{B}}$ 53'54	1°14'36	greatest brilliancy	4170 Oct 18 20:51	17° $\mathring{\text{M}}$ 24'33	-4.5m
max. Earth dist.	4168 Apr 28 21:54	11° $\mathring{\text{B}}$ 10'27	1.72151 AU		4170 Nov 06 16:01	0° $\underline{\text{A}}$	
	4168 May 14 01:34	0° $\mathring{\text{II}}$		asc. node	4170 Nov 17 09:11	9° $\underline{\text{A}}$ 31'43	
asc. node	4168 May 01 14:16	22° $\mathring{\text{II}}$ 55'28		morning max el	4170 Nov 23 08:37	15° $\underline{\text{A}}$ 19'29	46°19'17
evening rise	4168 Jun 03 00:49	24° $\mathring{\text{II}}$ 42'03			4170 Dec 07 11:46	0° $\mathring{\text{M}}$	
	4168 Jun 07 08:00	0° $\mathring{\text{S}}$			4171 Jan 03 01:26	0° $\mathring{\text{A}}$	
	4168 Jul 01 18:11	0° $\mathring{\text{O}}$			4171 Jan 28 05:40	0° $\mathring{\text{S}}$	
	4168 Jul 26 08:31	0° $\mathring{\text{M}}$			4171 Feb 21 19:28	0° \approx	
	4168 Aug 20 04:27	0° $\underline{\text{A}}$		desc. node	4171 Mar 08 23:34	18° \approx 42'04	
	4168 Sep 14 08:37	0° $\mathring{\text{M}}$			4171 Mar 18 02:45	0° $\mathring{\text{H}}$	
desc. node	4168 Sep 21 04:24	8° $\mathring{\text{M}}$ 02'25			4171 Apr 11 07:31	0° $\mathring{\text{Y}}$	
	4168 Oct 10 01:30	0° $\mathring{\text{A}}$			4171 May 05 12:13	0° $\mathring{\text{B}}$	
	4168 Nov 05 16:42	0° $\mathring{\text{S}}$		morning set	4171 May 29 08:28	29° $\mathring{\text{B}}$ 29'39	
evening max el	4168 Nov 28 19:22	24° $\mathring{\text{S}}$ 18'34	46°52'28		4171 May 29 18:18	0° $\mathring{\text{II}}$	
	4168 Dec 04 15:33	0° \approx			4171 Jun 23 02:07	0° $\mathring{\text{S}}$	
greatest brilliancy	4169 Jan 06 09:27	24° \approx 19'35	-4.7m	asc. node	4171 Jun 30 02:01	8° $\mathring{\text{S}}$ 36'48	
asc. node	4169 Jan 12 06:52	26° \approx 14'56					
retrograde	4169 Jan 18 05:38	26° \approx 56'36		superior conj	4171 Jul 05 20:47	15° $\mathring{\text{S}}$ 43'45	0°13'48
evening set	4169 Feb 02 10:39	22° \approx 20'35		minimum elong	4171 Jul 05 17:52	15° $\mathring{\text{S}}$ 34'46	0°13'39
min. Earth dist.	4169 Feb 07 04:44	19° \approx 32'00	0.26698 AU	behind sun begin	4171 Jul 05 06:00	14° $\mathring{\text{S}}$ 58'16	
inferior conj	4169 Feb 07 18:53	19° \approx 10'22	6°15'46	behind sun end	4171 Jul 06 05:43	16° $\mathring{\text{S}}$ 11'15	
minimum elong	4169 Feb 07 08:04	19° \approx 26'54	6°13'14	max. Earth dist.	4171 Jul 06 20:47	16° $\mathring{\text{S}}$ 57'35	1.73381 AU
morning rise	4169 Feb 12 05:45	16° \approx 30'51			4171 Jul 17 11:08	0° $\mathring{\text{O}}$	

	4171 Aug 10 20:44	0° $\mathring{\text{M}}$			4174 Jan 01 21:57	0° $\mathring{\text{J}}$		
evening rise	4171 Aug 11 04:53	0° $\mathring{\text{M}}$ 25'02		morning max el	4174 Feb 02 20:21	27° $\mathring{\text{J}}$ 05'28	46°56'48	
	4171 Sep 04 06:58	0° $\mathring{\text{L}}$			4174 Feb 05 16:29	0° $\mathring{\text{Z}}$		
	4171 Sep 28 18:44	0° $\mathring{\text{M}}$			4174 Mar 05 01:02	0° \approx		
desc. node	4171 Oct 19 16:27	25° $\mathring{\text{M}}$ 30'18			4174 Mar 30 17:17	0° $\mathring{\text{K}}$		
	4171 Oct 23 09:07	0° $\mathring{\text{J}}$		desc. node	4174 Apr 05 11:35	6° $\mathring{\text{K}}$ 51'39		
	4171 Nov 17 03:08	0° $\mathring{\text{Z}}$			4174 Apr 24 17:50	0° $\mathring{\text{Y}}$		
	4171 Dec 12 02:54	0° \approx			4174 May 19 11:51	0° $\mathring{\text{B}}$		
	4172 Jan 06 15:05	0° $\mathring{\text{K}}$			4174 Jun 13 03:25	0° $\mathring{\text{H}}$		
	4172 Feb 02 11:59	0° $\mathring{\text{Y}}$			4174 Jul 07 17:48	0° $\mathring{\text{G}}$		
asc. node	4172 Feb 09 18:38	7° $\mathring{\text{Y}}$ 35'39		asc. node	4174 Jul 27 13:47	24° $\mathring{\text{G}}$ 14'42		
evening max el	4172 Feb 10 08:50	8° $\mathring{\text{Y}}$ 11'50	47°08'05		4174 Aug 01 06:35	0° $\mathring{\text{Q}}$		
	4172 Mar 05 11:19	0° $\mathring{\text{B}}$		morning set	4174 Aug 06 00:51	5° $\mathring{\text{Q}}$ 50'10		
greatest brilliancy	4172 Mar 18 21:52	8° $\mathring{\text{B}}$ 19'21	-4.6m		4174 Aug 25 16:53	0° $\mathring{\text{M}}$		
retrograde	4172 Apr 01 02:12	11° $\mathring{\text{B}}$ 31'32		max. Earth dist.	4174 Sep 09 05:16	17° $\mathring{\text{M}}$ 53'26	1.73225 AU	
evening set	4172 Apr 18 13:04	5° $\mathring{\text{B}}$ 37'51						
inferior conj	4172 Apr 22 01:55	3° $\mathring{\text{B}}$ 26'26	7°54'42	superior conj	4174 Sep 11 12:02	20° $\mathring{\text{M}}$ 42'28	1°21'53	
minimum elong	4172 Apr 22 10:36	3° $\mathring{\text{B}}$ 12'49	7°53'27	minimum elong	4174 Sep 11 07:11	20° $\mathring{\text{M}}$ 27'31	1°21'49	
min. Earth dist.	4172 Apr 21 20:59	3° $\mathring{\text{B}}$ 34'11	0.27807 AU		4174 Sep 19 00:34	0° $\mathring{\text{L}}$		
morning rise	4172 Apr 26 08:23	0° $\mathring{\text{B}}$ 49'26			4174 Oct 13 06:23	0° $\mathring{\text{M}}$		
	4172 Apr 27 19:00	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		evening rise	4174 Oct 18 02:46	6° $\mathring{\text{M}}$ 00'28		
direct	4172 May 12 23:39	25° $\mathring{\text{Y}}$ 29'23			4174 Nov 06 11:23	0° $\mathring{\text{J}}$		
greatest brilliancy	4172 May 24 07:42	27° $\mathring{\text{Y}}$ 49'39	-4.5m	desc. node	4174 Nov 16 04:20	12° $\mathring{\text{J}}$ 02'01		
	4172 May 29 01:38	0° $\mathring{\text{B}}$			4174 Nov 30 16:14	0° $\mathring{\text{Z}}$		
desc. node	4172 May 31 09:03	1° $\mathring{\text{B}}$ 15'39			4174 Dec 24 21:22	0° \approx		
morning max el	4172 Jul 01 03:25	26° $\mathring{\text{B}}$ 02'31	45°55'59		4175 Jan 18 04:16	0° $\mathring{\text{K}}$		
	4172 Jul 05 04:40	0° $\mathring{\text{H}}$			4175 Feb 11 16:47	0° $\mathring{\text{Y}}$		
	4172 Aug 02 16:52	0° $\mathring{\text{G}}$			4175 Mar 08 18:47	0° $\mathring{\text{B}}$		
	4172 Aug 29 06:04	0° $\mathring{\text{Q}}$		asc. node	4175 Mar 09 06:32	0° $\mathring{\text{B}}$ 34'31		
asc. node	4172 Sep 21 11:37	27° $\mathring{\text{Q}}$ 13'53			4175 Apr 04 02:36	0° $\mathring{\text{H}}$		
	4172 Sep 23 19:28	0° $\mathring{\text{M}}$		evening max el	4175 Apr 22 21:08	19° $\mathring{\text{H}}$ 41'05	46°15'53	
	4172 Oct 18 16:54	0° $\mathring{\text{L}}$			4175 May 03 18:42	0° $\mathring{\text{G}}$		
	4172 Nov 12 03:13	0° $\mathring{\text{M}}$		greatest brilliancy	4175 May 27 18:09	17° $\mathring{\text{G}}$ 19'10	-4.5m	
	4172 Dec 06 06:26	0° $\mathring{\text{J}}$		retrograde	4175 Jun 11 13:12	21° $\mathring{\text{G}}$ 12'02		
morning set	4172 Dec 26 13:37	25° $\mathring{\text{J}}$ 23'58		evening set	4175 Jun 26 13:27	16° $\mathring{\text{G}}$ 47'12		
	4172 Dec 30 05:38	0° $\mathring{\text{Z}}$		desc. node	4175 Jun 28 20:51	15° $\mathring{\text{G}}$ 27'53		
desc. node	4173 Jan 11 01:52	14° $\mathring{\text{Z}}$ 52'12		inferior conj	4175 Jul 02 22:48	12° $\mathring{\text{G}}$ 57'14	0°-58'-39	
	4173 Jan 23 02:44	0° \approx		minimum elong	4175 Jul 02 20:38	13° $\mathring{\text{G}}$ 00'38	0°58'00	
				min. Earth dist.	4175 Jul 02 15:41	13° $\mathring{\text{G}}$ 08'22	0.28698 AU	
superior conj	4173 Feb 05 15:46	17° $\mathring{\approx}$ 02'24	0°-56'-42	morning rise	4175 Jul 09 04:12	9° $\mathring{\text{G}}$ 13'15		
minimum elong	4173 Feb 05 03:56	16° $\mathring{\approx}$ 25'10	0°56'15	direct	4175 Jul 24 08:58	4° $\mathring{\text{G}}$ 45'26		
max. Earth dist.	4173 Feb 05 19:32	17° $\mathring{\approx}$ 14'15	1.71115 AU	greatest brilliancy	4175 Aug 06 08:38	7° $\mathring{\text{G}}$ 42'57	-4.5m	
	4173 Feb 15 23:01	0° $\mathring{\text{K}}$			4175 Sep 06 08:42	0° $\mathring{\text{Q}}$		
	4173 Mar 11 19:56	0° $\mathring{\text{Y}}$		morning max el	4175 Sep 11 02:55	4° $\mathring{\text{Q}}$ 27'20	45°44'02	
evening rise	4173 Mar 18 15:42	8° $\mathring{\text{Y}}$ 33'13			4175 Oct 05 23:08	0° $\mathring{\text{M}}$		
	4173 Apr 04 19:26	0° $\mathring{\text{B}}$		asc. node	4175 Oct 19 23:27	15° $\mathring{\text{M}}$ 33'43		
	4173 Apr 28 23:36	0° $\mathring{\text{H}}$			4175 Nov 01 13:01	0° $\mathring{\text{L}}$		
asc. node	4173 May 04 04:26	6° $\mathring{\text{H}}$ 24'54			4175 Nov 26 19:19	0° $\mathring{\text{M}}$		
	4173 May 23 10:20	0° $\mathring{\text{G}}$			4175 Dec 21 08:49	0° $\mathring{\text{J}}$		
	4173 Jun 17 05:45	0° $\mathring{\text{Q}}$			4176 Jan 14 13:23	0° $\mathring{\text{Z}}$		
	4173 Jul 12 13:41	0° $\mathring{\text{M}}$			4176 Feb 07 13:29	0° \approx		
	4173 Aug 07 18:30	0° $\mathring{\text{L}}$		desc. node	4176 Feb 08 13:43	1° $\mathring{\approx}$ 15'54		
desc. node	4173 Aug 23 18:36	17° $\mathring{\text{L}}$ 30'38			4176 Mar 02 11:42	0° $\mathring{\text{K}}$		
	4173 Sep 04 17:52	0° $\mathring{\text{M}}$		morning set	4176 Mar 13 09:42	13° $\mathring{\text{K}}$ 41'30		
evening max el	4173 Sep 14 09:05	9° $\mathring{\text{M}}$ 30'38	45°50'33		4176 Mar 26 09:55	0° $\mathring{\text{Y}}$		
	4173 Oct 08 17:50	0° $\mathring{\text{J}}$			4176 Apr 19 09:46	0° $\mathring{\text{B}}$		
greatest brilliancy	4173 Oct 22 12:27	7° $\mathring{\text{J}}$ 28'28	-4.5m					
retrograde	4173 Nov 02 08:47	9° $\mathring{\text{J}}$ 36'29		superior conj	4176 Apr 22 14:44	4° $\mathring{\text{B}}$ 00'00	-1°-16'-39	
evening set	4173 Nov 18 05:08	4° $\mathring{\text{J}}$ 48'53		minimum elong	4176 Apr 22 23:56	4° $\mathring{\text{B}}$ 28'41	1°16'27	
inferior conj	4173 Nov 23 06:18	1° $\mathring{\text{J}}$ 49'12	-5°-8'-5	max. Earth dist.	4176 Apr 26 11:31	8° $\mathring{\text{B}}$ 49'05	1.72100 AU	
minimum elong	4173 Nov 23 16:05	1° $\mathring{\text{J}}$ 34'14	5°05'36		4176 May 13 12:33	0° $\mathring{\text{H}}$		
min. Earth dist.	4173 Nov 24 04:42	1° $\mathring{\text{J}}$ 14'54	0.27408 AU	evening rise	4176 May 31 16:06	22° $\mathring{\text{H}}$ 27'15		
	4173 Nov 26 06:05	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		asc. node	4176 May 31 16:10	22° $\mathring{\text{H}}$ 27'27		
morning rise	4173 Nov 29 02:15	28° $\mathring{\text{M}}$ 21'39			4176 Jun 06 18:59	0° $\mathring{\text{G}}$		
direct	4173 Dec 14 04:04	23° $\mathring{\text{M}}$ 52'00			4176 Jul 01 05:18	0° $\mathring{\text{Q}}$		
asc. node	4173 Dec 14 20:57	23° $\mathring{\text{M}}$ 52'35			4176 Jul 25 19:57	0° $\mathring{\text{M}}$		
greatest brilliancy	4173 Dec 28 04:05	27° $\mathring{\text{M}}$ 26'22	-4.6m		4176 Aug 19 16:25	0° $\mathring{\text{L}}$		

	4176 Sep 13 21:29	0°♌			4179 May 04 23:24	0°♏		
desc. node	4176 Sep 20 06:31	7°♌29'53		morning set	4179 May 27 00:22	27°♏16'31		
	4176 Oct 09 15:55	0°♏			4179 May 29 05:18	0°♐		
	4176 Nov 05 10:16	0°♑			4179 Jun 22 13:01	0°♑		
evening max el	4176 Nov 26 10:13	21°♑58'03 46°50'44		asc. node	4179 Jun 29 04:00	8°♑09'28		
	4176 Dec 04 18:24	0°♒						
greatest brilliancy	4177 Jan 03 23:00	21°♒52'26 -4.7m		superior conj	4179 Jul 03 14:02	13°♑35'42 0°10'34		
asc. node	4177 Jan 11 08:48	24°♒05'02		minimum elong	4179 Jul 03 11:46	13°♑28'46 0°10'27		
retrograde	4177 Jan 15 18:32	24°♒28'01		behind sun begin	4179 Jul 02 18:16	12°♑34'53		
evening set	4177 Jan 30 20:01	19°♒57'14		behind sun end	4179 Jul 04 05:17	14°♑22'39		
min. Earth dist.	4177 Feb 04 17:41	17°♒03'24 0.26672 AU		max. Earth dist.	4179 Jul 04 15:44	14°♑54'48 1.73361 AU		
inferior conj	4177 Feb 05 07:22	16°♒42'28 5°57'53			4179 Jul 16 22:01	0°♒		
minimum elong	4177 Feb 04 20:41	16°♒58'50 5°55'16		evening rise	4179 Aug 08 23:18	28°♒20'34		
morning rise	4177 Feb 09 21:38	13°♒58'08			4179 Aug 10 07:40	0°♓		
direct	4177 Feb 25 18:46	9°♒02'30			4179 Sep 03 18:05	0°♓		
greatest brilliancy	4177 Mar 08 23:58	11°♒24'29 -4.7m			4179 Sep 28 06:10	0°♌		
	4177 Apr 04 21:37	0°♈		desc. node	4179 Oct 18 18:25	25°♌00'13		
morning max el	4177 Apr 16 23:54	11°♈29'05 46°41'52			4179 Oct 22 21:03	0°♏		
desc. node	4177 May 02 23:20	28°♈04'59			4179 Nov 16 15:49	0°♑		
	4177 May 04 17:58	0°♐			4179 Dec 11 16:42	0°♒		
	4177 May 31 13:36	0°♓			4180 Jan 06 06:49	0°♈		
	4177 Jun 26 08:56	0°♐			4180 Feb 02 08:16	0°♐		
	4177 Jul 21 16:44	0°♑		evening max el	4180 Feb 07 21:59	5°♐46'05 47°09'02		
	4177 Aug 15 16:40	0°♒		asc. node	4180 Feb 08 20:47	6°♐43'57		
asc. node	4177 Aug 24 01:44	10°♒08'01			4180 Mar 06 07:44	0°♏		
	4177 Sep 09 09:29	0°♓		greatest brilliancy	4180 Mar 16 14:22	6°♏00'48 -4.6m		
	4177 Oct 03 19:43	0°♓		retrograde	4180 Mar 29 16:36	9°♏11'31		
morning set	4177 Oct 13 09:49	11°♓51'15		evening set	4180 Apr 16 06:32	3°♏13'46		
	4177 Oct 28 00:48	0°♌		inferior conj	4180 Apr 19 16:27	1°♏07'02 8°04'59		
max. Earth dist.	4177 Nov 17 01:13	24°♌56'28 1.71986 AU		minimum elong	4180 Apr 20 00:38	0°♏54'13 8°03'53		
				min. Earth dist.	4180 Apr 19 11:23	1°♏14'59 0.27771 AU		
superior conj	4177 Nov 19 22:26	28°♌32'28 0°52'58			4180 Apr 21 11:26	30°♏♐		
minimum elong	4177 Nov 20 08:22	29°♌03'29 0°52'35		morning rise	4180 Apr 23 18:56	28°♐35'54		
	4177 Nov 21 02:28	0°♏		direct	4180 May 10 13:01	23°♐10'24		
desc. node	4177 Dec 13 16:06	28°♏13'20		greatest brilliancy	4180 May 21 21:34	25°♐30'55 -4.6m		
	4177 Dec 15 02:12	0°♑		desc. node	4180 May 30 10:58	29°♐49'51		
evening rise	4177 Dec 29 16:41	18°♑17'29			4180 May 30 17:40	0°♏		
	4178 Jan 08 00:51	0°♒		morning max el	4180 Jun 28 17:34	23°♏45'33 45°57'13		
	4178 Jan 31 23:22	0°♈			4180 Jul 05 01:44	0°♐		
	4178 Feb 24 23:32	0°♐			4180 Aug 02 08:18	0°♑		
	4178 Mar 21 04:26	0°♓			4180 Aug 28 19:20	0°♒		
asc. node	4178 Apr 05 18:30	19°♓05'29		asc. node	4180 Sep 20 13:36	26°♒43'24		
	4178 Apr 14 18:25	0°♐			4180 Sep 23 07:38	0°♓		
	4178 May 09 23:43	0°♑			4180 Oct 18 04:29	0°♓		
	4178 Jun 05 08:15	0°♒			4180 Nov 11 14:31	0°♌		
evening max el	4178 Jul 02 11:57	28°♒16'18 45°31'34			4180 Dec 05 17:37	0°♏		
	4178 Jul 04 07:17	0°♓		morning set	4180 Dec 24 01:35	22°♏56'05		
desc. node	4178 Jul 26 08:50	18°♓26'02			4180 Dec 29 16:46	0°♑		
greatest brilliancy	4178 Aug 06 20:50	25°♓01'13 -4.5m		desc. node	4181 Jan 10 03:55	14°♑23'42		
retrograde	4178 Aug 20 03:42	28°♓06'44			4181 Jan 22 13:52	0°♒		
evening set	4178 Sep 06 16:45	22°♓21'20						
inferior conj	4178 Sep 10 15:38	19°♓55'12 -8°-13'-39		superior conj	4181 Feb 03 01:47	14°♒27'55 0°-53'-35		
minimum elong	4178 Sep 10 09:54	20°♓04'11 8°13'10		minimum elong	4181 Feb 02 14:11	13°♒51'24 0°53'08		
min. Earth dist.	4178 Sep 10 19:19	19°♓49'25 0.29036 AU		max. Earth dist.	4181 Feb 03 00:16	14°♒23'07 1.71118 AU		
morning rise	4178 Sep 14 02:57	17°♓46'05			4181 Feb 15 10:08	0°♈		
direct	4178 Oct 02 06:17	11°♓37'27			4181 Mar 11 07:04	0°♐		
greatest brilliancy	4178 Oct 16 11:53	15°♓11'27 -4.5m		evening rise	4181 Mar 16 02:19	6°♐01'15		
	4178 Nov 06 23:08	0°♓			4181 Apr 04 06:36	0°♏		
asc. node	4178 Nov 16 11:10	8°♓38'32			4181 Apr 28 10:51	0°♐		
morning max el	4178 Nov 20 22:23	12°♓59'39 46°17'39		asc. node	4181 May 03 06:21	5°♐56'05		
	4178 Dec 07 05:41	0°♌			4181 May 22 21:49	0°♑		
	4179 Jan 02 16:01	0°♏			4181 Jun 16 17:44	0°♒		
	4179 Jan 27 18:48	0°♑			4181 Jul 12 02:39	0°♓		
	4179 Feb 21 07:49	0°♒			4181 Aug 07 09:32	0°♓		
desc. node	4179 Mar 08 01:41	18°♒11'34		desc. node	4181 Aug 22 20:40	16°♓50'00		
	4179 Mar 17 14:35	0°♈			4181 Sep 04 14:05	0°♌		
	4179 Apr 10 18:58	0°♐		evening max el	4181 Sep 11 23:08	7°♌13'48 45°48'51		

	4181 Oct 09 20:42	0°♊			4184 Apr 18 20:38	0°♋	
greatest brilliancy	4181 Oct 19 23:43	5°♊06'17	-4.5m				
retrograde	4181 Oct 30 22:26	7°♊16'09		superior conj	4184 Apr 20 03:29	1°♋36'14	-1°-18'-20
evening set	4181 Nov 15 21:32	2°♊23'40		minimum elong	4184 Apr 20 12:10	2°♋03'18	1°18'11
	4181 Nov 19 22:50	30°♋		max. Earth dist.	4184 Apr 24 03:04	6°♋34'12	1.72048 AU
inferior conj	4181 Nov 20 19:54	29°♌27'47	-5°-25'-59		4184 May 12 23:22	0°♌	
minimum elong	4181 Nov 21 05:56	29°♌12'25	5°23'32	evening rise	4184 May 29 07:23	20°♌12'52	
min. Earth dist.	4181 Nov 21 18:33	28°♌53'08	0.27478 AU	asc. node	4184 May 30 18:15	22°♌00'27	
morning rise	4181 Nov 26 13:38	26°♌03'31			4184 Jun 06 05:49	0°♍	
direct	4181 Dec 11 18:49	21°♌29'31			4184 Jun 30 16:14	0°♎	
asc. node	4181 Dec 13 22:55	21°♌35'12			4184 Jul 25 07:09	0°♏	
greatest brilliancy	4181 Dec 25 20:34	25°♌06'41	-4.6m		4184 Aug 19 04:07	0°♐	
	4182 Jan 03 05:37	0°♊			4184 Sep 13 10:06	0°♑	
morning max el	4182 Jan 31 11:36	24°♊45'00	46°56'12	desc. node	4184 Sep 19 08:30	6°♑57'46	
	4182 Feb 05 13:42	0°♋			4184 Oct 09 06:12	0°♊	
	4182 Mar 04 16:59	0°♌			4184 Nov 05 03:58	0°♋	
	4182 Mar 30 07:05	0°♍		evening max el	4184 Nov 24 00:13	19°♋35'55	46°48'36
desc. node	4182 Apr 04 13:31	6°♍17'08			4184 Dec 04 22:47	0°♌	
	4182 Apr 24 06:28	0°♎		greatest brilliancy	4185 Jan 01 13:28	19°♌26'17	-4.7m
	4182 May 18 23:45	0°♏		asc. node	4185 Jan 10 10:59	21°♌49'36	
	4182 Jun 12 14:48	0°♐		retrograde	4185 Jan 13 06:45	21°♌59'06	
	4182 Jul 07 04:49	0°♑		evening set	4185 Jan 28 05:24	17°♌33'27	
asc. node	4182 Jul 26 15:56	23°♑48'11		inferior conj	4185 Feb 02 19:41	14°♌14'30	5°39'00
	4182 Jul 31 17:21	0°♒		minimum elong	4185 Feb 02 09:13	14°♌30'33	5°36'21
morning set	4182 Aug 03 18:49	3°♒45'05		min. Earth dist.	4185 Feb 02 07:00	14°♌33'57	0.26648 AU
	4182 Aug 25 03:34	0°♓		morning rise	4185 Feb 07 13:18	11°♌25'15	
max. Earth dist.	4182 Sep 07 03:00	15°♓59'23	1.73257 AU	direct	4185 Feb 23 07:02	6°♌34'56	
				greatest brilliancy	4185 Mar 06 13:39	8°♌57'56	-4.7m
superior conj	4182 Sep 09 06:11	18°♓37'18	1°20'57		4185 Apr 05 02:32	0°♍	
minimum elong	4182 Sep 09 00:47	18°♓20'38	1°20'52	morning max el	4185 Apr 14 11:53	9°♍01'58	46°43'14
	4182 Sep 18 11:18	0°♎		desc. node	4185 May 02 01:21	27°♍21'17	
	4182 Oct 12 17:16	0°♏			4185 May 04 11:47	0°♎	
evening rise	4182 Oct 15 19:07	3°♏48'41			4185 May 31 03:59	0°♏	
	4182 Nov 05 22:29	0°♊			4185 Jun 25 21:40	0°♐	
desc. node	4182 Nov 15 06:16	11°♊33'22			4185 Jul 21 04:31	0°♑	
	4182 Nov 30 03:34	0°♋			4185 Aug 15 03:52	0°♒	
	4182 Dec 24 09:03	0°♌		asc. node	4185 Aug 23 03:44	9°♒40'36	
	4183 Jan 17 16:26	0°♍			4185 Sep 08 20:20	0°♓	
	4183 Feb 11 05:41	0°♎			4185 Oct 03 06:24	0°♔	
asc. node	4183 Mar 08 08:32	29°♎58'31		morning set	4185 Oct 11 02:41	9°♔41'57	
	4183 Mar 08 09:02	0°♏			4185 Oct 27 11:25	0°♑	
	4183 Apr 03 19:51	0°♐		max. Earth dist.	4185 Nov 14 14:06	22°♑33'43	1.72037 AU
evening max el	4183 Apr 20 13:34	17°♑28'49	46°18'08				
	4183 May 03 22:52	0°♒		superior conj	4185 Nov 17 13:09	26°♑15'19	0°55'42
greatest brilliancy	4183 May 25 11:31	15°♒09'40	-4.5m	minimum elong	4185 Nov 17 23:12	26°♑46'40	0°55'19
retrograde	4183 Jun 09 06:10	19°♒01'27			4185 Nov 20 13:09	0°♓	
evening set	4183 Jun 24 06:06	14°♒36'26		desc. node	4185 Dec 12 18:14	27°♓46'10	
desc. node	4183 Jun 27 22:56	12°♒26'19			4185 Dec 14 13:00	0°♔	
inferior conj	4183 Jun 30 14:56	10°♒46'50	0°-38'-23	evening rise	4185 Dec 27 04:42	15°♔50'36	
minimum elong	4183 Jun 30 13:30	10°♒49'04	0°37'59		4186 Jan 07 11:50	0°♕	
min. Earth dist.	4183 Jun 30 07:40	10°♒58'12	0.28665 AU		4186 Jan 31 10:31	0°♍	
morning rise	4183 Jul 06 21:25	7°♒01'38			4186 Feb 24 10:53	0°♎	
direct	4183 Jul 22 01:21	2°♒35'43			4186 Mar 20 16:05	0°♏	
greatest brilliancy	4183 Aug 03 22:18	5°♒31'05	-4.5m	asc. node	4186 Apr 04 20:27	18°♏34'56	
	4183 Sep 06 08:27	0°♒			4186 Apr 14 06:37	0°♐	
morning max el	4183 Sep 08 19:04	2°♒18'30	45°43'31		4186 May 09 13:02	0°♑	
	4183 Oct 05 15:00	0°♓			4186 Jun 05 00:00	0°♒	
asc. node	4183 Oct 19 01:26	14°♓58'44		evening max el	4186 Jun 30 02:25	26°♒02'29	45°32'13
	4183 Nov 01 02:24	0°♔			4186 Jul 04 06:33	0°♓	
	4183 Nov 26 07:36	0°♕		desc. node	4186 Jul 25 10:57	17°♓14'27	
	4183 Dec 20 20:34	0°♊		greatest brilliancy	4186 Aug 04 10:41	22°♓49'49	-4.5m
	4184 Jan 14 00:49	0°♋		retrograde	4186 Aug 17 19:21	25°♓58'07	
	4184 Feb 07 00:42	0°♌		evening set	4186 Sep 04 06:00	20°♓16'36	
desc. node	4184 Feb 07 15:52	0°♍47'29		inferior conj	4186 Sep 08 07:53	17°♓46'08	-8°-7'-14
	4184 Mar 01 22:47	0°♎		minimum elong	4186 Sep 08 01:33	17°♓56'05	8°06'38
morning set	4184 Mar 10 20:03	11°♎08'53		min. Earth dist.	4186 Sep 08 10:54	17°♓41'24	0.29052 AU
	4184 Mar 25 20:53	0°♏		morning rise	4186 Sep 11 20:57	15°♓34'21	

direct	4186 Sep 29 22:03	9° \mathbb{M} 28'09			4189 Mar 10 17:52	0° Υ	
greatest brilliancy	4186 Oct 14 03:56	13° \mathbb{M} 01'33	-4.5m	evening rise	4189 Mar 13 13:10	3° Υ 31'02	
	4186 Nov 07 03:23	0° $\underline{\mathbf{A}}$			4189 Apr 03 17:29	0° \mathcal{B}	
asc. node	4186 Nov 15 13:11	7° $\underline{\mathbf{A}}$ 47'59			4189 Apr 27 21:54	0° \mathbb{I}	
morning max el	4186 Nov 18 12:42	10° $\underline{\mathbf{A}}$ 42'56	46°16'10	asc. node	4189 May 02 08:25	5° \mathbb{I} 28'18	
	4186 Dec 06 22:40	0° \mathbb{M}			4189 May 22 09:08	0° \mathfrak{S}	
	4187 Jan 02 05:59	0° \mathcal{A}			4189 Jun 16 05:35	0° \mathcal{Q}	
	4187 Jan 27 07:28	0° \mathfrak{Z}			4189 Jul 11 15:32	0° \mathbb{M}	
	4187 Feb 20 19:48	0° \approx			4189 Aug 07 00:33	0° $\underline{\mathbf{A}}$	
desc. node	4187 Mar 07 03:37	17° \approx 41'26		desc. node	4189 Aug 21 22:37	16° $\underline{\mathbf{A}}$ 09'18	
	4187 Mar 17 02:07	0° \mathcal{H}			4189 Sep 04 10:41	0° \mathbb{M}	
	4187 Apr 10 06:11	0° Υ		evening max el	4189 Sep 09 13:58	4° \mathbb{M} 59'48	45°47'20
	4187 May 04 10:20	0° \mathcal{B}			4189 Oct 11 10:06	0° \mathcal{A}	
morning set	4187 May 24 15:44	25° \mathcal{B} 02'27		greatest brilliancy	4189 Oct 17 11:28	2° \mathcal{A} 46'02	-4.5m
	4187 May 28 16:02	0° \mathbb{I}		retrograde	4189 Oct 28 12:16	4° \mathcal{A} 57'06	
	4187 Jun 21 23:37	0° \mathfrak{S}		evening set	4189 Nov 13 14:14	29° \mathbb{M} 59'57	
asc. node	4187 Jun 28 06:06	7° \mathfrak{S} 43'23			4189 Nov 13 14:12	30° $\mathcal{R}\mathbb{M}$	
				inferior conj	4189 Nov 18 09:39	27° \mathbb{M} 07'48	-5°-43'-14
superior conj	4187 Jul 01 07:01	11° \mathfrak{S} 27'47	0°07'18	minimum elong	4189 Nov 18 19:54	26° \mathbb{M} 52'07	5°40'48
minimum elong	4187 Jul 01 05:26	11° \mathfrak{S} 22'57	0°07'13	min. Earth dist.	4189 Nov 19 08:17	26° \mathbb{M} 33'07	0.27544 AU
behind sun begin	4187 Jun 30 08:42	10° \mathfrak{S} 19'09		morning rise	4189 Nov 24 00:57	23° \mathbb{M} 46'54	
behind sun end	4187 Jul 02 02:10	12° \mathfrak{S} 26'46		direct	4189 Dec 09 09:52	19° \mathbb{M} 08'43	
max. Earth dist.	4187 Jul 02 10:04	12° \mathfrak{S} 51'02	1.73336 AU	asc. node	4189 Dec 13 01:04	19° \mathbb{M} 24'29	
	4187 Jul 16 08:35	0° \mathcal{Q}		greatest brilliancy	4189 Dec 23 12:03	22° \mathbb{M} 46'56	-4.6m
evening rise	4187 Aug 06 17:47	26° \mathcal{Q} 17'21			4190 Jan 04 03:51	0° \mathcal{A}	
	4187 Aug 09 18:17	0° \mathbb{M}		morning max el	4190 Jan 29 02:52	22° \mathcal{A} 25'50	46°55'38
	4187 Sep 03 04:52	0° $\underline{\mathbf{A}}$			4190 Feb 05 09:48	0° \mathfrak{Z}	
	4187 Sep 27 17:15	0° \mathbb{M}			4190 Mar 04 08:17	0° \approx	
desc. node	4187 Oct 17 20:26	24° \mathbb{M} 31'26			4190 Mar 29 20:23	0° \mathcal{H}	
	4187 Oct 22 08:38	0° \mathcal{A}		desc. node	4190 Apr 03 15:33	5° \mathcal{H} 44'10	
	4187 Nov 16 04:06	0° \mathfrak{Z}			4190 Apr 23 18:44	0° Υ	
	4187 Dec 11 06:07	0° \approx			4190 May 18 11:22	0° \mathcal{B}	
	4188 Jan 05 22:17	0° \mathcal{H}			4190 Jun 12 01:59	0° \mathbb{I}	
	4188 Feb 02 04:46	0° Υ			4190 Jul 06 15:41	0° \mathfrak{S}	
evening max el	4188 Feb 05 11:17	3° Υ 21'51	47°09'39	asc. node	4190 Jul 25 17:55	23° \mathfrak{S} 21'30	
asc. node	4188 Feb 07 22:43	5° Υ 51'48			4190 Jul 31 04:01	0° \mathcal{Q}	
	4188 Mar 07 11:25	0° \mathcal{B}		morning set	4190 Aug 01 12:27	1° \mathcal{Q} 39'21	
greatest brilliancy	4188 Mar 14 05:37	3° \mathcal{B} 40'52	-4.6m		4190 Aug 24 14:09	0° \mathbb{M}	
retrograde	4188 Mar 27 07:03	6° \mathcal{B} 51'22		max. Earth dist.	4190 Sep 04 23:25	14° \mathbb{M} 01'41	1.73281 AU
evening set	4188 Apr 13 23:31	0° \mathcal{B} 49'27					
	4188 Apr 15 07:54	30° $\mathcal{R}\Upsilon$		superior conj	4190 Sep 07 00:03	16° \mathbb{M} 31'42	1°19'53
inferior conj	4188 Apr 17 06:40	28° Υ 47'11	8°14'22	minimum elong	4190 Sep 06 18:08	16° \mathbb{M} 13'25	1°19'47
minimum elong	4188 Apr 17 14:18	28° Υ 35'16	8°13'27		4190 Sep 17 21:53	0° $\underline{\mathbf{A}}$	
min. Earth dist.	4188 Apr 17 01:12	28° Υ 55'44	0.27740 AU		4190 Oct 12 03:59	0° \mathbb{M}	
morning rise	4188 Apr 21 05:15	26° Υ 22'06		evening rise	4190 Oct 13 11:20	1° \mathbb{M} 37'03	
direct	4188 May 08 02:26	20° Υ 50'51			4190 Nov 05 09:25	0° \mathcal{A}	
greatest brilliancy	4188 May 19 11:18	23° Υ 11'57	-4.6m	desc. node	4190 Nov 14 08:23	11° \mathcal{A} 05'44	
desc. node	4188 May 29 13:05	28° Υ 27'14			4190 Nov 29 14:47	0° \mathfrak{Z}	
	4188 May 31 21:30	0° \mathcal{B}			4190 Dec 23 20:37	0° \approx	
morning max el	4188 Jun 26 08:23	21° \mathcal{B} 30'29	45°58'36		4191 Jan 17 04:28	0° \mathcal{H}	
	4188 Jul 04 21:55	0° \mathbb{I}			4191 Feb 10 18:28	0° Υ	
	4188 Aug 01 23:16	0° \mathfrak{S}		asc. node	4191 Mar 07 10:32	29° Υ 23'04	
	4188 Aug 28 08:11	0° \mathcal{Q}			4191 Mar 07 23:11	0° \mathcal{B}	
asc. node	4188 Sep 19 15:32	26° \mathcal{Q} 13'48			4191 Apr 03 13:13	0° \mathbb{I}	
	4188 Sep 22 19:26	0° \mathbb{M}		evening max el	4191 Apr 18 05:40	15° \mathbb{I} 16'13	46°20'09
	4188 Oct 17 15:43	0° $\underline{\mathbf{A}}$			4191 May 04 04:46	0° \mathfrak{S}	
	4188 Nov 11 01:27	0° \mathbb{M}		greatest brilliancy	4191 May 23 05:22	13° \mathfrak{S} 00'54	-4.5m
	4188 Dec 05 04:26	0° \mathcal{A}		retrograde	4191 Jun 06 22:32	16° \mathfrak{S} 50'32	
morning set	4188 Dec 21 14:16	20° \mathcal{A} 31'40		evening set	4191 Jun 21 22:47	12° \mathfrak{S} 25'15	
	4188 Dec 29 03:33	0° \mathfrak{Z}		desc. node	4191 Jun 27 01:01	9° \mathfrak{S} 23'02	
desc. node	4189 Jan 09 06:02	13° \mathfrak{Z} 56'36		inferior conj	4191 Jun 28 06:56	8° \mathfrak{S} 36'12	0°-17'-59
	4189 Jan 22 00:37	0° \approx		minimum elong	4191 Jun 28 06:15	8° \mathfrak{S} 37'15	0°17'48
				min. Earth dist.	4191 Jun 27 23:47	8° \mathfrak{S} 47'23	0.28636 AU
superior conj	4189 Jan 31 12:15	11° \approx 56'02	0°-50'-23	morning rise	4191 Jul 04 14:18	4° \mathfrak{S} 49'41	
minimum elong	4189 Jan 31 00:59	11° \approx 20'35	0°49'57	direct	4191 Jul 19 17:30	0° \mathfrak{S} 25'43	
max. Earth dist.	4189 Jan 31 09:24	11° \approx 47'02	1.71124 AU	greatest brilliancy	4191 Aug 01 11:43	3° \mathfrak{S} 18'24	-4.5m
	4189 Feb 14 20:53	0° \mathcal{H}			4191 Sep 06 07:18	0° \mathcal{Q}	

morning max el	4191 Sep 06 10:20	0°07'14	45°43'03		4194 May 09 02:39	0°00'	
	4191 Oct 05 06:40	0°00'			4194 Jun 04 16:13	0°00'	
asc. node	4191 Oct 18 03:32	14°07'24'15		evening max el	4194 Jun 27 16:56	23°04'48'21	45°32'59
	4191 Oct 31 15:41	0°00'			4194 Jul 04 07:10	0°00'	
	4191 Nov 25 19:49	0°00'		desc. node	4194 Jul 24 12:50	15°07'59'51	
	4191 Dec 20 08:13	0°00'		greatest brilliancy	4194 Aug 01 23:06	20°07'36'06	-4.5m
	4192 Jan 13 12:10	0°00'		retrograde	4194 Aug 15 11:22	23°07'48'53	
	4192 Feb 06 11:52	0°00'		evening set	4194 Sep 01 19:03	18°07'11'07	
desc. node	4192 Feb 06 17:45	0°00'18'25		inferior conj	4194 Sep 06 00:05	15°07'36'13	-8°00'2
	4192 Mar 01 09:48	0°00'		minimum elong	4194 Sep 05 17:09	15°07'47'03	7°59'19
morning set	4192 Mar 08 06:29	8°00'36'42		min. Earth dist.	4194 Sep 06 02:15	15°07'32'49	0.29073 AU
	4192 Mar 25 07:47	0°00'		morning rise	4194 Sep 09 15:08	13°07'21'34	
				direct	4194 Sep 27 13:59	7°07'17'49	
superior conj	4192 Apr 17 16:28	29°07'13'19	-1°-19'-52	greatest brilliancy	4194 Oct 11 20:50	10°07'51'52	-4.5m
minimum elong	4192 Apr 18 00:34	29°07'38'35	1°19'45		4194 Nov 07 06:27	0°00'	
	4192 Apr 18 07:26	0°00'		asc. node	4194 Nov 14 15:17	6°00'57'25	
max. Earth dist.	4192 Apr 21 19:07	4°00'20'58	1.71992 AU	morning max el	4194 Nov 16 03:59	8°00'27'31	46°14'36
	4192 May 12 10:06	0°00'			4194 Dec 06 15:45	0°00'	
evening rise	4192 May 26 22:43	17°00'58'46			4195 Jan 01 20:12	0°00'	
asc. node	4192 May 29 20:20	21°00'33'42			4195 Jan 26 20:25	0°00'	
	4192 Jun 05 16:35	0°00'			4195 Feb 20 08:02	0°00'	
	4192 Jun 30 03:11	0°00'		desc. node	4195 Mar 06 05:41	17°00'10'54	
	4192 Jul 24 18:26	0°00'			4195 Mar 16 13:54	0°00'	
	4192 Aug 18 15:59	0°00'			4195 Apr 09 17:37	0°00'	
	4192 Sep 12 22:56	0°00'			4195 May 03 21:32	0°00'	
desc. node	4192 Sep 18 10:30	6°00'25'11		morning set	4195 May 22 07:07	22°00'47'21	
	4192 Oct 08 20:46	0°00'			4195 May 28 03:03	0°00'	
	4192 Nov 04 22:13	0°00'			4195 Jun 21 10:31	0°00'	
evening max el	4192 Nov 21 13:09	17°00'11'01	46°46'36	asc. node	4195 Jun 27 08:05	7°00'16'01	
	4192 Dec 05 05:14	0°00'					
greatest brilliancy	4192 Dec 30 04:17	17°00'00'25	-4.7m	superior conj	4195 Jun 29 00:06	9°00'19'13	0°04'02
asc. node	4193 Jan 09 12:55	19°00'28'28		minimum elong	4195 Jun 28 23:14	9°00'16'33	0°03'58
retrograde	4193 Jan 10 18:36	19°00'30'18		behind sun begin	4195 Jun 28 00:44	8°00'07'17	
evening set	4193 Jan 25 15:00	15°00'09'06		behind sun end	4195 Jun 29 21:44	10°00'25'49	
inferior conj	4193 Jan 31 08:04	11°00'46'34	5°19'30	max. Earth dist.	4195 Jun 30 04:58	10°00'48'05	1.73309 AU
minimum elong	4193 Jan 30 21:52	12°00'02'12	5°16'49		4195 Jul 15 19:25	0°00'	
min. Earth dist.	4193 Jan 30 20:40	12°00'04'02	0.26627 AU	evening rise	4195 Aug 04 12:29	24°00'13'58	
morning rise	4193 Feb 05 04:55	8°00'52'31			4195 Aug 09 05:10	0°00'	
direct	4193 Feb 20 18:54	4°00'07'01			4195 Sep 02 15:57	0°00'	
greatest brilliancy	4193 Mar 04 04:24	6°00'32'22	-4.7m		4195 Sep 27 04:43	0°00'	
	4193 Apr 05 05:45	0°00'		desc. node	4195 Oct 16 22:32	24°00'01'41	
morning max el	4193 Apr 11 23:39	6°00'33'55	46°44'41		4195 Oct 21 20:38	0°00'	
desc. node	4193 May 01 03:25	26°00'38'08			4195 Nov 15 16:55	0°00'	
	4193 May 04 05:14	0°00'			4195 Dec 10 20:08	0°00'	
	4193 May 30 18:14	0°00'			4196 Jan 05 14:29	0°00'	
	4193 Jun 25 10:21	0°00'			4196 Feb 02 02:31	0°00'	
	4193 Jul 20 16:19	0°00'		evening max el	4196 Feb 03 01:25	0°00'58'27	47°10'28
	4193 Aug 14 15:10	0°00'		asc. node	4196 Feb 07 00:44	4°00'57'37	
asc. node	4193 Aug 22 05:41	9°00'12'36			4196 Mar 09 04:13	0°00'	
	4193 Sep 08 07:21	0°00'		greatest brilliancy	4196 Mar 11 20:23	1°00'19'09	-4.6m
	4193 Oct 02 17:18	0°00'		retrograde	4196 Mar 24 22:04	4°00'29'56	
morning set	4193 Oct 08 19:15	7°00'31'02			4196 Apr 08 22:20	30°00'00'00	
	4193 Oct 26 22:17	0°00'		evening set	4196 Apr 11 16:20	28°00'23'58	
max. Earth dist.	4193 Nov 12 04:16	20°00'14'12	1.72085 AU	inferior conj	4196 Apr 14 20:50	26°00'25'55	8°23'01
				minimum elong	4196 Apr 15 03:50	26°00'14'59	8°22'15
superior conj	4193 Nov 15 03:37	23°00'56'42	0°58'21	min. Earth dist.	4196 Apr 14 14:32	26°00'35'43	0.27706 AU
minimum elong	4193 Nov 15 13:43	24°00'28'12	0°57'58	morning rise	4196 Apr 18 15:31	24°00'06'56	
	4193 Nov 20 00:04	0°00'		direct	4196 May 05 16:13	18°00'30'04	
desc. node	4193 Dec 11 20:15	27°00'18'03		greatest brilliancy	4196 May 16 23:57	20°00'50'40	-4.6m
	4193 Dec 14 00:01	0°00'		desc. node	4196 May 28 15:09	27°00'06'17	
evening rise	4193 Dec 24 16:34	13°00'22'48			4196 Jun 01 18:20	0°00'	
	4194 Jan 06 22:59	0°00'		morning max el	4196 Jun 23 23:56	19°00'16'11	45°59'59
	4194 Jan 30 21:51	0°00'			4196 Jul 04 17:51	0°00'	
	4194 Feb 23 22:26	0°00'			4196 Aug 01 14:22	0°00'	
	4194 Mar 20 03:58	0°00'			4196 Aug 27 21:16	0°00'	
asc. node	4194 Apr 03 22:32	18°00'04'06		asc. node	4196 Sep 18 17:42	25°00'44'04	
	4194 Apr 13 19:06	0°00'			4196 Sep 22 07:29	0°00'	

	4196 Oct 17 03:15	0°♊			4199 May 04 13:42	0°♊	
	4196 Nov 10 12:45	0°♋		greatest brilliancy	4199 May 20 23:40	10°♊51'22	-4.5m
	4196 Dec 04 15:39	0°♌		retrograde	4199 Jun 04 14:28	14°♊38'27	
morning set	4196 Dec 19 02:45	18°♌05'24		evening set	4199 Jun 19 15:36	10°♊12'45	
	4196 Dec 28 14:45	0°♍		inferior conj	4199 Jun 25 22:54	6°♊24'39	0°02'25
desc. node	4197 Jan 08 07:58	13°♍27'31		minimum elong	4199 Jun 25 23:00	6°♊24'30	0°02'23
	4197 Jan 21 11:49	0°♎		transit middle	4199 Jun 25 23:00	6°♊24'30	0°02'23
				transit begin	4199 Jun 25 18:59	6°♊30'48	
superior conj	4197 Jan 28 22:13	9°♎21'04	0°-47'-3	transit end	4199 Jun 26 03:00	6°♊18'13	
minimum elong	4197 Jan 28 11:25	8°♎47'06	0°46'36	min. Earth dist.	4199 Jun 25 16:12	6°♊35'11	0.28602 AU
max. Earth dist.	4197 Jan 28 17:55	9°♎07'31	1.71129 AU	desc. node	4199 Jun 26 02:54	6°♊18'22	
	4197 Feb 14 08:06	0°♏		morning rise	4199 Jul 02 06:57	2°♊36'54	
	4197 Mar 10 05:05	0°♐			4199 Jul 07 22:37	30°♋♊	
evening rise	4197 Mar 10 23:31	0°♐57'49		direct	4199 Jul 17 09:06	28°♋♊14'49	
	4197 Apr 03 04:46	0°♑			4199 Jul 27 05:21	0°♋	
	4197 Apr 27 09:19	0°♒		greatest brilliancy	4199 Jul 30 01:12	1°♋04'54	-4.5m
asc. node	4197 May 01 10:29	4°♒59'24		morning max el	4199 Sep 04 00:58	27°♋53'50	45°42'43
	4197 May 21 20:50	0°♌			4199 Sep 06 05:27	0°♌	
	4197 Jun 15 17:50	0°♍			4199 Oct 04 22:16	0°♍	
	4197 Jul 11 04:51	0°♎		asc. node	4199 Oct 17 05:32	13°♍49'14	
	4197 Aug 06 16:08	0°♏			4199 Oct 31 05:01	0°♏	
desc. node	4197 Aug 21 00:42	15°♏27'37			4199 Nov 25 08:06	0°♐	
	4197 Sep 04 08:23	0°♑			4199 Dec 19 19:58	0°♑	
evening max el	4197 Sep 07 05:06	2°♑45'49	45°45'49		4200 Jan 12 23:36	0°♒	
	4197 Oct 13 21:08	0°♓		desc. node	4200 Feb 05 19:50	29°♒49'39	
greatest brilliancy	4197 Oct 15 00:02	0°♓26'22	-4.5m		4200 Feb 05 23:08	0°♓	
retrograde	4197 Oct 26 01:49	2°♓37'41			4200 Mar 01 20:59	0°♔	
	4197 Nov 06 14:41	30°♋♌		morning set	4200 Mar 06 16:44	6°♔03'17	
evening set	4197 Nov 11 07:06	27°♌36'07			4200 Mar 25 18:53	0°♕	
inferior conj	4197 Nov 15 23:36	24°♌47'39	-5°-59'-33				
minimum elong	4197 Nov 16 09:56	24°♌31'46	5°57'13	superior conj	4200 Apr 16 05:03	26°♕48'24	-1°-21'-17
min. Earth dist.	4197 Nov 16 22:13	24°♌12'53	0.27613 AU	minimum elong	4200 Apr 16 12:30	27°♕11'37	1°21'10
morning rise	4197 Nov 21 12:13	21°♌30'05			4200 Apr 18 18:27	0°♖	
direct	4197 Dec 07 00:58	16°♌47'45		max. Earth dist.	4200 Apr 20 07:36	1°♖55'54	1.71937 AU
asc. node	4197 Dec 12 03:00	17°♌18'16			4200 May 12 21:05	0°♗	
greatest brilliancy	4197 Dec 21 02:47	20°♌25'30	-4.6m	evening rise	4200 May 25 13:26	15°♗42'01	
	4198 Jan 04 20:45	0°♘		asc. node	4200 May 29 22:15	21°♗05'42	
morning max el	4198 Jan 26 17:30	20°♘03'45	46°54'43		4200 Jun 06 03:34	0°♘	
	4198 Feb 05 05:46	0°♙			4200 Jun 30 14:18	0°♙	
	4198 Mar 03 23:52	0°♚			4200 Jul 25 05:53	0°♚	
	4198 Mar 29 10:05	0°♛			4200 Aug 19 03:59	0°♛	
desc. node	4198 Apr 02 17:40	5°♛10'09			4200 Sep 13 11:56	0°♜	
	4198 Apr 23 07:22	0°♞		desc. node	4200 Sep 18 12:36	5°♜52'31	
	4198 May 17 23:20	0°♟			4200 Oct 09 11:35	0°♟	
	4198 Jun 11 13:28	0°♠			4200 Nov 05 16:57	0°♠	
	4198 Jul 06 02:50	0°♡		evening max el	4200 Nov 20 01:46	14°♠45'32	46°44'42
asc. node	4198 Jul 24 19:52	22°♡53'51			4200 Dec 06 14:02	0°♢	
morning set	4198 Jul 30 06:12	29°♡33'08		greatest brilliancy	4200 Dec 28 18:40	14°♢34'31	-4.6m
	4198 Jul 30 14:58	0°♣		retrograde	4201 Jan 09 06:41	17°♢02'31	
	4198 Aug 24 01:00	0°♤		asc. node	4201 Jan 09 14:54	17°♢02'22	
max. Earth dist.	4198 Sep 02 18:24	11°♤58'49	1.73303 AU	evening set	4201 Jan 24 00:59	12°♢44'56	
				inferior conj	4201 Jan 29 20:38	9°♢19'24	4°59'29
superior conj	4198 Sep 04 18:14	14°♤26'16	1°18'43	minimum elong	4201 Jan 29 10:47	9°♢34'29	4°56'47
minimum elong	4198 Sep 04 11:50	14°♤06'32	1°18'36	min. Earth dist.	4201 Jan 29 10:34	9°♢34'50	0.26612 AU
	4198 Sep 17 08:46	0°♥		morning rise	4201 Feb 03 20:39	6°♢20'54	
evening rise	4198 Oct 11 03:58	29°♥25'58		direct	4201 Feb 19 06:48	1°♢39'39	
	4198 Oct 11 14:58	0°♦		greatest brilliancy	4201 Mar 02 19:50	4°♢08'12	-4.7m
	4198 Nov 04 20:35	0°♧			4201 Apr 06 07:24	0°♧	
desc. node	4198 Nov 13 10:24	10°♧37'02		morning max el	4201 Apr 10 12:15	4°♧07'56	46°45'58
	4198 Nov 29 02:15	0°♨		desc. node	4201 May 01 05:27	25°♧55'25	
	4198 Dec 23 08:28	0°♩			4201 May 04 22:22	0°♩	
	4199 Jan 16 16:52	0°♪			4201 May 31 08:25	0°♫	
	4199 Feb 10 07:42	0°♫			4201 Jun 25 23:03	0°♬	
asc. node	4199 Mar 06 12:37	28°♫46'19			4201 Jul 21 04:10	0°♭	
	4199 Mar 07 13:55	0°♭			4201 Aug 15 02:28	0°♧	
	4199 Apr 03 07:28	0°♣		asc. node	4201 Aug 22 07:50	8°♧45'15	
evening max el	4199 Apr 15 21:03	13°♣00'19	46°22'17		4201 Sep 08 18:19	0°♨	

	4201 Oct 03 04:06	0°♄		retrograde	4204 Mar 23 13:17	2°♄09'07	
morning set	4201 Oct 07 11:53	5°♄20'38			4204 Apr 02 17:48	30°♄	
	4201 Oct 27 09:04	0°♄		evening set	4204 Apr 10 08:56	25°♄59'41	
max. Earth dist.	4201 Nov 10 20:15	18°♄00'38	1.72134 AU	inferior conj	4204 Apr 13 10:55	24°♄05'28	8°30'53
				minimum elong	4204 Apr 13 17:16	23°♄55'34	8°30'16
superior conj	4201 Nov 13 18:19	21°♄39'03	1°00'52	min. Earth dist.	4204 Apr 13 03:36	24°♄16'51	0.27668 AU
minimum elong	4201 Nov 14 04:24	22°♄10'31	1°00'31	morning rise	4204 Apr 17 01:47	21°♄52'23	
	4201 Nov 20 10:55	0°♄		direct	4204 May 04 06:18	16°♄10'24	
desc. node	4201 Dec 11 22:12	26°♄49'51		greatest brilliancy	4204 May 15 11:27	18°♄29'09	-4.6m
	4201 Dec 14 10:59	0°♄		desc. node	4204 May 28 17:04	25°♄48'53	
evening rise	4201 Dec 23 04:50	10°♄56'34			4204 Jun 03 09:13	0°♄	
	4202 Jan 07 10:05	0°♄		morning max el	4204 Jun 22 15:21	17°♄02'49	46°01'18
	4202 Jan 31 09:04	0°♄			4204 Jul 05 12:43	0°♄	
	4202 Feb 24 09:51	0°♄			4204 Aug 02 04:51	0°♄	
	4202 Mar 20 15:43	0°♄			4204 Aug 28 09:54	0°♄	
asc. node	4202 Apr 04 00:34	17°♄33'35		asc. node	4204 Sep 18 19:39	25°♄14'47	
	4202 Apr 14 07:29	0°♄			4204 Sep 22 19:10	0°♄	
	4202 May 09 16:17	0°♄			4204 Oct 17 14:25	0°♄	
	4202 Jun 05 08:38	0°♄			4204 Nov 10 23:40	0°♄	
evening max el	4202 Jun 26 08:28	21°♄36'55	45°33'50		4204 Dec 05 02:28	0°♄	
	4202 Jul 05 09:01	0°♄		morning set	4204 Dec 17 15:26	15°♄41'06	
desc. node	4202 Jul 24 14:57	14°♄43'38			4204 Dec 29 01:32	0°♄	
greatest brilliancy	4202 Jul 31 11:25	18°♄22'36	-4.5m	desc. node	4205 Jan 08 10:01	13°♄00'03	
retrograde	4202 Aug 14 03:54	21°♄40'00			4205 Jan 21 22:36	0°♄	
evening set	4202 Aug 31 08:05	16°♄06'10					
inferior conj	4202 Sep 04 16:19	13°♄26'42	-7°-52'-16	superior conj	4205 Jan 27 08:21	6°♄47'56	0°-43'-38
minimum elong	4202 Sep 04 08:51	13°♄38'22	7°51'24	minimum elong	4205 Jan 26 22:06	6°♄15'41	0°43'11
min. Earth dist.	4202 Sep 04 17:19	13°♄25'07	0.29087 AU	max. Earth dist.	4205 Jan 27 01:37	6°♄26'46	1.71138 AU
morning rise	4202 Sep 08 09:30	11°♄09'03			4205 Feb 14 18:55	0°♄	
direct	4202 Sep 26 06:16	5°♄08'10		evening rise	4205 Mar 09 09:55	28°♄25'46	
greatest brilliancy	4202 Oct 10 13:21	8°♄42'36	-4.5m		4205 Mar 10 15:58	0°♄	
	4202 Nov 08 07:44	0°♄			4205 Apr 03 15:42	0°♄	
asc. node	4202 Nov 14 17:15	6°♄08'14			4205 Apr 27 20:22	0°♄	
morning max el	4202 Nov 14 20:05	6°♄15'12	46°13'01	asc. node	4205 May 01 12:25	4°♄31'14	
	4202 Dec 07 08:14	0°♄			4205 May 22 08:09	0°♄	
	4203 Jan 02 10:02	0°♄			4205 Jun 16 05:42	0°♄	
	4203 Jan 27 09:03	0°♄			4205 Jul 11 17:51	0°♄	
	4203 Feb 20 19:59	0°♄			4205 Aug 07 07:33	0°♄	
desc. node	4203 Mar 06 07:46	16°♄41'14		desc. node	4205 Aug 21 02:45	14°♄46'29	
	4203 Mar 17 01:23	0°♄			4205 Sep 05 06:31	0°♄	
	4203 Apr 10 04:46	0°♄		evening max el	4205 Sep 05 19:50	0°♄31'51	45°44'11
	4203 May 04 08:25	0°♄		greatest brilliancy	4205 Oct 13 13:31	28°♄08'47	-4.5m
morning set	4203 May 20 22:34	20°♄33'19			4205 Oct 20 11:04	0°♄	
	4203 May 28 13:47	0°♄		retrograde	4205 Oct 24 14:48	0°♄19'29	
	4203 Jun 21 21:09	0°♄			4205 Oct 28 16:26	30°♄	
asc. node	4203 Jun 27 10:05	6°♄49'31		evening set	4205 Nov 10 00:02	25°♄13'34	
				inferior conj	4205 Nov 14 13:37	22°♄28'55	-6°-15'-12
superior conj	4203 Jun 27 17:04	7°♄11'02	0°00'42	minimum elong	4205 Nov 14 23:57	22°♄12'59	6°12'58
minimum elong	4203 Jun 27 16:54	7°♄10'31	0°00'41	min. Earth dist.	4205 Nov 15 12:32	21°♄53'37	0.27680 AU
behind sun begin	4203 Jun 26 17:51	5°♄59'30		morning rise	4205 Nov 19 23:22	19°♄14'50	
behind sun end	4203 Jun 28 15:57	8°♄21'31		direct	4205 Dec 05 15:42	14°♄28'11	
max. Earth dist.	4203 Jun 29 01:00	8°♄49'22	1.73286 AU	asc. node	4205 Dec 12 05:00	15°♄18'08	
	4203 Jul 16 06:01	0°♄		greatest brilliancy	4205 Dec 19 17:40	18°♄05'30	-4.6m
evening rise	4203 Aug 03 07:00	22°♄10'46			4206 Jan 06 08:50	0°♄	
	4203 Aug 09 15:50	0°♄		morning max el	4206 Jan 25 07:05	17°♄40'18	46°53'47
	4203 Sep 03 02:48	0°♄			4206 Feb 06 00:42	0°♄	
	4203 Sep 27 15:55	0°♄			4206 Mar 04 14:48	0°♄	
desc. node	4203 Oct 17 00:30	23°♄32'24			4206 Mar 29 23:16	0°♄	
	4203 Oct 22 08:23	0°♄		desc. node	4206 Apr 02 19:35	4°♄36'59	
	4203 Nov 16 05:28	0°♄			4206 Apr 23 19:34	0°♄	
	4203 Dec 11 09:57	0°♄			4206 May 18 10:54	0°♄	
	4204 Jan 06 06:39	0°♄			4206 Jun 12 00:33	0°♄	
evening max el	4204 Feb 01 16:40	28°♄38'47	47°11'06		4206 Jul 06 13:35	0°♄	
	4204 Feb 03 00:45	0°♄		asc. node	4206 Jul 24 22:01	22°♄27'59	
asc. node	4204 Feb 07 02:53	4°♄03'39		morning set	4206 Jul 29 00:02	27°♄28'20	
greatest brilliancy	4204 Mar 10 11:31	28°♄58'46	-4.7m		4206 Jul 31 01:30	0°♄	
	4204 Mar 12 21:41	0°♄			4206 Aug 24 11:28	0°♄	

max. Earth dist.	4206 Sep 01 12:49	9° \cap 55'25	1.73328 AU	min. Earth dist.	4209 Jan 27 00:03	7° \approx 04'58	0.26603 AU
				morning rise	4209 Feb 01 12:04	3° \approx 48'48	
superior conj	4206 Sep 03 12:31	12° \cap 22'22	1°17'28		4209 Feb 10 12:20	30° \cap 3	
minimum elong	4206 Sep 03 05:40	12° \cap 01'16	1°17'19	direct	4209 Feb 16 18:42	29° \cap 11'21	
	4206 Sep 17 19:17	0° Δ			4209 Feb 23 05:52	0° \approx	
evening rise	4206 Oct 09 20:39	27° Δ 16'08		greatest brilliancy	4209 Feb 28 11:07	1° \approx 43'30	-4.7m
	4206 Oct 12 01:38	0° \cap			4209 Apr 06 07:46	0° \cap	
	4206 Nov 05 07:28	0° \cap		morning max el	4209 Apr 08 01:38	1° \cap 43'56	46°47'20
desc. node	4206 Nov 13 12:22	10° \cap 09'04		desc. node	4209 Apr 30 07:27	25° \cap 13'27	
	4206 Nov 29 13:25	0° \cap			4209 May 04 15:01	0° \cap	
	4206 Dec 23 20:02	0° \approx			4209 May 30 22:18	0° \cap	
	4207 Jan 17 04:59	0° \cap			4209 Jun 25 11:32	0° \cap	
	4207 Feb 10 20:39	0° \cap			4209 Jul 20 15:49	0° \cap	
asc. node	4207 Mar 06 14:36	28° \cap 10'11			4209 Aug 14 13:37	0° \cap	
	4207 Mar 08 04:26	0° \cap		asc. node	4209 Aug 21 09:47	8° \cap 17'41	
	4207 Apr 04 01:46	0° \cap			4209 Sep 08 05:10	0° \cap	
evening max el	4207 Apr 14 11:32	10° \cap 42'58	46°24'22		4209 Oct 02 14:48	0° Δ	
	4207 May 06 01:16	0° \cap		morning set	4209 Oct 05 04:49	3° Δ 11'34	
greatest brilliancy	4207 May 19 17:19	8° \cap 41'40	-4.5m		4209 Oct 26 19:44	0° \cap	
retrograde	4207 Jun 03 06:08	12° \cap 27'15		max. Earth dist.	4209 Nov 08 13:34	15° \cap 51'39	1.72182 AU
evening set	4207 Jun 18 08:28	8° \cap 00'38					
inferior conj	4207 Jun 24 14:51	4° \cap 13'57	0°23'00	superior conj	4209 Nov 11 09:20	19° \cap 22'48	1°03'16
minimum elong	4207 Jun 24 15:42	4° \cap 12'36	0°22'44	minimum elong	4209 Nov 11 19:20	19° \cap 53'59	1°02'56
min. Earth dist.	4207 Jun 24 08:53	4° \cap 23'20	0.28569 AU		4209 Nov 19 21:39	0° \cap	
desc. node	4207 Jun 26 05:02	3° \cap 14'09		desc. node	4209 Dec 11 00:19	26° \cap 22'31	
morning rise	4207 Jun 30 23:24	0° \cap 25'10			4209 Dec 13 21:52	0° \cap	
	4207 Jul 01 18:12	30° \cap II		evening rise	4209 Dec 20 17:16	8° \cap 31'07	
direct	4207 Jul 16 00:10	26° \cap II04'33			4210 Jan 06 21:08	0° \approx	
greatest brilliancy	4207 Jul 28 15:26	28° \cap II53'10	-4.5m		4210 Jan 30 20:18	0° \cap	
	4207 Jul 31 02:28	0° \cap			4210 Feb 23 21:18	0° \cap	
morning max el	4207 Sep 02 15:25	25° \cap 40'59	45°42'32		4210 Mar 20 03:33	0° \cap	
	4207 Sep 07 02:21	0° \cap		asc. node	4210 Apr 03 02:30	17° \cap 02'30	
	4207 Oct 05 13:16	0° \cap			4210 Apr 13 19:58	0° \cap	
asc. node	4207 Oct 17 07:31	13° \cap 15'30			4210 May 09 06:03	0° \cap	
	4207 Oct 31 17:56	0° Δ			4210 Jun 05 01:24	0° \cap	
	4207 Nov 25 20:04	0° \cap		evening max el	4210 Jun 24 00:40	19° \cap 26'59	45°34'46
	4207 Dec 20 07:27	0° \cap			4210 Jul 05 12:27	0° \cap	
	4208 Jan 13 10:49	0° \cap		desc. node	4210 Jul 23 17:01	13° \cap 24'51	
desc. node	4208 Feb 05 21:56	29° \cap 21'37		greatest brilliancy	4210 Jul 29 00:30	16° \cap 09'54	-4.5m
	4208 Feb 06 10:11	0° \approx		retrograde	4210 Aug 11 20:28	19° \cap 30'45	
	4208 Mar 01 07:54	0° \cap		evening set	4210 Aug 28 21:03	14° \cap 01'03	
morning set	4208 Mar 04 02:39	3° \cap 29'33		inferior conj	4210 Sep 02 08:26	11° \cap 16'52	-7°-43'-48
	4208 Mar 25 05:42	0° \cap		minimum elong	4210 Sep 02 00:31	11° \cap 29'16	7°42'48
				min. Earth dist.	4210 Sep 02 08:09	11° \cap 17'19	0.29097 AU
superior conj	4208 Apr 13 17:26	24° \cap 23'38	-1°-22'-32	morning rise	4210 Sep 06 03:54	8° \cap 55'58	
minimum elong	4208 Apr 14 00:07	24° \cap 44'32	1°22'27	direct	4210 Sep 23 22:54	2° \cap 58'20	
max. Earth dist.	4208 Apr 17 17:52	29° \cap 24'41	1.71884 AU	greatest brilliancy	4210 Oct 08 04:43	6° \cap 31'49	-4.5m
	4208 Apr 18 05:11	0° \cap			4210 Nov 08 07:48	0° Δ	
	4208 May 12 07:47	0° \cap		morning max el	4210 Nov 12 12:28	4° Δ 03'44	46°11'32
evening rise	4208 May 23 03:59	13° \cap II25'27		asc. node	4210 Nov 13 19:16	5° Δ 19'58	
asc. node	4208 May 29 00:19	20° \cap II38'54			4210 Dec 07 00:25	0° \cap	
	4208 Jun 05 14:21	0° \cap			4211 Jan 01 23:45	0° \cap	
	4208 Jun 30 01:14	0° \cap			4211 Jan 26 21:39	0° \cap	
	4208 Jul 24 17:07	0° \cap			4211 Feb 20 07:58	0° \approx	
	4208 Aug 18 15:47	0° Δ		desc. node	4211 Mar 05 09:42	16° \approx 10'52	
	4208 Sep 13 00:46	0° \cap			4211 Mar 16 12:58	0° \cap	
desc. node	4208 Sep 17 14:34	5° \cap 20'05			4211 Apr 09 16:03	0° \cap	
	4208 Oct 09 02:21	0° \cap			4211 May 03 19:29	0° \cap	
	4208 Nov 05 12:00	0° \cap		morning set	4211 May 18 13:32	18° \cap 17'15	
evening max el	4208 Nov 17 14:15	12° \cap 20'25	46°42'36		4211 May 28 00:39	0° \cap	
	4208 Dec 07 01:49	0° \approx			4211 Jun 21 07:55	0° \cap	
greatest brilliancy	4208 Dec 26 07:53	12° \approx 07'01	-4.6m				
retrograde	4209 Jan 06 18:52	14° \approx 34'15		superior conj	4211 Jun 25 09:34	5° \cap 00'54	0°-2'-40
asc. node	4209 Jan 08 17:03	14° \approx 29'43		minimum elong	4211 Jun 25 10:09	5° \cap 02'43	0°02'39
evening set	4209 Jan 21 10:52	10° \approx 19'38		behind sun begin	4211 Jun 24 11:12	3° \cap 51'59	
inferior conj	4209 Jan 27 08:52	6° \approx 51'29	4°38'30	behind sun end	4211 Jun 26 09:06	6° \cap 13'26	
minimum elong	4209 Jan 26 23:28	7° \approx 05'51	4°35'51	asc. node	4211 Jun 26 12:10	6° \cap 22'52	

max. Earth dist.	4211 Jun 26 22:40	6°55'10	1.73258 AU		4214 Feb 05 19:28	0°	
	4211 Jul 15 16:45	0°			4214 Mar 04 05:48	0°	
evening rise	4211 Aug 01 01:22	20°06'37			4214 Mar 29 12:35	0°	
	4211 Aug 09 02:39	0°		desc. node	4214 Apr 01 21:39	4°	03'38
	4211 Sep 02 13:50	0°			4214 Apr 23 07:58	0°	
	4211 Sep 27 03:20	0°			4214 May 17 22:41	0°	
desc. node	4211 Oct 16 02:30	23°02'41			4214 Jun 11 11:55	0°	
	4211 Oct 21 20:21	0°			4214 Jul 06 00:40	0°	
	4211 Nov 15 18:14	0°		asc. node	4214 Jul 23 23:58	22°	00'26
	4211 Dec 10 23:59	0°		morning set	4214 Jul 26 17:40	25°	21'51
	4212 Jan 05 23:10	0°			4214 Jul 30 12:24	0°	
evening max el	4212 Jan 30 08:11	26°19'22	47°11'27		4214 Aug 23 22:18	0°	
	4212 Feb 03 00:04	0°		max. Earth dist.	4214 Aug 30 07:09	7°	50'44 1.73352 AU
asc. node	4212 Feb 06 04:46	3°07'33					
greatest brilliancy	4212 Mar 08 03:14	26°38'17	-4.7m	superior conj	4214 Sep 01 06:39	10°	17'05 1°16'05
retrograde	4212 Mar 21 04:02	29°46'55		minimum elong	4214 Aug 31 23:23	9°	54'41 1°15'55
evening set	4212 Apr 08 01:13	23°34'39			4214 Sep 17 06:09	0°	
min. Earth dist.	4212 Apr 10 16:40	21°56'37	0.27630 AU	evening rise	4214 Oct 07 13:23	25°	05'32
inferior conj	4212 Apr 11 00:54	21°43'47	8°37'53		4214 Oct 11 12:38	0°	
minimum elong	4212 Apr 11 06:32	21°35'00	8°37'24		4214 Nov 04 18:42	0°	
morning rise	4212 Apr 14 12:03	19°36'15		desc. node	4214 Nov 12 14:28	9°	40'31
direct	4212 May 01 20:25	13°49'37			4214 Nov 29 00:59	0°	
greatest brilliancy	4212 May 12 22:39	16°05'55	-4.6m		4214 Dec 23 08:01	0°	
desc. node	4212 May 27 19:12	24°33'11			4215 Jan 16 17:30	0°	
	4212 Jun 03 20:49	0°			4215 Feb 10 10:00	0°	
morning max el	4212 Jun 20 06:07	14°46'41	46°02'36	asc. node	4215 Mar 05 16:36	27°	33'02
	4212 Jul 05 07:27	0°			4215 Mar 07 19:24	0°	
	4212 Aug 01 19:28	0°			4215 Apr 03 20:47	0°	
	4212 Aug 27 22:43	0°		evening max el	4215 Apr 12 01:36	8°	23'58 46°26'33
asc. node	4212 Sep 17 21:36	24°44'50			4215 May 06 17:08	0°	
	4212 Sep 22 07:03	0°		greatest brilliancy	4215 May 17 09:49	6°	29'57 -4.6m
	4212 Oct 17 01:50	0°		retrograde	4215 May 31 22:03	10°	15'50
	4212 Nov 10 10:51	0°		evening set	4215 Jun 16 01:36	5°	47'41
	4212 Dec 04 13:32	0°		inferior conj	4215 Jun 22 06:58	2°	02'47 0°43'29
morning set	4212 Dec 15 04:30	13°17'12		minimum elong	4215 Jun 22 08:34	2°	00'15 0°42'59
	4212 Dec 28 12:34	0°		min. Earth dist.	4215 Jun 22 01:42	2°	11'03 0.28542 AU
desc. node	4213 Jan 07 12:07	12°31'59		desc. node	4215 Jun 25 07:05	0°	10'42
	4213 Jan 21 09:37	0°			4215 Jun 25 14:08	30°	13'21
				morning rise	4215 Jun 28 15:54	28°	13'21
superior conj	4213 Jan 24 18:59	4°15'48	0°-40'-9	direct	4215 Jul 13 15:16	23°	53'35
minimum elong	4213 Jan 24 09:21	3°45'31	0°39'44	greatest brilliancy	4215 Jul 26 06:59	26°	42'13 -4.5m
max. Earth dist.	4213 Jan 24 07:31	3°39'46	1.71143 AU		4215 Aug 01 20:32	0°	
	4213 Feb 14 05:57	0°		morning max el	4215 Aug 31 06:40	23°	29'00 45°42'23
evening rise	4213 Mar 06 20:36	25°53'56			4215 Sep 06 22:57	0°	
	4213 Mar 10 03:02	0°			4215 Oct 05 04:27	0°	
	4213 Apr 03 02:52	0°		asc. node	4215 Oct 16 09:37	12°	41'13
	4213 Apr 27 07:42	0°			4215 Oct 31 07:07	0°	
asc. node	4213 Apr 30 14:29	4°02'34			4215 Nov 25 08:18	0°	
	4213 May 21 19:48	0°			4215 Dec 19 19:12	0°	
	4213 Jun 15 17:58	0°			4216 Jan 12 22:19	0°	
	4213 Jul 11 07:19	0°		desc. node	4216 Feb 04 23:49	28°	51'52
	4213 Aug 06 23:36	0°			4216 Feb 05 21:33	0°	
desc. node	4213 Aug 20 04:42	14°03'35			4216 Feb 29 19:09	0°	
evening max el	4213 Sep 03 09:37	28°14'41	45°42'40	morning set	4216 Mar 01 12:36	0°	54'47
	4213 Sep 05 06:02	0°			4216 Mar 24 16:50	0°	
greatest brilliancy	4213 Oct 11 03:05	25°50'34	-4.5m				
retrograde	4213 Oct 22 03:36	28°00'50		superior conj	4216 Apr 11 05:56	21°	58'15 -1°-23'-38
evening set	4213 Nov 07 17:01	22°50'14		minimum elong	4216 Apr 11 11:50	22°	16'42 1°23'35
inferior conj	4213 Nov 12 03:43	20°09'36	-6°-30'-9	max. Earth dist.	4216 Apr 15 02:30	26°	47'25 1.71828 AU
minimum elong	4213 Nov 12 14:01	19°53'42	6°28'01		4216 Apr 17 16:13	0°	
min. Earth dist.	4213 Nov 13 03:08	19°33'27	0.27748 AU		4216 May 11 18:46	0°	
morning rise	4213 Nov 17 10:26	16°59'16		evening rise	4216 May 20 18:45	11°	08'46
direct	4213 Dec 03 06:02	12°07'44		asc. node	4216 May 28 02:24	20°	11'22
asc. node	4213 Dec 11 07:08	13°21'49			4216 Jun 05 01:21	0°	
greatest brilliancy	4213 Dec 17 09:37	15°46'00	-4.6m		4216 Jun 29 12:25	0°	
	4214 Jan 06 18:12	0°			4216 Jul 24 04:39	0°	
morning max el	4214 Jan 22 20:24	15°15'07	46°53'05		4216 Aug 18 03:57	0°	

	4216 Sep 12 14:01	0°♍			4219 Mar 16 00:36	0°♎		
desc. node	4216 Sep 16 16:35	4°♍46'40			4219 Apr 09 03:24	0°♏		
	4216 Oct 08 17:39	0°♏			4219 May 03 06:37	0°♐		
	4216 Nov 05 07:58	0°♑		morning set	4219 May 16 04:27	16°♑00'35		
evening max el	4216 Nov 15 03:38	9°♑56'55 46°40'37			4219 May 27 11:38	0°♒		
	4216 Dec 07 17:59	0°♒			4219 Jun 20 18:46	0°♓		
greatest brilliancy	4216 Dec 23 20:10	9°♒37'58 -4.6m						
retrograde	4217 Jan 04 07:33	12°♒05'29		superior conj	4219 Jun 23 02:11	2°♓50'46 0°-6'00		
asc. node	4217 Jan 07 18:57	11°♒50'36		minimum elong	4219 Jun 23 03:29	2°♓54'49 0°05'58		
evening set	4217 Jan 18 21:05	7°♒53'23		behind sun begin	4219 Jun 22 05:42	1°♓47'41		
inferior conj	4217 Jan 24 21:09	4°♒22'50 4°16'57		behind sun end	4219 Jun 24 01:16	4°♓01'56		
minimum elong	4217 Jan 24 12:16	4°♒36'23 4°14'24		max. Earth dist.	4219 Jun 24 20:39	5°♓01'38 1.73224 AU		
min. Earth dist.	4217 Jan 24 13:17	4°♒34'50 0.26596 AU		asc. node	4219 Jun 25 14:09	5°♓55'32		
morning rise	4217 Jan 30 03:26	1°♒16'17			4219 Jul 15 03:32	0°♈		
	4217 Feb 01 13:35	30°♒♑		evening rise	4219 Jul 29 19:53	18°♈02'50		
direct	4217 Feb 14 07:22	26°♒42'25			4219 Aug 08 13:29	0°♉		
greatest brilliancy	4217 Feb 26 01:57	29°♒17'33 -4.7m			4219 Sep 02 00:53	0°♊		
	4217 Feb 27 16:39	0°♋			4219 Sep 26 14:46	0°♌		
morning max el	4217 Apr 05 15:55	29°♋21'22 46°48'38		desc. node	4219 Oct 15 04:38	22°♌33'18		
	4217 Apr 06 07:21	0°♎			4219 Oct 21 08:22	0°♏		
desc. node	4217 Apr 29 09:31	24°♎31'22			4219 Nov 15 07:07	0°♑		
	4217 May 04 07:39	0°♏			4219 Dec 10 14:16	0°♒		
	4217 May 30 12:17	0°♐			4220 Jan 05 16:08	0°♎		
	4217 Jun 25 00:09	0°♒		evening max el	4220 Jan 27 23:05	23°♎57'54 47°11'43		
	4217 Jul 20 03:38	0°♓			4220 Feb 03 00:36	0°♏		
	4217 Aug 14 00:57	0°♈		asc. node	4220 Feb 05 06:49	2°♏10'20		
asc. node	4217 Aug 20 11:45	7°♈49'35		greatest brilliancy	4220 Mar 05 19:46	24°♏18'24 -4.7m		
	4217 Sep 07 16:13	0°♉		retrograde	4220 Mar 18 18:15	27°♏24'08		
	4217 Oct 02 01:43	0°♊		evening set	4220 Apr 05 17:09	21°♏09'45		
morning set	4217 Oct 02 21:55	1°♊02'21		min. Earth dist.	4220 Apr 08 05:56	19°♏35'40 0.27591 AU		
	4217 Oct 26 06:39	0°♌		inferior conj	4220 Apr 08 14:49	19°♏21'47 8°43'56		
max. Earth dist.	4217 Nov 06 05:31	13°♌37'42 1.72227 AU		minimum elong	4220 Apr 08 19:40	19°♏14'12 8°43'36		
				morning rise	4220 Apr 11 22:24	17°♏19'25		
superior conj	4217 Nov 09 00:28	17°♌06'12 1°05'34		direct	4220 Apr 29 10:10	11°♏28'31		
minimum elong	4217 Nov 09 10:18	17°♌36'52 1°05'15		greatest brilliancy	4220 May 10 10:19	13°♏42'47 -4.6m		
	4217 Nov 19 08:38	0°♏		desc. node	4220 May 26 21:15	23°♏19'29		
desc. node	4217 Dec 10 02:21	25°♏54'08			4220 Jun 04 05:25	0°♐		
	4217 Dec 13 08:59	0°♑		morning max el	4220 Jun 17 19:55	12°♐27'59 46°03'57		
evening rise	4217 Dec 18 05:42	6°♑05'00			4220 Jul 05 01:41	0°♒		
	4218 Jan 06 08:24	0°♒			4220 Aug 01 09:52	0°♓		
	4218 Jan 30 07:45	0°♎			4220 Aug 27 11:22	0°♈		
	4218 Feb 23 09:00	0°♏		asc. node	4220 Sep 16 23:45	24°♈15'47		
	4218 Mar 19 15:39	0°♐			4220 Sep 21 18:48	0°♉		
asc. node	4218 Apr 02 04:36	16°♐31'12			4220 Oct 16 13:06	0°♊		
	4218 Apr 13 08:45	0°♒			4220 Nov 09 21:53	0°♌		
	4218 May 08 20:10	0°♓		greatest brilliancy	4220 Nov 25 07:58	19°♌09'36 -3.9m		
	4218 Jun 04 18:39	0°♈			4220 Dec 04 00:30	0°♏		
evening max el	4218 Jun 21 17:28	17°♈18'14 45°35'48		morning set	4220 Dec 12 17:39	10°♏53'51		
	4218 Jul 05 17:47	0°♉			4220 Dec 27 23:31	0°♑		
desc. node	4218 Jul 22 18:56	12°♉03'27		desc. node	4221 Jan 06 14:04	12°♑03'38		
greatest brilliancy	4218 Jul 26 14:50	13°♉58'58 -4.5m			4221 Jan 20 20:36	0°♒		
retrograde	4218 Aug 09 13:02	17°♉21'50		max. Earth dist.	4221 Jan 21 09:52	0°♒41'42 1.71158 AU		
evening set	4218 Aug 26 10:18	11°♉56'36						
inferior conj	4218 Aug 31 00:48	9°♉07'34 -7°-34'-42		superior conj	4221 Jan 22 05:25	1°♒43'09 0°-36'-34		
minimum elong	4218 Aug 30 16:28	9°♉20'37 7°33'35		minimum elong	4221 Jan 21 20:29	1°♒15'05 0°36'11		
min. Earth dist.	4218 Aug 30 23:13	9°♉10'03 0.29104 AU			4221 Feb 13 16:58	0°♎		
morning rise	4218 Sep 03 22:37	6°♉43'09		evening rise	4221 Mar 04 06:46	23°♎20'31		
direct	4218 Sep 21 16:02	0°♉49'14			4221 Mar 09 14:06	0°♏		
greatest brilliancy	4218 Oct 05 19:15	4°♉20'09 -4.5m			4221 Apr 02 14:00	0°♐		
	4218 Nov 08 06:56	0°♊			4221 Apr 26 18:59	0°♒		
morning max el	4218 Nov 10 04:24	1°♊51'00 46°09'49		asc. node	4221 Apr 29 16:33	3°♒34'08		
asc. node	4218 Nov 12 21:22	4°♊32'22			4221 May 21 07:24	0°♓		
	4218 Dec 06 16:30	0°♌			4221 Jun 15 06:13	0°♈		
	4219 Jan 01 13:32	0°♏			4221 Jul 10 20:49	0°♉		
	4219 Jan 26 10:21	0°♑			4221 Aug 06 15:47	0°♊		
	4219 Feb 19 20:02	0°♒		desc. node	4221 Aug 19 06:49	13°♊21'01		
desc. node	4219 Mar 04 11:48	15°♒40'42		evening max el	4221 Aug 31 22:46	25°♊56'43 45°41'22		

	4221 Sep 05 06:24	0°♄			4224 Mar 24 03:37	0°♃	
greatest brilliancy	4221 Oct 08 16:12	23°♄33'08	-4.5m				
retrograde	4221 Oct 19 16:52	25°♄44'03		superior conj	4224 Apr 08 18:06	19°♃32'39	-1°-24'-34
evening set	4221 Nov 05 10:10	20°♄28'29		minimum elong	4224 Apr 08 23:10	19°♃48'29	1°24'33
inferior conj	4221 Nov 09 18:04	17°♄52'00	-6°-44'-6	max. Earth dist.	4224 Apr 12 11:00	24°♃10'30	1.71783 AU
minimum elong	4221 Nov 10 04:15	17°♄36'16	6°42'07		4224 Apr 17 02:57	0°♂	
min. Earth dist.	4221 Nov 10 17:54	17°♄15'11	0.27818 AU		4224 May 11 05:29	0°♂	
morning rise	4221 Nov 14 21:44	14°♄45'46		evening rise	4224 May 18 09:00	8°♂51'12	
direct	4221 Nov 30 20:26	9°♄48'54		asc. node	4224 May 27 04:19	19°♂44'06	
asc. node	4221 Dec 10 09:03	11°♄31'13			4224 Jun 04 12:09	0°♂	
greatest brilliancy	4221 Dec 15 02:32	13°♄29'21	-4.6m		4224 Jun 28 23:22	0°♂	
	4222 Jan 07 00:35	0°♂			4224 Jul 23 15:56	0°♂	
morning max el	4222 Jan 20 10:07	12°♂51'48	46°52'07		4224 Aug 17 15:53	0°♂	
	4222 Feb 05 13:31	0°♂			4224 Sep 12 03:06	0°♄	
	4222 Mar 03 20:29	0°♂		desc. node	4224 Sep 15 18:41	4°♄14'10	
	4222 Mar 29 01:43	0°♂			4224 Oct 08 08:53	0°♂	
desc. node	4222 Mar 31 23:45	3°♂30'52			4224 Nov 05 04:11	0°♂	
	4222 Apr 22 20:11	0°♃		evening max el	4224 Nov 12 18:02	7°♂37'16	46°38'44
	4222 May 17 10:17	0°♂			4224 Dec 08 14:48	0°♂	
	4222 Jun 10 23:05	0°♂		greatest brilliancy	4224 Dec 21 08:30	7°♂10'46	-4.6m
	4222 Jul 05 11:31	0°♂		retrograde	4225 Jan 01 20:38	9°♂38'28	
asc. node	4222 Jul 23 01:57	21°♂33'37		asc. node	4225 Jan 06 20:59	9°♂07'24	
morning set	4222 Jul 24 11:07	23°♂15'17		evening set	4225 Jan 16 07:48	5°♂28'53	
	4222 Jul 29 23:06	0°♂		inferior conj	4225 Jan 22 09:34	1°♂56'00	3°55'05
	4222 Aug 23 08:55	0°♂		minimum elong	4225 Jan 22 01:15	2°♂08'39	3°52'38
max. Earth dist.	4222 Aug 28 02:15	5°♂48'59	1.73374 AU	min. Earth dist.	4225 Jan 22 02:22	2°♂06'57	0.26588 AU
					4225 Jan 25 14:42	30°♂	
superior conj	4222 Aug 30 00:49	8°♂12'25	1°14'35	morning rise	4225 Jan 27 18:46	28°♂45'48	
minimum elong	4222 Aug 29 17:11	7°♂48'53	1°14'25	direct	4225 Feb 11 20:34	24°♂15'42	
	4222 Sep 16 16:48	0°♂		greatest brilliancy	4225 Feb 23 15:44	26°♂52'15	-4.7m
evening rise	4222 Oct 05 06:24	22°♂56'39			4225 Mar 01 21:18	0°♂	
	4222 Oct 10 23:23	0°♄		morning max el	4225 Apr 03 06:13	27°♂00'23	46°49'38
	4222 Nov 04 05:39	0°♂			4225 Apr 06 05:21	0°♂	
desc. node	4222 Nov 11 16:29	9°♂12'37		desc. node	4225 Apr 28 11:33	23°♂50'58	
	4222 Nov 28 12:14	0°♂			4225 May 03 23:32	0°♃	
	4222 Dec 22 19:41	0°♂			4225 May 30 01:47	0°♂	
	4223 Jan 16 05:46	0°♂			4225 Jun 24 12:25	0°♂	
	4223 Feb 09 23:12	0°♃			4225 Jul 19 15:09	0°♂	
asc. node	4223 Mar 04 18:41	26°♃56'24			4225 Aug 13 11:59	0°♂	
	4223 Mar 07 10:22	0°♂		asc. node	4225 Aug 19 13:55	7°♂22'54	
	4223 Apr 03 16:15	0°♂			4225 Sep 07 02:58	0°♂	
evening max el	4223 Apr 09 15:47	6°♂05'27	46°28'44	morning set	4225 Sep 30 14:45	28°♂53'22	
	4223 May 07 14:35	0°♂			4225 Oct 01 12:20	0°♂	
greatest brilliancy	4223 May 15 01:38	4°♂17'07	-4.6m		4225 Oct 25 17:15	0°♄	
retrograde	4223 May 29 14:08	8°♂04'01		max. Earth dist.	4225 Nov 03 19:34	11°♄18'52	1.72272 AU
evening set	4223 Jun 13 18:35	3°♂33'54					
inferior conj	4223 Jun 19 22:44	29°♂51'03	1°04'02	superior conj	4225 Nov 06 15:33	14°♄50'30	1°07'44
minimum elong	4223 Jun 20 01:06	29°♂47'20	1°03'20	minimum elong	4225 Nov 07 01:09	15°♄20'25	1°07'28
min. Earth dist.	4223 Jun 19 17:55	29°♂58'36	0.28514 AU		4225 Nov 18 19:20	0°♂	
	4223 Jun 19 17:01	30°♂		desc. node	4225 Dec 09 04:18	25°♂26'28	
desc. node	4223 Jun 24 08:59	27°♂08'04			4225 Dec 12 19:48	0°♂	
morning rise	4223 Jun 26 07:57	26°♂01'26		evening rise	4225 Dec 15 18:08	3°♂39'52	
direct	4223 Jul 11 06:12	21°♂42'00			4226 Jan 05 19:21	0°♂	
greatest brilliancy	4223 Jul 23 22:28	24°♂31'16	-4.5m		4226 Jan 29 18:50	0°♂	
	4223 Aug 03 01:23	0°♂			4226 Feb 22 20:19	0°♃	
morning max el	4223 Aug 28 22:29	21°♂19'01	45°42'20		4226 Mar 19 03:21	0°♂	
	4223 Sep 06 18:40	0°♂		asc. node	4226 Apr 01 06:37	16°♂00'55	
	4223 Oct 04 19:10	0°♂			4226 Apr 12 21:11	0°♂	
asc. node	4223 Oct 15 11:36	12°♂07'36			4226 May 08 10:01	0°♂	
	4223 Oct 30 19:54	0°♂			4226 Jun 04 11:56	0°♂	
	4223 Nov 24 20:10	0°♄		evening max el	4226 Jun 19 09:58	15°♂09'21	45°36'39
	4223 Dec 19 06:34	0°♂			4226 Jul 06 01:07	0°♂	
	4224 Jan 12 09:26	0°♂		desc. node	4226 Jul 21 21:04	10°♂39'59	
desc. node	4224 Feb 04 01:57	28°♂24'10		greatest brilliancy	4226 Jul 24 06:17	11°♂49'35	-4.5m
	4224 Feb 05 08:30	0°♂		retrograde	4226 Aug 07 05:03	15°♂12'54	
morning set	4224 Feb 27 22:41	28°♂21'36		evening set	4226 Aug 23 23:23	9°♂52'27	
	4224 Feb 29 06:01	0°♂		inferior conj	4226 Aug 28 17:01	6°♂58'28	-7°-24'-57

minimum elong	4226 Aug 28 08:18	7° \cap 12'08	7°23'42	minimum elong	4229 Jan 19 07:35	28° \beth 44'49	0°32'33
min. Earth dist.	4226 Aug 28 14:26	7° \cap 02'31	0.29107 AU		4229 Jan 20 07:30	0° \approx	
morning rise	4226 Sep 01 17:14	4° \cap 30'17			4229 Feb 13 03:56	0° H	
	4226 Sep 11 04:16	30° $\text{R}\Omega$		evening rise	4229 Mar 01 16:58	20° H 47'21	
direct	4226 Sep 19 08:46	28° Ω 40'27			4229 Mar 09 01:07	0° Υ	
	4226 Sep 27 20:06	0° \cap			4229 Apr 02 01:05	0° B	
greatest brilliancy	4226 Oct 03 09:05	2° \cap 07'58	-4.5m		4229 Apr 26 06:12	0° Π	
morning max el	4226 Nov 07 19:08	29° \cap 36'02	46°08'10	asc. node	4229 Apr 28 18:29	3° Π 05'30	
	4226 Nov 08 04:53	0° $\underline{\Delta}$			4229 May 20 18:55	0° S	
asc. node	4226 Nov 11 23:21	3° $\underline{\Delta}$ 45'53			4229 Jun 14 18:23	0° Ω	
	4226 Dec 06 08:05	0° M			4229 Jul 10 10:17	0° \cap	
	4227 Jan 01 02:57	0° J			4229 Aug 06 08:10	0° $\underline{\Delta}$	
	4227 Jan 25 22:43	0° \beth		desc. node	4229 Aug 18 08:51	12° $\underline{\Delta}$ 37'54	
	4227 Feb 19 07:46	0° \approx		evening max el	4229 Aug 29 11:57	23° $\underline{\Delta}$ 39'04	45°39'59
desc. node	4227 Mar 03 13:51	15° \approx 11'21			4229 Sep 05 08:01	0° M	
	4227 Mar 15 11:55	0° H		greatest brilliancy	4229 Oct 06 04:15	21° M 14'28	-4.5m
	4227 Apr 08 14:24	0° Υ		retrograde	4229 Oct 17 06:32	23° M 27'14	
	4227 May 02 17:24	0° B		evening set	4229 Nov 03 03:14	18° M 06'26	
morning set	4227 May 13 19:35	13° B 45'43		inferior conj	4229 Nov 07 08:23	15° M 34'03	-6°-57'-17
	4227 May 26 22:16	0° Π		minimum elong	4229 Nov 07 18:22	15° M 18'38	6°55'27
	4227 Jun 20 05:18	0° S		min. Earth dist.	4229 Nov 08 08:23	14° M 57'02	0.27891 AU
				morning rise	4229 Nov 12 08:56	12° M 32'20	
superior conj	4227 Jun 20 18:53	0° S 41'52	0°-9'-18	direct	4229 Nov 28 11:05	7° M 29'39	
minimum elong	4227 Jun 20 20:56	0° S 48'10	0°09'14	asc. node	4229 Dec 09 11:06	9° M 44'29	
behind sun begin	4227 Jun 20 01:43	29° Π 48'56		greatest brilliancy	4229 Dec 12 20:10	11° M 13'26	-4.6m
behind sun end	4227 Jun 21 16:09	1° S 47'23			4230 Jan 07 05:06	0° J	
max. Earth dist.	4227 Jun 22 18:15	3° S 07'51	1.73194 AU	morning max el	4230 Jan 18 00:37	10° J 30'16	46°51'12
asc. node	4227 Jun 24 16:11	5° S 29'20			4230 Feb 05 07:16	0° \beth	
	4227 Jul 14 14:04	0° Ω			4230 Mar 03 11:04	0° \approx	
evening rise	4227 Jul 27 14:17	15° Ω 59'21			4230 Mar 28 14:49	0° H	
	4227 Aug 08 00:08	0° \cap		desc. node	4230 Mar 31 01:41	2° H 57'34	
	4227 Sep 01 11:46	0° $\underline{\Delta}$			4230 Apr 22 08:24	0° Υ	
	4227 Sep 26 02:03	0° M			4230 May 16 21:54	0° B	
desc. node	4227 Oct 14 06:34	22° M 03'45			4230 Jun 10 10:17	0° Π	
	4227 Oct 20 20:15	0° J			4230 Jul 04 22:25	0° S	
	4227 Nov 14 19:54	0° \beth		morning set	4230 Jul 22 04:57	21° S 09'51	
	4227 Dec 10 04:31	0° \approx		asc. node	4230 Jul 22 04:06	21° S 07'12	
	4228 Jan 05 09:15	0° H			4230 Jul 29 09:48	0° Ω	
evening max el	4228 Jan 25 13:03	21° H 34'30	47°11'56		4230 Aug 22 19:34	0° \cap	
	4228 Feb 03 02:12	0° Υ		max. Earth dist.	4230 Aug 26 00:06	3° \cap 55'38	1.73397 AU
asc. node	4228 Feb 04 08:58	1° Υ 12'37					
greatest brilliancy	4228 Mar 03 12:50	21° Υ 59'36	-4.7m	superior conj	4230 Aug 27 19:17	6° \cap 08'39	1°13'01
retrograde	4228 Mar 16 08:07	25° Υ 02'05		minimum elong	4230 Aug 27 11:19	5° \cap 44'07	1°12'49
evening set	4228 Apr 03 08:49	18° Υ 46'09			4230 Sep 16 03:30	0° $\underline{\Delta}$	
inferior conj	4228 Apr 06 04:49	17° Υ 00'40	8°49'11	evening rise	4230 Oct 02 23:44	20° $\underline{\Delta}$ 48'28	
minimum elong	4228 Apr 06 08:50	16° Υ 54'24	8°48'57		4230 Oct 10 10:15	0° M	
min. Earth dist.	4228 Apr 05 19:33	17° Υ 15'10	0.27547 AU		4230 Nov 03 16:47	0° J	
morning rise	4228 Apr 09 09:02	15° Υ 03'12		desc. node	4230 Nov 10 18:27	8° J 43'59	
direct	4228 Apr 26 23:25	9° Υ 08'15			4230 Nov 27 23:43	0° \beth	
greatest brilliancy	4228 May 07 22:53	11° Υ 21'28	-4.6m		4230 Dec 22 07:37	0° \approx	
desc. node	4228 May 25 23:10	22° Υ 08'41			4231 Jan 15 18:18	0° H	
	4228 Jun 04 11:09	0° B			4231 Feb 09 12:42	0° Υ	
morning max el	4228 Jun 15 08:57	10° B 08'08	46°05'24	asc. node	4231 Mar 03 20:40	26° Υ 18'34	
	4228 Jul 04 19:09	0° Π			4231 Mar 07 01:45	0° B	
	4228 Jul 31 23:50	0° S			4231 Apr 03 12:31	0° Π	
	4228 Aug 26 23:47	0° Ω		evening max el	4231 Apr 07 06:44	3° Π 48'16	46°30'59
asc. node	4228 Sep 16 01:43	23° Ω 46'34			4231 May 08 20:42	0° S	
	4228 Sep 21 06:24	0° \cap		greatest brilliancy	4231 May 12 17:38	2° S 04'03	-4.6m
	4228 Oct 16 00:17	0° $\underline{\Delta}$		retrograde	4231 May 27 06:42	5° S 51'41	
	4228 Nov 09 08:52	0° M		evening set	4231 Jun 11 11:47	1° S 19'28	
	4228 Dec 03 11:24	0° J			4231 Jun 13 18:51	30° $\text{R}\Pi$	
morning set	4228 Dec 10 06:42	8° J 30'26		inferior conj	4231 Jun 17 14:31	27° Π 38'45	1°24'38
	4228 Dec 27 10:24	0° \beth		minimum elong	4231 Jun 17 17:39	27° Π 33'52	1°23'41
desc. node	4229 Jan 05 16:08	11° \beth 35'55		min. Earth dist.	4231 Jun 17 09:51	27° Π 46'04	0.28482 AU
max. Earth dist.	4229 Jan 18 13:38	27° \beth 48'22	1.71176 AU	desc. node	4231 Jun 23 11:08	24° Π 06'56	
				morning rise	4231 Jun 23 23:53	23° Π 49'23	
superior conj	4229 Jan 19 15:45	29° \beth 10'29	0°-32'-55	direct	4231 Jul 08 21:40	19° Π 30'02	

greatest brilliancy	4231 Jul 21 13:20	22°II19'19	-4.5m		4234 Jan 29 06:22	0°✠	
	4231 Aug 03 22:27	0°☿			4234 Feb 22 08:09	0°☿	
morning max el	4231 Aug 26 14:56	19°☿10'22	45°42'23		4234 Mar 18 15:37	0°♄	
	4231 Sep 06 13:53	0°♁		asc. node	4234 Mar 31 08:34	15°♄28'45	
	4231 Oct 04 09:48	0°♊			4234 Apr 12 10:11	0°♁	
asc. node	4231 Oct 14 13:36	11°♊33'53			4234 May 08 00:31	0°☿	
	4231 Oct 30 08:46	0°♊			4234 Jun 04 06:07	0°♁	
	4231 Nov 24 08:12	0°♋		evening max el	4234 Jun 17 01:37	12°♁57'04	45°37'41
	4231 Dec 18 18:12	0°♌			4234 Jul 06 11:47	0°♊	
	4232 Jan 11 20:51	0°♍		desc. node	4234 Jul 20 23:06	9°♊12'35	
desc. node	4232 Feb 03 04:01	27°♍55'12		greatest brilliancy	4234 Jul 21 22:06	9°♊39'37	-4.5m
	4232 Feb 04 19:48	0°♎		retrograde	4234 Aug 04 20:54	13°♊03'21	
morning set	4232 Feb 25 08:26	25°♎46'21		evening set	4234 Aug 21 12:40	7°♊47'34	
	4232 Feb 28 17:12	0°✠		inferior conj	4234 Aug 26 09:23	4°♊48'53	-7°-14'-43
	4232 Mar 23 14:42	0°☿		minimum elong	4234 Aug 26 00:21	5°♊03'05	7°13'18
				min. Earth dist.	4234 Aug 26 06:13	4°♊53'52	0.29105 AU
superior conj	4232 Apr 06 05:55	17°☿04'53	-1°-25'-22	morning rise	4234 Aug 30 12:01	2°♊16'49	
minimum elong	4232 Apr 06 10:04	17°☿17'53	1°25'21		4234 Sep 03 15:19	30°♋♁	
max. Earth dist.	4232 Apr 09 21:56	21°☿40'08	1.71735 AU	direct	4234 Sep 17 01:00	26°♁31'07	
	4232 Apr 16 13:58	0°♄		greatest brilliancy	4234 Sep 30 23:15	29°♁55'30	-4.5m
	4232 May 10 16:30	0°♁			4234 Oct 01 03:09	0°♊	
evening rise	4232 May 15 23:08	6°♁32'17		morning max el	4234 Nov 05 09:19	27°♊19'02	46°06'45
asc. node	4232 May 26 06:25	19°♁16'29			4234 Nov 08 02:18	0°♊	
	4232 Jun 03 23:14	0°☿		asc. node	4234 Nov 11 01:22	2°♊59'31	
	4232 Jun 28 10:37	0°♁			4234 Dec 05 23:39	0°♋	
	4232 Jul 23 03:31	0°♊			4234 Dec 31 16:28	0°♌	
	4232 Aug 17 04:05	0°♋			4235 Jan 25 11:16	0°♍	
	4232 Sep 11 16:28	0°♌			4235 Feb 18 19:47	0°♎	
desc. node	4232 Sep 14 20:38	3°♌40'32		desc. node	4235 Mar 02 15:46	14°♎40'33	
	4232 Oct 08 00:33	0°♌			4235 Mar 14 23:36	0°✠	
	4232 Nov 05 01:25	0°♍			4235 Apr 08 01:51	0°☿	
evening max el	4232 Nov 10 08:36	5°♍17'18	46°36'29		4235 May 02 04:39	0°♄	
	4232 Dec 09 20:10	0°♎		morning set	4235 May 11 10:05	11°♄27'17	
greatest brilliancy	4232 Dec 18 21:22	4°♎42'54	-4.6m		4235 May 26 09:20	0°♁	
retrograde	4232 Dec 30 09:17	7°♎09'28					
asc. node	4233 Jan 05 23:07	6°♎16'08		superior conj	4235 Jun 18 11:07	28°♁30'14	0°-12'-40
evening set	4233 Jan 13 18:37	3°♎02'23		minimum elong	4235 Jun 18 13:54	28°♁38'47	0°12'32
	4233 Jan 19 00:18	30°♋♍		behind sun begin	4235 Jun 17 23:18	27°♁53'46	
inferior conj	4233 Jan 19 21:47	29°♍27'17	3°32'32	behind sun end	4235 Jun 19 04:30	29°♁23'47	
minimum elong	4233 Jan 19 14:09	29°♍38'55	3°30'14		4235 Jun 19 16:15	0°☿	
min. Earth dist.	4233 Jan 19 15:32	29°♍36'49	0.26587 AU	max. Earth dist.	4235 Jun 20 13:57	1°☿06'52	1.73155 AU
morning rise	4233 Jan 25 09:47	26°♍13'20		asc. node	4235 Jun 23 18:16	5°☿02'03	
direct	4233 Feb 09 09:36	21°♍47'06			4235 Jul 14 00:59	0°♁	
greatest brilliancy	4233 Feb 21 05:17	24°♍24'30	-4.7m	evening rise	4235 Jul 25 08:25	13°♁53'56	
	4233 Mar 03 08:58	0°♎			4235 Aug 07 11:09	0°♊	
morning max el	4233 Mar 31 19:39	24°♎35'27	46°50'40		4235 Aug 31 23:02	0°♊	
	4233 Apr 06 03:09	0°✠			4235 Sep 25 13:41	0°♋	
desc. node	4233 Apr 27 13:33	23°✠09'25		desc. node	4235 Oct 13 08:36	21°♋33'34	
	4233 May 03 15:39	0°☿			4235 Oct 20 08:28	0°♌	
	4233 May 29 15:35	0°♄			4235 Nov 14 09:00	0°♍	
	4233 Jun 24 00:59	0°♁			4235 Dec 09 19:07	0°♎	
	4233 Jul 19 02:58	0°☿			4236 Jan 05 02:57	0°✠	
	4233 Aug 12 23:20	0°♁		evening max el	4236 Jan 23 01:56	19°✠07'41	47°11'54
asc. node	4233 Aug 18 15:51	6°♁54'32		asc. node	4236 Feb 03 10:51	0°☿12'13	
	4233 Sep 06 14:01	0°♊			4236 Feb 03 05:34	0°☿	
morning set	4233 Sep 28 08:04	26°♊45'00		greatest brilliancy	4236 Mar 01 05:01	19°☿38'23	-4.7m
	4233 Sep 30 23:14	0°♋		retrograde	4236 Mar 13 21:40	22°☿38'37	
	4233 Oct 25 04:09	0°♌		evening set	4236 Mar 31 23:50	16°☿21'30	
max. Earth dist.	4233 Nov 01 09:35	8°♌59'12	1.72318 AU	inferior conj	4236 Apr 03 18:39	14°☿37'56	8°53'24
				minimum elong	4236 Apr 03 21:48	14°☿33'00	8°53'15
superior conj	4233 Nov 04 07:17	12°♌36'05	1°09'46	min. Earth dist.	4236 Apr 03 09:09	14°☿52'46	0.27512 AU
minimum elong	4233 Nov 04 16:37	13°♌05'08	1°09'31	morning rise	4236 Apr 06 19:55	12°☿44'53	
	4233 Nov 18 06:19	0°♌		direct	4236 Apr 24 12:12	6°☿45'57	
desc. node	4233 Dec 08 06:26	24°♌58'28		greatest brilliancy	4236 May 05 12:28	8°☿59'31	-4.6m
	4233 Dec 12 06:56	0°♍		desc. node	4236 May 25 01:18	20°☿58'40	
evening rise	4233 Dec 13 06:59	1°♍15'10			4236 Jun 04 15:37	0°♄	
	4234 Jan 05 06:39	0°♎		morning max el	4236 Jun 12 22:08	7°♄46'58	46°06'57

	4236 Jul 04 12:44	0°♊			4239 Mar 06 17:12	0°♎		
	4236 Jul 31 14:04	0°♋			4239 Apr 03 09:15	0°♊		
	4236 Aug 26 12:27	0°♌			4239 Apr 04 22:30	1°♊33'41	46°33'13	
asc. node	4236 Sep 15 03:41	23°♌16'40		evening max el	4239 May 10 10:05	29°♊52'11	-4.6m	
	4236 Sep 20 18:14	0°♍		greatest brilliancy	4239 May 10 16:35	0°♋		
	4236 Oct 15 11:40	0°♎		retrograde	4239 May 24 23:24	3°♋39'35		
	4236 Nov 08 20:03	0°♏			4239 Jun 07 12:23	30°♋♊		
	4236 Dec 02 22:28	0°♐		evening set	4239 Jun 09 05:10	29°♊05'20		
morning set	4236 Dec 07 20:14	6°♐08'02		inferior conj	4239 Jun 15 06:17	25°♊26'38	1°45'09	
	4236 Dec 26 21:25	0°♑		minimum elong	4239 Jun 15 10:08	25°♊20'37	1°43'59	
desc. node	4237 Jan 04 18:12	11°♑07'43		min. Earth dist.	4239 Jun 15 01:29	25°♊34'09	0.28455 AU	
max. Earth dist.	4237 Jan 15 21:25	25°♑07'17	1.71194 AU	morning rise	4239 Jun 21 15:36	21°♊37'44		
				desc. node	4239 Jun 22 13:07	21°♊09'04		
superior conj	4237 Jan 17 02:38	26°♑39'08	0°-29'-14	direct	4239 Jul 06 13:34	17°♊18'26		
minimum elong	4237 Jan 16 19:17	26°♑16'01	0°28'54	greatest brilliancy	4239 Jul 19 03:23	20°♊06'35	-4.5m	
	4237 Jan 19 18:32	0°♒			4239 Aug 04 13:59	0°♋		
	4237 Feb 12 14:59	0°♓		morning max el	4239 Aug 24 07:26	17°♋01'57	45°42'16	
evening rise	4237 Feb 27 03:41	18°♓15'34			4239 Sep 06 08:34	0°♌		
	4237 Mar 08 12:14	0°♑			4239 Oct 04 00:14	0°♍		
	4237 Apr 01 12:18	0°♒		asc. node	4239 Oct 13 15:42	11°♍00'41		
	4237 Apr 25 17:37	0°♊			4239 Oct 29 21:29	0°♎		
asc. node	4237 Apr 27 20:34	2°♊36'44			4239 Nov 23 20:05	0°♏		
	4237 May 20 06:43	0°♋			4239 Dec 18 05:39	0°♐		
	4237 Jun 14 06:53	0°♌			4240 Jan 11 08:06	0°♑		
	4237 Jul 10 00:10	0°♍		desc. node	4240 Feb 02 05:54	27°♑26'14		
	4237 Aug 06 01:09	0°♎			4240 Feb 04 06:54	0°♒		
desc. node	4237 Aug 17 10:48	11°♎53'12		morning set	4240 Feb 22 18:17	23°♒12'01		
evening max el	4237 Aug 27 01:49	21°♎22'37	45°38'53		4240 Feb 28 04:12	0°♓		
	4237 Sep 05 11:26	0°♏			4240 Mar 23 01:35	0°♑		
greatest brilliancy	4237 Oct 03 15:27	18°♏54'44	-4.5m					
retrograde	4237 Oct 14 20:48	21°♏10'15		superior conj	4240 Apr 03 17:48	14°♑37'54	-1°-26'00	
evening set	4237 Oct 31 20:19	15°♏44'13		minimum elong	4240 Apr 03 20:59	14°♑47'52	1°25'59	
inferior conj	4237 Nov 04 22:42	13°♏15'51	-7°-9'-51	max. Earth dist.	4240 Apr 07 10:22	19°♑15'03	1.71685 AU	
minimum elong	4237 Nov 05 08:27	13°♏00'49	7°08'09		4240 Apr 16 00:46	0°♒		
min. Earth dist.	4237 Nov 05 22:26	12°♏39'16	0.27962 AU		4240 May 10 03:17	0°♊		
morning rise	4237 Nov 09 20:04	10°♏18'53		evening rise	4240 May 13 13:17	4°♊14'10		
direct	4237 Nov 26 02:11	5°♏10'20		asc. node	4240 May 25 08:28	18°♊49'35		
asc. node	4237 Dec 08 13:13	8°♏01'32			4240 Jun 03 10:03	0°♋		
greatest brilliancy	4237 Dec 10 13:15	8°♏56'52	-4.6m		4240 Jun 27 21:37	0°♌		
	4238 Jan 07 07:59	0°♐			4240 Jul 22 14:54	0°♍		
morning max el	4238 Jan 15 16:10	8°♐11'28	46°50'20		4240 Aug 16 16:11	0°♎		
	4238 Feb 05 00:39	0°♑			4240 Sep 11 05:50	0°♏		
	4238 Mar 03 01:29	0°♒		desc. node	4240 Sep 13 22:40	3°♏07'16		
	4238 Mar 28 03:47	0°♓			4240 Oct 07 16:21	0°♐		
desc. node	4238 Mar 30 03:44	2°♓24'51			4240 Nov 04 23:14	0°♑		
	4238 Apr 21 20:32	0°♑		evening max el	4240 Nov 07 22:52	2°♑57'11	46°34'19	
	4238 May 16 09:29	0°♒			4240 Dec 11 13:54	0°♒		
	4238 Jun 09 21:29	0°♊		greatest brilliancy	4240 Dec 16 11:12	2°♒17'03	-4.6m	
	4238 Jul 04 09:22	0°♋		retrograde	4240 Dec 27 21:32	4°♒41'19		
morning set	4238 Jul 19 22:25	19°♋02'54		asc. node	4241 Jan 05 01:01	3°♒20'02		
asc. node	4238 Jul 21 06:02	20°♋39'52		evening set	4241 Jan 11 05:44	0°♒36'34		
	4238 Jul 28 20:36	0°♌			4241 Jan 12 08:31	30°♒♑		
	4238 Aug 22 06:19	0°♍		inferior conj	4241 Jan 17 10:04	26°♑59'41	3°09'34	
max. Earth dist.	4238 Aug 23 22:13	2°♍02'53	1.73416 AU	minimum elong	4241 Jan 17 03:09	27°♑10'15	3°07'27	
				min. Earth dist.	4241 Jan 17 05:05	27°♑07'17	0.26585 AU	
superior conj	4238 Aug 25 13:16	4°♍03'09	1°11'19	morning rise	4241 Jan 23 00:37	23°♑41'59		
minimum elong	4238 Aug 25 05:01	3°♍37'42	1°11'06	direct	4241 Feb 06 22:14	19°♑19'33		
	4238 Sep 15 14:16	0°♎		greatest brilliancy	4241 Feb 18 19:10	21°♑57'58	-4.7m	
evening rise	4238 Sep 30 16:45	18°♎39'16			4241 Mar 04 09:53	0°♒		
	4238 Oct 09 21:10	0°♏		morning max el	4241 Mar 29 08:14	22°♒09'10	46°51'38	
	4238 Nov 03 03:56	0°♐			4241 Apr 05 23:50	0°♓		
desc. node	4238 Nov 09 20:34	8°♐15'48		desc. node	4241 Apr 26 15:38	22°♓29'28		
	4238 Nov 27 11:13	0°♑			4241 May 03 07:10	0°♑		
	4238 Dec 21 19:34	0°♒			4241 May 29 04:55	0°♒		
	4239 Jan 15 06:51	0°♓			4241 Jun 23 13:08	0°♊		
	4239 Feb 09 02:13	0°♑			4241 Jul 18 14:24	0°♋		
asc. node	4239 Mar 02 22:41	25°♑40'56			4241 Aug 12 10:18	0°♌		

asc. node	4241 Aug 17 17:51	6°♌27'26		asc. node	4244 Feb 02 12:55	29°♋11'19	
	4241 Sep 06 00:44	0°♍			4244 Feb 03 10:28	0°♍	
morning set	4241 Sep 26 01:10	24°♍36'53		greatest brilliancy	4244 Feb 27 20:25	17°♍16'36	-4.7m
	4241 Sep 30 09:52	0°♎		retrograde	4244 Mar 11 11:28	20°♍15'47	
	4241 Oct 24 14:48	0°♏		evening set	4244 Mar 29 14:19	13°♍57'52	
max. Earth dist.	4241 Oct 29 22:28	6°♏36'51	1.72367 AU	inferior conj	4244 Apr 01 08:22	12°♍15'43	8°56'39
				minimum elong	4244 Apr 01 10:39	12°♍12'10	8°56'34
superior conj	4241 Nov 01 22:52	10°♏22'00	1°11'42	min. Earth dist.	4244 Mar 31 22:29	12°♍31'08	0.27473 AU
minimum elong	4241 Nov 02 07:51	10°♏49'58	1°11'27	morning rise	4244 Apr 04 07:05	10°♍26'39	
	4241 Nov 17 17:04	0°♐		direct	4244 Apr 22 00:50	4°♍24'07	
desc. node	4241 Dec 07 08:25	24°♐30'51		greatest brilliancy	4244 May 03 01:56	6°♍38'25	-4.6m
evening rise	4241 Dec 10 19:37	28°♐50'42		desc. node	4244 May 24 03:20	19°♍51'26	
	4241 Dec 11 17:48	0°♑			4244 Jun 04 17:55	0°♑	
	4242 Jan 04 17:40	0°♒		morning max el	4244 Jun 10 12:06	5°♑28'45	46°08'33
	4242 Jan 28 17:35	0°♋			4244 Jul 04 05:30	0°♋	
	4242 Feb 21 19:39	0°♌			4244 Jul 31 03:45	0°♌	
	4242 Mar 18 03:34	0°♍			4244 Aug 26 00:39	0°♎	
asc. node	4242 Mar 30 10:40	14°♍58'00		asc. node	4244 Sep 14 05:49	22°♎48'22	
	4242 Apr 11 22:54	0°♏			4244 Sep 20 05:39	0°♏	
	4242 May 07 14:47	0°♐			4244 Oct 14 22:41	0°♑	
	4242 Jun 04 00:17	0°♒			4244 Nov 08 06:52	0°♓	
evening max el	4242 Jun 14 16:36	10°♒44'18	45°38'52		4244 Dec 02 09:13	0°♐	
	4242 Jul 07 01:21	0°♓		morning set	4244 Dec 05 09:56	3°♐47'08	
greatest brilliancy	4242 Jul 19 12:55	7°♓29'45	-4.5m		4244 Dec 26 08:12	0°♑	
desc. node	4242 Jul 20 01:01	7°♓43'28		desc. node	4245 Jan 03 20:09	10°♑39'53	
retrograde	4242 Aug 02 12:41	10°♓55'28		max. Earth dist.	4245 Jan 13 06:47	22°♑31'48	1.71218 AU
evening set	4242 Aug 19 02:01	5°♓43'57					
inferior conj	4242 Aug 24 01:51	2°♓40'52	-7°-3'-45	superior conj	4245 Jan 14 13:13	24°♑07'29	0°-25'-28
minimum elong	4242 Aug 23 16:32	2°♓55'30	7°02'13	minimum elong	4245 Jan 14 06:45	23°♑47'07	0°25'10
min. Earth dist.	4242 Aug 23 22:17	2°♓46'27	0.29105 AU		4245 Jan 19 05:23	0°♒	
morning rise	4242 Aug 28 07:00	0°♓04'51			4245 Feb 12 01:53	0°♋	
	4242 Aug 28 10:16	30°♒♏		evening rise	4245 Feb 24 13:57	15°♋42'54	
direct	4242 Sep 14 16:56	24°♒23'06			4245 Mar 07 23:10	0°♌	
greatest brilliancy	4242 Sep 28 14:28	27°♒45'40	-4.5m		4245 Mar 31 23:18	0°♍	
	4242 Oct 02 23:28	0°♓			4245 Apr 25 04:47	0°♏	
morning max el	4242 Nov 02 23:29	25°♓03'03	46°05'13	asc. node	4245 Apr 26 22:36	2°♏08'34	
	4242 Nov 07 22:37	0°♎			4245 May 19 18:16	0°♐	
asc. node	4242 Nov 10 03:27	2°♎14'51			4245 Jun 13 19:10	0°♑	
	4242 Dec 05 14:45	0°♏			4245 Jul 09 13:53	0°♓	
	4242 Dec 31 05:40	0°♐			4245 Aug 05 18:08	0°♎	
	4243 Jan 24 23:31	0°♑		desc. node	4245 Aug 16 12:55	11°♎09'16	
	4243 Feb 18 07:27	0°♒		evening max el	4245 Aug 24 16:54	19°♎10'14	45°37'54
desc. node	4243 Mar 01 17:53	14°♎11'26			4245 Sep 05 16:06	0°♏	
	4243 Mar 14 10:53	0°♋		greatest brilliancy	4245 Oct 01 02:44	16°♏36'52	-4.5m
	4243 Apr 07 12:53	0°♌		retrograde	4245 Oct 12 11:28	18°♏55'02	
	4243 May 01 15:29	0°♍		evening set	4245 Oct 29 13:35	13°♏24'10	
morning set	4243 May 09 00:25	9°♍09'26		inferior conj	4245 Nov 02 13:16	10°♏59'31	-7°-21'-26
	4243 May 25 20:01	0°♏		minimum elong	4245 Nov 02 22:43	10°♏44'56	7°19'54
				min. Earth dist.	4245 Nov 03 12:22	10°♏23'54	0.28032 AU
superior conj	4243 Jun 16 03:25	26°♏19'52	0°-15'-59	morning rise	4245 Nov 07 07:24	8°♏07'15	
minimum elong	4243 Jun 16 06:55	26°♏30'39	0°15'50	direct	4245 Nov 23 17:54	2°♏53'07	
behind sun begin	4243 Jun 16 04:13	26°♏22'20		asc. node	4245 Dec 07 15:06	6°♏23'31	
behind sun end	4243 Jun 16 09:36	26°♏38'58		greatest brilliancy	4245 Dec 08 05:17	6°♏40'34	-4.6m
max. Earth dist.	4243 Jun 18 07:32	29°♏00'33	1.73116 AU		4246 Jan 07 09:03	0°♐	
	4243 Jun 19 02:49	0°♐		morning max el	4246 Jan 13 08:05	5°♐54'35	46°49'07
asc. node	4243 Jun 22 20:12	4°♐35'27			4246 Feb 04 17:29	0°♑	
	4243 Jul 13 11:32	0°♒			4246 Mar 02 15:37	0°♒	
evening rise	4243 Jul 23 02:40	11°♒50'07			4246 Mar 27 16:37	0°♋	
	4243 Aug 06 21:47	0°♓		desc. node	4246 Mar 29 05:49	1°♋52'34	
	4243 Aug 31 09:54	0°♎			4246 Apr 21 08:33	0°♌	
	4243 Sep 25 00:58	0°♏			4246 May 15 20:56	0°♍	
desc. node	4243 Oct 12 10:43	21°♏04'38			4246 Jun 09 08:32	0°♏	
	4243 Oct 19 20:23	0°♐			4246 Jul 03 20:08	0°♐	
	4243 Nov 13 21:55	0°♑		morning set	4246 Jul 17 15:54	16°♐56'42	
	4243 Dec 09 09:41	0°♒		asc. node	4246 Jul 20 08:01	20°♐13'18	
	4244 Jan 04 20:51	0°♋			4246 Jul 28 07:13	0°♌	
evening max el	4244 Jan 20 14:43	16°♋41'14	47°11'59		4246 Aug 21 16:53	0°♍	

max. Earth dist.	4246 Aug 21 20:25	0° \cap 10'54	1.73431 AU	minimum elong	4249 Jan 14 16:25	24° C 42'19	2°44'30
				min. Earth dist.	4249 Jan 14 19:14	24° C 38'00	0.26586 AU
superior conj	4246 Aug 23 07:27	1° \cap 58'45	1°09'32	morning rise	4249 Jan 20 15:28	21° C 11'36	
minimum elong	4246 Aug 22 22:57	1° \cap 32'35	1°09'18	direct	4249 Feb 04 10:36	16° C 52'34	
	4246 Sep 15 00:53	0° Δ		greatest brilliancy	4249 Feb 16 09:59	19° C 32'55	-4.7m
evening rise	4246 Sep 28 10:09	16° Δ 31'46			4249 Mar 05 04:07	0° \approx	
	4246 Oct 09 07:55	0° \cap		morning max el	4249 Mar 26 20:22	19° \approx 41'35	46°52'34
	4246 Nov 02 14:56	0° X			4249 Apr 05 19:52	0° X	
desc. node	4246 Nov 08 22:33	7° X 47'48		desc. node	4249 Apr 25 17:39	21° X 49'32	
	4246 Nov 26 22:34	0° C			4249 May 02 22:32	0° Y	
	4246 Dec 21 07:23	0° \approx			4249 May 28 18:19	0° C	
	4247 Jan 14 19:19	0° X			4249 Jun 23 01:27	0° \cap	
	4247 Feb 08 15:45	0° Y			4249 Jul 18 02:01	0° C	
asc. node	4247 Mar 02 00:45	25° Y 03'08			4249 Aug 11 21:28	0° \cap	
	4247 Mar 06 08:53	0° C		asc. node	4249 Aug 16 19:59	6° \cap 00'09	
evening max el	4247 Apr 02 14:43	29° C 19'47	46°35'19		4249 Sep 05 11:38	0° \cap	
	4247 Apr 03 06:50	0° \cap		morning set	4249 Sep 23 18:15	22° \cap 28'12	
greatest brilliancy	4247 May 08 03:51	27° \cap 41'28	-4.6m		4249 Sep 29 20:39	0° Δ	
	4247 May 13 21:19	0° C			4249 Oct 24 01:37	0° \cap	
retrograde	4247 May 22 15:53	1° C 26'41		max. Earth dist.	4249 Oct 27 13:21	4° \cap 20'13	1.72417 AU
	4247 May 31 01:48	30° \cap					
evening set	4247 Jun 06 22:38	26° \cap 50'35		superior conj	4249 Oct 30 14:40	8° \cap 08'10	1°13'30
inferior conj	4247 Jun 12 21:57	23° \cap 14'02	2°05'34	minimum elong	4249 Oct 30 23:16	8° \cap 34'54	1°13'17
minimum elong	4247 Jun 13 02:31	23° \cap 06'53	2°04'13		4249 Nov 17 03:59	0° X	
min. Earth dist.	4247 Jun 12 17:07	23° \cap 21'36	0.28421 AU	desc. node	4249 Dec 06 10:24	24° X 02'36	
morning rise	4247 Jun 19 06:59	19° \cap 25'39		evening rise	4249 Dec 08 08:38	26° X 26'59	
desc. node	4247 Jun 21 15:04	18° \cap 13'52			4249 Dec 11 04:52	0° C	
direct	4247 Jul 04 05:21	15° \cap 06'34			4250 Jan 04 04:53	0° \approx	
greatest brilliancy	4247 Jul 16 16:11	17° \cap 52'06	-4.5m		4250 Jan 28 05:00	0° X	
	4247 Aug 05 01:33	0° C			4250 Feb 21 07:20	0° Y	
morning max el	4247 Aug 21 23:17	14° C 52'04	45°42'13		4250 Mar 17 15:41	0° C	
	4247 Sep 06 02:41	0° \cap		asc. node	4250 Mar 29 12:41	14° C 26'29	
	4247 Oct 03 14:25	0° \cap			4250 Apr 11 11:50	0° \cap	
asc. node	4247 Oct 12 17:39	10° \cap 27'31			4250 May 07 05:24	0° C	
	4247 Oct 29 10:02	0° Δ			4250 Jun 03 19:15	0° \cap	
	4247 Nov 23 07:51	0° \cap		evening max el	4250 Jun 12 07:22	8° \cap 30'09	45°39'59
	4247 Dec 17 17:02	0° X			4250 Jul 07 20:19	0° \cap	
	4248 Jan 10 19:15	0° C		greatest brilliancy	4250 Jul 17 02:52	5° \cap 17'39	-4.5m
desc. node	4248 Feb 01 08:03	26° C 58'19		desc. node	4250 Jul 19 03:10	6° \cap 10'23	
	4248 Feb 03 17:57	0° \approx		retrograde	4250 Jul 31 04:45	8° \cap 46'39	
morning set	4248 Feb 20 04:26	20° \approx 38'44		evening set	4250 Aug 16 15:21	3° \cap 39'03	
	4248 Feb 27 15:08	0° X		inferior conj	4250 Aug 21 18:16	0° \cap 31'47	-6°-52'-7
	4248 Mar 22 12:28	0° Y		minimum elong	4250 Aug 21 08:44	0° \cap 46'46	6°50'28
				min. Earth dist.	4250 Aug 21 14:20	0° \cap 37'58	0.29104 AU
superior conj	4248 Apr 01 05:34	12° Y 10'22	-1°-26'-27		4250 Aug 22 14:32	30° \cap	
minimum elong	4248 Apr 01 07:46	12° Y 17'14	1°26'28	morning rise	4250 Aug 26 02:01	27° \cap 51'58	
max. Earth dist.	4248 Apr 04 22:41	16° Y 49'20	1.71640 AU	direct	4250 Sep 12 08:43	22° \cap 13'56	
	4248 Apr 15 11:38	0° C		greatest brilliancy	4250 Sep 26 06:37	25° \cap 36'11	-4.5m
	4248 May 09 14:09	0° \cap			4250 Oct 04 06:02	0° \cap	
evening rise	4248 May 11 02:57	1° \cap 54'04		morning max el	4250 Oct 31 14:23	22° \cap 48'11	46°03'50
asc. node	4248 May 24 10:23	18° \cap 21'51			4250 Nov 07 18:36	0° Δ	
	4248 Jun 02 21:00	0° C		asc. node	4250 Nov 09 05:26	1° Δ 29'44	
	4248 Jun 27 08:44	0° \cap			4250 Dec 05 05:53	0° \cap	
	4248 Jul 22 02:24	0° \cap			4250 Dec 30 18:59	0° X	
	4248 Aug 16 04:25	0° Δ			4251 Jan 24 11:56	0° C	
	4248 Sep 10 19:23	0° \cap			4251 Feb 17 19:21	0° \approx	
desc. node	4248 Sep 13 00:46	2° \cap 33'49		desc. node	4251 Feb 28 19:56	13° \approx 41'18	
	4248 Oct 07 08:29	0° X			4251 Mar 13 22:26	0° X	
	4248 Nov 04 22:00	0° C			4251 Apr 07 00:10	0° Y	
evening max el	4248 Nov 05 12:32	0° C 35'38	46°32'07		4251 May 01 02:33	0° C	
greatest brilliancy	4248 Dec 14 01:52	29° C 52'28	-4.6m	morning set	4251 May 06 14:53	6° C 51'07	
	4248 Dec 14 09:33	0° \approx			4251 May 25 06:55	0° \cap	
retrograde	4248 Dec 25 09:27	2° \approx 13'52					
asc. node	4249 Jan 04 03:04	0° \approx 18'54		superior conj	4251 Jun 13 19:49	24° \cap 08'59	0°-19'-16
	4249 Jan 04 21:51	30° \cap		minimum elong	4251 Jun 14 00:01	24° \cap 21'57	0°19'06
evening set	4249 Jan 08 17:18	28° C 10'58		max. Earth dist.	4251 Jun 16 00:42	26° \cap 52'07	1.73081 AU
inferior conj	4249 Jan 14 22:34	24° C 32'54	2°46'24		4251 Jun 18 13:39	0° C	

asc. node	4251 Jun 21 22:17	4°☿08'29			4254 Feb 04 10:20	0°☿		
	4251 Jul 12 22:23	0°♊			4254 Mar 02 05:55	0°♊		
evening rise	4251 Jul 20 20:59	9°♊45'32			4254 Mar 27 05:38	0°♋		
	4251 Aug 06 08:46	0°♌		desc. node	4254 Mar 28 07:47	1°♋19'15		
	4251 Aug 30 21:08	0°♍			4254 Apr 20 20:47	0°♌		
	4251 Sep 24 12:37	0°♎			4254 May 15 08:39	0°♍		
desc. node	4251 Oct 11 12:39	20°♎34'06			4254 Jun 08 19:52	0°♎		
	4251 Oct 19 08:41	0°♏			4254 Jul 03 07:12	0°☿		
	4251 Nov 13 11:13	0°☿		morning set	4254 Jul 15 09:34	14°☿50'06		
	4251 Dec 09 00:43	0°♊		asc. node	4254 Jul 19 10:10	19°☿46'21		
	4252 Jan 04 15:30	0°♋			4254 Jul 27 18:07	0°♊		
evening max el	4252 Jan 18 04:29	14°♋16'28	47°11'58	max. Earth dist.	4254 Aug 19 18:10	28°♊16'46	1.73444 AU	
asc. node	4252 Feb 01 15:02	28°♋08'06						
	4252 Feb 03 17:56	0°♌		superior conj	4254 Aug 21 01:46	29°♊54'00	1°07'39	
greatest brilliancy	4252 Feb 25 10:54	14°♌52'41	-4.7m	minimum elong	4254 Aug 20 17:06	29°♊27'18	1°07'24	
retrograde	4252 Mar 09 01:46	17°♌51'59			4254 Aug 21 03:43	0°♌		
evening set	4252 Mar 27 04:17	11°♌33'50			4254 Sep 14 11:46	0°♍		
inferior conj	4252 Mar 29 22:05	9°♌52'19	8°58'54	evening rise	4254 Sep 26 03:39	14°♍23'42		
minimum elong	4252 Mar 29 23:26	9°♌50'13	8°58'53		4254 Oct 08 18:58	0°♎		
min. Earth dist.	4252 Mar 29 11:30	10°♌08'47	0.27434 AU		4254 Nov 02 02:16	0°♏		
morning rise	4252 Apr 01 18:42	8°♌06'42		desc. node	4254 Nov 08 00:33	7°♏18'46		
direct	4252 Apr 19 13:56	2°♌01'11			4254 Nov 26 10:16	0°☿		
greatest brilliancy	4252 Apr 30 14:51	4°♌15'46	-4.6m		4254 Dec 20 19:33	0°♊		
desc. node	4252 May 23 05:16	18°♌44'55			4255 Jan 14 08:09	0°♋		
	4252 Jun 04 19:11	0°♌			4255 Feb 08 05:41	0°♌		
morning max el	4252 Jun 08 02:58	3°♌11'51	46°10'12	asc. node	4255 Mar 01 02:43	24°♌23'53		
	4252 Jul 03 22:15	0°♍			4255 Mar 06 01:06	0°♍		
	4252 Jul 30 17:37	0°☿		evening max el	4255 Mar 31 06:20	27°♌03'26	46°37'20	
	4252 Aug 25 13:09	0°♊			4255 Apr 03 05:36	0°♎		
asc. node	4252 Sep 13 07:46	22°♊18'30		greatest brilliancy	4255 May 05 22:08	25°♎30'23	-4.6m	
	4252 Sep 19 17:26	0°♌		retrograde	4255 May 20 07:45	29°♎12'33		
	4252 Oct 14 10:04	0°♍		evening set	4255 Jun 04 16:09	24°♎34'35		
	4252 Nov 07 18:03	0°♎		inferior conj	4255 Jun 10 13:32	21°♎00'26	2°25'54	
	4252 Dec 01 20:19	0°♏		minimum elong	4255 Jun 10 18:47	20°♎52'12	2°24'22	
morning set	4252 Dec 02 23:47	1°♏25'45		min. Earth dist.	4255 Jun 10 09:01	21°♎07'32	0.28388 AU	
	4252 Dec 25 19:18	0°☿		morning rise	4255 Jun 16 22:02	17°♎12'33		
desc. node	4253 Jan 02 22:16	10°☿11'41		desc. node	4255 Jun 20 17:15	15°♎20'51		
max. Earth dist.	4253 Jan 10 17:58	20°☿01'07	1.71240 AU	direct	4255 Jul 01 20:47	12°♎53'40		
				greatest brilliancy	4255 Jul 14 04:53	15°♎36'22	-4.5m	
superior conj	4253 Jan 11 23:54	21°☿35'11	0°-21'-39		4255 Aug 05 10:25	0°☿		
minimum elong	4253 Jan 11 18:21	21°☿17'44	0°21'24	morning max el	4255 Aug 19 14:15	12°☿39'17	45°42'21	
	4253 Jan 18 16:31	0°♊			4255 Sep 05 20:36	0°♊		
	4253 Feb 11 13:05	0°♋			4255 Oct 03 04:38	0°♌		
evening rise	4253 Feb 22 00:20	13°♋09'31		asc. node	4255 Oct 11 19:41	9°♌54'08		
	4253 Mar 07 10:26	0°♌			4255 Oct 28 22:43	0°♍		
	4253 Mar 31 10:40	0°♌			4255 Nov 22 19:48	0°♎		
	4253 Apr 24 16:21	0°♍			4255 Dec 17 04:38	0°♏		
asc. node	4253 Apr 26 00:33	1°♍38'58			4256 Jan 10 06:40	0°☿		
	4253 May 19 06:13	0°☿		desc. node	4256 Jan 31 10:07	26°☿29'24		
	4253 Jun 13 07:51	0°♊			4256 Feb 03 05:13	0°♊		
	4253 Jul 09 04:04	0°♌		morning set	4256 Feb 17 14:10	18°♊03'19		
	4253 Aug 05 11:53	0°♍			4256 Feb 27 02:18	0°♋		
desc. node	4253 Aug 15 14:57	10°♍23'19			4256 Mar 21 23:33	0°♌		
evening max el	4253 Aug 22 08:30	16°♍58'01	45°36'45					
	4253 Sep 05 23:29	0°♎		superior conj	4256 Mar 29 17:02	9°♌41'19	-1°-26'-44	
greatest brilliancy	4253 Sep 28 14:38	14°♎18'30	-4.5m	minimum elong	4256 Mar 29 18:12	9°♌44'58	1°26'45	
retrograde	4253 Oct 10 01:44	16°♎38'18		max. Earth dist.	4256 Apr 02 09:41	14°♌18'55	1.71592 AU	
evening set	4253 Oct 27 06:45	11°♎03'01			4256 Apr 14 22:40	0°♍		
inferior conj	4253 Oct 31 03:47	8°♎41'53	-7°-32'-17	evening rise	4256 May 08 16:22	29°♍32'37		
minimum elong	4253 Oct 31 12:51	8°♎27'53	7°30'55		4256 May 09 01:12	0°♎		
min. Earth dist.	4253 Nov 01 02:11	8°♎07'17	0.28099 AU	asc. node	4256 May 23 12:30	17°♎54'16		
morning rise	4253 Nov 04 18:35	5°♎54'16			4256 Jun 02 08:06	0°☿		
direct	4253 Nov 21 09:42	0°♎34'47			4256 Jun 26 20:02	0°♊		
greatest brilliancy	4253 Dec 05 20:21	4°♎21'42	-4.6m		4256 Jul 21 14:06	0°♌		
asc. node	4253 Dec 06 17:11	4°♎47'45			4256 Aug 15 16:50	0°♍		
	4254 Jan 07 09:23	0°♏			4256 Sep 10 09:09	0°♎		
morning max el	4254 Jan 10 23:23	3°♏35'07	46°47'55	desc. node	4256 Sep 12 02:44	1°♎59'30		

	4256 Oct 07 00:59	0°♊				4259 Apr 30 13:30	0°♋	
evening max el	4256 Nov 03 01:08	28°♊11'18	46°29'47	morning set		4259 May 04 04:50	4°♋31'27	
	4256 Nov 04 21:54	0°♌				4259 May 24 17:42	0°♌	
greatest brilliancy	4256 Dec 11 16:03	27°♌26'43	-4.6m					
retrograde	4256 Dec 22 20:59	29°♌45'52		superior conj	4259 Jun 11 11:43	21°♌56'59	0°-22'-35	
asc. node	4257 Jan 03 05:11	27°♌11'23		minimum elong	4259 Jun 11 16:38	22°♌12'09	0°22'22	
evening set	4257 Jan 06 04:55	25°♌43'59		max. Earth dist.	4259 Jun 13 18:24	24°♌45'44	1.73042 AU	
inferior conj	4257 Jan 12 10:58	22°♌05'19	2°22'49		4259 Jun 18 00:19	0°♍		
minimum elong	4257 Jan 12 05:37	22°♌13'29	2°21'08	asc. node	4259 Jun 21 00:20	3°♍41'58		
min. Earth dist.	4257 Jan 12 09:30	22°♌07'33	0.26595 AU		4259 Jul 12 09:03	0°♎		
morning rise	4257 Jan 18 06:05	18°♌40'43		evening rise	4259 Jul 18 15:02	7°♎40'48		
direct	4257 Feb 01 22:38	14°♌24'22			4259 Aug 05 19:33	0°♏		
greatest brilliancy	4257 Feb 14 01:58	17°♌08'25	-4.7m		4259 Aug 30 08:11	0°♏		
	4257 Mar 05 18:07	0°♐			4259 Sep 24 00:05	0°♐		
morning max el	4257 Mar 24 08:37	17°♐13'33	46°53'33	desc. node	4259 Oct 10 14:42	20°♐04'26		
	4257 Apr 05 15:31	0°♑			4259 Oct 18 20:48	0°♑		
desc. node	4257 Apr 24 19:40	21°♑09'38			4259 Nov 13 00:22	0°♒		
	4257 May 02 13:49	0°♑			4259 Dec 08 15:38	0°♒		
	4257 May 28 07:40	0°♓			4260 Jan 04 10:16	0°♓		
	4257 Jun 22 13:43	0°♓		evening max el	4260 Jan 15 19:07	11°♓55'08	47°11'53	
	4257 Jul 17 13:37	0°♓		asc. node	4260 Jan 31 16:56	27°♓03'53		
	4257 Aug 11 08:38	0°♎			4260 Feb 04 03:32	0°♑		
asc. node	4257 Aug 15 21:55	5°♎32'14		greatest brilliancy	4260 Feb 23 00:42	12°♑28'59	-4.7m	
	4257 Sep 04 22:32	0°♑		retrograde	4260 Mar 06 16:21	15°♑28'50		
morning set	4257 Sep 21 11:31	20°♑20'05		evening set	4260 Mar 24 17:42	9°♑11'11		
	4257 Sep 29 07:27	0°♒		inferior conj	4260 Mar 27 11:41	7°♑29'30	9°00'16	
	4257 Oct 23 12:24	0°♒		minimum elong	4260 Mar 27 12:08	7°♑28'49	9°00'15	
max. Earth dist.	4257 Oct 25 06:36	2°♒11'05	1.72464 AU	min. Earth dist.	4260 Mar 27 00:07	7°♑47'28	0.27398 AU	
				morning rise	4260 Mar 30 06:43	5°♑46'32		
superior conj	4257 Oct 28 06:46	5°♒55'25	1°15'09		4260 Apr 13 00:14	30°♒♋		
minimum elong	4257 Oct 28 14:56	6°♒20'49	1°14'58	direct	4260 Apr 17 03:29	29°♒38'58		
	4257 Nov 16 14:51	0°♓			4260 Apr 21 08:59	0°♑		
evening rise	4257 Dec 05 21:58	24°♓04'32		greatest brilliancy	4260 Apr 28 03:00	1°♑52'51	-4.6m	
desc. node	4257 Dec 05 12:32	23°♓35'04		desc. node	4260 May 22 07:26	17°♑41'13		
	4257 Dec 10 15:52	0°♒			4260 Jun 04 18:57	0°♓		
	4258 Jan 03 16:04	0°♐		morning max el	4260 Jun 05 18:17	0°♓56'39	46°11'42	
	4258 Jan 27 16:25	0°♋			4260 Jul 03 14:26	0°♌		
	4258 Feb 20 19:04	0°♑			4260 Jul 30 07:05	0°♓		
	4258 Mar 17 03:54	0°♓			4260 Aug 25 01:17	0°♎		
asc. node	4258 Mar 28 14:38	13°♓54'31		asc. node	4260 Sep 12 09:46	21°♎49'50		
	4258 Apr 11 00:53	0°♌			4260 Sep 19 04:51	0°♑		
	4258 May 06 20:13	0°♓			4260 Oct 13 21:06	0°♒		
	4258 Jun 03 14:43	0°♎			4260 Nov 07 04:53	0°♒		
evening max el	4258 Jun 09 22:18	6°♎16'34	45°41'21	morning set	4260 Nov 30 13:47	29°♒05'56		
	4258 Jul 08 22:08	0°♑			4260 Dec 01 07:06	0°♓		
greatest brilliancy	4258 Jul 14 16:02	3°♑04'46	-4.5m		4260 Dec 25 06:04	0°♒		
desc. node	4258 Jul 18 05:11	4°♑34'01		desc. node	4261 Jan 02 00:17	9°♒44'14		
retrograde	4258 Jul 28 21:14	6°♑37'59		max. Earth dist.	4261 Jan 08 02:59	17°♒24'48	1.71258 AU	
evening set	4258 Aug 14 04:41	1°♑34'00						
	4258 Aug 16 20:00	30°♒♎		superior conj	4261 Jan 09 10:53	19°♒05'00	0°-17'-50	
inferior conj	4258 Aug 19 10:36	28°♒22'42	-6°-39'-58	minimum elong	4261 Jan 09 06:17	18°♒50'34	0°17'37	
minimum elong	4258 Aug 19 00:53	28°♒37'56	6°38'11		4261 Jan 18 03:19	0°♐		
min. Earth dist.	4258 Aug 19 06:04	28°♒29'48	0.29101 AU		4261 Feb 10 23:54	0°♋		
morning rise	4258 Aug 23 21:01	25°♒39'09		evening rise	4261 Feb 19 10:59	10°♋38'12		
direct	4258 Sep 10 00:39	20°♒04'44			4261 Mar 06 21:18	0°♑		
greatest brilliancy	4258 Sep 23 23:04	23°♒27'25	-4.5m		4261 Mar 30 21:38	0°♓		
	4258 Oct 05 03:55	0°♑			4261 Apr 24 03:32	0°♌		
morning max el	4258 Oct 29 06:11	20°♑36'08	46°02'36	asc. node	4261 Apr 25 02:39	1°♌11'02		
	4258 Nov 07 13:50	0°♒			4261 May 18 17:50	0°♓		
asc. node	4258 Nov 08 07:29	0°♒45'52			4261 Jun 12 20:15	0°♎		
	4258 Dec 04 20:38	0°♒			4261 Jul 08 18:03	0°♑		
	4258 Dec 30 08:00	0°♓			4261 Aug 05 05:38	0°♒		
	4259 Jan 24 00:05	0°♒		desc. node	4261 Aug 14 16:55	9°♒37'35		
	4259 Feb 17 07:01	0°♐		evening max el	4261 Aug 19 23:51	14°♒46'19	45°35'43	
desc. node	4259 Feb 27 21:52	13°♐11'29			4261 Sep 06 08:56	0°♒		
	4259 Mar 13 09:48	0°♋		greatest brilliancy	4261 Sep 26 03:34	12°♒02'47	-4.5m	
	4259 Apr 06 11:18	0°♑		retrograde	4261 Oct 07 15:38	14°♒23'12		

evening set	4261 Oct 24 23:57	8° \mathbb{M} 43'50		minimum elong	4264 Mar 27 04:38	7° Υ 13'33	1°26'52
inferior conj	4261 Oct 28 18:27	6° \mathbb{M} 26'03	-7°-42'-22	max. Earth dist.	4264 Mar 30 17:07	11° Υ 38'15	1.71541 AU
minimum elong	4261 Oct 29 03:03	6° \mathbb{M} 12'43	7°41'10		4264 Apr 14 09:24	0° \mathcal{B}	
min. Earth dist.	4261 Oct 29 16:17	5° \mathbb{M} 52'14	0.28164 AU	evening rise	4264 May 06 05:49	27° \mathcal{B} 12'15	
morning rise	4261 Nov 02 05:51	3° \mathbb{M} 42'59			4264 May 08 11:54	0° \mathbb{I}	
	4261 Nov 09 21:22	30° \mathbb{R} \mathcal{A}		asc. node	4264 May 22 14:33	17° \mathbb{I} 27'35	
direct	4261 Nov 19 01:22	28° \mathcal{A} 18'15			4264 Jun 01 18:51	0° \mathcal{S}	
	4261 Nov 28 12:48	0° \mathbb{M}			4264 Jun 26 06:59	0° \mathcal{Q}	
greatest brilliancy	4261 Dec 03 11:06	2° \mathbb{M} 03'46	-4.6m		4264 Jul 21 01:28	0° \mathbb{M}	
asc. node	4261 Dec 05 19:18	3° \mathbb{M} 16'37			4264 Aug 15 05:00	0° \mathcal{A}	
	4262 Jan 07 08:13	0° \mathcal{A}			4264 Sep 09 22:46	0° \mathbb{M}	
morning max el	4262 Jan 08 13:54	1° \mathcal{A} 14'53	46°46'42	desc. node	4264 Sep 11 04:46	1° \mathbb{M} 26'00	
	4262 Feb 04 02:29	0° \mathcal{S}			4264 Oct 06 17:31	0° \mathcal{A}	
	4262 Mar 01 19:39	0° \approx		evening max el	4264 Oct 31 13:34	25° \mathcal{A} 47'37	46°27'37
	4262 Mar 26 18:07	0° \mathcal{H}			4264 Nov 04 22:36	0° \mathcal{S}	
desc. node	4262 Mar 27 09:49	0° \mathcal{H} 47'39		greatest brilliancy	4264 Dec 09 05:22	25° \mathcal{S} 01'04	-4.6m
	4262 Apr 20 08:30	0° Υ		retrograde	4264 Dec 20 08:53	27° \mathcal{S} 19'16	
	4262 May 14 19:51	0° \mathcal{B}		asc. node	4265 Jan 02 07:04	24° \mathcal{S} 00'34	
	4262 Jun 08 06:44	0° \mathbb{I}		evening set	4265 Jan 03 16:49	23° \mathcal{S} 17'37	
	4262 Jul 02 17:51	0° \mathcal{S}		inferior conj	4265 Jan 09 23:24	19° \mathcal{S} 38'45	1°58'59
morning set	4262 Jul 13 03:13	12° \mathcal{S} 44'37		minimum elong	4265 Jan 09 18:54	19° \mathcal{S} 45'37	1°57'33
asc. node	4262 Jul 18 12:05	19° \mathcal{S} 19'55		min. Earth dist.	4265 Jan 09 23:37	19° \mathcal{S} 38'26	0.26611 AU
	4262 Jul 27 04:38	0° \mathcal{Q}		morning rise	4265 Jan 15 20:39	16° \mathcal{S} 11'21	
max. Earth dist.	4262 Aug 17 13:53	26° \mathcal{Q} 17'33	1.73455 AU	direct	4265 Jan 30 10:55	11° \mathcal{S} 57'00	
				greatest brilliancy	4265 Feb 11 18:26	14° \mathcal{S} 45'28	-4.7m
superior conj	4262 Aug 18 20:01	27° \mathcal{Q} 50'17	1°05'41		4265 Mar 06 04:14	0° \approx	
minimum elong	4262 Aug 18 11:12	27° \mathcal{Q} 23'09	1°05'24	morning max el	4265 Mar 21 21:50	14° \approx 48'29	46°54'27
	4262 Aug 20 14:10	0° \mathbb{M}			4265 Apr 05 10:23	0° \mathcal{H}	
	4262 Sep 13 22:16	0° \mathcal{A}		desc. node	4265 Apr 23 21:44	20° \mathcal{H} 30'46	
evening rise	4262 Sep 23 21:05	12° \mathcal{A} 16'43			4265 May 02 04:43	0° Υ	
	4262 Oct 08 05:38	0° \mathbb{M}			4265 May 27 20:43	0° \mathcal{B}	
	4262 Nov 01 13:14	0° \mathcal{A}			4265 Jun 22 01:42	0° \mathbb{I}	
desc. node	4262 Nov 07 02:39	6° \mathcal{A} 51'14			4265 Jul 17 00:56	0° \mathcal{S}	
	4262 Nov 25 21:38	0° \mathcal{S}			4265 Aug 10 19:31	0° \mathcal{Q}	
	4262 Dec 20 07:25	0° \approx		asc. node	4265 Aug 14 23:56	5° \mathcal{Q} 05'23	
	4263 Jan 13 20:41	0° \mathcal{H}			4265 Sep 04 09:13	0° \mathbb{M}	
	4263 Feb 07 19:22	0° Υ		morning set	4265 Sep 19 04:56	18° \mathbb{M} 13'04	
asc. node	4263 Feb 28 04:47	23° Υ 45'44			4265 Sep 28 18:04	0° \mathcal{A}	
	4263 Mar 05 17:09	0° \mathcal{B}			4265 Oct 22 23:04	0° \mathbb{M}	
evening max el	4263 Mar 28 21:13	24° \mathcal{B} 46'29	46°39'25	max. Earth dist.	4265 Oct 23 00:56	0° \mathbb{M} 05'50	1.72513 AU
	4263 Apr 03 04:45	0° \mathbb{I}					
greatest brilliancy	4263 May 03 16:23	23° \mathbb{I} 20'49	-4.6m	superior conj	4265 Oct 25 22:53	3° \mathbb{M} 43'11	1°16'42
retrograde	4263 May 17 23:16	27° \mathbb{I} 00'21		minimum elong	4265 Oct 26 06:35	4° \mathbb{M} 07'07	1°16'32
evening set	4263 Jun 02 09:57	22° \mathbb{I} 20'12			4265 Nov 16 01:37	0° \mathcal{A}	
inferior conj	4263 Jun 08 05:19	18° \mathbb{I} 48'48	2°45'58	evening rise	4265 Dec 03 11:16	21° \mathcal{A} 42'22	
minimum elong	4263 Jun 08 11:14	18° \mathbb{I} 39'32	2°44'14	desc. node	4265 Dec 04 14:31	23° \mathcal{A} 07'21	
min. Earth dist.	4263 Jun 08 01:19	18° \mathbb{I} 55'06	0.28356 AU		4265 Dec 10 02:46	0° \mathcal{S}	
morning rise	4263 Jun 14 13:03	15° \mathbb{I} 01'34			4266 Jan 03 03:10	0° \approx	
desc. node	4263 Jun 19 19:12	12° \mathbb{I} 34'13			4266 Jan 27 03:46	0° \mathcal{H}	
direct	4263 Jun 29 12:00	10° \mathbb{I} 42'35			4266 Feb 20 06:45	0° Υ	
greatest brilliancy	4263 Jul 11 18:35	13° \mathbb{I} 23'20	-4.5m		4266 Mar 16 16:05	0° \mathcal{B}	
	4263 Aug 05 16:11	0° \mathcal{S}		asc. node	4266 Mar 27 16:45	13° \mathcal{B} 23'04	
morning max el	4263 Aug 17 04:51	10° \mathcal{S} 26'46	45°42'27		4266 Apr 10 13:58	0° \mathbb{I}	
	4263 Sep 05 13:41	0° \mathcal{Q}			4266 May 06 11:09	0° \mathcal{S}	
	4263 Oct 02 18:20	0° \mathbb{M}			4266 Jun 03 10:41	0° \mathcal{Q}	
asc. node	4263 Oct 10 21:46	9° \mathbb{M} 22'07		evening max el	4266 Jun 07 14:14	4° \mathcal{Q} 05'43	45°42'55
	4263 Oct 28 10:59	0° \mathcal{A}			4266 Jul 10 10:29	0° \mathbb{M}	
	4263 Nov 22 07:22	0° \mathbb{M}		greatest brilliancy	4266 Jul 12 05:44	0° \mathbb{M} 53'14	-4.5m
	4263 Dec 16 15:51	0° \mathcal{A}		desc. node	4266 Jul 17 07:07	2° \mathbb{M} 54'53	
	4264 Jan 09 17:43	0° \mathcal{S}		retrograde	4266 Jul 26 14:14	4° \mathbb{M} 30'06	
desc. node	4264 Jan 30 11:59	26° \mathcal{S} 00'57			4266 Aug 10 20:40	30° \mathbb{R} \mathcal{A}	
	4264 Feb 02 16:10	0° \approx		evening set	4266 Aug 11 18:20	29° \mathcal{Q} 29'40	
morning set	4264 Feb 14 23:48	15° \approx 28'34		inferior conj	4266 Aug 17 03:04	26° \mathcal{Q} 14'24	-6°-27'-16
	4264 Feb 26 13:09	0° \mathcal{H}		minimum elong	4266 Aug 16 17:15	26° \mathcal{Q} 29'45	6°25'23
	4264 Mar 21 10:20	0° Υ		min. Earth dist.	4266 Aug 16 21:36	26° \mathcal{Q} 22'58	0.29094 AU
				morning rise	4266 Aug 21 16:11	23° \mathcal{Q} 27'11	
superior conj	4264 Mar 27 04:32	7° Υ 13'15	-1°-26'-52	direct	4266 Sep 07 17:14	17° \mathcal{Q} 56'33	

greatest brilliancy	4266 Sep 21 15:01	21°♎18'56	-4.5m	evening rise	4269 Feb 16 21:17	8°♏04'37	
	4266 Oct 05 19:46	0°♎			4269 Mar 06 08:32	0°♐	
morning max el	4266 Oct 26 22:34	18°♎26'06	46°01'08		4269 Mar 30 08:59	0°♏	
asc. node	4266 Nov 07 09:33	0°♎02'54			4269 Apr 23 15:07	0°♐	
	4266 Nov 07 08:27	0°♎		asc. node	4269 Apr 24 04:40	0°♐41'38	
	4266 Dec 04 11:12	0°♎			4269 May 18 05:51	0°♏	
	4266 Dec 29 20:58	0°♏			4269 Jun 12 09:07	0°♎	
	4267 Jan 23 12:15	0°♏			4269 Jul 08 08:35	0°♎	
	4267 Feb 16 18:43	0°♏			4269 Aug 05 00:16	0°♎	
desc. node	4267 Feb 27 00:00	12°♏42'09		desc. node	4269 Aug 13 19:01	8°♎50'27	
	4267 Mar 12 21:12	0°♏		evening max el	4269 Aug 17 14:29	12°♎31'50	45°34'49
	4267 Apr 05 22:28	0°♐			4269 Sep 06 22:13	0°♎	
	4267 Apr 30 00:29	0°♏		greatest brilliancy	4269 Sep 23 17:24	9°♎47'29	-4.5m
morning set	4267 May 01 18:31	2°♏10'42		retrograde	4269 Oct 05 05:27	12°♎08'01	
	4267 May 24 04:33	0°♐		evening set	4269 Oct 22 17:14	6°♎24'44	
				inferior conj	4269 Oct 26 09:21	4°♎10'13	-7°-51'-37
superior conj	4267 Jun 09 03:28	19°♐44'01	0°-25'-53	minimum elong	4269 Oct 26 17:27	3°♎57'38	7°50'33
minimum elong	4267 Jun 09 09:04	20°♐01'18	0°25'38	min. Earth dist.	4269 Oct 27 06:50	3°♎36'53	0.28225 AU
max. Earth dist.	4267 Jun 11 13:10	22°♐42'11	1.73003 AU	morning rise	4269 Oct 30 17:22	1°♎31'41	
	4267 Jun 17 11:05	0°♏			4269 Nov 02 11:02	30°♎	
asc. node	4267 Jun 20 02:17	3°♏14'47		direct	4269 Nov 16 16:40	26°♎01'43	
	4267 Jul 11 19:49	0°♎		greatest brilliancy	4269 Dec 01 02:12	29°♎46'06	-4.6m
evening rise	4267 Jul 16 09:06	5°♎35'45			4269 Dec 01 13:28	0°♎	
	4267 Aug 05 06:25	0°♎		asc. node	4269 Dec 04 21:11	1°♎47'53	
	4267 Aug 29 19:18	0°♎		morning max el	4270 Jan 06 03:26	28°♎51'30	46°45'20
	4267 Sep 23 11:38	0°♎			4270 Jan 07 06:23	0°♏	
desc. node	4267 Oct 09 16:48	19°♎34'42			4270 Feb 03 18:41	0°♏	
	4267 Oct 18 09:04	0°♏			4270 Mar 01 09:39	0°♏	
	4267 Nov 12 13:45	0°♏		desc. node	4270 Mar 26 11:54	0°♏14'57	
	4267 Dec 08 06:59	0°♏			4270 Mar 26 06:58	0°♏	
	4268 Jan 04 05:53	0°♏			4270 Apr 19 20:40	0°♐	
evening max el	4268 Jan 13 10:18	9°♏34'10	47°11'33		4270 May 14 07:31	0°♏	
asc. node	4268 Jan 30 19:01	25°♏57'14			4270 Jun 07 18:03	0°♐	
	4268 Feb 04 17:05	0°♐			4270 Jul 02 04:56	0°♏	
greatest brilliancy	4268 Feb 20 15:03	10°♐04'33	-4.7m	morning set	4270 Jul 10 20:25	10°♏36'26	
retrograde	4268 Mar 04 06:37	13°♐03'41		asc. node	4270 Jul 17 14:07	18°♏52'33	
evening set	4268 Mar 22 06:20	6°♐47'39			4270 Jul 26 15:34	0°♎	
min. Earth dist.	4268 Mar 24 12:27	5°♐24'26	0.27357 AU	max. Earth dist.	4270 Aug 15 08:03	24°♎12'18	1.73465 AU
inferior conj	4268 Mar 25 01:02	5°♐04'54	9°00'35				
minimum elong	4268 Mar 25 00:34	5°♐05'38	9°00'35	superior conj	4270 Aug 16 14:05	25°♎44'41	1°03'37
morning rise	4268 Mar 27 18:57	3°♐23'42		minimum elong	4270 Aug 16 05:10	25°♎17'16	1°03'19
	4268 Apr 03 01:44	30°♎			4270 Aug 20 01:03	0°♎	
direct	4268 Apr 14 17:04	27°♏15'14			4270 Sep 13 09:13	0°♎	
greatest brilliancy	4268 Apr 25 14:17	29°♏27'30	-4.6m	evening rise	4270 Sep 21 14:35	10°♎08'40	
	4268 Apr 26 22:27	0°♐			4270 Oct 07 16:45	0°♎	
desc. node	4268 May 21 09:26	16°♐37'49			4270 Nov 01 00:36	0°♏	
morning max el	4268 Jun 03 08:48	28°♐38'32	46°13'12	desc. node	4270 Nov 06 04:37	6°♏22'06	
	4268 Jun 04 18:03	0°♏			4270 Nov 25 09:21	0°♏	
	4268 Jul 03 06:37	0°♐			4270 Dec 19 19:37	0°♏	
	4268 Jul 29 20:42	0°♏			4271 Jan 13 09:37	0°♏	
	4268 Aug 24 13:37	0°♎			4271 Feb 07 09:34	0°♐	
asc. node	4268 Sep 11 11:53	21°♎20'55		asc. node	4271 Feb 27 06:50	23°♐05'49	
	4268 Sep 18 16:28	0°♎			4271 Mar 05 10:00	0°♏	
	4268 Oct 13 08:19	0°♎		evening max el	4271 Mar 26 11:01	22°♏24'56	46°41'17
	4268 Nov 06 15:54	0°♎			4271 Apr 03 05:48	0°♐	
morning set	4268 Nov 28 04:08	26°♎46'39		greatest brilliancy	4271 May 01 09:53	21°♐07'45	-4.6m
	4268 Nov 30 18:04	0°♏		retrograde	4271 May 15 14:28	24°♐45'31	
	4268 Dec 24 17:05	0°♏		evening set	4271 May 31 03:31	20°♐02'40	
desc. node	4269 Jan 01 02:15	9°♏15'47		inferior conj	4271 Jun 05 20:47	16°♐34'27	3°05'58
max. Earth dist.	4269 Jan 05 09:36	14°♏40'11	1.71286 AU	minimum elong	4271 Jun 06 03:20	16°♐24'11	3°04'05
				min. Earth dist.	4271 Jun 05 17:29	16°♐39'38	0.28325 AU
superior conj	4269 Jan 06 22:00	16°♏34'28	0°-13'-59	morning rise	4271 Jun 12 03:35	12°♐48'15	
minimum elong	4269 Jan 06 18:24	16°♏23'08	0°13'49	desc. node	4271 Jun 18 21:09	9°♐49'02	
behind sun begin	4269 Jan 06 04:31	15°♏39'33		direct	4271 Jun 27 02:28	8°♐28'36	
behind sun end	4269 Jan 07 08:16	17°♏06'42		greatest brilliancy	4271 Jul 09 09:01	11°♐08'50	-4.5m
	4269 Jan 17 14:24	0°♏			4271 Aug 05 20:46	0°♏	
	4269 Feb 10 11:04	0°♏		morning max el	4271 Aug 14 19:14	8°♏11'58	45°42'43

	4271 Sep 05 06:57	0°♈			4274 May 06 02:24	0°♉	
	4271 Oct 02 08:22	0°♊			4274 Jun 03 07:32	0°♈	
asc. node	4271 Oct 09 23:44	8°♊48'36		evening max el	4274 Jun 05 06:47	1°♈55'51	45°44'16
	4271 Oct 27 23:37	0°♊		greatest brilliancy	4274 Jul 09 20:33	28°♈42'11	-4.5m
	4271 Nov 21 19:18	0°♋			4274 Jul 12 20:46	0°♊	
	4271 Dec 16 03:25	0°♌		desc. node	4274 Jul 16 09:16	1°♊11'19	
	4272 Jan 09 05:04	0°♍		retrograde	4274 Jul 24 07:07	2°♊20'54	
desc. node	4272 Jan 29 14:09	25°♍32'31			4274 Aug 04 03:55	30°♋♈	
	4272 Feb 02 03:22	0°♎		evening set	4274 Aug 09 07:58	27°♈24'13	
morning set	4272 Feb 12 09:53	12°♎54'16		inferior conj	4274 Aug 14 19:23	24°♈04'53	-6°-13'-50
	4272 Feb 26 00:17	0°♏		minimum elong	4274 Aug 14 09:32	24°♈20'18	6°11'53
	4272 Mar 20 21:25	0°♐		min. Earth dist.	4274 Aug 14 12:54	24°♈15'02	0.29087 AU
				morning rise	4274 Aug 19 11:12	21°♈13'56	
superior conj	4272 Mar 24 16:04	4°♐44'17	-1°-26'-47	direct	4274 Sep 05 10:05	15°♈47'22	
minimum elong	4272 Mar 24 15:06	4°♐41'15	1°26'49	greatest brilliancy	4274 Sep 19 06:01	19°♈08'19	-4.5m
max. Earth dist.	4272 Mar 27 23:09	8°♐52'05	1.71502 AU		4274 Oct 06 07:58	0°♊	
	4272 Apr 13 20:29	0°♑		morning max el	4274 Oct 24 14:44	16°♊14'58	45°59'42
evening rise	4272 May 03 18:56	24°♑49'34		asc. node	4274 Nov 06 11:31	29°♊19'32	
	4272 May 07 23:00	0°♒			4274 Nov 07 02:50	0°♊	
asc. node	4272 May 21 16:27	16°♒59'05			4274 Dec 04 01:47	0°♋	
	4272 Jun 01 06:03	0°♓			4274 Dec 29 10:00	0°♌	
	4272 Jun 25 18:24	0°♈			4275 Jan 23 00:30	0°♍	
	4272 Jul 20 13:20	0°♉			4275 Feb 16 06:30	0°♎	
	4272 Aug 14 17:41	0°♊		desc. node	4275 Feb 26 02:00	12°♎12'10	
	4272 Sep 09 12:58	0°♋			4275 Mar 12 08:39	0°♏	
desc. node	4272 Sep 10 06:50	0°♋51'03			4275 Apr 05 09:40	0°♐	
	4272 Oct 06 10:51	0°♌		morning set	4275 Apr 29 08:33	29°♐50'56	
evening max el	4272 Oct 29 02:27	23°♌24'06	46°25'32		4275 Apr 29 11:27	0°♑	
	4272 Nov 05 01:10	0°♍			4275 May 23 15:22	0°♒	
greatest brilliancy	4272 Dec 06 17:58	22°♍33'45	-4.6m				
retrograde	4272 Dec 17 21:26	24°♍51'56		superior conj	4275 Jun 06 19:25	17°♒31'46	0°-29'-7
evening set	4273 Jan 01 05:00	20°♍50'07		minimum elong	4275 Jun 07 01:41	17°♒51'05	0°28'51
asc. node	4273 Jan 01 09:09	20°♍44'37		max. Earth dist.	4275 Jun 09 10:18	20°♒45'59	1.72964 AU
inferior conj	4273 Jan 07 11:49	17°♍11'17	1°34'52		4275 Jun 16 21:50	0°♓	
minimum elong	4273 Jan 07 08:12	17°♍16'47	1°33'43	asc. node	4275 Jun 19 04:21	2°♓48'04	
min. Earth dist.	4273 Jan 07 13:23	17°♍08'54	0.26625 AU		4275 Jul 11 06:36	0°♈	
morning rise	4273 Jan 13 11:02	13°♍41'35		evening rise	4275 Jul 14 03:15	3°♈30'55	
direct	4273 Jan 27 23:37	9°♍28'54			4275 Aug 04 17:21	0°♉	
greatest brilliancy	4273 Feb 09 10:07	12°♍21'06	-4.7m		4275 Aug 29 06:30	0°♊	
	4273 Mar 06 11:51	0°♎			4275 Sep 22 23:17	0°♋	
morning max el	4273 Mar 19 11:52	12°♎25'04	46°55'20	desc. node	4275 Oct 08 18:43	19°♋04'02	
	4273 Apr 05 04:57	0°♏			4275 Oct 17 21:27	0°♌	
desc. node	4273 Apr 22 23:45	19°♏51'38			4275 Nov 12 03:19	0°♍	
	4273 May 01 19:37	0°♐			4275 Dec 07 22:36	0°♎	
	4273 May 27 09:56	0°♑			4276 Jan 04 02:08	0°♏	
	4273 Jun 21 13:57	0°♒		evening max el	4276 Jan 11 01:16	7°♏12'35	47°11'05
	4273 Jul 16 12:33	0°♓		asc. node	4276 Jan 29 21:06	24°♏48'46	
	4273 Aug 10 06:45	0°♈			4276 Feb 05 11:11	0°♐	
asc. node	4273 Aug 14 02:04	4°♈37'49		greatest brilliancy	4276 Feb 18 06:28	7°♐41'23	-4.7m
	4273 Sep 03 20:12	0°♉		retrograde	4276 Mar 01 20:32	10°♐38'19	
morning set	4273 Sep 16 22:04	16°♉04'19		evening set	4276 Mar 19 18:28	4°♐25'05	
	4273 Sep 28 04:58	0°♊		min. Earth dist.	4276 Mar 22 01:01	3°♐01'09	0.27310 AU
max. Earth dist.	4273 Oct 20 19:22	28°♊00'04	1.72559 AU	inferior conj	4276 Mar 22 14:22	2°♐40'25	8°59'58
	4273 Oct 22 10:00	0°♋		minimum elong	4276 Mar 22 12:58	2°♐42'36	8°59'57
				morning rise	4276 Mar 25 07:37	1°♐00'11	
superior conj	4273 Oct 23 14:51	1°♋29'38	1°18'08		4276 Mar 27 00:24	30°♑♏	
minimum elong	4273 Oct 23 22:00	1°♋51'52	1°17'59	direct	4276 Apr 12 06:31	24°♑51'48	
	4273 Nov 15 12:39	0°♌		greatest brilliancy	4276 Apr 23 01:37	27°♑02'16	-4.6m
evening rise	4273 Dec 01 00:34	19°♌19'22			4276 Apr 29 08:51	0°♐	
desc. node	4273 Dec 03 16:28	22°♌38'41		desc. node	4276 May 20 11:22	15°♐36'20	
	4273 Dec 09 13:57	0°♍		morning max el	4276 May 31 22:20	26°♐18'23	46°14'51
	4274 Jan 02 14:32	0°♎			4276 Jun 04 15:59	0°♑	
	4274 Jan 26 15:20	0°♏			4276 Jul 02 22:18	0°♒	
	4274 Feb 19 18:37	0°♐			4276 Jul 29 09:59	0°♓	
	4274 Mar 16 04:25	0°♑			4276 Aug 24 01:43	0°♈	
asc. node	4274 Mar 26 18:44	12°♑50'52		asc. node	4276 Sep 10 13:49	20°♈51'54	
	4274 Apr 10 03:12	0°♒			4276 Sep 18 03:55	0°♉	

	4276 Oct 12 19:25	0°♄		evening max el	4279 Mar 24 00:27	20°♄03'28	46°43'20
	4276 Nov 06 02:51	0°♌			4279 Apr 03 07:44	0°♈	
morning set	4276 Nov 25 18:22	24°♌27'17		greatest brilliancy	4279 Apr 29 02:31	18°♈54'36	-4.6m
	4276 Nov 30 04:57	0°♊		retrograde	4279 May 13 06:04	22°♈32'02	
	4276 Dec 24 03:59	0°♈		evening set	4279 May 28 21:15	17°♈45'59	
desc. node	4276 Dec 31 04:22	8°♈48'11		inferior conj	4279 Jun 03 12:19	14°♈21'15	3°25'40
max. Earth dist.	4277 Jan 02 15:01	11°♈52'14	1.71314 AU	minimum elong	4279 Jun 03 19:27	14°♈10'03	3°23'39
				min. Earth dist.	4279 Jun 03 09:33	14°♈25'35	0.28295 AU
superior conj	4277 Jan 04 09:06	14°♈04'19	0°-10'-6	morning rise	4279 Jun 09 18:01	10°♈36'34	
minimum elong	4277 Jan 04 06:29	13°♈56'07	0°10'00	desc. node	4279 Jun 17 23:20	7°♈09'48	
behind sun begin	4277 Jan 03 09:53	12°♈51'27		direct	4279 Jun 24 16:56	6°♈15'39	
behind sun end	4277 Jan 05 03:05	15°♈00'48		greatest brilliancy	4279 Jul 07 00:13	8°♈56'25	-4.5m
	4277 Jan 17 01:21	0°♊			4279 Aug 05 23:04	0°♈	
	4277 Feb 09 22:05	0°♋		morning max el	4279 Aug 12 10:28	6°♈00'32	45°43'13
evening rise	4277 Feb 14 07:32	5°♋31'21			4279 Sep 04 23:20	0°♎	
	4277 Mar 05 19:37	0°♐			4279 Oct 01 21:46	0°♐	
	4277 Mar 29 20:11	0°♉		asc. node	4279 Oct 09 01:44	8°♐16'49	
asc. node	4277 Apr 23 06:36	0°♈12'32			4279 Oct 27 11:43	0°♄	
	4277 Apr 23 02:32	0°♈			4279 Nov 21 06:48	0°♌	
	4277 May 17 17:41	0°♊			4279 Dec 15 14:37	0°♊	
	4277 Jun 11 21:44	0°♎			4280 Jan 08 16:07	0°♈	
	4277 Jul 07 22:56	0°♐		desc. node	4280 Jan 28 16:11	25°♈04'32	
	4277 Aug 04 18:59	0°♄			4280 Feb 01 14:19	0°♊	
desc. node	4277 Aug 12 21:02	8°♄03'17		morning set	4280 Feb 09 19:38	10°♊19'43	
evening max el	4277 Aug 15 04:17	10°♄16'21	45°33'50		4280 Feb 25 11:09	0°♋	
	4277 Sep 07 15:28	0°♌			4280 Mar 20 08:14	0°♐	
greatest brilliancy	4277 Sep 21 06:45	7°♌32'32	-4.5m				
retrograde	4277 Oct 02 19:14	9°♌53'57		superior conj	4280 Mar 22 03:08	2°♐14'36	-1°-26'-33
evening set	4277 Oct 20 10:19	4°♌06'44		minimum elong	4280 Mar 22 01:06	2°♐08'13	1°26'34
inferior conj	4277 Oct 24 00:19	1°♌55'20	-7°-59'-52	max. Earth dist.	4280 Mar 25 04:41	6°♐05'11	1.71461 AU
minimum elong	4277 Oct 24 07:52	1°♌43'36	7°58'59		4280 Apr 13 07:15	0°♉	
min. Earth dist.	4277 Oct 24 21:37	1°♌22'14	0.28291 AU	evening rise	4280 May 01 07:49	22°♉27'08	
	4277 Oct 27 03:09	30°♌♄			4280 May 07 09:46	0°♈	
morning rise	4277 Oct 28 05:04	29°♄21'18		asc. node	4280 May 20 18:35	16°♈32'19	
direct	4277 Nov 14 07:39	23°♄45'49			4280 May 31 16:54	0°♊	
greatest brilliancy	4277 Nov 28 18:39	27°♄30'51	-4.6m		4280 Jun 25 05:28	0°♎	
	4277 Dec 03 08:12	0°♌			4280 Jul 20 00:51	0°♐	
asc. node	4277 Dec 03 23:16	0°♌22'50			4280 Aug 14 06:01	0°♄	
morning max el	4278 Jan 03 16:59	26°♌28'39	46°44'04	desc. node	4280 Sep 09 08:49	0°♌17'03	
	4278 Jan 07 03:34	0°♊			4280 Sep 09 02:50	0°♌	
	4278 Feb 03 10:25	0°♈			4280 Oct 06 03:59	0°♊	
	4278 Feb 28 23:16	0°♊		evening max el	4280 Oct 26 16:12	21°♊04'32	46°23'23
desc. node	4278 Mar 25 13:51	29°♊42'50			4280 Nov 05 04:38	0°♈	
	4278 Mar 25 19:29	0°♋		greatest brilliancy	4280 Dec 04 05:54	20°♈07'26	-4.6m
	4278 Apr 19 08:29	0°♐		retrograde	4280 Dec 15 10:17	22°♈26'00	
	4278 May 13 18:52	0°♉		evening set	4280 Dec 29 17:30	18°♈23'49	
	4278 Jun 07 05:03	0°♈		asc. node	4280 Dec 31 11:14	17°♈26'44	
	4278 Jul 01 15:40	0°♊		inferior conj	4281 Jan 05 00:16	14°♈45'00	1°10'40
morning set	4278 Jul 08 13:53	8°♊30'04		minimum elong	4281 Jan 04 21:33	14°♈49'08	1°09'48
asc. node	4278 Jul 16 16:14	18°♊26'29		min. Earth dist.	4281 Jan 05 02:55	14°♈40'58	0.26649 AU
	4278 Jul 26 02:08	0°♎		morning rise	4281 Jan 11 01:17	11°♈13'14	
max. Earth dist.	4278 Aug 13 03:22	22°♎11'48	1.73474 AU	direct	4281 Jan 25 13:00	7°♈02'03	
				greatest brilliancy	4281 Feb 07 01:18	9°♈57'00	-4.7m
superior conj	4278 Aug 14 08:31	23°♎04'128	1°01'28		4281 Mar 06 17:00	0°♊	
minimum elong	4278 Aug 13 23:34	23°♎13'55	1°01'10	morning max el	4281 Mar 17 02:27	10°♊03'36	46°56'01
	4278 Aug 19 11:33	0°♐			4281 Apr 04 22:52	0°♋	
	4278 Sep 12 19:47	0°♄		desc. node	4281 Apr 22 01:46	19°♋13'29	
evening rise	4278 Sep 19 08:34	8°♄03'19			4281 May 01 10:07	0°♐	
	4278 Oct 07 03:31	0°♌			4281 May 26 22:47	0°♉	
	4278 Oct 31 11:41	0°♊			4281 Jun 21 01:49	0°♈	
desc. node	4278 Nov 05 06:39	5°♊54'02			4281 Jul 15 23:48	0°♊	
	4278 Nov 24 20:50	0°♈			4281 Aug 09 17:36	0°♎	
	4278 Dec 19 07:37	0°♊		asc. node	4281 Aug 13 03:58	4°♎10'42	
	4279 Jan 12 22:23	0°♋			4281 Sep 03 06:51	0°♐	
	4279 Feb 06 23:38	0°♐		morning set	4281 Sep 14 15:38	13°♐58'04	
asc. node	4279 Feb 26 08:48	22°♐26'10			4281 Sep 27 15:31	0°♄	
	4279 Mar 05 02:51	0°♉		max. Earth dist.	4281 Oct 18 13:13	25°♄53'44	1.72599 AU

superior conj	4281 Oct 21 07:26	29°♁19'17	1°19'24			4284 Mar 20 14:52	30°☿♁	
minimum elong	4281 Oct 21 14:02	29°♁39'47	1°19'18		morning rise	4284 Mar 22 21:00	28°☿♁36'55	
	4281 Oct 21 20:33	0°♁			direct	4284 Apr 09 19:36	22°☿♁29'16	
	4281 Nov 14 23:17	0°♁			greatest brilliancy	4284 Apr 20 14:06	24°☿♁38'47	-4.6m
evening rise	4281 Nov 28 14:27	16°♁59'31				4284 Apr 30 21:55	0°☿	
desc. node	4281 Dec 02 18:38	22°♁11'55			desc. node	4284 May 19 13:33	14°☿♁37'04	
	4281 Dec 09 00:44	0°♁			morning max el	4284 May 29 11:13	23°☿♁56'29	46°16'19
	4282 Jan 02 01:33	0°♁				4284 Jun 04 13:06	0°♁	
	4282 Jan 26 02:38	0°☿				4284 Jul 02 13:47	0°♁	
	4282 Feb 19 06:16	0°☿				4284 Jul 28 23:12	0°♁	
	4282 Mar 15 16:37	0°♁				4284 Aug 23 13:46	0°♁	
asc. node	4282 Mar 25 20:42	12°♁18'57			asc. node	4284 Sep 09 15:51	20°♁23'23	
	4282 Apr 09 16:23	0°♁				4284 Sep 17 15:19	0°♁	
	4282 May 05 17:42	0°♁				4284 Oct 12 06:27	0°♁	
evening max el	4282 Jun 02 23:25	29°♁46'39	45°45'47			4284 Nov 05 13:43	0°♁	
	4282 Jun 03 04:54	0°♁			morning set	4284 Nov 23 08:46	22°♁08'38	
greatest brilliancy	4282 Jul 07 12:31	26°♁33'18	-4.5m			4284 Nov 29 15:47	0°♁	
desc. node	4282 Jul 15 11:15	29°♁24'42				4284 Dec 23 14:51	0°♁	
	4282 Jul 18 17:05	0°♁			desc. node	4284 Dec 30 06:23	8°♁20'28	
retrograde	4282 Jul 21 23:48	0°♁12'20			max. Earth dist.	4284 Dec 30 21:18	9°♁07'16	1.71341 AU
	4282 Jul 25 05:08	30°♁						
evening set	4282 Aug 06 21:48	25°♁19'33			superior conj	4285 Jan 01 20:38	11°♁35'48	0°-6'-16
inferior conj	4282 Aug 12 11:44	21°♁56'15	-6°00'-3		minimum elong	4285 Jan 01 19:01	11°♁30'43	0°06'12
minimum elong	4282 Aug 12 01:54	22°♁11'39	5°58'00		behind sun begin	4284 Dec 31 18:59	10°♁15'19	
min. Earth dist.	4282 Aug 12 04:27	22°♁07'39	0.29072 AU		behind sun end	4285 Jan 02 19:02	12°♁46'09	
morning rise	4282 Aug 17 06:10	19°♁01'25				4285 Jan 16 12:15	0°♁	
direct	4282 Sep 03 02:55	13°♁39'12				4285 Feb 09 09:00	0°☿	
greatest brilliancy	4282 Sep 16 19:55	16°♁57'12	-4.5m		evening rise	4285 Feb 11 18:15	2°☿♁59'52	
	4282 Oct 06 16:34	0°♁				4285 Mar 05 06:35	0°☿	
morning max el	4282 Oct 22 06:19	14°♁03'27	45°58'25			4285 Mar 29 07:18	0°♁	
asc. node	4282 Nov 05 13:34	28°♁37'57			asc. node	4285 Apr 22 08:44	29°♁44'00	
	4282 Nov 06 20:25	0°♁				4285 Apr 22 13:56	0°♁	
	4282 Dec 03 15:50	0°♁				4285 May 17 05:35	0°♁	
	4282 Dec 28 22:35	0°♁				4285 Jun 11 10:33	0°♁	
	4283 Jan 22 12:21	0°♁				4285 Jul 07 13:37	0°♁	
	4283 Feb 15 17:57	0°♁				4285 Aug 04 14:29	0°♁	
desc. node	4283 Feb 25 03:58	11°♁43'03			desc. node	4285 Aug 11 23:01	7°♁14'45	
	4283 Mar 11 19:51	0°☿			evening max el	4285 Aug 12 17:43	7°♁59'33	45°33'06
	4283 Apr 04 20:40	0°☿				4285 Sep 08 15:11	0°♁	
morning set	4283 Apr 26 22:00	27°☿29'43			greatest brilliancy	4285 Sep 18 19:12	5°♁16'12	-4.5m
	4283 Apr 28 22:18	0°♁			retrograde	4285 Sep 30 09:23	7°♁39'47	
	4283 May 23 02:04	0°♁			evening set	4285 Oct 18 03:12	1°♁48'37	
						4285 Oct 21 02:30	30°♁	
superior conj	4283 Jun 04 10:47	15°♁17'56	0°-32'-21		inferior conj	4285 Oct 21 15:16	29°♁40'11	-8°-7'-24
minimum elong	4283 Jun 04 17:41	15°♁39'13	0°32'04		minimum elong	4285 Oct 21 22:12	29°♁29'25	8°06'40
max. Earth dist.	4283 Jun 07 06:53	18°♁48'21	1.72919 AU		min. Earth dist.	4285 Oct 22 12:16	29°♁07'35	0.28355 AU
	4283 Jun 16 08:29	0°♁			morning rise	4285 Oct 25 16:52	27°♁10'47	
asc. node	4283 Jun 18 06:24	2°♁21'37			direct	4285 Nov 11 22:33	21°♁29'34	
	4283 Jul 10 17:16	0°♁			greatest brilliancy	4285 Nov 26 11:42	25°♁16'23	-4.6m
evening rise	4283 Jul 11 20:54	1°♁24'55			asc. node	4285 Dec 03 01:23	29°♁00'24	
	4283 Aug 04 04:08	0°♁				4285 Dec 04 13:36	0°♁	
	4283 Aug 28 17:33	0°♁			morning max el	4286 Jan 01 07:27	24°♁08'00	46°42'53
	4283 Sep 22 10:49	0°♁				4286 Jan 07 00:08	0°♁	
desc. node	4283 Oct 07 20:47	18°♁34'16				4286 Feb 03 01:59	0°♁	
	4283 Oct 17 09:43	0°♁				4286 Feb 28 12:49	0°♁	
	4283 Nov 11 16:45	0°♁			desc. node	4286 Mar 24 15:55	29°♁11'11	
	4283 Dec 07 14:09	0°♁				4286 Mar 25 07:57	0°☿	
	4284 Jan 03 22:38	0°☿				4286 Apr 18 20:16	0°☿	
evening max el	4284 Jan 08 15:27	4°☿50'00	47°10'32			4286 May 13 06:14	0°♁	
asc. node	4284 Jan 28 23:00	23°☿39'11				4286 Jun 06 16:07	0°♁	
	4284 Feb 06 10:57	0°☿				4286 Jul 01 02:32	0°♁	
greatest brilliancy	4284 Feb 15 22:31	5°☿20'03	-4.7m		morning set	4286 Jul 06 07:13	6°♁22'41	
retrograde	4284 Feb 28 10:06	8°☿14'05			asc. node	4286 Jul 15 18:09	17°♁59'19	
evening set	4284 Mar 17 06:15	2°☿04'30				4286 Jul 25 12:53	0°♁	
min. Earth dist.	4284 Mar 19 14:04	0°☿38'32	0.27270 AU		max. Earth dist.	4286 Aug 10 23:14	20°♁12'17	1.73486 AU
inferior conj	4284 Mar 20 03:53	0°☿17'04	8°58'23					
minimum elong	4284 Mar 20 01:32	0°☿20'43	8°58'18		superior conj	4286 Aug 12 02:40	21°♁36'40	0°59'14

minimum elong	4286 Aug 11 17:43	21°09'05	0°58'54	morning max el	4289 Mar 14 16:39	7°40'13	46°56'33
	4286 Aug 18 22:16	0°00			4289 Apr 04 16:43	0°00	
	4286 Sep 12 06:35	0°00		desc. node	4289 Apr 21 03:51	18°00'35"00	
evening rise	4286 Sep 17 02:18	5°00'56"39			4289 May 01 00:46	0°00	
	4286 Oct 06 14:31	0°00			4289 May 26 11:51	0°00	
	4286 Oct 30 22:59	0°00			4289 Jun 20 13:57	0°00	
desc. node	4286 Nov 04 08:45	5°00'25"30			4289 Jul 15 11:19	0°00	
	4286 Nov 24 08:32	0°00			4289 Aug 09 04:45	0°00	
	4286 Dec 18 19:52	0°00		asc. node	4289 Aug 12 06:02	3°00'43"07	
	4287 Jan 12 11:25	0°00			4289 Sep 02 17:49	0°00	
	4287 Feb 06 14:02	0°00		morning set	4289 Sep 12 09:13	11°00'50"56	
asc. node	4287 Feb 25 10:52	21°00'46"00			4289 Sep 27 02:26	0°00	
	4287 Mar 04 20:13	0°00		max. Earth dist.	4289 Oct 16 04:50	23°00'39"18	1.72645 AU
evening max el	4287 Mar 21 14:42	17°00'43"39	46°45'29				
	4287 Apr 03 11:21	0°00		superior conj	4289 Oct 18 23:58	27°00'07"35	1°20'34
greatest brilliancy	4287 Apr 26 18:22	16°00'40"13	-4.6m	minimum elong	4289 Oct 19 05:58	27°00'26"12	1°20'29
retrograde	4287 May 10 22:09	20°00'18"23			4289 Oct 21 07:30	0°00	
evening set	4287 May 26 15:08	15°00'28"48			4289 Nov 14 10:21	0°00	
inferior conj	4287 Jun 01 03:53	12°00'07"38	3°45'02	evening rise	4289 Nov 26 04:01	14°00'37"21	
minimum elong	4287 Jun 01 11:34	11°00'55"36	3°42'54	desc. node	4289 Dec 01 20:35	21°00'34"04	
min. Earth dist.	4287 Jun 01 01:16	12°00'11"43	0.28268 AU		4289 Dec 08 11:59	0°00	
morning rise	4287 Jun 07 08:22	8°00'24"57			4290 Jan 01 12:59	0°00	
desc. node	4287 Jun 17 01:16	4°00'35"35			4290 Jan 25 14:20	0°00	
direct	4287 Jun 22 07:50	4°00'02"15			4290 Feb 18 18:18	0°00	
greatest brilliancy	4287 Jul 04 15:06	6°00'43"21	-4.5m		4290 Mar 15 05:13	0°00	
	4287 Aug 06 00:16	0°00		asc. node	4290 Mar 24 22:48	11°00'46"17	
morning max el	4287 Aug 10 02:39	3°00'50"39	45°43'32		4290 Apr 09 06:02	0°00	
	4287 Sep 04 15:45	0°00			4290 May 05 09:36	0°00	
	4287 Oct 01 11:25	0°00		evening max el	4290 May 31 15:49	27°00'35"46	45°47'19
asc. node	4287 Oct 08 03:51	7°00'44"26			4290 Jun 03 03:33	0°00	
	4287 Oct 27 00:08	0°00		greatest brilliancy	4290 Jul 05 05:05	24°00'24"19	-4.5m
	4287 Nov 20 18:36	0°00		desc. node	4290 Jul 14 13:13	27°00'33"33	
	4287 Dec 15 02:05	0°00		retrograde	4290 Jul 19 16:08	28°00'03"08	
	4288 Jan 08 03:24	0°00		evening set	4290 Aug 04 11:53	23°00'14"12	
desc. node	4288 Jan 27 18:05	24°00'35"21		inferior conj	4290 Aug 10 04:12	19°00'47"12	-5°-45'-47
	4288 Feb 01 01:30	0°00		minimum elong	4290 Aug 09 18:27	20°00'02"31	5°43'40
morning set	4288 Feb 07 05:25	7°00'44"33		min. Earth dist.	4290 Aug 09 20:29	19°00'59"19	0.29056 AU
	4288 Feb 24 22:17	0°00		morning rise	4290 Aug 15 01:11	16°00'48"24	
				direct	4290 Aug 31 19:26	11°00'30"40	
superior conj	4288 Mar 19 14:08	29°00'43"46	-1°-26'-9	greatest brilliancy	4290 Sep 14 09:29	14°00'45"01	-4.5m
minimum elong	4288 Mar 19 11:02	29°00'34"01	1°26'08		4290 Oct 06 23:03	0°00	
	4288 Mar 19 19:19	0°00		morning max el	4290 Oct 19 21:02	11°00'48"54	45°56'59
max. Earth dist.	4288 Mar 22 11:35	3°00'21"37	1.71422 AU	asc. node	4290 Nov 04 15:38	27°00'55"54	
	4288 Apr 12 18:17	0°00			4290 Nov 06 14:00	0°00	
evening rise	4288 Apr 28 20:45	20°00'04"02			4290 Dec 03 06:10	0°00	
	4288 May 06 20:48	0°00			4290 Dec 28 11:34	0°00	
asc. node	4288 May 19 20:36	16°00'04"25			4291 Jan 22 00:38	0°00	
	4288 May 31 04:00	0°00			4291 Feb 15 05:49	0°00	
	4288 Jun 24 16:49	0°00		desc. node	4291 Feb 24 06:06	11°00'13"13	
	4288 Jul 19 12:42	0°00			4291 Mar 11 07:25	0°00	
	4288 Aug 13 18:47	0°00			4291 Apr 04 07:59	0°00	
desc. node	4288 Sep 08 10:52	29°00'41"49		morning set	4291 Apr 24 11:17	25°00'06"58	
	4288 Sep 08 17:16	0°00			4291 Apr 28 09:26	0°00	
	4288 Oct 05 22:01	0°00			4291 May 22 13:05	0°00	
evening max el	4288 Oct 24 06:48	18°00'45"49	46°21'14				
	4288 Nov 05 10:35	0°00		superior conj	4291 Jun 02 02:14	13°00'03"23	0°-35'-33
greatest brilliancy	4288 Dec 01 18:17	17°00'40"32	-4.6m	minimum elong	4291 Jun 02 09:43	13°00'26"29	0°35'14
retrograde	4288 Dec 12 23:06	19°00'58"39		max. Earth dist.	4291 Jun 05 02:21	16°00'46"16	1.72872 AU
evening set	4288 Dec 27 06:16	15°00'56"13			4291 Jun 15 19:26	0°00	
asc. node	4288 Dec 30 13:08	14°00'05"14		asc. node	4291 Jun 17 08:21	1°00'53"52	
inferior conj	4289 Jan 02 12:40	12°00'17"32	0°46'23	evening rise	4291 Jul 09 14:40	29°00'18"18	
minimum elong	4289 Jan 02 10:53	12°00'20"15	0°45'48		4291 Jul 10 04:14	0°00	
min. Earth dist.	4289 Jan 02 16:21	12°00'11"55	0.26671 AU		4291 Aug 03 15:13	0°00	
morning rise	4289 Jan 08 15:14	8°00'43"49			4291 Aug 28 04:54	0°00	
direct	4289 Jan 23 02:27	4°00'34"17			4291 Sep 21 22:39	0°00	
greatest brilliancy	4289 Feb 04 15:23	7°00'30"27	-4.7m	desc. node	4291 Oct 06 22:53	18°00'03"43	
	4289 Mar 06 20:45	0°00			4291 Oct 16 22:20	0°00	

	4291 Nov 11 06:41	0°☾		desc. node	4294 Mar 23 17:58	28°≈39'04	
	4291 Dec 07 06:25	0°≈			4294 Mar 24 20:30	0°✕	
	4292 Jan 03 20:28	0°✕			4294 Apr 18 08:12	0°☿	
evening max el	4292 Jan 06 04:42	2°✕23'29	47°09'49		4294 May 12 17:43	0°♄	
asc. node	4292 Jan 28 01:07	22°✕26'18			4294 Jun 06 03:16	0°♂	
	4292 Feb 07 21:29	0°☿			4294 Jun 30 13:26	0°☾	
greatest brilliancy	4292 Feb 13 14:42	2°☿56'45	-4.7m	morning set	4294 Jul 04 00:21	4°☾14'34	
retrograde	4292 Feb 25 23:11	5°☿47'46		asc. node	4294 Jul 14 20:13	17°☾32'31	
	4292 Mar 14 05:43	30°♁✕			4294 Jul 24 23:37	0°♂	
evening set	4292 Mar 14 17:17	29°✕42'36		max. Earth dist.	4294 Aug 08 21:04	18°♂18'48	1.73493 AU
min. Earth dist.	4292 Mar 17 03:18	28°✕13'23	0.27226 AU				
inferior conj	4292 Mar 17 17:11	27°✕51'48	8°55'46	superior conj	4294 Aug 09 20:46	19°♂31'44	0°56'54
minimum elong	4292 Mar 17 13:55	27°✕56'52	8°55'36	minimum elong	4294 Aug 09 11:51	19°♂04'16	0°56'34
morning rise	4292 Mar 20 10:41	26°✕10'58			4294 Aug 18 08:58	0°♁	
direct	4292 Apr 07 07:53	20°✕04'39			4294 Sep 11 17:22	0°♂	
greatest brilliancy	4292 Apr 18 03:18	22°✕14'28	-4.6m	evening rise	4294 Sep 14 20:18	3°♂50'54	
	4292 May 02 00:45	0°☿			4294 Oct 06 01:29	0°♂	
desc. node	4292 May 18 15:32	13°☿37'47			4294 Oct 30 10:14	0°♂	
morning max el	4292 May 26 23:40	21°☿32'26	46°17'59	desc. node	4294 Nov 03 10:42	4°♂56'43	
	4292 Jun 04 09:49	0°♄			4294 Nov 23 20:09	0°☾	
	4292 Jul 02 05:15	0°♂			4294 Dec 18 08:02	0°≈	
	4292 Jul 28 12:32	0°☾			4295 Jan 12 00:26	0°✕	
	4292 Aug 23 01:58	0°♂			4295 Feb 06 04:32	0°☿	
asc. node	4292 Sep 08 17:57	19°♂54'32		asc. node	4295 Feb 24 12:55	21°☿05'24	
	4292 Sep 17 02:52	0°♁			4295 Mar 04 13:59	0°♄	
	4292 Oct 11 17:38	0°♂		evening max el	4295 Mar 19 05:51	15°♄25'53	46°47'21
	4292 Nov 05 00:44	0°♂			4295 Apr 03 17:02	0°♂	
morning set	4292 Nov 20 23:33	19°♂50'39		greatest brilliancy	4295 Apr 24 10:23	14°♂25'17	-4.6m
	4292 Nov 29 02:47	0°♂		retrograde	4295 May 08 14:24	18°♂03'27	
	4292 Dec 23 01:54	0°☾		evening set	4295 May 24 08:54	13°♂10'20	
max. Earth dist.	4292 Dec 28 06:29	6°☾30'45	1.71380 AU	inferior conj	4295 May 29 19:08	9°♂52'48	4°04'20
desc. node	4292 Dec 29 08:21	7°☾51'55		minimum elong	4295 May 30 03:21	9°♂39'58	4°02'05
				min. Earth dist.	4295 May 29 16:28	9°♂56'58	0.28239 AU
superior conj	4292 Dec 30 08:11	9°☾06'41	0°-2'-24	morning rise	4295 Jun 04 22:13	6°♂12'31	
minimum elong	4292 Dec 30 07:34	9°☾04'44	0°02'23	desc. node	4295 Jun 16 03:15	2°♂05'21	
behind sun begin	4292 Dec 29 06:07	7°☾44'54		direct	4295 Jun 19 22:53	1°♂47'52	
behind sun end	4292 Dec 31 09:00	10°☾24'36		greatest brilliancy	4295 Jul 02 04:45	4°♂28'16	-4.5m
	4293 Jan 15 23:23	0°≈			4295 Aug 06 00:13	0°☾	
	4293 Feb 08 20:12	0°✕		morning max el	4295 Aug 07 19:05	1°☾41'29	45°44'00
evening rise	4293 Feb 09 04:40	0°✕26'36			4295 Sep 04 07:45	0°♂	
	4293 Mar 04 17:53	0°☿			4295 Oct 01 00:46	0°♁	
	4293 Mar 28 18:44	0°♄		asc. node	4295 Oct 07 05:48	7°♁12'19	
asc. node	4293 Apr 21 10:44	29°♄14'19			4295 Oct 26 12:17	0°♂	
	4293 Apr 22 01:37	0°♂			4295 Nov 20 06:10	0°♂	
	4293 May 16 17:43	0°☾			4295 Dec 14 13:20	0°♂	
	4293 Jun 10 23:37	0°♂			4296 Jan 07 14:27	0°☾	
	4293 Jul 07 04:38	0°♁		desc. node	4296 Jan 26 20:15	24°☾07'45	
	4293 Aug 04 10:40	0°♂			4296 Jan 31 12:27	0°≈	
evening max el	4293 Aug 10 07:55	5°♂44'32	45°32'33	morning set	4296 Feb 04 15:46	5°≈11'57	
desc. node	4293 Aug 11 01:08	6°♂25'33			4296 Feb 24 09:10	0°✕	
	4293 Sep 10 00:13	0°♂					
greatest brilliancy	4293 Sep 16 06:44	2°♂59'20	-4.5m	superior conj	4296 Mar 17 01:15	27°✕13'54	-1°-25'-33
retrograde	4293 Sep 28 00:17	5°♂26'27		minimum elong	4296 Mar 16 21:05	27°✕00'50	1°25'33
	4293 Oct 15 00:41	30°♁♂			4296 Mar 19 06:10	0°☿	
evening set	4293 Oct 15 20:06	29°♂31'29		max. Earth dist.	4296 Mar 19 21:32	0°☿48'14	1.71391 AU
inferior conj	4293 Oct 19 06:27	27°♂25'45	-8°-14'-5		4296 Apr 12 05:08	0°♄	
minimum elong	4293 Oct 19 12:45	27°♂15'59	8°13'29	evening rise	4296 Apr 26 09:30	17°♄40'44	
min. Earth dist.	4293 Oct 20 02:48	26°♂54'11	0.28416 AU		4296 May 06 07:40	0°♂	
morning rise	4293 Oct 23 05:05	25°♂00'54		asc. node	4296 May 18 22:33	15°♂36'43	
direct	4293 Nov 09 14:06	19°♂14'10			4296 May 30 14:58	0°☾	
greatest brilliancy	4293 Nov 24 04:53	23°♂02'56	-4.6m		4296 Jun 24 04:02	0°♂	
asc. node	4293 Dec 02 03:15	27°♂40'40			4296 Jul 19 00:24	0°♁	
	4293 Dec 05 10:40	0°♂			4296 Aug 13 07:23	0°♂	
morning max el	4293 Dec 29 22:52	21°♂50'10	46°41'31	desc. node	4296 Sep 07 12:56	29°♂07'14	
	4294 Jan 06 20:00	0°♂			4296 Sep 08 07:35	0°♂	
	4294 Feb 02 17:21	0°☾			4296 Oct 05 16:08	0°♂	
	4294 Feb 28 02:22	0°≈		evening max el	4296 Oct 21 21:34	16°♂28'35	46°19'02

	4296 Nov 05 18:20	0°☾		superior conj	4299 May 30 17:47	10°♊50'27	0°-38'-41
greatest brilliancy	4296 Nov 29 07:44	15°☾16'20	-4.6m	minimum elong	4299 May 31 01:48	11°♊15'15	0°38'20
retrograde	4296 Dec 10 11:41	17°☾32'49		max. Earth dist.	4299 Jun 02 20:28	14°♊41'21	1.72824 AU
evening set	4296 Dec 24 19:28	13°☾30'07			4299 Jun 15 05:57	0°☿	
asc. node	4296 Dec 29 15:15	10°☾43'35		asc. node	4299 Jun 16 10:28	1°☿27'55	
inferior conj	4296 Dec 31 01:16	9°☾51'50	0°22'03	evening rise	4299 Jul 07 08:24	27°☿12'52	
minimum elong	4296 Dec 31 00:25	9°☾53'08	0°21'47		4299 Jul 09 14:47	0°♌	
min. Earth dist.	4296 Dec 31 06:16	9°☾44'13	0.26693 AU		4299 Aug 03 01:56	0°♍	
morning rise	4297 Jan 06 05:06	6°☾16'09			4299 Aug 27 15:54	0°♎	
direct	4297 Jan 20 15:49	2°☾08'18			4299 Sep 21 10:09	0°♏	
greatest brilliancy	4297 Feb 02 05:27	5°☾05'13	-4.7m	desc. node	4299 Oct 06 00:47	17°♏33'34	
	4297 Mar 06 22:26	0°♐			4299 Oct 16 10:40	0°♑	
morning max el	4297 Mar 12 06:06	5°♐16'08	46°57'04		4299 Nov 10 20:20	0°♒	
	4297 Apr 04 09:44	0°♑			4299 Dec 06 22:30	0°♓	
desc. node	4297 Apr 20 05:50	17°♑57'44		evening max el	4300 Jan 03 17:22	29°♓56'48	47°09'03
	4297 Apr 30 14:51	0°♒			4300 Jan 03 18:38	0°♑	
	4297 May 26 00:29	0°♓		asc. node	4300 Jan 27 03:11	21°♑12'22	
	4297 Jun 20 01:43	0°♊			4300 Feb 10 00:43	0°♒	
	4297 Jul 14 22:33	0°☿		greatest brilliancy	4300 Feb 11 05:50	0°♒33'02	-4.7m
	4297 Aug 08 15:37	0°♌		retrograde	4300 Feb 23 12:10	3°♒22'25	
asc. node	4297 Aug 11 08:09	3°♌16'35			4300 Mar 08 10:09	30°♑♑	
	4297 Sep 02 04:28	0°♍		evening set	4300 Mar 13 03:40	27°♑22'01	
morning set	4297 Sep 10 02:40	9°♍44'22		min. Earth dist.	4300 Mar 15 16:26	25°♑48'51	0.27186 AU
	4297 Sep 26 13:00	0°♎		inferior conj	4300 Mar 16 06:21	25°♑27'15	8°51'59
max. Earth dist.	4297 Oct 13 19:39	21°♎23'38	1.72689 AU	minimum elong	4300 Mar 16 02:11	25°♑33'44	8°51'44
				morning rise	4300 Mar 19 00:48	23°♑45'05	
superior conj	4297 Oct 16 16:35	24°♎57'23	1°21'36	direct	4300 Apr 05 19:59	17°♑40'25	
minimum elong	4297 Oct 16 21:56	25°♎14'00	1°21'31	greatest brilliancy	4300 Apr 16 17:05	19°♑51'38	-4.6m
	4297 Oct 20 18:06	0°♏			4300 May 03 19:59	0°♒	
	4297 Nov 13 21:03	0°♑		desc. node	4300 May 18 17:29	12°♒40'51	
evening rise	4297 Nov 23 17:48	12°♑17'06		morning max el	4300 May 25 12:48	19°♒10'57	46°19'50
desc. node	4297 Nov 30 22:35	21°♑15'30			4300 Jun 05 05:27	0°♓	
	4297 Dec 07 22:52	0°☾			4300 Jul 02 20:07	0°♊	
	4298 Jan 01 00:05	0°♐			4300 Jul 29 01:22	0°☿	
	4298 Jan 25 01:41	0°♑			4300 Aug 23 13:44	0°♌	
	4298 Feb 18 05:59	0°♒		asc. node	4300 Sep 08 19:53	19°♌26'17	
	4298 Mar 14 17:26	0°♓			4300 Sep 17 14:03	0°♍	
asc. node	4298 Mar 24 00:48	11°♓14'30			4300 Oct 12 04:31	0°♎	
	4298 Apr 08 19:20	0°♊			4300 Nov 05 11:29	0°♏	
	4298 May 05 01:18	0°☿		morning set	4300 Nov 19 14:16	17°♏33'28	
evening max el	4298 May 29 07:22	25°☿23'53	45°48'43		4300 Nov 29 13:30	0°♑	
	4298 Jun 03 02:41	0°♌			4300 Dec 23 12:39	0°☾	
greatest brilliancy	4298 Jul 02 21:21	22°♌15'45	-4.5m	max. Earth dist.	4300 Dec 26 18:07	4°☾02'56	1.71414 AU
desc. node	4298 Jul 13 15:21	25°♌39'18					
retrograde	4298 Jul 17 08:04	25°♌54'52		superior conj	4300 Dec 28 19:41	6°☾38'27	0°01'30
evening set	4298 Aug 02 02:02	21°♌09'25		minimum elong	4300 Dec 28 20:04	6°☾39'39	0°01'29
inferior conj	4298 Aug 07 20:40	17°♌39'08	-5°-30'-53	behind sun begin	4300 Dec 27 18:35	5°☾19'42	
minimum elong	4298 Aug 07 11:02	17°♌54'16	5°28'44	behind sun end	4300 Dec 29 21:33	7°☾59'36	
min. Earth dist.	4298 Aug 07 12:56	17°♌51'18	0.29040 AU	desc. node	4300 Dec 29 10:30	7°☾24'56	
morning rise	4298 Aug 12 20:11	14°♌36'22			4301 Jan 16 10:10	0°♐	
direct	4298 Aug 29 11:27	9°♌22'56		evening rise	4301 Feb 07 15:13	27°♐54'50	
greatest brilliancy	4298 Sep 11 23:51	12°♌34'39	-4.5m		4301 Feb 09 07:04	0°♑	
	4298 Oct 07 03:03	0°♍			4301 Mar 05 04:51	0°♒	
morning max el	4298 Oct 17 11:20	9°♍34'29	45°55'45		4301 Mar 29 05:53	0°♓	
asc. node	4298 Nov 03 17:37	27°♍15'18		asc. node	4301 Apr 21 12:41	28°♓45'20	
	4298 Nov 06 06:46	0°♎			4301 Apr 22 13:02	0°♊	
	4298 Dec 02 19:54	0°♏			4301 May 17 05:36	0°☿	
	4298 Dec 28 00:00	0°♑			4301 Jun 11 12:26	0°♌	
	4299 Jan 21 12:25	0°☾			4301 Jul 07 19:30	0°♍	
	4299 Feb 14 17:13	0°♐			4301 Aug 05 07:11	0°♎	
desc. node	4299 Feb 23 08:04	10°♐44'13		evening max el	4301 Aug 08 22:51	3°♎32'17	45°32'00
	4299 Mar 10 18:32	0°♑		desc. node	4301 Aug 11 03:08	5°♎36'06	
	4299 Apr 03 18:53	0°♒			4301 Sep 13 01:18	0°♏	
morning set	4299 Apr 22 00:36	22°♒45'29		greatest brilliancy	4301 Sep 14 17:28	0°♏42'24	-4.5m
	4299 Apr 27 20:08	0°♓		retrograde	4301 Sep 26 15:24	3°♏13'32	
	4299 May 21 23:39	0°♊			4301 Oct 09 11:51	30°♑♑	
				evening set	4301 Oct 14 12:42	27°♎15'09	

inferior conj	4301 Oct 17 21:32	25°♄11'39	-8°-19'-57	max. Earth dist.	4304 Mar 18 07:43	28°♁15'08	1.71354 AU
minimum elong	4301 Oct 18 03:10	25°♄02'54	8°19'29		4304 Mar 19 17:08	0°♑	
min. Earth dist.	4301 Oct 18 16:51	24°♄41'40	0.28479 AU		4304 Apr 12 16:03	0°♄	
morning rise	4301 Oct 21 17:22	22°♄51'05		evening rise	4304 Apr 24 21:48	15°♄15'42	
direct	4301 Nov 08 06:04	16°♄59'14			4304 May 06 18:36	0°♈	
greatest brilliancy	4301 Nov 22 21:38	20°♄49'23	-4.6m	asc. node	4304 May 19 00:39	15°♈09'14	
asc. node	4301 Dec 02 05:23	26°♄24'09			4304 May 31 02:02	0°♊	
	4301 Dec 07 02:08	0°♈			4304 Jun 24 15:23	0°♈	
morning max el	4301 Dec 28 14:56	19°♈34'30	46°40'08		4304 Jul 19 12:17	0°♈	
	4302 Jan 07 15:10	0°♈			4304 Aug 13 20:11	0°♈	
	4302 Feb 03 08:20	0°♈		desc. node	4304 Sep 07 14:54	28°♈31'47	
	4302 Feb 28 15:35	0°♈			4304 Sep 08 22:10	0°♈	
desc. node	4302 Mar 23 19:56	28°♈07'35			4304 Oct 06 10:50	0°♈	
	4302 Mar 25 08:46	0°♈		evening max el	4304 Oct 20 11:29	14°♈09'09	46°16'48
	4302 Apr 18 19:52	0°♑			4304 Nov 07 05:01	0°♈	
	4302 May 13 04:59	0°♄		greatest brilliancy	4304 Nov 27 21:33	12°♈52'19	-4.6m
	4302 Jun 06 14:14	0°♈		retrograde	4304 Dec 08 23:28	15°♈06'34	
	4302 Jul 01 00:10	0°♊		evening set	4304 Dec 23 08:49	11°♈03'11	
morning set	4302 Jul 02 17:29	2°♊06'53		inferior conj	4304 Dec 29 13:51	7°♈25'46	0°-2'-13
asc. node	4302 Jul 14 22:18	17°♊06'15		minimum elong	4304 Dec 29 13:56	7°♈25'38	0°02'11
	4302 Jul 25 10:12	0°♈		transit middle	4304 Dec 29 13:56	7°♈25'38	0°02'11
max. Earth dist.	4302 Aug 07 20:09	16°♈29'42	1.73496 AU	transit begin	4304 Dec 29 09:54	7°♈31'48	
				transit end	4304 Dec 29 17:59	7°♈19'28	
superior conj	4302 Aug 08 14:52	17°♈27'17	0°54'29	asc. node	4304 Dec 29 17:17	7°♈20'30	
minimum elong	4302 Aug 08 06:02	17°♈00'06	0°54'09	min. Earth dist.	4304 Dec 29 20:27	7°♈15'41	0.26723 AU
	4302 Aug 18 19:31	0°♈		morning rise	4305 Jan 04 18:42	3°♈48'12	
	4302 Sep 12 04:00	0°♈			4305 Jan 15 07:57	30°♈♄	
evening rise	4302 Sep 13 14:24	1°♈45'57		direct	4305 Jan 19 04:48	29°♈41'37	
	4302 Oct 06 12:21	0°♈			4305 Jan 23 03:06	0°♈	
	4302 Oct 30 21:24	0°♈		greatest brilliancy	4305 Jan 31 20:32	2°♈40'19	-4.7m
desc. node	4302 Nov 03 12:45	4°♈28'25			4305 Mar 07 23:13	0°♈	
	4302 Nov 24 07:46	0°♈		morning max el	4305 Mar 10 18:36	2°♈48'30	46°57'28
	4302 Dec 18 20:14	0°♈			4305 Apr 05 02:47	0°♈	
	4303 Jan 12 13:31	0°♈		desc. node	4305 Apr 20 07:52	17°♈20'01	
	4303 Feb 06 19:10	0°♑			4305 May 01 05:07	0°♑	
asc. node	4303 Feb 24 14:53	20°♑24'18			4305 May 26 13:18	0°♄	
	4303 Mar 05 08:06	0°♄			4305 Jun 20 13:41	0°♈	
evening max el	4303 Mar 17 21:37	13°♄09'45	46°49'17		4305 Jul 15 09:58	0°♊	
	4303 Apr 05 00:56	0°♈			4305 Aug 09 02:42	0°♈	
greatest brilliancy	4303 Apr 23 02:58	12°♈11'11	-4.6m	asc. node	4305 Aug 11 10:02	2°♈48'38	
retrograde	4303 May 07 06:30	15°♈48'11			4305 Sep 02 15:22	0°♈	
evening set	4303 May 23 02:44	10°♈51'37		morning set	4305 Sep 08 20:04	7°♈36'54	
inferior conj	4303 May 28 10:18	7°♈37'42	4°23'17		4305 Sep 26 23:49	0°♈	
minimum elong	4303 May 28 18:59	7°♈24'07	4°20'57	max. Earth dist.	4305 Oct 12 10:51	19°♈08'25	1.72731 AU
min. Earth dist.	4303 May 28 07:26	7°♈42'11	0.28208 AU				
morning rise	4303 Jun 03 11:43	3°♈59'57		superior conj	4305 Oct 15 09:25	22°♈47'14	1°22'30
	4303 Jun 13 21:18	30°♈♄		minimum elong	4305 Oct 15 14:07	23°♈01'48	1°22'27
desc. node	4303 Jun 16 05:26	29°♈40'02			4305 Oct 21 04:56	0°♈	
direct	4303 Jun 18 14:10	29°♈33'21			4305 Nov 14 07:59	0°♈	
	4303 Jun 23 09:54	0°♈		evening rise	4305 Nov 22 07:55	9°♈57'21	
greatest brilliancy	4303 Jun 30 17:27	2°♈11'49	-4.5m	desc. node	4305 Dec 01 00:42	20°♈47'38	
morning max el	4303 Aug 06 11:12	29°♈31'33	45°44'30		4305 Dec 08 09:58	0°♈	
	4303 Aug 06 23:07	0°♊			4306 Jan 01 11:27	0°♈	
	4303 Sep 04 23:27	0°♈			4306 Jan 25 13:20	0°♈	
	4303 Oct 01 13:59	0°♈			4306 Feb 18 18:01	0°♑	
asc. node	4303 Oct 07 07:49	6°♈40'40			4306 Mar 15 06:05	0°♄	
	4303 Oct 27 00:23	0°♈		asc. node	4306 Mar 24 02:45	10°♈41'20	
	4303 Nov 20 17:42	0°♈			4306 Apr 09 09:09	0°♈	
	4303 Dec 15 00:36	0°♈			4306 May 05 17:43	0°♊	
desc. node	4304 Jan 08 01:35	0°♈		evening max el	4306 May 27 22:01	23°♈08'31	45°50'23
	4304 Jan 26 22:15	23°♈39'13			4306 Jun 04 03:27	0°♈	
	4304 Jan 31 23:30	0°♈		greatest brilliancy	4306 Jul 01 12:38	20°♈04'39	-4.5m
morning set	4304 Feb 03 01:47	2°♈37'55		desc. node	4306 Jul 13 17:18	23°♈39'32	
	4304 Feb 24 20:10	0°♈		retrograde	4306 Jul 15 23:56	23°♈45'31	
				evening set	4306 Jul 31 16:12	19°♈02'58	
superior conj	4304 Mar 15 11:53	24°♈42'12	-1°-24'-47	min. Earth dist.	4306 Aug 06 05:24	15°♈41'51	0.29024 AU
minimum elong	4304 Mar 15 06:43	24°♈25'56	1°24'45	inferior conj	4306 Aug 06 13:03	15°♈29'49	-5°-15'-30

minimum elong	4306 Aug 06 03:36	15° Ω 44'41	5°13'19	desc. node	4308 Dec 28 12:28	6° Ξ 56'12	
morning rise	4306 Aug 11 15:04	12° Ω 23'17			4309 Jan 15 21:19	0° \approx	
direct	4306 Aug 28 03:07	7° Ω 13'43		evening rise	4309 Feb 05 02:04	25° \approx 23'01	
greatest brilliancy	4306 Sep 10 15:15	10° Ω 24'21	-4.5m		4309 Feb 08 18:15	0° H	
	4306 Oct 08 05:53	0° M			4309 Mar 04 16:08	0° Υ	
morning max el	4306 Oct 16 01:52	7° M 19'35	45°54'40		4309 Mar 28 17:18	0° B	
asc. node	4306 Nov 03 19:40	26° M 34'22		asc. node	4309 Apr 20 14:48	28° B 16'01	
	4306 Nov 06 23:35	0° A			4309 Apr 22 00:44	0° II	
	4306 Dec 03 09:50	0° M			4309 May 16 17:50	0° Ξ	
	4306 Dec 28 12:41	0° A			4309 Jun 11 01:42	0° Ω	
	4307 Jan 22 00:27	0° Ξ			4309 Jul 07 11:00	0° M	
	4307 Feb 15 04:53	0° \approx			4309 Aug 05 04:55	0° A	
desc. node	4307 Feb 23 10:02	10° \approx 14'18		evening max el	4309 Aug 06 14:37	1° A 20'58	45°31'33
	4307 Mar 11 05:58	0° H		desc. node	4309 Aug 10 05:07	4° A 44'39	
	4307 Apr 04 06:07	0° Υ		greatest brilliancy	4309 Sep 12 05:09	28° A 25'51	-4.5m
morning set	4307 Apr 20 13:28	20° Υ 21'19			4309 Sep 16 21:45	0° M	
	4307 Apr 28 07:13	0° B		retrograde	4309 Sep 24 06:39	0° M 59'57	
	4307 May 22 10:38	0° II			4309 Oct 01 09:00	30° R A	
				evening set	4309 Oct 12 05:11	24° A 58'51	
superior conj	4307 May 29 08:54	8° II 34'50	0°-41'-46	inferior conj	4309 Oct 15 12:44	22° A 57'02	-8°-24'-57
minimum elong	4307 May 29 17:26	9° II 01'15	0°41'26	minimum elong	4309 Oct 15 17:40	22° A 49'23	8°24'37
max. Earth dist.	4307 Jun 01 12:09	12° II 27'37	1.72776 AU	min. Earth dist.	4309 Oct 16 06:45	22° A 29'05	0.28537 AU
	4307 Jun 15 16:53	0° Ξ		morning rise	4309 Oct 19 05:57	20° A 40'23	
asc. node	4307 Jun 16 12:28	1° Ξ 00'24		direct	4309 Nov 05 22:25	14° A 44'05	
evening rise	4307 Jul 06 01:45	25° Ξ 05'03		greatest brilliancy	4309 Nov 20 13:17	18° A 33'53	-4.6m
	4307 Jul 10 01:45	0° Ω		asc. node	4309 Dec 01 07:26	25° A 09'07	
	4307 Aug 03 13:01	0° M			4309 Dec 07 14:01	0° M	
	4307 Aug 28 03:19	0° A		morning max el	4309 Dec 26 06:53	17° M 17'53	46°38'35
	4307 Sep 21 22:07	0° M			4310 Jan 07 10:07	0° A	
desc. node	4307 Oct 06 02:52	17° M 02'39			4310 Feb 02 23:26	0° Ξ	
	4307 Oct 16 23:29	0° A			4310 Feb 28 04:59	0° \approx	
	4307 Nov 11 10:32	0° Ξ		desc. node	4310 Mar 22 22:00	27° \approx 35'38	
	4307 Dec 07 15:15	0° \approx			4310 Mar 24 21:14	0° H	
evening max el	4308 Jan 02 06:27	27° \approx 30'28	47°08'24		4310 Apr 18 07:44	0° Υ	
	4308 Jan 04 18:05	0° H			4310 May 12 16:26	0° B	
asc. node	4308 Jan 27 05:04	19° H 55'11			4310 Jun 06 01:22	0° II	
greatest brilliancy	4308 Feb 09 19:51	28° H 07'19	-4.7m	morning set	4310 Jun 30 10:47	29° II 59'04	
	4308 Feb 15 03:22	0° Υ			4310 Jun 30 11:06	0° Ξ	
retrograde	4308 Feb 22 01:38	0° Υ 56'40		asc. node	4310 Jul 14 00:13	16° Ξ 38'46	
	4308 Feb 28 19:31	30° R H			4310 Jul 24 21:01	0° Ω	
evening set	4308 Mar 10 13:44	25° H 01'13					
min. Earth dist.	4308 Mar 13 05:20	23° H 24'06	0.27148 AU	superior conj	4310 Aug 06 08:58	15° Ω 22'00	0°52'00
inferior conj	4308 Mar 13 19:36	23° H 02'01	8°47'14	minimum elong	4310 Aug 06 00:17	14° Ω 55'18	0°51'39
minimum elong	4308 Mar 13 14:32	23° H 09'51	8°46'52	max. Earth dist.	4310 Aug 05 18:49	14° Ω 38'29	1.73499 AU
morning rise	4308 Mar 16 15:28	21° H 17'57			4310 Aug 18 06:20	0° M	
direct	4308 Apr 03 08:32	15° H 15'28		evening rise	4310 Sep 11 08:26	29° M 40'01	
greatest brilliancy	4308 Apr 14 06:46	17° H 28'00	-4.6m		4310 Sep 11 14:55	0° A	
	4308 May 04 10:42	0° Υ			4310 Oct 05 23:27	0° M	
desc. node	4308 May 17 19:39	11° Υ 44'41			4310 Oct 30 08:50	0° A	
morning max el	4308 May 23 02:58	16° Υ 50'53	46°21'28	desc. node	4310 Nov 02 14:50	3° A 59'33	
	4308 Jun 05 00:57	0° B			4310 Nov 23 19:39	0° Ξ	
	4308 Jul 02 11:13	0° II			4310 Dec 18 08:44	0° \approx	
	4308 Jul 28 14:32	0° Ξ			4311 Jan 12 02:57	0° H	
	4308 Aug 23 01:52	0° Ω			4311 Feb 06 10:13	0° Υ	
asc. node	4308 Sep 07 21:56	18° Ω 57'14		asc. node	4311 Feb 23 16:56	19° Υ 42'25	
	4308 Sep 17 01:34	0° M			4311 Mar 05 02:53	0° B	
	4308 Oct 11 15:43	0° A		evening max el	4311 Mar 15 13:36	10° B 53'29	46°51'11
	4308 Nov 04 22:34	0° M			4311 Apr 05 11:52	0° II	
morning set	4308 Nov 17 05:06	15° M 15'40		greatest brilliancy	4311 Apr 20 20:47	9° II 58'28	-4.6m
	4308 Nov 29 00:35	0° A		retrograde	4311 May 04 22:26	13° II 32'50	
	4308 Dec 22 23:46	0° Ξ		evening set	4311 May 20 20:51	8° II 33'04	
max. Earth dist.	4308 Dec 24 05:56	1° Ξ 34'35	1.71446 AU	inferior conj	4311 May 26 01:38	5° II 22'49	4°41'44
				minimum elong	4311 May 26 10:44	5° II 08'35	4°39'22
superior conj	4308 Dec 26 07:25	4° Ξ 09'47	0°05'22	min. Earth dist.	4311 May 25 22:37	5° II 27'33	0.28174 AU
minimum elong	4308 Dec 26 08:46	4° Ξ 14'03	0°05'18	morning rise	4311 Jun 01 01:09	1° II 47'40	
behind sun begin	4308 Dec 25 08:26	2° Ξ 57'41			4311 Jun 04 14:50	30° R B	
behind sun end	4308 Dec 27 09:07	5° Ξ 30'25		desc. node	4311 Jun 15 07:19	27° B 20'18	

direct	4311 Jun 16 05:33	27°♄19'17		4313 Dec 07 21:02	0°♄	
greatest brilliancy	4311 Jun 28 05:42	29°♄54'52	-4.5m	4313 Dec 31 22:44	0°♁	
	4311 Jun 28 10:41	0°♄		4314 Jan 25 00:54	0°♄	
morning max el	4311 Aug 04 02:38	27°♄19'47	45°44'53	4314 Feb 18 05:58	0°♄	
	4311 Aug 06 21:07	0°♄		4314 Mar 14 18:41	0°♄	
	4311 Sep 04 15:01	0°♄		4314 Mar 23 04:52	10°♄08'51	
asc. node	4311 Oct 01 03:15	0°♄		4314 Apr 08 22:59	0°♄	
	4311 Oct 06 09:54	6°♄08'53		4314 May 05 10:19	0°♄	
	4311 Oct 26 12:35	0°♄		4314 May 25 12:45	20°♄53'44	45°52'09
	4311 Nov 20 05:21	0°♄		4314 Jun 04 05:21	0°♄	
	4311 Dec 14 11:57	0°♄		4314 Jun 29 03:22	17°♄53'29	-4.5m
	4312 Jan 07 12:47	0°♄		4314 Jul 12 19:19	21°♄36'18	
desc. node	4312 Jan 26 00:11	23°♄10'17		4314 Jul 13 16:23	21°♄37'12	
morning set	4312 Jan 31 11:50	0°♁03'45		4314 Jul 29 06:37	16°♄57'07	
	4312 Jan 31 10:39	0°♁		4314 Aug 04 05:32	13°♄21'26	-4°-59'-45
	4312 Feb 24 07:17	0°♄		4314 Aug 03 20:18	13°♄35'56	4°57'33
				4314 Aug 03 21:46	13°♄33'37	0.29005 AU
superior conj	4312 Mar 12 22:32	22°♄10'06	-1°-23'-50	4314 Aug 09 10:03	10°♄11'28	
minimum elong	4312 Mar 12 16:23	21°♄50'48	1°23'47	4314 Aug 25 18:53	5°♄05'28	
max. Earth dist.	4312 Mar 15 15:49	25°♄35'07	1.71318 AU	4314 Sep 08 07:27	8°♄16'14	-4.5m
	4312 Mar 19 04:12	0°♄		4314 Oct 08 06:51	0°♄	
	4312 Apr 12 03:05	0°♄		4314 Oct 13 17:08	5°♄07'33	45°53'36
evening rise	4312 Apr 22 10:00	12°♄49'57		4314 Nov 02 21:43	25°♄54'44	
	4312 May 06 05:37	0°♄		4314 Nov 06 15:46	0°♄	
asc. node	4312 May 18 02:40	14°♄41'18		4314 Dec 02 23:25	0°♄	
	4312 May 30 13:09	0°♄		4314 Dec 28 01:08	0°♄	
	4312 Jun 24 02:45	0°♄		4315 Jan 21 12:20	0°♄	
	4312 Jul 19 00:11	0°♄		4315 Feb 14 16:24	0°♁	
	4312 Aug 13 09:04	0°♄		4315 Feb 22 12:13	9°♁45'32	
desc. node	4312 Sep 06 16:57	27°♄56'18		4315 Mar 10 17:12	0°♄	
	4312 Sep 08 12:59	0°♄		4315 Apr 03 17:08	0°♄	
	4312 Oct 06 06:06	0°♄		4315 Apr 18 02:00	17°♄56'35	
evening max el	4312 Oct 18 00:38	11°♄47'44	46°14'30	4315 Apr 27 18:05	0°♄	
	4312 Nov 07 19:23	0°♄		4315 May 21 21:25	0°♄	
greatest brilliancy	4312 Nov 25 11:43	10°♄28'47	-4.6m			
retrograde	4312 Dec 06 11:07	12°♄40'54		4315 May 26 23:49	6°♄19'13	0°-44'-50
evening set	4312 Dec 20 22:27	8°♄36'13		4315 May 27 08:50	6°♄47'08	0°44'28
inferior conj	4312 Dec 27 02:35	5°♄00'10	0°-26'-15	4315 May 30 03:05	10°♄12'09	1.72729 AU
minimum elong	4312 Dec 27 03:35	4°♄58'37	0°25'56	4315 Jun 15 03:37	0°♄	
min. Earth dist.	4312 Dec 27 10:57	4°♄47'22	0.26756 AU	4315 Jun 15 14:25	0°♄33'22	
asc. node	4312 Dec 28 19:11	3°♄58'16		4315 Jul 03 19:07	22°♄57'57	
morning rise	4313 Jan 02 08:13	1°♄21'05		4315 Jul 09 12:29	0°♄	
	4313 Jan 05 01:31	30°♄		4315 Aug 02 23:53	0°♄	
direct	4313 Jan 16 17:30	27°♄15'13		4315 Aug 27 14:28	0°♄	
	4313 Jan 28 21:06	0°♄		4315 Sep 21 09:48	0°♄	
greatest brilliancy	4313 Jan 29 12:36	0°♄17'00	-4.7m	4315 Oct 05 04:58	16°♄32'44	
	4313 Mar 07 22:50	0°♁		4315 Oct 16 12:02	0°♄	
morning max el	4313 Mar 08 06:53	0°♁20'21	46°57'49	4315 Nov 11 00:32	0°♄	
	4313 Apr 04 19:27	0°♄		4315 Dec 07 08:02	0°♁	
desc. node	4313 Apr 19 09:58	16°♄42'52		4315 Dec 30 20:23	25°♁07'00	47°07'31
	4313 Apr 30 19:11	0°♄		4316 Jan 04 18:24	0°♄	
	4313 May 26 02:00	0°♄		4316 Jan 26 07:11	18°♄36'15	
	4313 Jun 20 01:32	0°♄		4316 Feb 07 09:04	25°♄40'46	-4.7m
	4313 Jul 14 21:15	0°♄		4316 Feb 19 15:25	28°♄30'39	
	4313 Aug 08 13:39	0°♄		4316 Mar 07 23:13	22°♄40'36	
asc. node	4313 Aug 10 12:08	2°♄21'45		4316 Mar 10 17:43	20°♄59'25	0.27109 AU
	4313 Sep 02 02:06	0°♄		4316 Mar 11 08:36	20°♄36'27	8°41'26
morning set	4313 Sep 06 13:47	5°♄30'48		4316 Mar 11 02:42	20°♄45'33	8°40'55
	4313 Sep 26 10:31	0°♄		4316 Mar 14 06:20	18°♄49'54	
max. Earth dist.	4313 Oct 10 04:14	17°♄00'22	1.72779 AU	4316 Mar 31 21:25	12°♄50'24	
				4316 Apr 11 19:33	15°♄03'32	-4.6m
superior conj	4313 Oct 13 02:32	20°♄38'13	1°23'16	4316 May 04 21:28	0°♄	
minimum elong	4313 Oct 13 06:34	20°♄50'45	1°23'14	4316 May 16 21:37	10°♄49'54	
	4313 Oct 20 15:40	0°♄		4316 May 20 17:25	14°♄32'12	46°23'06
	4313 Nov 13 18:52	0°♄		4316 Jun 04 19:38	0°♄	
evening rise	4313 Nov 19 22:13	7°♄38'25		4316 Jul 02 01:50	0°♄	
desc. node	4313 Nov 30 02:41	20°♄19'27		4316 Jul 28 03:19	0°♄	

	4316 Aug 22 13:38	0°♌			4319 Mar 04 21:48	0°♎	
asc. node	4316 Sep 07 00:01	18°♌29'18		evening max el	4319 Mar 13 04:32	8°♎35'12	46°52'45
	4316 Sep 16 12:45	0°♍			4319 Apr 06 02:16	0°♏	
	4316 Oct 11 02:35	0°♎		greatest brilliancy	4319 Apr 18 15:05	7°♏46'24	-4.6m
	4316 Nov 04 09:17	0°♏		retrograde	4319 May 02 13:36	11°♏17'11	
morning set	4316 Nov 14 20:27	13°♏00'43		evening set	4319 May 18 14:51	6°♏14'07	
	4316 Nov 28 11:17	0°♐		inferior conj	4319 May 23 16:47	3°♏07'45	4°59'59
max. Earth dist.	4316 Dec 21 17:56	29°♐08'02	1.71482 AU	minimum elong	4319 May 24 02:14	2°♏52'56	4°57'34
	4316 Dec 22 10:31	0°♑		min. Earth dist.	4319 May 23 13:56	3°♏12'14	0.28143 AU
					4319 May 28 20:31	30°♑	
superior conj	4316 Dec 23 19:29	1°♑43'21	0°09'09	morning rise	4319 May 29 14:07	29°♑35'19	
minimum elong	4316 Dec 23 21:47	1°♑50'35	0°09'03	direct	4319 Jun 13 20:24	25°♑04'54	
behind sun begin	4316 Dec 23 00:24	0°♑43'33		desc. node	4319 Jun 14 09:22	25°♑05'14	
behind sun end	4316 Dec 24 19:10	2°♑57'38		greatest brilliancy	4319 Jun 25 18:26	27°♑38'14	-4.5m
desc. node	4316 Dec 27 14:28	6°♑28'40			4319 Jun 30 18:36	0°♒	
	4317 Jan 15 08:09	0°♒		morning max el	4319 Aug 01 16:57	25°♒05'31	45°45'25
evening rise	4317 Feb 02 12:49	22°♒51'44			4319 Aug 06 18:10	0°♓	
	4317 Feb 08 05:11	0°♓			4319 Sep 04 06:08	0°♌	
	4317 Mar 04 03:10	0°♔			4319 Sep 30 16:12	0°♍	
	4317 Mar 28 04:31	0°♕		asc. node	4319 Oct 05 11:52	5°♍37'33	
asc. node	4317 Apr 19 16:46	27°♕46'55			4319 Oct 26 00:29	0°♎	
	4317 Apr 21 12:13	0°♏			4319 Nov 19 16:44	0°♏	
	4317 May 16 05:52	0°♐			4319 Dec 13 23:02	0°♑	
	4317 Jun 10 14:49	0°♒			4320 Jan 06 23:43	0°♑	
	4317 Jul 07 02:27	0°♓		desc. node	4320 Jan 25 02:21	22°♑42'57	
evening max el	4317 Aug 04 06:31	29°♓10'46	45°31'07	morning set	4320 Jan 28 22:21	27°♑31'56	
	4317 Aug 05 03:11	0°♔			4320 Jan 30 21:29	0°♒	
desc. node	4317 Aug 09 07:15	3°♔53'24			4320 Feb 23 18:04	0°♓	
greatest brilliancy	4317 Sep 09 18:09	26°♔11'52	-4.5m				
retrograde	4317 Sep 21 21:37	28°♔47'26		superior conj	4320 Mar 10 09:31	19°♓40'09	-1°-22'-44
evening set	4317 Oct 09 21:31	22°♔44'23		minimum elong	4320 Mar 10 02:26	19°♓17'54	1°22'38
inferior conj	4317 Oct 13 04:01	20°♔43'50	-8°-29'-19	max. Earth dist.	4320 Mar 12 22:33	22°♓51'49	1.71286 AU
minimum elong	4317 Oct 13 08:12	20°♔37'20	8°29'05		4320 Mar 18 14:56	0°♔	
min. Earth dist.	4317 Oct 13 20:48	20°♔17'44	0.28587 AU		4320 Apr 11 13:49	0°♕	
morning rise	4317 Oct 16 18:43	18°♔30'43		evening rise	4320 Apr 19 22:14	10°♕25'01	
direct	4317 Nov 03 14:45	12°♔30'34			4320 May 05 16:25	0°♏	
greatest brilliancy	4317 Nov 18 03:50	16°♔18'20	-4.6m	asc. node	4320 May 17 04:37	14°♏13'47	
asc. node	4317 Nov 30 09:20	23°♔57'19			4320 May 30 00:06	0°♐	
	4317 Dec 07 22:11	0°♑			4320 Jun 23 14:00	0°♑	
morning max el	4317 Dec 23 21:51	15°♑00'17	46°37'04		4320 Jul 18 11:59	0°♒	
	4318 Jan 07 04:06	0°♓			4320 Aug 12 21:54	0°♓	
	4318 Feb 02 13:54	0°♔		desc. node	4320 Sep 05 19:01	27°♔21'01	
	4318 Feb 27 17:55	0°♒			4320 Sep 08 03:50	0°♑	
desc. node	4318 Mar 22 00:03	27°♒04'41			4320 Oct 06 01:47	0°♓	
	4318 Mar 24 09:20	0°♓		evening max el	4320 Oct 15 12:53	9°♓24'46	46°12'19
	4318 Apr 17 19:19	0°♔			4320 Nov 08 14:20	0°♕	
	4318 May 12 03:37	0°♕		greatest brilliancy	4320 Nov 23 01:28	8°♕05'18	-4.6m
	4318 Jun 05 12:15	0°♏		retrograde	4320 Dec 03 23:04	10°♕16'03	
morning set	4318 Jun 28 03:42	27°♏50'49		evening set	4320 Dec 18 12:15	6°♕09'23	
	4318 Jun 29 21:45	0°♐		inferior conj	4320 Dec 24 15:18	2°♕35'08	0°-50'-19
asc. node	4318 Jul 13 02:17	16°♐12'34		minimum elong	4320 Dec 24 17:13	2°♕32'11	0°49'42
	4318 Jul 24 07:33	0°♑		min. Earth dist.	4320 Dec 25 01:28	2°♕19'37	0.26792 AU
max. Earth dist.	4318 Aug 03 16:12	12°♑44'14	1.73498 AU	asc. node	4320 Dec 27 21:20	0°♕37'10	
					4320 Dec 28 22:49	30°♕	
superior conj	4318 Aug 04 02:49	13°♑16'53	0°49'26	morning rise	4320 Dec 30 21:33	28°♕55'04	
minimum elong	4318 Aug 03 18:19	12°♑50'47	0°49'05	direct	4321 Jan 14 06:03	24°♕49'09	
	4318 Aug 17 16:52	0°♒		greatest brilliancy	4321 Jan 27 05:17	27°♕55'08	-4.7m
evening rise	4318 Sep 09 02:25	27°♒34'48			4321 Jan 31 07:48	0°♖	
	4318 Sep 11 01:34	0°♓		morning max el	4321 Mar 05 19:50	27°♖54'32	46°58'23
	4318 Oct 05 10:18	0°♑			4321 Mar 07 21:09	0°♒	
	4318 Oct 29 19:58	0°♓			4321 Apr 04 11:31	0°♓	
desc. node	4318 Nov 01 16:47	3°♓31'10		desc. node	4321 Apr 18 11:55	16°♓06'30	
	4318 Nov 23 07:12	0°♔			4321 Apr 30 08:50	0°♔	
	4318 Dec 17 20:53	0°♒			4321 May 25 14:23	0°♕	
	4319 Jan 11 16:04	0°♓			4321 Jun 19 13:10	0°♏	
	4319 Feb 06 01:03	0°♔			4321 Jul 14 08:25	0°♐	
asc. node	4319 Feb 22 18:59	19°♔01'07			4321 Aug 08 00:31	0°♑	

asc. node	4321 Aug 09 14:12	1°♌54'59		min. Earth dist.	4324 Mar 08 05:53	18°♋34'04	0.27068 AU
	4321 Sep 01 12:48	0°♎		inferior conj	4324 Mar 08 21:30	18°♋09'58	8°34'37
morning set	4321 Sep 04 07:13	3°♎24'01		minimum elong	4324 Mar 08 14:51	18°♋20'14	8°33'57
	4321 Sep 25 21:08	0°♊		morning rise	4324 Mar 11 21:26	16°♋20'22	
max. Earth dist.	4321 Oct 07 23:25	14°♊58'05	1.72823 AU	direct	4324 Mar 29 10:36	10°♋24'38	
				greatest brilliancy	4324 Apr 09 07:26	12°♋37'13	-4.6m
superior conj	4321 Oct 10 19:23	18°♊28'43	1°23'55		4324 May 05 05:37	0°♎	
minimum elong	4321 Oct 10 22:44	18°♊39'05	1°23'53	desc. node	4324 May 15 23:37	9°♎55'47	
	4321 Oct 20 02:20	0°♍		morning max el	4324 May 18 07:52	12°♎12'59	46°24'51
	4321 Nov 13 05:41	0°♈			4324 Jun 04 13:59	0°♏	
evening rise	4321 Nov 17 12:28	5°♈19'40			4324 Jul 01 16:21	0°♐	
desc. node	4321 Nov 29 04:40	19°♈51'33			4324 Jul 27 16:06	0°♑	
	4321 Dec 07 08:04	0°♑			4324 Aug 22 01:28	0°♒	
	4321 Dec 31 10:00	0°♒		asc. node	4324 Sep 06 01:57	18°♒00'31	
	4322 Jan 24 12:25	0°♋			4324 Sep 16 00:04	0°♎	
	4322 Feb 17 17:52	0°♎			4324 Oct 10 13:39	0°♊	
	4322 Mar 14 07:13	0°♏			4324 Nov 03 20:16	0°♍	
asc. node	4322 Mar 22 06:51	9°♏36'19		morning set	4324 Nov 12 11:45	10°♍44'51	
	4322 Apr 08 12:47	0°♐			4324 Nov 27 22:16	0°♈	
	4322 May 05 03:02	0°♑		max. Earth dist.	4324 Dec 19 03:29	26°♈33'04	1.71517 AU
evening max el	4322 May 23 03:55	18°♑40'30	45°53'53				
	4322 Jun 04 08:37	0°♒		superior conj	4324 Dec 21 07:30	29°♈16'05	0°12'56
greatest brilliancy	4322 Jun 26 17:40	15°♒41'56	-4.5m	minimum elong	4324 Dec 21 10:44	29°♈26'10	0°12'46
retrograde	4322 Jul 11 09:16	19°♒28'51		behind sun begin	4324 Dec 20 18:53	28°♈36'31	
desc. node	4322 Jul 11 21:26	19°♒28'32		behind sun end	4324 Dec 22 02:34	0°♑15'50	
evening set	4322 Jul 26 21:07	14°♒50'54			4324 Dec 21 21:31	0°♑	
inferior conj	4322 Aug 01 21:57	11°♒12'47	-4°-43'-22	desc. node	4324 Dec 26 16:35	6°♑00'44	
minimum elong	4322 Aug 01 13:00	11°♒26'47	4°41'11		4325 Jan 14 19:13	0°♒	
min. Earth dist.	4322 Aug 01 13:50	11°♒25'29	0.28991 AU	evening rise	4325 Jan 30 23:25	20°♒19'12	
morning rise	4322 Aug 07 04:58	7°♒59'31			4325 Feb 07 16:21	0°♋	
direct	4322 Aug 23 10:57	2°♒56'53			4325 Mar 03 14:29	0°♎	
greatest brilliancy	4322 Sep 05 23:52	6°♒08'11	-4.5m		4325 Mar 27 16:01	0°♏	
	4322 Oct 08 06:44	0°♎		asc. node	4325 Apr 18 18:45	27°♏16'57	
morning max el	4322 Oct 11 09:16	2°♎57'30	45°52'31		4325 Apr 21 00:01	0°♐	
asc. node	4322 Nov 01 23:41	25°♎15'01			4325 May 15 18:12	0°♑	
	4322 Nov 06 07:47	0°♊			4325 Jun 10 04:14	0°♒	
	4322 Dec 02 12:56	0°♍			4325 Jul 06 18:20	0°♎	
	4322 Dec 27 13:34	0°♈		evening max el	4325 Aug 01 22:00	26°♎59'08	45°30'42
	4323 Jan 21 00:12	0°♑			4325 Aug 05 02:35	0°♊	
	4323 Feb 14 03:55	0°♒		desc. node	4325 Aug 08 09:14	3°♊00'26	
desc. node	4323 Feb 21 14:08	9°♒15'52		greatest brilliancy	4325 Sep 07 07:56	23°♊58'36	-4.5m
	4323 Mar 10 04:27	0°♋		retrograde	4325 Sep 19 12:17	26°♊34'58	
	4323 Apr 03 04:11	0°♎		evening set	4325 Oct 07 13:44	20°♊30'29	
morning set	4323 Apr 15 14:39	15°♎32'04		inferior conj	4325 Oct 10 19:32	18°♊30'42	-8°-32'-48
	4323 Apr 27 04:58	0°♏		minimum elong	4325 Oct 10 22:57	18°♊25'21	8°32'38
	4323 May 21 08:10	0°♐		min. Earth dist.	4325 Oct 11 11:21	18°♊06'02	0.28640 AU
				morning rise	4325 Oct 14 08:01	16°♊20'35	
superior conj	4323 May 24 14:57	4°♐04'10	0°-47'-48	direct	4325 Nov 01 06:53	10°♊16'59	
minimum elong	4323 May 25 00:23	4°♐33'24	0°47'25	greatest brilliancy	4325 Nov 15 18:40	14°♊02'31	-4.6m
max. Earth dist.	4323 May 27 19:58	8°♐02'40	1.72680 AU	asc. node	4325 Nov 29 11:28	22°♊47'07	
asc. node	4323 Jun 14 16:32	0°♑06'51			4325 Dec 08 04:26	0°♍	
	4323 Jun 14 14:19	0°♑		morning max el	4325 Dec 21 12:10	12°♍39'55	46°35'26
evening rise	4323 Jul 01 12:44	20°♑51'37			4326 Jan 06 22:06	0°♈	
	4323 Jul 08 23:14	0°♒			4326 Feb 02 04:37	0°♑	
	4323 Aug 02 10:49	0°♎			4326 Feb 27 07:09	0°♒	
	4323 Aug 27 01:45	0°♊		desc. node	4326 Mar 21 02:02	26°♒32'34	
	4323 Sep 20 21:40	0°♍			4326 Mar 23 21:44	0°♋	
desc. node	4323 Oct 04 06:52	16°♍01'40			4326 Apr 17 07:11	0°♎	
	4323 Oct 16 00:50	0°♈			4326 May 11 15:06	0°♏	
	4323 Nov 10 14:51	0°♑			4326 Jun 04 23:26	0°♐	
	4323 Dec 07 01:20	0°♒		morning set	4326 Jun 25 20:47	25°♐42'03	
evening max el	4323 Dec 28 11:01	22°♒44'54	47°06'35		4326 Jun 29 08:43	0°♑	
	4324 Jan 04 20:10	0°♋		asc. node	4326 Jul 12 04:22	15°♑45'28	
asc. node	4324 Jan 25 09:14	17°♋14'00			4326 Jul 23 18:24	0°♒	
greatest brilliancy	4324 Feb 04 22:27	23°♋13'50	-4.7m				
retrograde	4324 Feb 17 05:18	26°♋03'41		superior conj	4326 Aug 01 21:00	11°♒12'00	0°46'48
evening set	4324 Mar 05 08:27	20°♋19'31		minimum elong	4326 Aug 01 12:46	10°♒46'39	0°46'28

max. Earth dist.	4326 Aug 01 12:28	10°Ω45'44	1.73491 AU	direct	4329 Jan 11 19:15	22°♂23'00	
	4326 Aug 17 03:41	0°♍		greatest brilliancy	4329 Jan 24 22:13	25°♂33'19	-4.7m
evening rise	4326 Sep 06 20:50	25°♍30'09			4329 Feb 01 21:35	0°♂	
	4326 Sep 10 12:28	0°♌		morning max el	4329 Mar 03 09:58	25°♂30'39	46°58'36
	4326 Oct 04 21:26	0°♍			4329 Mar 07 19:04	0°≈	
	4326 Oct 29 07:27	0°♂			4329 Apr 04 03:47	0°♂	
desc. node	4326 Oct 31 18:51	3°♂02'11		desc. node	4329 Apr 17 13:58	15°♂29'14	
	4326 Nov 22 19:10	0°♂			4329 Apr 29 22:48	0°♍	
	4326 Dec 17 09:33	0°≈			4329 May 25 03:07	0°♂	
	4327 Jan 11 05:45	0°♂			4329 Jun 19 01:07	0°♌	
	4327 Feb 05 16:35	0°♍			4329 Jul 13 19:52	0°♌	
asc. node	4327 Feb 21 20:57	18°♍17'40			4329 Aug 07 11:38	0°♌	
	4327 Mar 04 17:49	0°♂		asc. node	4329 Aug 08 16:07	1°♌26'54	
evening max el	4327 Mar 10 18:23	6°♂12'38	46°54'24		4329 Aug 31 23:44	0°♍	
	4327 Apr 06 22:28	0°♌		morning set	4329 Sep 02 00:46	1°♍16'54	
greatest brilliancy	4327 Apr 16 09:07	5°♌32'27	-4.6m		4329 Sep 25 07:59	0°♌	
retrograde	4327 Apr 30 04:28	9°♌00'12		max. Earth dist.	4329 Oct 05 19:43	12°♌58'39	1.72861 AU
evening set	4327 May 16 08:52	3°♌53'31					
inferior conj	4327 May 21 07:53	0°♌51'22	5°17'45	superior conj	4329 Oct 08 12:36	16°♌19'36	1°24'26
minimum elong	4327 May 21 17:38	0°♌36'04	5°15'20	minimum elong	4329 Oct 08 15:14	16°♌27'47	1°24'25
min. Earth dist.	4327 May 21 05:26	0°♌55'14	0.28110 AU		4329 Oct 19 13:13	0°♌	
	4327 May 22 16:42	30°♌♂			4329 Nov 12 16:40	0°♂	
morning rise	4327 May 27 02:49	27°♂21'55		evening rise	4329 Nov 15 03:15	3°♂02'10	
direct	4327 Jun 11 10:43	22°♂49'02		desc. node	4329 Nov 28 06:48	19°♂23'39	
desc. node	4327 Jun 13 11:31	22°♂53'49			4329 Dec 06 19:15	0°♂	
greatest brilliancy	4327 Jun 23 08:03	25°♂21'16	-4.5m		4329 Dec 30 21:25	0°≈	
	4327 Jul 02 07:26	0°♌			4330 Jan 24 00:09	0°♂	
morning max el	4327 Jul 30 06:59	22°♌49'24	45°46'13		4330 Feb 17 06:02	0°♍	
	4327 Aug 06 14:53	0°♌			4330 Mar 13 20:09	0°♂	
	4327 Sep 03 21:22	0°♌		asc. node	4330 Mar 21 08:50	9°♂02'38	
	4327 Sep 30 05:20	0°♍			4330 Apr 08 03:06	0°♌	
asc. node	4327 Oct 04 13:53	5°♍05'46			4330 May 04 20:33	0°♌	
	4327 Oct 25 12:37	0°♌		evening max el	4330 May 20 19:50	16°♌27'55	45°55'49
	4327 Nov 19 04:20	0°♌			4330 Jun 04 14:17	0°♌	
	4327 Dec 13 10:25	0°♂		greatest brilliancy	4330 Jun 24 08:38	13°♌30'07	-4.5m
	4328 Jan 06 11:00	0°♂		retrograde	4330 Jul 09 02:18	17°♌19'06	
desc. node	4328 Jan 24 04:20	22°♂13'50		desc. node	4330 Jul 10 23:22	17°♌14'54	
morning set	4328 Jan 26 08:35	24°♂57'55		evening set	4330 Jul 24 11:42	12°♌43'21	
	4328 Jan 30 08:44	0°≈		min. Earth dist.	4330 Jul 30 05:32	9°♌16'25	0.28969 AU
	4328 Feb 23 05:17	0°♂		inferior conj	4330 Jul 30 14:11	9°♌02'52	-4°-26'-33
				minimum elong	4330 Jul 30 05:34	9°♌16'20	4°24'24
superior conj	4328 Mar 07 19:58	17°♂07'04	-1°-21'-25	morning rise	4330 Aug 04 23:39	5°♌46'29	
minimum elong	4328 Mar 07 11:59	16°♂42'00	1°21'18	direct	4330 Aug 21 03:18	0°♌47'17	
max. Earth dist.	4328 Mar 10 00:48	19°♂53'02	1.71257 AU	greatest brilliancy	4330 Sep 03 15:07	3°♌58'00	-4.5m
	4328 Mar 18 02:07	0°♍			4330 Oct 08 05:46	0°♍	
	4328 Apr 11 00:58	0°♂		morning max el	4330 Oct 09 01:44	0°♍47'59	45°51'33
evening rise	4328 Apr 17 09:55	7°♂57'04		asc. node	4330 Nov 01 01:47	24°♍35'44	
	4328 May 05 03:36	0°♌			4330 Nov 05 23:38	0°♌	
asc. node	4328 May 16 06:44	13°♌45'42			4330 Dec 02 02:25	0°♌	
	4328 May 29 11:25	0°♌			4330 Dec 27 01:59	0°♂	
	4328 Jun 23 01:39	0°♌			4331 Jan 20 12:03	0°♂	
	4328 Jul 18 00:11	0°♍			4331 Feb 13 15:25	0°≈	
	4328 Aug 12 11:08	0°♌		desc. node	4331 Feb 20 16:09	8°≈46'28	
desc. node	4328 Sep 04 20:58	26°♌44'25			4331 Mar 09 15:43	0°♂	
	4328 Sep 07 19:09	0°♌			4331 Apr 02 15:18	0°♍	
	4328 Oct 05 22:18	0°♂		morning set	4331 Apr 13 02:59	13°♍06'12	
evening max el	4328 Oct 13 01:32	7°♂02'38	46°10'19		4331 Apr 26 15:59	0°♂	
	4328 Nov 09 16:09	0°♂			4331 May 20 19:06	0°♌	
greatest brilliancy	4328 Nov 20 14:07	5°♂40'48	-4.6m				
retrograde	4328 Dec 01 11:38	7°♂51'38		superior conj	4331 May 22 05:29	1°♌46'35	0°-50'-43
evening set	4328 Dec 16 02:26	3°♂42'23		minimum elong	4331 May 22 15:17	2°♌16'59	0°50'21
inferior conj	4328 Dec 22 04:12	0°♂10'08	-1°-14'-2	max. Earth dist.	4331 May 25 13:02	5°♌53'05	1.72634 AU
minimum elong	4328 Dec 22 07:02	0°♂05'49	1°13'08	asc. node	4331 Jun 13 18:32	29°♌39'28	
	4328 Dec 22 10:51	30°♌♂			4331 Jun 14 01:12	0°♌	
min. Earth dist.	4328 Dec 22 15:48	29°♂52'27	0.26838 AU	evening rise	4331 Jun 29 05:42	18°♌42'45	
asc. node	4328 Dec 26 23:20	27°♂18'36			4331 Jul 08 10:08	0°♌	
morning rise	4328 Dec 28 10:56	26°♂29'34			4331 Aug 01 21:52	0°♍	

	4331 Aug 26 13:09	0°♄			4334 Apr 16 18:40	0°♃		
	4331 Sep 20 09:40	0°♌			4334 May 11 02:12	0°♎		
desc. node	4331 Oct 03 08:57	15°♌30'55			4334 Jun 04 10:15	0°♊		
	4331 Oct 15 13:45	0°♈		morning set	4334 Jun 23 13:46	23°♊33'54		
	4331 Nov 10 05:20	0°♈			4334 Jun 28 19:21	0°♎		
	4331 Dec 06 18:55	0°♊		asc. node	4334 Jul 11 06:17	15°♎18'44		
evening max el	4331 Dec 26 02:04	20°♊24'14	47°05'38		4334 Jul 23 04:57	0°♌		
	4332 Jan 04 23:11	0°♈						
asc. node	4332 Jan 24 11:09	15°♈49'27		superior conj	4334 Jul 30 14:57	9°♌07'12	0°44'06	
greatest brilliancy	4332 Feb 02 12:42	20°♈48'49	-4.7m	minimum elong	4334 Jul 30 07:00	8°♌42'45	0°43'46	
retrograde	4332 Feb 14 19:06	23°♈37'24		max. Earth dist.	4334 Jul 30 07:05	8°♌43'01	1.73490 AU	
evening set	4332 Mar 02 17:37	17°♈59'47			4334 Aug 16 14:16	0°♎		
inferior conj	4332 Mar 06 10:32	15°♈44'23	8°26'48	evening rise	4334 Sep 04 14:55	23°♎25'17		
minimum elong	4332 Mar 06 03:09	15°♈55'46	8°25'58		4334 Sep 09 23:09	0°♄		
min. Earth dist.	4332 Mar 05 18:19	16°♈09'25	0.27028 AU		4334 Oct 04 08:19	0°♌		
morning rise	4332 Mar 09 12:55	13°♈51'10			4334 Oct 28 18:40	0°♈		
direct	4332 Mar 26 23:57	7°♈59'57		desc. node	4334 Oct 30 20:54	2°♈33'56		
greatest brilliancy	4332 Apr 06 19:07	10°♈11'13	-4.6m		4334 Nov 22 06:53	0°♈		
	4332 May 05 11:16	0°♃			4334 Dec 16 21:57	0°♊		
desc. node	4332 May 15 01:47	9°♃03'24			4335 Jan 10 19:12	0°♈		
morning max el	4332 May 15 21:38	9°♃52'10	46°26'15		4335 Feb 05 07:58	0°♃		
	4332 Jun 04 07:52	0°♎		asc. node	4335 Feb 20 23:02	17°♃35'05		
	4332 Jul 01 06:46	0°♊			4335 Mar 04 13:59	0°♎		
	4332 Jul 27 04:51	0°♎		evening max el	4335 Mar 08 07:44	3°♎49'55	46°56'08	
	4332 Aug 21 13:17	0°♌			4335 Apr 08 01:15	0°♊		
asc. node	4332 Sep 05 04:01	17°♌32'11		greatest brilliancy	4335 Apr 14 02:21	3°♊18'38	-4.6m	
	4332 Sep 15 11:20	0°♎		retrograde	4335 Apr 27 19:32	6°♊44'47		
	4332 Oct 10 00:38	0°♄		evening set	4335 May 14 02:58	1°♊34'05		
	4332 Nov 03 07:08	0°♌			4335 May 16 17:31	30°♎♎		
morning set	4332 Nov 10 02:57	8°♌29'06		inferior conj	4335 May 18 23:03	28°♎36'24	5°34'54	
	4332 Nov 27 09:07	0°♈		minimum elong	4335 May 19 09:02	28°♎20'45	5°32'31	
max. Earth dist.	4332 Dec 16 10:59	23°♈52'10	1.71553 AU	min. Earth dist.	4335 May 18 20:56	28°♎39'44	0.28078 AU	
				morning rise	4335 May 24 15:27	25°♎10'24		
superior conj	4332 Dec 18 19:47	26°♈50'04	0°16'40	direct	4335 Jun 09 00:42	20°♎34'27		
minimum elong	4332 Dec 18 23:53	27°♈02'54	0°16'28	desc. node	4335 Jun 12 13:23	20°♎48'43		
	4332 Dec 21 08:24	0°♈		greatest brilliancy	4335 Jun 20 22:15	23°♎06'28	-4.5m	
desc. node	4332 Dec 25 18:32	5°♈32'40			4335 Jul 03 08:36	0°♊		
	4333 Jan 14 06:09	0°♊		morning max el	4335 Jul 27 21:35	20°♊35'50	45°46'55	
evening rise	4333 Jan 28 10:17	17°♊48'04			4335 Aug 06 10:26	0°♎		
	4333 Feb 07 03:21	0°♈			4335 Sep 03 12:01	0°♌		
	4333 Mar 03 01:35	0°♃			4335 Sep 29 18:03	0°♎		
	4333 Mar 27 03:16	0°♎		asc. node	4335 Oct 03 15:57	4°♎35'04		
asc. node	4333 Apr 17 20:53	26°♎48'11			4335 Oct 25 00:24	0°♄		
	4333 Apr 20 11:35	0°♊			4335 Nov 18 15:38	0°♌		
	4333 May 15 06:23	0°♎			4335 Dec 12 21:27	0°♈		
	4333 Jun 09 17:38	0°♌			4336 Jan 05 21:54	0°♈		
	4333 Jul 06 10:25	0°♎		desc. node	4336 Jan 23 06:16	21°♈45'45		
evening max el	4333 Jul 30 12:37	24°♎45'30	45°30'19	morning set	4336 Jan 23 18:50	22°♈25'12		
	4333 Aug 05 03:05	0°♄			4336 Jan 29 19:35	0°♊		
desc. node	4333 Aug 07 11:13	2°♄06'29			4336 Feb 22 16:06	0°♈		
greatest brilliancy	4333 Sep 04 21:48	21°♄45'23	-4.5m					
retrograde	4333 Sep 17 02:41	24°♄22'41		superior conj	4336 Mar 05 06:21	14°♈34'55	-1°-19'-57	
evening set	4333 Oct 05 05:30	18°♄17'17		minimum elong	4336 Mar 04 21:34	14°♈07'18	1°19'48	
inferior conj	4333 Oct 08 10:57	16°♄17'53	-8°-35'-25	max. Earth dist.	4336 Mar 07 03:16	16°♈56'06	1.71233 AU	
minimum elong	4333 Oct 08 13:36	16°♄13'46	8°35'20		4336 Mar 17 12:55	0°♃		
min. Earth dist.	4333 Oct 09 02:07	15°♄54'12	0.28688 AU		4336 Apr 10 11:44	0°♎		
morning rise	4333 Oct 11 21:30	14°♄10'23		evening rise	4336 Apr 14 21:39	5°♎30'25		
direct	4333 Oct 29 22:17	8°♄03'36			4336 May 04 14:24	0°♊		
greatest brilliancy	4333 Nov 13 09:46	11°♄47'38	-4.6m	asc. node	4336 May 15 08:43	13°♊18'24		
asc. node	4333 Nov 28 13:31	21°♄39'09			4336 May 28 22:21	0°♎		
	4333 Dec 08 08:25	0°♌			4336 Jun 22 12:52	0°♌		
morning max el	4333 Dec 19 01:53	10°♌18'46	46°33'53		4336 Jul 17 11:59	0°♎		
	4334 Jan 06 15:25	0°♈			4336 Aug 12 00:03	0°♄		
	4334 Feb 01 18:52	0°♈		desc. node	4336 Sep 03 23:03	26°♄08'49		
	4334 Feb 26 20:00	0°♊			4336 Sep 07 10:21	0°♌		
desc. node	4334 Mar 20 04:05	26°♊01'42			4336 Oct 05 19:14	0°♈		
	4334 Mar 23 09:46	0°♈		evening max el	4336 Oct 10 15:04	4°♈43'34	46°08'13	

	4336 Nov 11 04:10	0°☾		morning set	4339 Apr 10 15:04	10°♊40'07	
greatest brilliancy	4336 Nov 18 02:01	3°☾16'04	-4.6m		4339 Apr 26 02:46	0°♋	
retrograde	4336 Nov 29 00:30	5°☾27'33					
evening set	4336 Dec 13 16:40	1°☾15'37		superior conj	4339 May 19 19:54	29°♌29'19	0°-53'-34
	4336 Dec 15 22:56	30°♌♌		minimum elong	4339 May 20 06:01	0°♍00'41	0°53'12
inferior conj	4336 Dec 19 16:55	27°♌45'26	-1°-37'-36		4339 May 20 05:48	0°♍	
minimum elong	4336 Dec 19 20:37	27°♌39'48	1°36'26	max. Earth dist.	4339 May 23 07:38	3°♍48'54	1.72585 AU
min. Earth dist.	4336 Dec 20 05:39	27°♌26'03	0.26883 AU	asc. node	4339 Jun 12 20:29	29°♍12'36	
morning rise	4336 Dec 25 23:54	24°♌04'49			4339 Jun 13 11:51	0°☊	
asc. node	4336 Dec 26 01:15	24°♌03'01		evening rise	4339 Jun 26 22:41	16°☊34'32	
direct	4337 Jan 09 08:48	19°♌57'22			4339 Jul 07 20:50	0°♎	
greatest brilliancy	4337 Jan 22 14:05	23°♌11'00	-4.7m		4339 Aug 01 08:44	0°♏	
	4337 Feb 02 23:47	0°☾			4339 Aug 26 00:22	0°♐	
morning max el	4337 Mar 01 00:48	23°☾09'40	46°58'47		4339 Sep 19 21:28	0°♑	
	4337 Mar 07 15:48	0°♑		desc. node	4339 Oct 02 11:02	15°♑00'44	
	4337 Apr 03 19:22	0°♒			4339 Oct 15 02:32	0°♓	
desc. node	4337 Apr 16 16:02	14°♒53'31			4339 Nov 09 19:49	0°☿	
	4337 Apr 29 12:14	0°♊			4339 Dec 06 12:50	0°♑	
	4337 May 24 15:22	0°♋		evening max el	4339 Dec 23 16:29	18°♑01'57	47°04'14
	4337 Jun 18 12:39	0°♌			4340 Jan 05 04:02	0°♒	
	4337 Jul 13 06:55	0°☊		asc. node	4340 Jan 23 13:15	14°♒21'28	
	4337 Aug 06 22:21	0°♎		greatest brilliancy	4340 Jan 31 03:42	18°♒23'43	-4.7m
asc. node	4337 Aug 07 18:12	1°♎00'36		retrograde	4340 Feb 12 08:06	21°♒09'36	
morning set	4337 Aug 30 18:31	29°♎11'38		evening set	4340 Feb 29 02:18	15°♒39'08	
	4337 Aug 31 10:16	0°♏		inferior conj	4340 Mar 03 23:14	13°♒17'38	8°17'59
	4337 Sep 24 18:29	0°♐		minimum elong	4340 Mar 03 15:10	13°♒30'05	8°16'57
max. Earth dist.	4337 Oct 03 15:43	10°♐59'21	1.72904 AU	min. Earth dist.	4340 Mar 03 06:58	13°♒42'46	0.26986 AU
				morning rise	4340 Mar 07 04:17	11°♒20'19	
superior conj	4337 Oct 06 05:49	14°♐11'37	1°24'49	direct	4340 Mar 24 12:30	5°♒34'03	
minimum elong	4337 Oct 06 07:45	14°♐17'36	1°24'50	greatest brilliancy	4340 Apr 04 07:19	7°♒44'44	-4.6m
	4337 Oct 18 23:48	0°♑			4340 May 05 15:08	0°♊	
	4337 Nov 12 03:26	0°♓		morning max el	4340 May 13 10:10	7°♊27'59	46°27'52
evening rise	4337 Nov 12 17:53	0°♓44'56		desc. node	4340 May 14 03:42	8°♊11'18	
desc. node	4337 Nov 27 08:44	18°♓55'50			4340 Jun 04 01:18	0°♋	
	4337 Dec 06 06:13	0°☾			4340 Jun 30 20:54	0°♌	
	4337 Dec 30 08:38	0°♑			4340 Jul 26 17:24	0°☊	
	4338 Jan 23 11:39	0°♒			4340 Aug 21 00:57	0°♎	
	4338 Feb 16 17:59	0°♊		asc. node	4340 Sep 04 06:04	17°♎04'08	
	4338 Mar 13 08:50	0°♋			4340 Sep 14 22:29	0°♏	
asc. node	4338 Mar 20 10:56	8°♋30'07			4340 Oct 09 11:31	0°♐	
	4338 Apr 07 17:13	0°♌			4340 Nov 02 17:55	0°♑	
	4338 May 04 14:03	0°☊		morning set	4340 Nov 07 18:37	6°♑15'05	
evening max el	4338 May 18 12:35	14°☊18'23	45°57'45		4340 Nov 26 19:53	0°♓	
	4338 Jun 04 21:41	0°♎		max. Earth dist.	4340 Dec 13 19:53	21°♓15'55	1.71596 AU
greatest brilliancy	4338 Jun 22 00:51	11°♎21'07	-4.5m				
retrograde	4338 Jul 06 19:20	15°♎10'28		superior conj	4340 Dec 16 08:30	24°♓25'40	0°20'19
desc. node	4338 Jul 10 01:24	14°♎57'47		minimum elong	4340 Dec 16 13:25	24°♓41'05	0°20'05
evening set	4338 Jul 22 02:36	10°♎37'02			4340 Dec 20 19:14	0°☾	
inferior conj	4338 Jul 28 06:32	6°♎54'14	-4°-9'-26	desc. node	4340 Dec 24 20:33	5°☾04'58	
minimum elong	4338 Jul 27 22:18	7°♎07'06	4°07'19		4341 Jan 13 17:06	0°♑	
min. Earth dist.	4338 Jul 27 21:20	7°♎08'37	0.28943 AU	evening rise	4341 Jan 25 21:12	15°♑17'00	
morning rise	4338 Aug 02 18:19	3°♎34'44			4341 Feb 06 14:26	0°♒	
	4338 Aug 10 14:14	30°♏☊			4341 Mar 02 12:48	0°♊	
direct	4338 Aug 18 19:59	28°☊39'13			4341 Mar 26 14:40	0°♋	
	4338 Aug 27 09:48	0°♎		asc. node	4341 Apr 16 22:49	26°♋18'24	
greatest brilliancy	4338 Sep 01 05:09	1°♎47'37	-4.5m		4341 Apr 19 23:17	0°♌	
morning max el	4338 Oct 06 17:52	28°♎38'50	45°50'27		4341 May 14 18:42	0°☊	
	4338 Oct 08 03:25	0°♏			4341 Jun 09 07:12	0°♎	
asc. node	4338 Oct 31 03:46	23°♏57'30			4341 Jul 06 02:49	0°♏	
	4338 Nov 05 14:54	0°♐		evening max el	4341 Jul 28 02:48	22°♏30'50	45°30'07
	4338 Dec 01 15:34	0°♑			4341 Aug 05 04:52	0°♐	
	4338 Dec 26 14:10	0°♓		desc. node	4341 Aug 06 13:19	1°♐11'39	
	4339 Jan 19 23:44	0°☾		greatest brilliancy	4341 Sep 02 10:53	19°♐31'40	-4.5m
	4339 Feb 13 02:47	0°♑		retrograde	4341 Sep 14 17:24	22°♐11'21	
desc. node	4339 Feb 19 18:17	8°♑17'52		evening set	4341 Oct 02 21:08	16°♐05'13	
	4339 Mar 09 02:50	0°♒		inferior conj	4341 Oct 06 02:38	14°♐05'50	-8°-37'-16
	4339 Apr 02 02:13	0°♊		minimum elong	4341 Oct 06 04:27	14°♐02'59	8°37'14

min. Earth dist.	4341 Oct 06 17:14	13° 4 43'02	0.28734 AU		4344 Apr 09 22:46	0° 8	
morning rise	4341 Oct 09 11:34	12° 4 00'40		evening rise	4344 Apr 12 09:33	3° 8 03'27	
direct	4341 Oct 27 13:43	5° 4 50'48			4344 May 04 01:30	0° II	
greatest brilliancy	4341 Nov 11 01:59	9° 4 34'43	-4.6m	asc. node	4344 May 14 10:41	12° II 50'01	
asc. node	4341 Nov 27 15:24	20° 4 32'53			4344 May 28 09:38	0° 8	
	4341 Dec 08 10:42	0° III			4344 Jun 22 00:29	0° 9	
morning max el	4341 Dec 16 16:03	7° III 59'02	46°32'27		4344 Jul 17 00:12	0° III	
	4342 Jan 06 08:21	0° 4			4344 Aug 11 13:27	0° 4	
	4342 Feb 01 09:00	0° 8		desc. node	4344 Sep 03 01:05	25° 4 31'48	
	4342 Feb 26 08:52	0° 8			4344 Sep 07 02:09	0° III	
desc. node	4342 Mar 19 06:07	25° 8 30'24			4344 Oct 05 17:20	0° 4	
	4342 Mar 22 21:56	0° II		evening max el	4344 Oct 08 05:29	2° 4 25'59	46°06'13
	4342 Apr 16 06:22	0° Y			4344 Nov 13 12:01	0° 8	
	4342 May 10 13:32	0° 8		greatest brilliancy	4344 Nov 15 13:54	0° 8 51'04	-4.6m
	4342 Jun 03 21:18	0° II		retrograde	4344 Nov 26 13:35	3° 8 03'00	
morning set	4342 Jun 21 06:24	21° II 23'56			4344 Dec 08 22:45	30° R 4	
	4342 Jun 28 06:11	0° 8		evening set	4344 Dec 11 07:16	28° 4 48'24	
asc. node	4342 Jul 10 08:23	14° 8 52'04		inferior conj	4344 Dec 17 05:45	25° 4 20'17	-2°00'52
	4342 Jul 22 15:41	0° 9		minimum elong	4344 Dec 17 10:18	25° 4 13'21	1°59'27
				min. Earth dist.	4344 Dec 17 19:24	24° 4 59'29	0.26929 AU
superior conj	4342 Jul 28 08:46	7° 9 01'28	0°41'20	morning rise	4344 Dec 23 12:44	21° 4 39'47	
minimum elong	4342 Jul 28 01:09	6° 9 38'01	0°41'00	asc. node	4344 Dec 25 03:24	20° 4 50'11	
max. Earth dist.	4342 Jul 28 02:17	6° 9 41'32	1.73485 AU	direct	4345 Jan 06 22:53	17° 4 31'27	
	4342 Aug 16 01:00	0° III		greatest brilliancy	4345 Jan 20 05:13	20° 4 47'02	-4.7m
evening rise	4342 Sep 02 09:12	21° III 20'35			4345 Feb 03 19:24	0° 8	
	4342 Sep 09 10:01	0° 4		morning max el	4345 Feb 26 15:46	20° 8 48'18	46°58'59
	4342 Oct 03 19:24	0° III			4345 Mar 07 12:09	0° 8	
	4342 Oct 28 06:06	0° 4			4345 Apr 03 10:58	0° II	
desc. node	4342 Oct 29 22:51	2° 4 04'47		desc. node	4345 Apr 15 18:00	14° II 16'57	
	4342 Nov 21 18:47	0° 8			4345 Apr 29 01:48	0° Y	
	4342 Dec 16 10:33	0° 8			4345 May 24 03:51	0° 8	
	4343 Jan 10 08:54	0° II			4345 Jun 18 00:28	0° II	
	4343 Feb 04 23:44	0° Y			4345 Jul 12 18:17	0° 8	
asc. node	4343 Feb 20 01:03	16° Y 51'13			4345 Aug 06 09:26	0° 9	
	4343 Mar 04 11:07	0° 8		asc. node	4345 Aug 06 20:16	0° 9 33'05	
evening max el	4343 Mar 05 21:17	1° 8 26'55	46°57'37	morning set	4345 Aug 28 12:11	27° 9 04'59	
	4343 Apr 09 16:41	0° II			4345 Aug 30 21:10	0° III	
greatest brilliancy	4343 Apr 11 18:22	1° II 01'53	-4.6m		4345 Sep 24 05:20	0° 4	
retrograde	4343 Apr 25 10:45	4° II 27'48		max. Earth dist.	4345 Oct 01 10:10	8° 4 54'16	1.72940 AU
	4343 May 10 11:34	30° R 8					
evening set	4343 May 11 20:55	29° 8 12'38		superior conj	4345 Oct 03 23:03	12° 4 02'43	1°25'06
inferior conj	4343 May 16 14:02	26° 8 19'40	5°51'43	minimum elong	4345 Oct 04 00:17	12° 4 06'29	1°25'06
minimum elong	4343 May 17 00:11	26° 8 03'45	5°49'22		4345 Oct 18 10:42	0° III	
min. Earth dist.	4343 May 16 12:06	26° 8 22'41	0.28051 AU	evening rise	4345 Nov 10 08:37	28° III 27'07	
morning rise	4343 May 22 03:44	22° 8 57'35			4345 Nov 11 14:30	0° 4	
direct	4343 Jun 06 14:39	18° 8 17'54		desc. node	4345 Nov 26 10:46	18° 4 27'20	
desc. node	4343 Jun 11 15:27	18° 8 46'42			4345 Dec 05 17:30	0° 8	
greatest brilliancy	4343 Jun 18 12:38	20° 8 50'21	-4.5m		4345 Dec 29 20:10	0° 8	
	4343 Jul 04 03:46	0° II			4346 Jan 22 23:30	0° II	
morning max el	4343 Jul 25 13:00	18° II 23'03	45°47'48		4346 Feb 16 06:17	0° Y	
	4343 Aug 06 05:51	0° 8			4346 Mar 12 21:54	0° 8	
	4343 Sep 03 02:48	0° 9		asc. node	4346 Mar 19 12:54	7° 8 56'10	
	4343 Sep 29 06:57	0° III			4346 Apr 07 07:46	0° II	
asc. node	4343 Oct 02 17:55	4° III 03'27			4346 May 04 08:16	0° 8	
	4343 Oct 24 12:23	0° 4		evening max el	4346 May 16 05:14	12° 8 07'42	45°59'33
	4343 Nov 18 03:09	0° III			4346 Jun 05 08:20	0° 9	
	4343 Dec 12 08:43	0° 4		greatest brilliancy	4346 Jun 19 17:52	9° 9 12'08	-4.5m
	4344 Jan 05 09:04	0° 8		retrograde	4346 Jul 04 11:57	13° 9 00'39	
morning set	4344 Jan 21 05:43	19° 8 53'46		desc. node	4346 Jul 09 03:30	12° 9 34'46	
desc. node	4344 Jan 22 08:26	21° 8 17'40		evening set	4346 Jul 19 17:42	8° 9 29'32	
	4344 Jan 29 06:41	0° 8		inferior conj	4346 Jul 25 22:53	4° 9 44'36	-3°-51'-53
	4344 Feb 22 03:09	0° II		minimum elong	4346 Jul 25 15:06	4° 9 56'47	3°49'51
				min. Earth dist.	4346 Jul 25 13:29	4° 9 59'20	0.28919 AU
superior conj	4344 Mar 02 17:04	12° II 03'01	-1°-18'-19	morning rise	4346 Jul 31 12:53	1° 9 21'51	
minimum elong	4344 Mar 02 07:32	11° II 33'05	1°18'07		4346 Aug 03 02:18	30° R 8	
max. Earth dist.	4344 Mar 04 09:49	14° II 11'09	1.71212 AU	direct	4346 Aug 16 12:34	26° 8 30'10	
	4344 Mar 16 23:55	0° Y		greatest brilliancy	4346 Aug 29 18:36	29° 8 35'17	-4.5m

	4346 Aug 30 16:37	0°♈			4349 Apr 19 11:12	0°♈	
morning max el	4346 Oct 04 09:20	26°♈26'57	45°49'25		4349 May 14 07:15	0°♈	
	4346 Oct 08 00:44	0°♈			4349 Jun 08 21:03	0°♈	
asc. node	4346 Oct 30 05:46	23°♈18'29			4349 Jul 05 19:40	0°♈	
	4346 Nov 05 06:21	0°♈		evening max el	4349 Jul 25 16:57	20°♈15'54	45°30'04
	4346 Dec 01 04:57	0°♈			4349 Aug 05 08:19	0°♈	
	4346 Dec 26 02:36	0°♈		desc. node	4349 Aug 05 15:19	0°♈15'07	
	4347 Jan 19 11:39	0°♈		greatest brilliancy	4349 Aug 30 22:37	17°♈16'15	-4.5m
	4347 Feb 12 14:23	0°♈		retrograde	4349 Sep 12 08:30	19°♈59'58	
desc. node	4347 Feb 18 20:13	7°♈47'48		evening set	4349 Sep 30 12:21	13°♈53'20	
	4347 Mar 08 14:13	0°♈		inferior conj	4349 Oct 03 18:17	11°♈53'29	-8°-38'-20
	4347 Apr 01 13:27	0°♈		minimum elong	4349 Oct 03 19:17	11°♈51'54	8°38'20
morning set	4347 Apr 08 03:07	8°♈12'57		min. Earth dist.	4349 Oct 04 08:03	11°♈31'59	0.28783 AU
	4347 Apr 25 13:51	0°♈		morning rise	4349 Oct 07 02:01	9°♈50'14	
				direct	4349 Oct 25 05:22	3°♈37'40	
superior conj	4347 May 17 10:25	27°♈11'24	0°-56'-21	greatest brilliancy	4349 Nov 08 19:05	7°♈22'49	-4.6m
minimum elong	4347 May 17 20:45	27°♈43'30	0°55'58	asc. node	4349 Nov 26 17:34	19°♈28'22	
	4347 May 19 16:45	0°♈			4349 Dec 08 11:49	0°♈	
max. Earth dist.	4347 May 21 02:32	1°♈44'44	1.72530 AU	morning max el	4349 Dec 14 07:08	5°♈41'14	46°30'56
asc. node	4347 Jun 11 22:37	28°♈45'31			4350 Jan 06 01:10	0°♈	
	4347 Jun 12 22:45	0°♈			4350 Jan 31 23:10	0°♈	
evening rise	4347 Jun 24 15:42	14°♈25'34			4350 Feb 25 21:46	0°♈	
	4347 Jul 07 07:48	0°♈		desc. node	4350 Mar 18 08:06	24°♈58'52	
	4347 Jul 31 19:54	0°♈			4350 Mar 22 10:05	0°♈	
	4347 Aug 25 11:55	0°♈			4350 Apr 15 18:02	0°♈	
	4347 Sep 19 09:39	0°♈			4350 May 10 00:50	0°♈	
desc. node	4347 Oct 01 12:56	14°♈28'54			4350 Jun 03 08:20	0°♈	
	4347 Oct 14 15:44	0°♈		morning set	4350 Jun 18 22:57	19°♈13'34	
	4347 Nov 09 10:46	0°♈			4350 Jun 27 17:03	0°♈	
	4347 Dec 06 07:28	0°♈		asc. node	4350 Jul 09 10:25	14°♈25'07	
evening max el	4347 Dec 21 06:03	15°♈36'50	47°02'54		4350 Jul 22 02:26	0°♈	
	4348 Jan 05 11:16	0°♈					
asc. node	4348 Jan 22 15:17	12°♈49'40		superior conj	4350 Jul 26 02:38	4°♈55'46	0°38'30
greatest brilliancy	4348 Jan 28 19:03	15°♈58'31	-4.7m	minimum elong	4350 Jul 25 19:21	4°♈33'24	0°38'10
retrograde	4348 Feb 09 20:42	18°♈41'31		max. Earth dist.	4350 Jul 25 22:34	4°♈43'18	1.73478 AU
evening set	4348 Feb 26 11:01	13°♈18'09			4350 Aug 15 11:45	0°♈	
min. Earth dist.	4348 Feb 29 20:07	11°♈15'17	0.26947 AU	evening rise	4350 Aug 31 03:41	19°♈16'39	
inferior conj	4348 Mar 01 12:04	10°♈50'37	8°08'11		4350 Sep 08 20:51	0°♈	
minimum elong	4348 Mar 01 03:24	11°♈04'02	8°06'57		4350 Oct 03 06:28	0°♈	
morning rise	4348 Mar 04 20:00	8°♈48'53			4350 Oct 27 17:31	0°♈	
direct	4348 Mar 22 00:39	3°♈07'35		desc. node	4350 Oct 29 00:57	1°♈36'09	
greatest brilliancy	4348 Apr 01 20:49	5°♈19'02	-4.6m		4350 Nov 21 06:45	0°♈	
	4348 May 05 17:39	0°♈			4350 Dec 15 23:17	0°♈	
morning max el	4348 May 10 22:25	5°♈02'14	46°29'34		4351 Jan 09 22:47	0°♈	
desc. node	4348 May 13 05:44	7°♈19'46			4351 Feb 04 15:47	0°♈	
	4348 Jun 03 18:35	0°♈		asc. node	4351 Feb 19 03:01	16°♈06'29	
	4348 Jun 30 11:04	0°♈		evening max el	4351 Mar 03 11:42	29°♈06'06	46°59'18
	4348 Jul 26 06:03	0°♈			4351 Mar 04 09:02	0°♈	
	4348 Aug 20 12:45	0°♈		greatest brilliancy	4351 Apr 09 09:36	28°♈44'09	-4.6m
asc. node	4348 Sep 03 08:01	16°♈35'16			4351 Apr 12 08:17	0°♈	
	4348 Sep 14 09:49	0°♈		retrograde	4351 Apr 23 02:18	2°♈10'41	
	4348 Oct 08 22:37	0°♈			4351 May 03 09:53	30°♈	
	4348 Nov 02 04:55	0°♈		evening set	4351 May 09 14:52	26°♈50'51	
morning set	4348 Nov 05 10:12	4°♈00'03		inferior conj	4351 May 14 04:53	24°♈02'38	6°08'03
	4348 Nov 26 06:53	0°♈		minimum elong	4351 May 14 15:11	23°♈46'33	6°05'44
max. Earth dist.	4348 Dec 11 06:03	18°♈42'58	1.71638 AU	min. Earth dist.	4351 May 14 02:46	24°♈05'56	0.28023 AU
				morning rise	4351 May 19 15:46	20°♈44'55	
superior conj	4348 Dec 13 21:08	22°♈00'25	0°23'56	direct	4351 Jun 04 05:04	16°♈01'11	
minimum elong	4348 Dec 14 02:50	22°♈18'18	0°23'40	desc. node	4351 Jun 10 17:36	16°♈49'17	
	4348 Dec 20 06:16	0°♈		greatest brilliancy	4351 Jun 16 02:20	18°♈33'32	-4.5m
desc. node	4348 Dec 23 22:41	4°♈37'00			4351 Jul 04 17:59	0°♈	
	4349 Jan 13 04:12	0°♈		morning max el	4351 Jul 23 05:07	16°♈12'14	45°48'41
evening rise	4349 Jan 23 08:05	12°♈45'28			4351 Aug 06 00:37	0°♈	
	4349 Feb 06 01:39	0°♈			4351 Sep 02 17:17	0°♈	
	4349 Mar 02 00:09	0°♈			4351 Sep 28 19:38	0°♈	
	4349 Mar 26 02:14	0°♈		asc. node	4351 Oct 01 19:56	3°♈32'30	
asc. node	4349 Apr 16 00:49	25°♈48'16			4351 Oct 24 00:10	0°♈	

	4351 Nov 17 14:29	0°♌			4354 Jun 05 22:18	0°♌	
	4351 Dec 11 19:50	0°♌		greatest brilliancy	4354 Jun 17 11:15	7°♌04'04	-4.5m
	4352 Jan 04 20:06	0°♌		retrograde	4354 Jul 02 04:00	10°♌51'25	
morning set	4352 Jan 18 16:28	17°♌22'16		desc. node	4354 Jul 08 05:25	10°♌07'32	
desc. node	4352 Jan 21 10:24	20°♌49'15		evening set	4354 Jul 17 08:53	6°♌22'23	
	4352 Jan 28 17:42	0°♌		min. Earth dist.	4354 Jul 23 05:55	2°♌50'16	0.28892 AU
	4352 Feb 21 14:07	0°♌		inferior conj	4354 Jul 23 15:11	2°♌35'43	-3°-33'-55
				minimum elong	4354 Jul 23 07:54	2°♌47'10	3°31'58
superior conj	4352 Feb 29 03:11	9°♌29'27	-1°-16'-30		4354 Jul 27 20:25	30°♌09'43	
minimum elong	4352 Feb 28 16:59	8°♌57'23	1°16'16	morning rise	4354 Jul 29 07:16	29°♌09'43	
max. Earth dist.	4352 Mar 01 17:38	11°♌30'20	1.71193 AU	direct	4354 Aug 14 04:40	24°♌21'50	
	4352 Mar 16 10:51	0°♌		greatest brilliancy	4354 Aug 27 08:17	27°♌23'55	-4.5m
	4352 Apr 09 09:41	0°♌			4354 Sep 01 13:15	0°♌	
evening rise	4352 Apr 09 20:54	0°♌35'00		morning max el	4354 Oct 01 23:54	24°♌13'48	45°48'27
	4352 May 03 12:29	0°♌			4354 Oct 07 20:58	0°♌	
asc. node	4352 May 13 12:48	12°♌22'37		asc. node	4354 Oct 29 07:51	22°♌41'04	
	4352 May 27 20:47	0°♌			4354 Nov 04 21:13	0°♌	
	4352 Jun 21 11:57	0°♌			4354 Nov 30 17:53	0°♌	
	4352 Jul 16 12:19	0°♌			4354 Dec 25 14:37	0°♌	
	4352 Aug 11 02:45	0°♌			4355 Jan 18 23:10	0°♌	
desc. node	4352 Sep 02 03:04	24°♌54'55			4355 Feb 12 01:34	0°♌	
	4352 Sep 06 17:58	0°♌		desc. node	4355 Feb 17 22:14	7°♌19'18	
	4352 Oct 05 16:00	0°♌			4355 Mar 08 01:12	0°♌	
evening max el	4352 Oct 05 20:23	0°♌10'33	46°04'15		4355 Apr 01 00:17	0°♌	
greatest brilliancy	4352 Nov 13 02:19	28°♌28'08	-4.6m	morning set	4355 Apr 05 15:01	5°♌46'19	
	4352 Nov 18 04:23	0°♌			4355 Apr 25 00:35	0°♌	
retrograde	4352 Nov 24 02:27	0°♌39'45					
	4352 Nov 29 20:14	30°♌09'43		superior conj	4355 May 15 00:39	24°♌53'35	0°-59'-2
evening set	4352 Dec 08 22:12	26°♌22'38		minimum elong	4355 May 15 11:10	25°♌26'11	0°58'40
inferior conj	4352 Dec 14 18:44	22°♌56'38	-2°-23'-45	max. Earth dist.	4355 May 18 19:20	29°♌34'58	1.72477 AU
minimum elong	4352 Dec 15 00:05	22°♌48'28	2°22'06		4355 May 19 03:25	0°♌	
min. Earth dist.	4352 Dec 15 09:15	22°♌34'28	0.26978 AU	asc. node	4355 Jun 11 00:36	28°♌18'57	
morning rise	4352 Dec 21 01:26	19°♌16'21			4355 Jun 12 09:22	0°♌	
asc. node	4352 Dec 24 05:22	17°♌43'06		evening rise	4355 Jun 22 08:17	12°♌16'06	
direct	4353 Jan 04 13:05	15°♌07'11			4355 Jul 06 18:27	0°♌	
greatest brilliancy	4353 Jan 17 19:53	18°♌23'34	-4.7m		4355 Jul 31 06:45	0°♌	
	4353 Feb 04 09:37	0°♌			4355 Aug 24 23:09	0°♌	
morning max el	4353 Feb 24 05:58	18°♌25'34	46°58'50		4355 Sep 18 21:32	0°♌	
	4353 Mar 07 07:39	0°♌		desc. node	4355 Sep 30 15:03	13°♌58'37	
	4353 Apr 03 02:11	0°♌			4355 Oct 14 04:41	0°♌	
desc. node	4353 Apr 14 20:03	13°♌41'20			4355 Nov 09 01:33	0°♌	
	4353 Apr 28 15:06	0°♌			4355 Dec 06 02:11	0°♌	
	4353 May 23 16:05	0°♌		evening max el	4355 Dec 18 18:54	13°♌11'13	47°01'37
	4353 Jun 17 12:00	0°♌			4356 Jan 05 20:28	0°♌	
	4353 Jul 12 05:22	0°♌		asc. node	4356 Jan 21 17:13	11°♌15'50	
asc. node	4353 Aug 05 22:10	0°♌05'56		greatest brilliancy	4356 Jan 26 10:06	13°♌34'22	-4.7m
	4353 Aug 05 20:13	0°♌		retrograde	4356 Feb 07 09:16	16°♌15'18	
morning set	4353 Aug 26 05:49	24°♌59'08		evening set	4356 Feb 23 19:46	10°♌58'43	
	4353 Aug 30 07:48	0°♌		min. Earth dist.	4356 Feb 27 09:32	8°♌49'20	0.26909 AU
	4353 Sep 23 15:55	0°♌		inferior conj	4356 Feb 28 01:02	8°♌25'24	7°57'22
max. Earth dist.	4353 Sep 29 02:40	6°♌44'06	1.72975 AU	minimum elong	4356 Feb 27 15:48	8°♌39'39	7°55'57
				morning rise	4356 Mar 02 12:00	6°♌19'10	
superior conj	4353 Oct 01 16:31	9°♌55'22	1°25'15	direct	4356 Mar 19 12:43	0°♌42'39	
minimum elong	4353 Oct 01 17:00	9°♌56'54	1°25'14	greatest brilliancy	4356 Mar 30 11:16	2°♌56'03	-4.6m
	4353 Oct 17 21:21	0°♌			4356 May 05 18:13	0°♌	
evening rise	4353 Nov 07 23:38	26°♌11'13		morning max el	4356 May 08 10:55	2°♌38'19	46°31'10
	4353 Nov 11 01:16	0°♌		desc. node	4356 May 12 07:52	6°♌30'43	
desc. node	4353 Nov 25 12:53	18°♌00'09			4356 Jun 03 11:05	0°♌	
	4353 Dec 05 04:28	0°♌			4356 Jun 30 00:45	0°♌	
	4353 Dec 29 07:22	0°♌			4356 Jul 25 18:18	0°♌	
	4354 Jan 22 11:03	0°♌			4356 Aug 20 00:12	0°♌	
	4354 Feb 15 18:20	0°♌		asc. node	4356 Sep 02 10:05	16°♌07'47	
	4354 Mar 12 10:46	0°♌			4356 Sep 13 20:49	0°♌	
asc. node	4354 Mar 18 14:54	7°♌22'54			4356 Oct 08 09:22	0°♌	
	4354 Apr 06 22:15	0°♌			4356 Nov 01 15:35	0°♌	
	4354 May 04 02:42	0°♌		morning set	4356 Nov 03 01:48	1°♌46'15	
evening max el	4354 May 13 21:08	9°♌55'35	46°01'26		4356 Nov 25 17:33	0°♌	

max. Earth dist.	4356 Dec 08 18:42	16°♂18'49	1.71682 AU	direct	4359 Jun 01 19:53	13°♂45'01	
				desc. node	4359 Jun 09 19:28	14°♂56'35	
superior conj	4356 Dec 11 09:53	19°♂36'33	0°27'30	greatest brilliancy	4359 Jun 13 14:53	16°♂15'53	-4.5m
minimum elong	4356 Dec 11 16:20	19°♂56'44	0°27'12		4359 Jul 05 04:17	0°♂	
	4356 Dec 19 17:01	0°♂		morning max el	4359 Jul 20 21:16	14°♂02'00	45°49'33
desc. node	4356 Dec 23 00:37	4°♂09'23			4359 Aug 05 18:42	0°♂	
	4357 Jan 12 15:02	0°♂			4359 Sep 02 07:28	0°♂	
evening rise	4357 Jan 20 19:13	10°♂15'41			4359 Sep 28 08:11	0°♂	
	4357 Feb 05 12:34	0°♂		asc. node	4359 Sep 30 22:02	3°♂02'03	
	4357 Mar 01 11:11	0°♂			4359 Oct 23 11:54	0°♂	
	4357 Mar 25 13:26	0°♂			4359 Nov 17 01:46	0°♂	
asc. node	4357 Apr 15 02:56	25°♂19'38			4359 Dec 11 06:56	0°♂	
	4357 Apr 18 22:45	0°♂			4360 Jan 04 07:07	0°♂	
	4357 May 13 19:30	0°♂		morning set	4360 Jan 16 03:21	14°♂51'20	
	4357 Jun 08 10:42	0°♂		desc. node	4360 Jan 20 12:23	20°♂21'03	
	4357 Jul 05 12:33	0°♂			4360 Jan 28 04:40	0°♂	
evening max el	4357 Jul 23 07:51	18°♂03'41	45°30'06		4360 Feb 21 01:05	0°♂	
desc. node	4357 Aug 04 17:19	29°♂18'07					
	4357 Aug 05 13:13	0°♂		superior conj	4360 Feb 26 13:17	6°♂55'47	-1°-14'-30
greatest brilliancy	4357 Aug 28 10:04	15°♂01'27	-4.5m	minimum elong	4360 Feb 26 02:32	6°♂21'59	1°14'15
retrograde	4357 Sep 10 00:16	17°♂49'38		max. Earth dist.	4360 Feb 28 02:33	8°♂53'00	1.71176 AU
evening set	4357 Sep 28 03:20	11°♂42'59			4360 Mar 15 21:48	0°♂	
inferior conj	4357 Oct 01 10:00	9°♂42'06	-8°-38'-31	evening rise	4360 Apr 07 08:11	28°♂06'07	
minimum elong	4357 Oct 01 10:13	9°♂41'45	8°38'32		4360 Apr 08 20:39	0°♂	
min. Earth dist.	4357 Oct 01 22:34	9°♂22'30	0.28828 AU		4360 May 02 23:31	0°♂	
morning rise	4357 Oct 04 16:56	7°♂40'15		asc. node	4360 May 12 14:46	11°♂54'35	
direct	4357 Oct 22 21:31	1°♂25'41			4360 May 27 07:58	0°♂	
greatest brilliancy	4357 Nov 06 12:05	5°♂12'01	-4.6m		4360 Jun 20 23:27	0°♂	
asc. node	4357 Nov 25 19:34	18°♂26'00			4360 Jul 16 00:27	0°♂	
	4357 Dec 08 11:23	0°♂			4360 Aug 10 16:10	0°♂	
morning max el	4357 Dec 11 22:58	3°♂26'23	46°29'19	desc. node	4360 Sep 01 05:09	24°♂17'54	
	4358 Jan 05 17:22	0°♂			4360 Sep 06 10:06	0°♂	
	4358 Jan 31 12:55	0°♂		evening max el	4360 Oct 03 10:54	27°♂53'57	46°02'06
	4358 Feb 25 10:21	0°♂			4360 Oct 05 15:48	0°♂	
desc. node	4358 Mar 17 10:10	24°♂28'21		greatest brilliancy	4360 Nov 10 15:50	26°♂06'17	-4.6m
	4358 Mar 21 21:58	0°♂		retrograde	4360 Nov 21 14:52	28°♂16'24	
	4358 Apr 15 05:25	0°♂		evening set	4360 Dec 06 13:23	23°♂56'38	
	4358 May 09 11:51	0°♂		inferior conj	4360 Dec 12 07:51	20°♂33'03	-2°-46'-11
	4358 Jun 02 19:05	0°♂		minimum elong	4360 Dec 12 13:57	20°♂23'42	2°44'20
morning set	4358 Jun 16 15:45	17°♂04'42		min. Earth dist.	4360 Dec 12 23:28	20°♂09'10	0.27029 AU
	4358 Jun 27 03:39	0°♂		morning rise	4360 Dec 18 13:57	16°♂53'03	
asc. node	4358 Jul 08 12:21	13°♂58'40		asc. node	4360 Dec 23 07:20	14°♂40'25	
	4358 Jul 21 12:58	0°♂		direct	4361 Jan 02 02:59	12°♂42'54	
				greatest brilliancy	4361 Jan 15 10:48	16°♂00'06	-4.7m
superior conj	4358 Jul 23 20:33	2°♂50'55	0°35'37		4361 Feb 04 20:22	0°♂	
minimum elong	4358 Jul 23 13:41	2°♂29'49	0°35'18	morning max el	4361 Feb 21 19:07	15°♂59'46	46°58'38
max. Earth dist.	4358 Jul 23 20:28	2°♂50'41	1.73474 AU		4361 Mar 07 02:44	0°♂	
	4358 Aug 14 22:18	0°♂			4361 Apr 02 17:18	0°♂	
evening rise	4358 Aug 28 22:15	17°♂13'27		desc. node	4361 Apr 13 22:09	13°♂05'40	
	4358 Sep 08 07:31	0°♂			4361 Apr 28 04:27	0°♂	
	4358 Oct 02 17:22	0°♂			4361 May 23 04:25	0°♂	
	4358 Oct 27 04:49	0°♂			4361 Jun 16 23:42	0°♂	
desc. node	4358 Oct 28 02:59	1°♂07'47			4361 Jul 11 16:37	0°♂	
	4358 Nov 20 18:37	0°♂		asc. node	4361 Aug 05 00:18	29°♂39'04	
	4358 Dec 15 11:55	0°♂			4361 Aug 05 07:09	0°♂	
	4359 Jan 09 12:39	0°♂		morning set	4361 Aug 23 23:42	22°♂53'38	
	4359 Feb 04 08:00	0°♂			4361 Aug 29 18:33	0°♂	
asc. node	4359 Feb 18 05:07	15°♂21'44			4361 Sep 23 02:39	0°♂	
evening max el	4359 Mar 01 03:06	26°♂48'00	47°00'50	max. Earth dist.	4361 Sep 26 19:25	4°♂34'21	1.73014 AU
	4359 Mar 04 07:44	0°♂					
greatest brilliancy	4359 Apr 07 01:29	26°♂27'34	-4.6m	superior conj	4361 Sep 29 10:15	7°♂48'34	1°25'15
retrograde	4359 Apr 20 18:10	29°♂53'41		minimum elong	4361 Sep 29 10:02	7°♂47'53	1°25'16
evening set	4359 May 07 08:54	24°♂29'23			4361 Oct 17 08:11	0°♂	
inferior conj	4359 May 11 19:44	21°♂45'50	6°23'43	evening rise	4361 Nov 05 14:51	23°♂55'20	
minimum elong	4359 May 12 06:05	21°♂29'40	6°21'30		4361 Nov 10 12:17	0°♂	
min. Earth dist.	4359 May 11 17:07	21°♂49'55	0.27990 AU	desc. node	4361 Nov 24 14:49	17°♂31'36	
morning rise	4359 May 17 03:36	18°♂32'45			4361 Dec 04 15:42	0°♂	

	4361 Dec 28 18:52	0°♊			4364 Jun 03 03:49	0°♎		
	4362 Jan 21 22:54	0°♋			4364 Jun 29 14:46	0°♏		
	4362 Feb 15 06:43	0°♌			4364 Jul 25 06:57	0°♐		
	4362 Mar 12 00:02	0°♍			4364 Aug 19 12:03	0°♑		
asc. node	4362 Mar 17 17:00	6°♌48'50		asc. node	4364 Sep 01 12:08	15°♑38'57		
	4362 Apr 06 13:13	0°♎			4364 Sep 13 08:12	0°♒		
	4362 May 03 22:00	0°♏			4364 Oct 07 20:30	0°♓		
evening max el	4362 May 11 12:05	7°♏40'00	46°03'18	morning set	4364 Oct 31 17:48	29°♓32'42		
	4362 Jun 06 17:48	0°♑			4364 Nov 01 02:36	0°♐		
greatest brilliancy	4362 Jun 15 04:17	4°♑54'22	-4.5m		4364 Nov 25 04:33	0°♑		
retrograde	4362 Jun 29 19:51	8°♑41'14		max. Earth dist.	4364 Dec 06 10:08	14°♑02'23	1.71725 AU	
desc. node	4362 Jul 07 07:29	7°♑34'21						
evening set	4362 Jul 15 00:10	4°♑13'51		superior conj	4364 Dec 08 23:03	17°♑12'59	0°30'58	
inferior conj	4362 Jul 21 07:28	0°♑25'55	-3°-15'-37	minimum elong	4364 Dec 09 06:10	17°♑35'15	0°30'39	
minimum elong	4362 Jul 21 00:42	0°♑36'34	3°13'46		4364 Dec 19 04:04	0°♒		
min. Earth dist.	4362 Jul 20 22:35	0°♑39'52	0.28862 AU	desc. node	4364 Dec 22 02:39	3°♒41'04		
	4362 Jul 21 23:58	30°♒♏			4365 Jan 12 02:13	0°♊		
morning rise	4362 Jul 27 01:31	26°♏56'53		evening rise	4365 Jan 18 06:36	7°♊45'36		
direct	4362 Aug 11 20:17	22°♏12'27			4365 Feb 04 23:53	0°♋		
greatest brilliancy	4362 Aug 24 22:52	25°♏12'47	-4.5m		4365 Feb 28 22:40	0°♌		
	4362 Sep 02 19:58	0°♑			4365 Mar 25 01:08	0°♍		
morning max el	4362 Sep 29 14:06	21°♑59'11	45°47'42	asc. node	4365 Apr 14 04:52	24°♌48'48		
	4362 Oct 07 16:48	0°♒			4365 Apr 18 10:50	0°♎		
asc. node	4362 Oct 28 09:51	22°♒03'07			4365 May 13 08:19	0°♏		
	4362 Nov 04 12:09	0°♓			4365 Jun 08 00:59	0°♑		
	4362 Nov 30 07:00	0°♐			4365 Jul 05 06:21	0°♒		
	4362 Dec 25 02:54	0°♑		evening max el	4365 Jul 20 23:27	15°♒51'46	45°30'14	
	4363 Jan 18 10:59	0°♒		desc. node	4365 Aug 03 19:25	28°♒18'34		
	4363 Feb 11 13:07	0°♊			4365 Aug 05 21:02	0°♓		
desc. node	4363 Feb 17 00:22	6°♊50'01		greatest brilliancy	4365 Aug 25 21:55	12°♓45'48	-4.5m	
	4363 Mar 07 12:34	0°♋		retrograde	4365 Sep 07 16:12	15°♓37'44		
	4363 Mar 31 11:30	0°♌		evening set	4365 Sep 25 17:56	9°♓31'49		
morning set	4363 Apr 03 02:26	3°♌16'56		inferior conj	4365 Sep 29 01:37	7°♓29'18	-8°-38'-1	
	4363 Apr 24 11:40	0°♍		minimum elong	4365 Sep 29 01:03	7°♓30'12	8°38'03	
				min. Earth dist.	4365 Sep 29 12:41	7°♓12'04	0.28866 AU	
superior conj	4363 May 12 14:38	22°♌33'46	-1°-1'-38	morning rise	4365 Oct 02 08:02	5°♓28'21		
minimum elong	4363 May 13 01:14	23°♌06'43	1°01'17		4365 Oct 14 07:40	30°♒♒		
max. Earth dist.	4363 May 16 10:16	27°♌18'15	1.72423 AU	direct	4365 Oct 20 13:56	29°♒12'33		
	4363 May 18 14:25	0°♎			4365 Oct 27 00:43	0°♓		
asc. node	4363 Jun 10 02:34	27°♎51'06		greatest brilliancy	4365 Nov 04 04:07	2°♓58'57	-4.6m	
	4363 Jun 11 20:21	0°♏		asc. node	4365 Nov 24 21:29	17°♓23'54		
evening rise	4363 Jun 20 00:40	10°♏04'52			4365 Dec 08 10:18	0°♐		
	4363 Jul 06 05:31	0°♑		morning max el	4365 Dec 09 14:59	1°♐11'24	46°27'50	
	4363 Jul 30 18:01	0°♒			4366 Jan 05 09:33	0°♑		
	4363 Aug 24 10:47	0°♓			4366 Jan 31 02:49	0°♒		
	4363 Sep 18 09:48	0°♐			4366 Feb 24 23:08	0°♓		
desc. node	4363 Sep 29 17:05	13°♐27'03		desc. node	4366 Mar 16 12:10	23°♓56'51		
	4363 Oct 13 18:02	0°♑			4366 Mar 21 10:08	0°♋		
	4363 Nov 08 16:52	0°♒			4366 Apr 14 17:09	0°♌		
	4363 Dec 05 21:51	0°♊			4366 May 08 23:16	0°♍		
evening max el	4363 Dec 16 07:23	10°♊43'37	47°00'07		4366 Jun 02 06:15	0°♎		
	4364 Jan 06 09:40	0°♋		morning set	4366 Jun 14 08:03	14°♎53'00		
asc. node	4364 Jan 20 19:20	9°♋36'48			4366 Jun 26 14:38	0°♏		
greatest brilliancy	4364 Jan 23 23:56	11°♋06'44	-4.7m	asc. node	4366 Jul 07 14:27	13°♏31'34		
retrograde	4364 Feb 04 21:46	13°♋46'53			4366 Jul 20 23:52	0°♑		
evening set	4364 Feb 21 04:07	8°♋36'41						
min. Earth dist.	4364 Feb 24 22:29	6°♋20'59	0.26877 AU	superior conj	4366 Jul 21 13:57	0°♑43'19	0°32'39	
inferior conj	4364 Feb 25 13:41	5°♋57'35	7°45'24	minimum elong	4366 Jul 21 07:33	0°♑23'37	0°32'20	
minimum elong	4364 Feb 25 03:57	6°♋12'35	7°43'47	max. Earth dist.	4366 Jul 21 19:00	0°♑58'50	1.73464 AU	
morning rise	4364 Feb 29 03:56	3°♋46'45			4366 Aug 14 09:12	0°♒		
	4364 Mar 07 18:51	30°♒♒		evening rise	4366 Aug 26 16:29	15°♒08'14		
direct	4364 Mar 17 00:40	28°♒14'58			4366 Sep 07 18:33	0°♓		
	4364 Mar 26 16:17	0°♋			4366 Oct 02 04:39	0°♐		
greatest brilliancy	4364 Mar 28 01:45	0°♋30'54	-4.6m		4366 Oct 26 16:28	0°♑		
	4364 May 05 18:20	0°♌		desc. node	4366 Oct 27 04:55	0°♑38'01		
morning max el	4364 May 05 23:57	0°♌13'53	46°32'51		4366 Nov 20 06:47	0°♒		
desc. node	4364 May 11 09:48	5°♌40'18			4366 Dec 15 00:51	0°♊		

	4367 Jan 09 02:48	0° Υ		morning set	4369 Aug 21 17:17	20° Ω 47'18	
	4367 Feb 04 00:39	0° Υ			4369 Aug 29 05:16	0° \mathbb{M}	
asc. node	4367 Feb 17 07:07	14° Υ 35'40			4369 Sep 22 13:20	0° Ω	
evening max el	4367 Feb 26 18:38	24° Υ 29'37	47°02'05	max. Earth dist.	4369 Sep 24 12:32	2° Ω 25'50	1.73053 AU
	4367 Mar 04 07:39	0° \mathcal{B}					
greatest brilliancy	4367 Apr 04 18:03	24° \mathcal{B} 10'50	-4.6m	superior conj	4369 Sep 27 03:44	5° Ω 41'10	1°25'09
retrograde	4367 Apr 18 09:40	27° \mathcal{B} 35'05		minimum elong	4369 Sep 27 02:49	5° Ω 38'19	1°25'09
evening set	4367 May 05 02:49	22° \mathcal{B} 06'33			4369 Oct 16 18:57	0° \mathbb{M}	
inferior conj	4367 May 09 10:24	19° \mathcal{B} 27'33	6°38'54	evening rise	4369 Nov 03 05:55	21° \mathbb{M} 39'22	
minimum elong	4367 May 09 20:44	19° \mathcal{B} 11'26	6°36'47		4369 Nov 09 23:13	0° \mathcal{A}	
min. Earth dist.	4367 May 09 07:14	19° \mathcal{B} 32'32	0.27961 AU	desc. node	4369 Nov 23 16:51	17° \mathcal{A} 03'37	
morning rise	4367 May 14 15:02	16° \mathcal{B} 19'12			4369 Dec 04 02:51	0° \mathcal{C}	
direct	4367 May 30 10:45	11° \mathcal{B} 27'29			4369 Dec 28 06:18	0° \approx	
desc. node	4367 Jun 08 21:33	13° \mathcal{B} 06'52			4370 Jan 21 10:42	0° Υ	
greatest brilliancy	4367 Jun 11 02:52	13° \mathcal{B} 56'03	-4.5m		4370 Feb 14 19:01	0° Υ	
	4367 Jul 05 12:20	0° \mathbb{I}			4370 Mar 11 13:10	0° \mathcal{B}	
morning max el	4367 Jul 18 12:36	11° \mathbb{I} 48'35	45°50'22	asc. node	4370 Mar 16 18:56	6° \mathcal{B} 14'47	
	4367 Aug 05 12:44	0° \mathcal{C}			4370 Apr 06 04:04	0° \mathbb{I}	
	4367 Sep 01 21:48	0° Ω			4370 May 03 17:28	0° \mathcal{C}	
asc. node	4367 Sep 27 20:53	0° \mathbb{M}		evening max el	4370 May 09 02:21	5° \mathcal{C} 23'41	46°05'18
	4367 Sep 29 23:58	2° \mathbb{M} 30'35			4370 Jun 07 19:42	0° Ω	
	4367 Oct 22 23:46	0° Ω		greatest brilliancy	4370 Jun 12 20:11	2° Ω 44'18	-4.5m
	4367 Nov 16 13:13	0° \mathbb{M}		retrograde	4370 Jun 27 12:03	6° Ω 32'28	
	4367 Dec 10 18:10	0° \mathcal{A}		desc. node	4370 Jul 06 09:33	4° Ω 57'51	
morning set	4368 Jan 03 18:15	0° \mathcal{C}		evening set	4370 Jul 12 15:44	2° Ω 06'03	
desc. node	4368 Jan 13 14:33	12° \mathcal{C} 21'04			4370 Jul 16 05:55	30° \mathcal{R} \mathcal{C}	
	4368 Jan 19 14:31	19° \mathcal{C} 52'59		inferior conj	4370 Jul 18 23:53	28° \mathcal{C} 17'15	-2°-57'-6
	4368 Jan 27 15:44	0° \approx		minimum elong	4370 Jul 18 17:40	28° \mathcal{C} 27'01	2°55'22
	4368 Feb 20 12:05	0° Υ		min. Earth dist.	4370 Jul 18 15:22	28° \mathcal{C} 30'37	0.28838 AU
				morning rise	4370 Jul 24 19:51	24° \mathcal{C} 45'27	
superior conj	4368 Feb 23 23:48	4° Υ 23'16	-1°-12'-23	direct	4370 Aug 09 11:51	20° \mathcal{C} 03'58	
minimum elong	4368 Feb 23 12:36	3° Υ 48'05	1°12'05	greatest brilliancy	4370 Aug 22 14:49	23° \mathcal{C} 04'10	-4.5m
max. Earth dist.	4368 Feb 25 10:19	6° Υ 11'51	1.71156 AU		4370 Sep 03 17:41	0° Ω	
	4368 Mar 15 08:47	0° Υ		morning max el	4370 Sep 27 05:03	19° Ω 46'54	45°46'54
evening rise	4368 Apr 04 19:41	25° Υ 37'42			4370 Oct 07 11:53	0° \mathbb{M}	
	4368 Apr 08 07:39	0° \mathcal{B}		asc. node	4370 Oct 27 11:50	21° \mathbb{M} 25'54	
	4368 May 02 10:36	0° \mathbb{I}			4370 Nov 04 02:43	0° Ω	
asc. node	4368 May 11 16:45	11° \mathbb{I} 26'21			4370 Nov 29 19:51	0° \mathbb{M}	
	4368 May 26 19:14	0° \mathcal{C}			4370 Dec 24 14:55	0° \mathcal{A}	
	4368 Jun 20 11:05	0° Ω			4371 Jan 17 22:33	0° \mathcal{C}	
	4368 Jul 15 12:48	0° \mathbb{M}			4371 Feb 11 00:24	0° \approx	
desc. node	4368 Aug 10 05:53	0° Ω		desc. node	4371 Feb 16 02:17	6° \approx 20'52	
	4368 Aug 31 07:10	23° Ω 39'55			4371 Mar 06 23:39	0° Υ	
	4368 Sep 06 02:42	0° \mathbb{M}			4371 Mar 30 22:26	0° Υ	
evening max el	4368 Oct 01 00:14	25° \mathbb{M} 34'12	46°00'03	morning set	4371 Mar 31 13:48	0° Υ 48'07	
	4368 Oct 05 16:58	0° \mathcal{A}			4371 Apr 23 22:27	0° \mathcal{B}	
greatest brilliancy	4368 Nov 08 05:54	23° \mathcal{A} 44'44	-4.6m				
retrograde	4368 Nov 19 02:50	25° \mathcal{A} 52'56		superior conj	4371 May 10 04:48	20° \mathcal{B} 15'28	-1°-4'-7
evening set	4368 Dec 04 04:37	21° \mathcal{A} 30'05		minimum elong	4371 May 10 15:27	20° \mathcal{B} 48'33	1°03'47
inferior conj	4368 Dec 09 20:55	18° \mathcal{A} 09'20	-3°-8'-13	max. Earth dist.	4371 May 13 23:52	24° \mathcal{B} 58'21	1.72365 AU
minimum elong	4368 Dec 10 03:43	17° \mathcal{A} 58'54	3°06'11		4371 May 18 01:04	0° \mathbb{I}	
min. Earth dist.	4368 Dec 10 13:55	17° \mathcal{A} 43'17	0.27081 AU	asc. node	4371 Jun 09 04:42	27° \mathbb{I} 24'57	
morning rise	4368 Dec 16 02:10	14° \mathcal{A} 29'53			4371 Jun 11 06:58	0° \mathcal{C}	
asc. node	4368 Dec 22 09:28	11° \mathcal{A} 42'02		evening rise	4371 Jun 17 17:19	7° \mathcal{C} 55'39	
direct	4368 Dec 30 16:17	10° \mathcal{A} 18'12			4371 Jul 05 16:11	0° Ω	
greatest brilliancy	4369 Jan 13 02:29	13° \mathcal{A} 37'23	-4.7m		4371 Jul 30 04:55	0° \mathbb{M}	
	4369 Feb 05 04:20	0° \mathcal{C}			4371 Aug 23 22:07	0° Ω	
morning max el	4369 Feb 19 07:39	13° \mathcal{C} 32'18	46°58'40		4371 Sep 17 21:50	0° \mathbb{M}	
	4369 Mar 06 21:16	0° \approx		desc. node	4371 Sep 28 18:59	12° \mathbb{M} 55'43	
	4369 Apr 02 08:07	0° Υ			4371 Oct 13 07:12	0° \mathcal{A}	
desc. node	4369 Apr 13 00:04	12° \mathcal{A} 30'08			4371 Nov 08 08:08	0° \mathcal{C}	
	4369 Apr 27 17:34	0° Υ			4371 Dec 05 17:48	0° \approx	
	4369 May 22 16:34	0° \mathcal{B}		evening max el	4371 Dec 13 20:28	8° \approx 18'34	46°58'41
	4369 Jun 16 11:14	0° \mathbb{I}			4372 Jan 07 02:46	0° Υ	
	4369 Jul 11 03:44	0° \mathcal{C}		asc. node	4372 Jan 19 21:19	7° Υ 54'41	
asc. node	4369 Aug 04 02:19	29° \mathcal{C} 12'03		greatest brilliancy	4372 Jan 21 12:54	8° Υ 38'59	-4.7m
	4369 Aug 04 18:00	0° Ω		retrograde	4372 Feb 02 10:51	11° Υ 19'21	

evening set	4372 Feb 18 12:27	6° K 15'11		superior conj	4374 Jul 19 07:33	28° S 37'29	0°29'38
min. Earth dist.	4372 Feb 22 11:04	3° K 53'43	0.26846 AU	minimum elong	4374 Jul 19 01:38	28° S 19'18	0°29'21
inferior conj	4372 Feb 23 02:13	3° K 30'27	7°32'35	max. Earth dist.	4374 Jul 19 17:25	29° S 07'50	1.73447 AU
minimum elong	4372 Feb 22 16:05	3° K 46'01	7°30'46		4374 Jul 20 10:23	0° Ω	
morning rise	4372 Feb 26 19:53	1° K 15'00			4374 Aug 13 19:42	0° M	
	4372 Feb 29 01:03	30° R \approx		evening rise	4374 Aug 24 11:03	13° M 05'20	
direct	4372 Mar 14 12:59	25° \approx 48'00			4374 Sep 07 05:09	0° $\underline{\text{A}}$	
greatest brilliancy	4372 Mar 25 15:28	28° \approx 05'47	-4.6m		4374 Oct 01 15:30	0° M	
	4372 Mar 29 20:28	0° K		desc. node	4374 Oct 26 07:02	0° Z 10'03	
morning max el	4372 May 03 14:00	27° K 53'00	46°34'36		4374 Oct 26 03:45	0° Z	
	4372 May 05 16:59	0° Y			4374 Nov 19 18:40	0° S	
desc. node	4372 May 10 11:50	4° Y 52'08			4374 Dec 14 13:35	0° \approx	
	4372 Jun 02 19:49	0° B			4375 Jan 08 16:53	0° K	
	4372 Jun 29 04:12	0° II			4375 Feb 03 17:25	0° Y	
	4372 Jul 24 19:03	0° S		asc. node	4375 Feb 16 09:05	13° Y 49'19	
asc. node	4372 Aug 18 23:24	0° Ω		evening max el	4375 Feb 24 09:47	22° Y 10'38	47°03'20
	4372 Aug 31 14:05	15° Ω 11'20			4375 Mar 04 08:32	0° B	
	4372 Sep 12 19:08	0° M		greatest brilliancy	4375 Apr 02 11:38	21° B 55'48	-4.6m
	4372 Oct 07 07:13	0° $\underline{\text{A}}$		retrograde	4375 Apr 16 00:42	25° B 16'47	
morning set	4372 Oct 29 09:51	27° $\underline{\text{A}}$ 20'25		evening set	4375 May 02 20:44	19° B 44'13	
	4372 Oct 31 13:16	0° M		inferior conj	4375 May 07 01:02	17° B 09'51	6°53'35
	4372 Nov 24 15:14	0° Z		minimum elong	4375 May 07 11:15	16° B 53'51	6°51'34
max. Earth dist.	4372 Dec 03 23:53	11° Z 41'46	1.71768 AU	min. Earth dist.	4375 May 06 21:28	17° B 15'25	0.27926 AU
				morning rise	4375 May 12 02:10	14° B 06'18	
superior conj	4372 Dec 06 12:07	14° Z 50'08	0°34'24	direct	4375 May 28 01:20	9° B 10'37	
minimum elong	4372 Dec 06 19:51	15° Z 14'18	0°34'03	desc. node	4375 Jun 07 23:40	11° B 21'57	
	4372 Dec 18 14:50	0° S		greatest brilliancy	4375 Jun 08 14:41	11° B 36'35	-4.5m
desc. node	4372 Dec 21 04:46	3° S 13'59			4375 Jul 05 17:41	0° II	
	4373 Jan 11 13:05	0° \approx		morning max el	4375 Jul 16 03:04	9° II 33'53	45°51'20
evening rise	4373 Jan 15 17:46	5° \approx 15'54			4375 Aug 05 06:00	0° S	
	4373 Feb 04 10:52	0° K			4375 Sep 01 11:36	0° Ω	
	4373 Feb 28 09:47	0° Y			4375 Sep 27 09:08	0° M	
	4373 Mar 24 12:28	0° B		asc. node	4375 Sep 29 02:00	2° M 00'37	
asc. node	4373 Apr 13 06:52	24° B 19'18			4375 Oct 22 11:14	0° $\underline{\text{A}}$	
	4373 Apr 17 22:34	0° II			4375 Nov 16 00:18	0° M	
	4373 May 12 20:47	0° S			4375 Dec 10 05:05	0° Z	
	4373 Jun 07 14:57	0° Ω			4376 Jan 03 05:07	0° S	
	4373 Jul 04 23:58	0° M		morning set	4376 Jan 11 01:50	9° S 51'46	
evening max el	4373 Jul 18 15:47	13° M 43'20	45°30'30	desc. node	4376 Jan 18 16:28	19° S 25'02	
desc. node	4373 Aug 02 21:23	27° M 19'13			4376 Jan 27 02:35	0° \approx	
	4373 Aug 06 06:40	0° $\underline{\text{A}}$			4376 Feb 19 22:56	0° K	
greatest brilliancy	4373 Aug 23 10:51	10° $\underline{\text{A}}$ 33'39	-4.5m				
retrograde	4373 Sep 05 08:11	13° $\underline{\text{A}}$ 28'09		superior conj	4376 Feb 21 09:57	1° K 50'08	-1°-10'-5
evening set	4373 Sep 23 08:31	7° $\underline{\text{A}}$ 23'42		minimum elong	4376 Feb 20 22:24	1° K 13'48	1°09'45
inferior conj	4373 Sep 26 17:31	5° $\underline{\text{A}}$ 18'57	-8°-36'-49	max. Earth dist.	4376 Feb 22 13:29	3° K 16'42	1.71143 AU
minimum elong	4373 Sep 26 16:10	5° $\underline{\text{A}}$ 21'04	8°36'48		4376 Mar 14 19:38	0° Y	
min. Earth dist.	4373 Sep 27 02:59	5° $\underline{\text{A}}$ 04'11	0.28903 AU	evening rise	4376 Apr 02 06:31	23° Y 07'31	
morning rise	4373 Sep 29 23:43	3° $\underline{\text{A}}$ 18'14			4376 Apr 07 18:32	0° B	
	4373 Oct 06 01:04	30° R M			4376 May 01 21:33	0° II	
direct	4373 Oct 18 06:47	27° M 02'01		asc. node	4376 May 10 18:52	10° II 58'59	
	4373 Oct 31 02:33	0° $\underline{\text{A}}$			4376 May 26 06:22	0° S	
greatest brilliancy	4373 Nov 01 19:13	0° $\underline{\text{A}}$ 46'39	-4.5m		4376 Jun 19 22:35	0° Ω	
asc. node	4373 Nov 23 23:39	16° $\underline{\text{A}}$ 25'11			4376 Jul 15 01:01	0° M	
morning max el	4373 Dec 07 06:52	28° $\underline{\text{A}}$ 57'24	46°26'01		4376 Aug 09 19:30	0° $\underline{\text{A}}$	
	4373 Dec 08 07:51	0° M		desc. node	4376 Aug 30 09:09	23° $\underline{\text{A}}$ 02'15	
	4374 Jan 05 01:10	0° Z			4376 Sep 05 19:20	0° M	
	4374 Jan 30 16:19	0° S		evening max el	4376 Sep 28 13:09	23° M 14'37	45°58'11
	4374 Feb 24 11:35	0° \approx			4376 Oct 05 19:02	0° Z	
desc. node	4374 Mar 15 14:11	23° \approx 26'26		greatest brilliancy	4376 Nov 05 19:45	21° Z 24'46	-4.6m
	4374 Mar 20 21:55	0° K		retrograde	4376 Nov 16 15:12	23° Z 31'54	
	4374 Apr 14 04:29	0° Y		evening set	4376 Dec 01 20:17	19° Z 05'22	
	4374 May 08 10:16	0° B		inferior conj	4376 Dec 07 10:22	15° Z 47'48	-3°-29'-33
	4374 Jun 01 17:01	0° II		minimum elong	4376 Dec 07 17:48	15° Z 36'23	3°27'23
morning set	4374 Jun 12 00:23	12° II 42'34		min. Earth dist.	4376 Dec 08 04:43	15° Z 19'38	0.27139 AU
	4374 Jun 26 01:14	0° S		morning rise	4376 Dec 13 14:34	12° Z 09'21	
asc. node	4374 Jul 06 16:28	13° S 05'20		asc. node	4376 Dec 21 11:25	8° Z 51'29	
				direct	4376 Dec 28 05:41	7° Z 55'26	

greatest brilliancy	4377 Jan 10 19:14	11°♂17'40	-4.6m		4379 Jul 29 16:05	0°♍	
	4377 Feb 05 09:37	0°♂			4379 Aug 23 09:42	0°♌	
morning max el	4377 Feb 16 20:47	11°♂06'55	46°58'23		4379 Sep 17 10:07	0°♍	
	4377 Mar 06 15:13	0°♌		desc. node	4379 Sep 27 21:07	12°♍24'20	
	4377 Apr 01 22:44	0°♋			4379 Oct 12 20:42	0°♌	
desc. node	4377 Apr 12 02:08	11°♋55'19			4379 Nov 07 23:50	0°♂	
	4377 Apr 27 06:36	0°♍			4379 Dec 05 14:35	0°♌	
	4377 May 22 04:41	0°♌		evening max el	4379 Dec 11 10:44	5°♌56'19	46°57'20
	4377 Jun 15 22:44	0°♍			4380 Jan 08 01:54	0°♋	
	4377 Jul 10 14:48	0°♌		asc. node	4380 Jan 18 23:17	6°♋08'38	
asc. node	4377 Aug 03 04:13	28°♌44'56		greatest brilliancy	4380 Jan 19 01:48	6°♋11'18	-4.7m
	4377 Aug 04 04:47	0°♌		retrograde	4380 Jan 31 00:29	8°♋51'54	
morning set	4377 Aug 19 10:50	18°♌41'06		evening set	4380 Feb 15 21:08	3°♋53'44	
	4377 Aug 28 15:54	0°♍		min. Earth dist.	4380 Feb 19 23:36	1°♋26'54	0.26811 AU
	4377 Sep 21 23:58	0°♌		inferior conj	4380 Feb 20 14:54	1°♋03'27	7°18'50
max. Earth dist.	4377 Sep 22 07:26	0°♌23'06	1.73088 AU	minimum elong	4380 Feb 20 04:28	1°♋19'26	7°16'51
					4380 Feb 22 08:27	30°♋	
superior conj	4377 Sep 24 21:27	3°♌34'43	1°24'55	morning rise	4380 Feb 24 12:01	28°♌43'18	
minimum elong	4377 Sep 24 19:50	3°♌29'43	1°24'55	direct	4380 Mar 12 01:56	23°♌21'27	
	4377 Oct 16 05:39	0°♍		greatest brilliancy	4380 Mar 23 04:12	25°♌39'43	-4.6m
evening rise	4377 Oct 31 21:32	19°♍25'29			4380 Mar 31 17:02	0°♋	
	4377 Nov 09 10:03	0°♌		morning max el	4380 May 01 04:22	25°♋32'43	46°36'03
desc. node	4377 Nov 22 18:57	16°♌36'09			4380 May 05 14:48	0°♍	
	4377 Dec 03 13:53	0°♂		desc. node	4380 May 09 13:58	4°♍04'44	
	4377 Dec 27 17:37	0°♌			4380 Jun 02 11:44	0°♌	
	4378 Jan 20 22:24	0°♋			4380 Jun 28 17:46	0°♍	
	4378 Feb 14 07:18	0°♍			4380 Jul 24 07:25	0°♌	
	4378 Mar 11 02:25	0°♌			4380 Aug 18 11:03	0°♌	
asc. node	4378 Mar 15 20:57	5°♌40'36		asc. node	4380 Aug 30 16:09	14°♌43'07	
	4378 Apr 05 19:16	0°♍			4380 Sep 12 06:22	0°♍	
	4378 May 03 13:48	0°♌			4380 Oct 06 18:14	0°♌	
evening max el	4378 May 06 16:50	3°♌07'12	46°07'21	morning set	4380 Oct 27 01:50	25°♌07'13	
	4378 Jun 09 09:35	0°♌			4380 Oct 31 00:11	0°♍	
greatest brilliancy	4378 Jun 10 11:20	0°♌32'12	-4.5m		4380 Nov 24 02:11	0°♌	
retrograde	4378 Jun 25 04:31	4°♌22'31		max. Earth dist.	4380 Dec 01 12:03	9°♌15'25	1.71810 AU
desc. node	4378 Jul 05 11:29	2°♌15'42					
evening set	4378 Jul 10 07:12	29°♌56'42		superior conj	4380 Dec 04 01:22	12°♌27'05	0°37'44
	4378 Jul 10 04:47	30°♋		minimum elong	4380 Dec 04 09:38	12°♌52'55	0°37'22
inferior conj	4378 Jul 16 16:03	26°♌07'19	-2°-38'-4		4380 Dec 18 01:52	0°♂	
minimum elong	4378 Jul 16 10:26	26°♌16'07	2°36'29	desc. node	4380 Dec 20 06:41	2°♂45'24	
min. Earth dist.	4378 Jul 16 07:45	26°♌20'19	0.28812 AU		4381 Jan 11 00:13	0°♌	
morning rise	4378 Jul 22 13:53	22°♌33'07		evening rise	4381 Jan 13 05:05	2°♌45'51	
direct	4378 Aug 07 03:13	17°♌54'13			4381 Feb 03 22:07	0°♋	
greatest brilliancy	4378 Aug 20 06:50	20°♌54'57	-4.5m		4381 Feb 27 21:08	0°♍	
	4378 Sep 04 10:02	0°♌			4381 Mar 24 00:02	0°♌	
morning max el	4378 Sep 24 20:43	17°♌36'07	45°46'16	asc. node	4381 Apr 12 08:59	23°♌49'25	
	4378 Oct 07 06:32	0°♍			4381 Apr 17 10:33	0°♍	
asc. node	4378 Oct 26 13:56	20°♍49'11			4381 May 12 09:36	0°♌	
	4378 Nov 03 17:11	0°♌			4381 Jun 07 05:24	0°♌	
	4378 Nov 29 08:40	0°♍			4381 Jul 04 18:29	0°♍	
	4378 Dec 24 02:55	0°♌		evening max el	4381 Jul 16 08:00	11°♍33'07	45°30'35
	4379 Jan 17 10:05	0°♂		desc. node	4381 Aug 01 23:25	26°♍17'00	
	4379 Feb 10 11:40	0°♌			4381 Aug 06 20:39	0°♌	
desc. node	4379 Feb 15 04:18	5°♌52'06		greatest brilliancy	4381 Aug 21 00:50	8°♌21'00	-4.5m
	4379 Mar 06 10:46	0°♋		retrograde	4381 Sep 02 23:34	11°♌16'40	
morning set	4379 Mar 29 01:07	28°♋18'50		evening set	4381 Sep 20 22:40	5°♌14'32	
	4379 Mar 30 09:25	0°♍		inferior conj	4381 Sep 24 09:19	3°♌07'01	-8°-34'-50
	4379 Apr 23 09:21	0°♌		minimum elong	4381 Sep 24 07:11	3°♌10'20	8°34'47
				min. Earth dist.	4381 Sep 24 17:33	2°♌54'08	0.28935 AU
superior conj	4379 May 07 18:33	17°♌55'15	-1°-6'-32	morning rise	4381 Sep 27 15:37	1°♌05'55	
minimum elong	4379 May 08 05:09	18°♌28'12	1°06'12		4381 Sep 29 12:14	30°♋	
max. Earth dist.	4379 May 11 12:17	22°♌34'08	1.72316 AU	direct	4381 Oct 15 23:16	24°♍50'02	
	4379 May 17 11:55	0°♍		greatest brilliancy	4381 Oct 30 09:12	28°♍31'28	-4.5m
asc. node	4379 Jun 08 06:38	26°♍57'28			4381 Nov 02 06:00	0°♌	
	4379 Jun 10 17:48	0°♌		asc. node	4381 Nov 23 01:37	15°♌26'09	
evening rise	4379 Jun 15 09:24	5°♌43'56		morning max el	4381 Dec 04 21:41	26°♌39'39	46°24'18
	4379 Jul 05 03:08	0°♌			4381 Dec 08 05:04	0°♍	

	4382 Jan 04 16:54	0°♊			4384 Sep 05 12:42	0°♌	
	4382 Jan 30 06:02	0°♋		evening max el	4384 Sep 26 01:47	20°♌53'22	45°56'12
	4382 Feb 24 00:16	0°♌			4384 Oct 05 23:18	0°♊	
desc. node	4382 Mar 14 16:14	22°♌55'17		greatest brilliancy	4384 Nov 03 08:35	19°♊02'08	-4.6m
	4382 Mar 20 09:59	0°♉		retrograde	4384 Nov 14 03:45	21°♊09'20	
	4382 Apr 13 16:05	0°♈		evening set	4384 Nov 29 11:52	16°♊38'35	
	4382 May 07 21:32	0°♉		inferior conj	4384 Dec 04 23:36	13°♊24'30	-3°-50'-35
	4382 Jun 01 04:03	0°♊		minimum elong	4384 Dec 05 07:39	13°♊12'10	3°48'17
morning set	4382 Jun 09 16:55	10°♊31'49		min. Earth dist.	4384 Dec 05 19:15	12°♊54'24	0.27201 AU
	4382 Jun 25 12:08	0°♊		morning rise	4384 Dec 11 02:36	9°♊47'36	
asc. node	4382 Jul 05 18:24	12°♊37'57		asc. node	4384 Dec 20 13:22	6°♊04'34	
				direct	4384 Dec 25 19:03	5°♊30'46	
superior conj	4382 Jul 17 01:13	26°♊30'51	0°26'35	greatest brilliancy	4385 Jan 08 12:17	8°♊57'01	-4.6m
minimum elong	4382 Jul 16 19:50	26°♊14'18	0°26'19		4385 Feb 05 13:36	0°♋	
max. Earth dist.	4382 Jul 17 15:04	27°♊13'27	1.73434 AU	morning max el	4385 Feb 14 10:45	8°♋42'33	46°58'13
	4382 Jul 19 21:13	0°♌			4385 Mar 06 09:05	0°♌	
	4382 Aug 13 06:34	0°♍			4385 Apr 01 13:27	0°♉	
evening rise	4382 Aug 22 05:32	11°♍00'54		desc. node	4385 Apr 11 04:13	11°♉20'00	
	4382 Sep 06 16:10	0°♎			4385 Apr 26 19:47	0°♈	
	4382 Oct 01 02:48	0°♏			4385 May 21 16:58	0°♉	
desc. node	4382 Oct 25 09:03	29°♏40'24			4385 Jun 15 10:25	0°♊	
	4382 Oct 25 15:28	0°♊			4385 Jul 10 02:03	0°♋	
	4382 Nov 19 06:59	0°♋		asc. node	4385 Aug 02 06:22	28°♋17'54	
	4382 Dec 14 02:45	0°♌			4385 Aug 03 15:45	0°♌	
	4383 Jan 08 07:28	0°♉		morning set	4385 Aug 17 04:39	16°♌35'07	
	4383 Feb 03 10:54	0°♈			4385 Aug 28 02:44	0°♍	
asc. node	4383 Feb 15 11:10	13°♈01'36		max. Earth dist.	4385 Sep 20 04:32	28°♍26'32	1.73125 AU
evening max el	4383 Feb 22 00:08	19°♈48'22	47°04'29		4385 Sep 21 10:47	0°♎	
	4383 Mar 04 11:13	0°♉					
greatest brilliancy	4383 Mar 31 05:46	19°♉40'17	-4.6m	superior conj	4385 Sep 22 15:21	1°♎28'15	1°24'34
retrograde	4383 Apr 13 15:23	22°♉57'34		minimum elong	4385 Sep 22 13:02	1°♎21'07	1°24'34
evening set	4383 Apr 30 14:43	17°♉21'01			4385 Oct 15 16:35	0°♏	
inferior conj	4383 May 04 15:44	14°♉51'22	7°07'30	evening rise	4385 Oct 29 13:17	17°♏11'20	
minimum elong	4383 May 05 01:48	14°♉35'36	7°05'37		4385 Nov 08 21:09	0°♊	
min. Earth dist.	4383 May 04 12:05	14°♉57'04	0.27890 AU	desc. node	4385 Nov 21 20:53	16°♊07'17	
morning rise	4383 May 09 13:13	11°♉52'46			4385 Dec 03 01:14	0°♋	
direct	4383 May 25 15:21	6°♉52'56			4385 Dec 27 05:16	0°♌	
greatest brilliancy	4383 Jun 06 03:07	9°♉16'54	-4.5m		4386 Jan 20 10:27	0°♉	
desc. node	4383 Jun 07 01:32	9°♉39'53			4386 Feb 13 19:54	0°♈	
	4383 Jul 05 21:29	0°♊			4386 Mar 10 15:59	0°♉	
morning max el	4383 Jul 13 16:54	7°♊16'41	45°52'21	asc. node	4386 Mar 14 23:02	5°♉05'47	
	4383 Aug 04 23:11	0°♋			4386 Apr 05 10:51	0°♊	
	4383 Sep 01 01:36	0°♌			4386 May 03 11:00	0°♋	
	4383 Sep 26 21:42	0°♍		evening max el	4386 May 04 08:14	0°♋52'36	46°09'31
asc. node	4383 Sep 28 04:04	1°♍29'44		greatest brilliancy	4386 Jun 08 02:35	28°♋19'58	-4.5m
	4383 Oct 21 23:05	0°♎			4386 Jun 11 22:16	0°♌	
	4383 Nov 15 11:47	0°♏		retrograde	4386 Jun 22 21:27	2°♌12'20	
	4383 Dec 09 16:24	0°♊			4386 Jul 03 09:06	30°♌	
	4384 Jan 02 16:21	0°♋		desc. node	4386 Jul 04 13:34	29°♋29'12	
morning set	4384 Jan 08 13:03	7°♋21'15		evening set	4386 Jul 07 22:57	27°♋46'56	
desc. node	4384 Jan 17 18:29	18°♋56'16		inferior conj	4386 Jul 14 08:16	23°♋57'04	-2°-18'-46
	4384 Jan 26 13:46	0°♌		minimum elong	4386 Jul 14 03:16	24°♋04'53	2°17'21
				min. Earth dist.	4386 Jul 13 23:55	24°♋10'08	0.28784 AU
superior conj	4384 Feb 18 20:04	29°♌15'54	-1°-7'-38	morning rise	4386 Jul 20 07:53	20°♋20'48	
minimum elong	4384 Feb 18 08:14	28°♌38'43	1°07'17	direct	4386 Aug 04 19:03	15°♋44'16	
	4384 Feb 19 10:05	0°♉		greatest brilliancy	4386 Aug 17 22:17	18°♋45'00	-4.5m
max. Earth dist.	4384 Feb 19 15:27	0°♉16'54	1.71133 AU		4386 Sep 04 22:15	0°♌	
	4384 Mar 14 06:48	0°♈		morning max el	4386 Sep 22 13:16	15°♌27'31	45°45'41
evening rise	4384 Mar 30 17:21	20°♈36'16			4386 Oct 07 00:46	0°♍	
	4384 Apr 07 05:44	0°♉		asc. node	4386 Oct 25 15:54	20°♍12'17	
	4384 May 01 08:50	0°♊			4386 Nov 03 07:32	0°♎	
asc. node	4384 May 09 20:49	10°♊30'05			4386 Nov 28 21:29	0°♏	
	4384 May 25 17:48	0°♋			4386 Dec 23 15:00	0°♊	
	4384 Jun 19 10:23	0°♌			4387 Jan 16 21:47	0°♋	
	4384 Jul 14 13:34	0°♍			4387 Feb 09 23:08	0°♌	
	4384 Aug 09 09:33	0°♎		desc. node	4387 Feb 14 06:27	5°♌23'06	
desc. node	4384 Aug 29 11:14	22°♎23'35			4387 Mar 05 22:03	0°♉	

morning set	4387 Mar 26 12:00	25° Υ 47'43		evening set	4389 Sep 18 12:45	3° Ω 07'15	
	4387 Mar 29 20:33	0° Υ		inferior conj	4389 Sep 22 01:19	0° Ω 56'38	-8°-32'-6
	4387 Apr 22 20:21	0° Υ		minimum elong	4389 Sep 21 22:26	1° Ω 01'09	8°32'00
				min. Earth dist.	4389 Sep 22 08:40	0° Ω 45'08	0.28962 AU
superior conj	4387 May 05 08:01	15° Υ 33'46	-1°-8'-49		4389 Sep 23 13:32	30° Υ	
minimum elong	4387 May 05 18:30	16° Υ 06'24	1°08'32	morning rise	4389 Sep 25 08:01	28° Υ 54'39	
max. Earth dist.	4387 May 09 02:14	20° Υ 14'23	1.72264 AU	direct	4389 Oct 13 15:26	22° Υ 39'30	
	4387 May 16 22:49	0° Π		greatest brilliancy	4389 Oct 27 23:33	26° Υ 17'59	-4.5m
asc. node	4387 Jun 07 08:38	26° Π 30'02			4389 Nov 03 15:09	0° Ω	
	4387 Jun 10 04:42	0° Ω		asc. node	4389 Nov 22 03:34	14° Ω 29'27	
evening rise	4387 Jun 13 01:29	3° Ω 32'02		morning max el	4389 Dec 02 11:55	24° Ω 21'36	46°22'43
	4387 Jul 04 14:07	0° Ω			4389 Dec 08 01:11	0° Ω	
	4387 Jul 29 03:17	0° Υ			4390 Jan 04 08:02	0° Υ	
	4387 Aug 22 21:18	0° Ω			4390 Jan 29 19:17	0° Ω	
	4387 Sep 16 22:25	0° Ω			4390 Feb 23 12:35	0° Ω	
desc. node	4387 Sep 26 23:09	11° Ω 52'44		desc. node	4390 Mar 13 18:15	22° Ω 25'02	
	4387 Oct 12 10:14	0° Υ			4390 Mar 19 21:43	0° Υ	
	4387 Nov 07 15:42	0° Ω			4390 Apr 13 03:26	0° Υ	
	4387 Dec 05 12:06	0° Ω			4390 May 07 08:35	0° Υ	
evening max el	4387 Dec 09 01:36	3° Ω 35'39	46°55'36		4390 May 31 14:54	0° Π	
	4388 Jan 09 10:15	0° Υ		morning set	4390 Jun 07 08:59	8° Π 20'09	
greatest brilliancy	4388 Jan 16 14:54	3° Υ 43'19	-4.7m		4390 Jun 24 22:48	0° Ω	
asc. node	4388 Jan 18 01:24	4° Υ 17'51		asc. node	4390 Jul 04 20:32	12° Ω 11'52	
retrograde	4388 Jan 28 13:42	6° Υ 23'14					
evening set	4388 Feb 13 05:40	1° Υ 31'16		superior conj	4390 Jul 14 18:34	24° Ω 24'05	0°23'28
	4388 Feb 15 19:51	30° Υ		minimum elong	4390 Jul 14 13:45	24° Ω 09'17	0°23'14
min. Earth dist.	4388 Feb 17 12:04	28° Ω 58'45	0.26781 AU	max. Earth dist.	4390 Jul 15 11:00	25° Ω 14'38	1.73413 AU
inferior conj	4388 Feb 18 03:20	28° Ω 35'21	7°04'01		4390 Jul 19 07:47	0° Ω	
minimum elong	4388 Feb 17 16:41	28° Ω 51'41	7°01'53		4390 Aug 12 17:09	0° Υ	
morning rise	4388 Feb 22 03:58	26° Ω 10'16		evening rise	4390 Aug 19 23:55	8° Υ 57'11	
direct	4388 Mar 09 14:53	20° Ω 53'57			4390 Sep 06 02:53	0° Ω	
greatest brilliancy	4388 Mar 20 16:32	23° Ω 12'05	-4.6m		4390 Sep 30 13:48	0° Ω	
	4388 Apr 01 23:54	0° Υ		desc. node	4390 Oct 24 10:59	29° Ω 11'31	
morning max el	4388 Apr 28 18:13	23° Υ 10'35	46°37'33		4390 Oct 25 02:53	0° Υ	
	4388 May 05 11:59	0° Υ			4390 Nov 18 18:59	0° Ω	
desc. node	4388 May 08 15:53	3° Υ 17'14			4390 Dec 13 15:36	0° Ω	
	4388 Jun 02 03:24	0° Υ			4391 Jan 07 21:46	0° Υ	
	4388 Jun 28 07:11	0° Π			4391 Feb 03 04:16	0° Υ	
	4388 Jul 23 19:37	0° Ω		asc. node	4391 Feb 14 13:11	12° Υ 14'18	
	4388 Aug 17 22:34	0° Ω		evening max el	4391 Feb 19 13:31	17° Υ 24'53	47°05'26
asc. node	4388 Aug 29 18:11	14° Ω 15'15			4391 Mar 04 14:58	0° Υ	
	4388 Sep 11 17:27	0° Υ		greatest brilliancy	4391 Mar 28 22:55	17° Υ 24'17	-4.6m
	4388 Oct 06 05:05	0° Ω		retrograde	4391 Apr 11 05:45	20° Υ 39'06	
morning set	4388 Oct 24 18:18	22° Ω 56'07		evening set	4391 Apr 28 08:32	14° Υ 58'19	
	4388 Oct 30 10:56	0° Ω		inferior conj	4391 May 02 06:21	12° Υ 33'31	7°20'41
	4388 Nov 23 12:57	0° Υ		minimum elong	4391 May 02 16:10	12° Υ 18'08	7°18'57
max. Earth dist.	4388 Nov 28 23:09	6° Υ 46'31	1.71852 AU	min. Earth dist.	4391 May 02 02:51	12° Υ 39'00	0.27860 AU
				morning rise	4391 May 07 00:04	9° Υ 40'07	
superior conj	4388 Dec 01 15:14	10° Υ 06'43	0°40'58	direct	4391 May 23 04:54	4° Υ 35'29	
minimum elong	4388 Dec 01 23:58	10° Υ 33'58	0°40'35	greatest brilliancy	4391 Jun 03 16:44	6° Υ 59'00	-4.5m
	4388 Dec 17 12:43	0° Ω		desc. node	4391 Jun 06 03:40	8° Υ 02'22	
desc. node	4388 Dec 19 08:46	2° Ω 17'55			4391 Jul 05 23:26	0° Π	
	4389 Jan 10 11:11	0° Ω		morning max el	4391 Jul 11 06:51	5° Π 00'12	45°53'29
evening rise	4389 Jan 10 16:43	0° Ω 17'21			4391 Aug 04 15:44	0° Ω	
	4389 Feb 03 09:13	0° Υ			4391 Aug 31 15:08	0° Ω	
	4389 Feb 27 08:25	0° Υ			4391 Sep 26 09:50	0° Υ	
	4389 Mar 23 11:35	0° Υ		asc. node	4391 Sep 27 06:02	0° Υ 59'45	
asc. node	4389 Apr 11 10:54	23° Υ 18'59			4391 Oct 21 10:30	0° Ω	
	4389 Apr 16 22:32	0° Π			4391 Nov 14 22:51	0° Ω	
	4389 May 11 22:24	0° Ω			4391 Dec 09 03:18	0° Υ	
	4389 Jun 06 19:53	0° Ω			4392 Jan 02 03:10	0° Ω	
	4389 Jul 04 13:17	0° Υ		morning set	4392 Jan 06 00:40	4° Ω 53'09	
evening max el	4389 Jul 13 23:36	9° Υ 22'01	45°30'51	desc. node	4392 Jan 16 20:36	18° Ω 29'04	
desc. node	4389 Aug 01 01:31	25° Υ 14'15			4392 Jan 26 00:32	0° Ω	
	4389 Aug 07 14:52	0° Ω					
greatest brilliancy	4389 Aug 18 15:17	6° Ω 09'53	-4.5m	superior conj	4392 Feb 16 06:31	26° Ω 44'02	-1°-5'-3
retrograde	4389 Aug 31 14:44	9° Ω 06'38		minimum elong	4392 Feb 15 18:32	26° Ω 06'20	1°04'40

max. Earth dist.	4392 Feb 16 18:53	27° \approx 22'53	1.71125 AU	greatest brilliancy	4394 Aug 15 12:47	16° \approx 34'44	-4.5m
	4392 Feb 18 20:50	0° H			4394 Sep 05 06:56	0° Ω	
	4392 Mar 13 17:32	0° Y		morning max el	4394 Sep 20 05:58	13° Ω 20'02	45°45'00
evening rise	4392 Mar 28 04:30	18° Y 07'24			4394 Oct 06 18:19	0° M	
	4392 Apr 06 16:31	0° B		asc. node	4394 Oct 24 17:54	19° M 36'29	
	4392 Apr 30 19:42	0° II			4394 Nov 02 21:31	0° $\underline{\Omega}$	
asc. node	4392 May 08 22:49	10° II 02'35			4394 Nov 28 09:59	0° M	
	4392 May 25 04:52	0° \approx			4394 Dec 23 02:46	0° Z	
	4392 Jun 18 21:53	0° Ω			4395 Jan 16 09:09	0° Z	
	4392 Jul 14 01:52	0° M			4395 Feb 09 10:16	0° \approx	
	4392 Aug 08 23:23	0° $\underline{\Omega}$		desc. node	4395 Feb 13 08:20	4° \approx 54'15	
desc. node	4392 Aug 28 13:15	21° $\underline{\Omega}$ 45'28			4395 Mar 05 09:03	0° H	
	4392 Sep 05 06:01	0° M		morning set	4395 Mar 23 22:52	23° H 17'19	
evening max el	4392 Sep 23 15:08	18° M 35'20	45°54'30		4395 Mar 29 07:25	0° Y	
	4392 Oct 06 04:51	0° Z			4395 Apr 22 07:06	0° B	
greatest brilliancy	4392 Oct 31 20:23	16° Z 40'25	-4.6m				
retrograde	4392 Nov 11 16:56	18° Z 48'56		superior conj	4395 May 02 21:27	13° B 12'48	-1°-11'00
evening set	4392 Nov 27 03:46	14° Z 13'41		minimum elong	4395 May 03 07:46	13° B 44'54	1°10'44
inferior conj	4392 Dec 02 13:02	11° Z 03'07	-4°-10'-54	max. Earth dist.	4395 May 06 17:40	17° B 59'48	1.72210 AU
minimum elong	4392 Dec 02 21:37	10° Z 49'58	4°08'31		4395 May 16 09:29	0° II	
min. Earth dist.	4392 Dec 03 09:33	10° Z 31'44	0.27265 AU	asc. node	4395 Jun 06 10:46	26° II 03'42	
morning rise	4392 Dec 08 14:39	7° Z 28'15			4395 Jun 09 15:21	0° \approx	
asc. node	4392 Dec 19 15:33	3° Z 25'22		evening rise	4395 Jun 10 17:32	1° \approx 20'45	
direct	4392 Dec 23 09:17	3° Z 08'05			4395 Jul 04 00:52	0° Ω	
greatest brilliancy	4393 Jan 06 05:19	6° Z 38'09	-4.6m		4395 Jul 28 14:17	0° M	
	4393 Feb 05 15:25	0° Z			4395 Aug 22 08:45	0° $\underline{\Omega}$	
morning max el	4393 Feb 12 01:50	6° Z 22'32	46°57'59		4395 Sep 16 10:39	0° M	
	4393 Mar 06 02:06	0° \approx		desc. node	4395 Sep 26 01:03	11° M 21'01	
	4393 Apr 01 03:32	0° H			4395 Oct 11 23:47	0° Z	
desc. node	4393 Apr 10 06:08	10° H 45'49			4395 Nov 07 07:44	0° Z	
	4393 Apr 26 08:26	0° Y			4395 Dec 05 10:17	0° \approx	
	4393 May 21 04:46	0° B		evening max el	4395 Dec 06 16:18	1° \approx 15'04	46°53'55
	4393 Jun 14 21:39	0° II			4396 Jan 11 09:43	0° H	
	4393 Jul 09 12:55	0° \approx		greatest brilliancy	4396 Jan 14 04:50	1° H 16'58	-4.7m
asc. node	4393 Aug 01 08:22	27° \approx 51'28		asc. node	4396 Jan 17 03:22	2° H 23'04	
	4393 Aug 03 02:23	0° Ω		retrograde	4396 Jan 26 02:31	3° H 54'57	
morning set	4393 Aug 14 22:21	14° Ω 29'43			4396 Feb 09 01:16	30° R \approx	
	4393 Aug 27 13:15	0° M		evening set	4396 Feb 10 14:25	29° \approx 09'14	
max. Earth dist.	4393 Sep 18 01:37	26° M 30'59	1.73157 AU	min. Earth dist.	4396 Feb 15 00:53	26° \approx 30'44	0.26750 AU
				inferior conj	4396 Feb 15 15:48	26° \approx 07'52	6°48'29
superior conj	4393 Sep 20 09:04	29° M 22'14	1°24'06	minimum elong	4396 Feb 15 05:00	26° \approx 24'26	6°46'10
minimum elong	4393 Sep 20 06:06	29° M 13'05	1°24'05	morning rise	4396 Feb 19 19:53	23° \approx 37'42	
	4393 Sep 20 21:17	0° $\underline{\Omega}$		direct	4396 Mar 07 03:37	18° \approx 27'03	
	4393 Oct 15 03:10	0° M		greatest brilliancy	4396 Mar 18 05:18	20° \approx 45'11	-4.6m
evening rise	4393 Oct 27 04:59	14° M 58'10			4396 Apr 02 22:01	0° H	
	4393 Nov 08 07:54	0° Z		morning max el	4396 Apr 26 07:11	20° H 46'29	46°38'57
desc. node	4393 Nov 20 22:56	15° Z 39'54			4396 May 05 08:19	0° Y	
	4393 Dec 02 12:14	0° Z		desc. node	4396 May 07 17:58	2° Y 31'13	
	4393 Dec 26 16:36	0° \approx			4396 Jun 01 18:44	0° B	
	4394 Jan 19 22:12	0° H			4396 Jun 27 20:23	0° II	
	4394 Feb 13 08:15	0° Y			4396 Jul 23 07:41	0° \approx	
	4394 Mar 10 05:19	0° B			4396 Aug 17 09:57	0° Ω	
asc. node	4394 Mar 14 01:00	4° B 31'29		asc. node	4396 Aug 28 20:08	13° Ω 47'23	
	4394 Apr 05 02:16	0° II			4396 Sep 11 04:28	0° M	
evening max el	4394 May 02 00:25	28° II 41'02	46°11'40		4396 Oct 05 15:54	0° $\underline{\Omega}$	
	4394 May 03 08:31	0° \approx		morning set	4396 Oct 22 10:34	20° $\underline{\Omega}$ 44'21	
greatest brilliancy	4394 Jun 05 18:27	26° \approx 09'42	-4.5m		4396 Oct 29 21:42	0° M	
	4394 Jun 19 00:46	0° Ω			4396 Nov 22 23:45	0° Z	
retrograde	4394 Jun 20 14:26	0° Ω 02'54		max. Earth dist.	4396 Nov 26 08:35	4° Z 12'18	1.71899 AU
	4394 Jun 22 03:48	30° R \approx					
desc. node	4394 Jul 03 15:37	26° \approx 39'50		superior conj	4396 Nov 29 04:57	7° Z 45'48	0°44'07
evening set	4394 Jul 05 14:52	25° \approx 37'57		minimum elong	4396 Nov 29 14:04	8° Z 14'17	0°43'44
min. Earth dist.	4394 Jul 11 15:53	22° \approx 00'59	0.28757 AU		4396 Dec 16 23:37	0° Z	
inferior conj	4394 Jul 12 00:25	21° \approx 47'38	-1°-59'-18	desc. node	4396 Dec 18 10:51	1° Z 50'20	
minimum elong	4394 Jul 11 20:05	21° \approx 54'24	1°58'03	evening rise	4397 Jan 08 04:04	27° Z 47'55	
morning rise	4394 Jul 18 01:42	18° \approx 09'23			4397 Jan 09 22:12	0° \approx	
direct	4394 Aug 02 11:21	13° \approx 35'14			4397 Feb 02 20:21	0° H	

	4397 Feb 26 19:43	0°♄			4399 Sep 25 22:13	0°♍		
	4397 Mar 22 23:10	0°♌		asc. node	4399 Sep 26 08:04	0°♍29°09		
asc. node	4397 Apr 10 12:56	22°♌48'48			4399 Oct 20 22:12	0°♎		
	4397 Apr 16 10:36	0°♍			4399 Nov 14 10:12	0°♎		
	4397 May 11 11:20	0°♎			4399 Dec 08 14:30	0°♏		
	4397 Jun 06 10:36	0°♏			4400 Jan 01 14:18	0°♐		
	4397 Jul 04 08:41	0°♍		morning set	4400 Jan 03 12:24	2°♐24'30		
evening max el	4397 Jul 11 14:22	7°♍08'41	45°31'13	desc. node	4400 Jan 15 22:32	18°♐00'10		
desc. node	4397 Jul 31 03:29	24°♍09'34			4400 Jan 25 11:39	0°♑		
	4397 Aug 08 15:48	0°♎						
greatest brilliancy	4397 Aug 16 05:08	3°♎57'54	-4.5m	superior conj	4400 Feb 13 16:36	24°♑09'40	-1°-2'-19	
retrograde	4397 Aug 29 05:49	6°♎56'43		minimum elong	4400 Feb 13 04:33	23°♑31'47	1°01'54	
evening set	4397 Sep 16 02:31	1°♎00'17		max. Earth dist.	4400 Feb 14 00:06	24°♑33'16	1.71125 AU	
	4397 Sep 17 18:06	30°♎			4400 Feb 18 07:58	0°♒		
inferior conj	4397 Sep 19 17:21	28°♎46'17	-8°-28'-37		4400 Mar 13 04:42	0°♑		
minimum elong	4397 Sep 19 13:42	28°♎52'00	8°28'27	evening rise	4400 Mar 25 15:10	15°♑35'36		
min. Earth dist.	4397 Sep 19 23:57	28°♎35'56	0.28990 AU		4400 Apr 06 03:42	0°♒		
morning rise	4397 Sep 23 00:45	26°♎43'04			4400 Apr 30 06:58	0°♍		
direct	4397 Oct 11 07:13	20°♎28'48		asc. node	4400 May 08 00:55	9°♍34'06		
greatest brilliancy	4397 Oct 25 14:50	24°♎05'34	-4.5m		4400 May 24 16:21	0°♎		
	4397 Nov 04 14:53	0°♎			4400 Jun 18 09:48	0°♏		
asc. node	4397 Nov 21 05:44	13°♎34'04			4400 Jul 13 14:38	0°♍		
morning max el	4397 Nov 30 01:55	22°♎02'33	46°21'02		4400 Aug 08 13:48	0°♎		
	4397 Dec 07 20:53	0°♎		desc. node	4400 Aug 27 15:13	21°♎05'39		
	4398 Jan 03 23:12	0°♏			4400 Sep 05 00:13	0°♎		
	4398 Jan 29 08:41	0°♐		evening max el	4400 Sep 21 05:29	16°♎18'46	45°52'54	
	4398 Feb 23 01:03	0°♑			4400 Oct 06 13:15	0°♏		
desc. node	4398 Mar 12 20:15	21°♑54'12		greatest brilliancy	4400 Oct 29 07:42	14°♏17'39	-4.6m	
	4398 Mar 19 09:35	0°♒		retrograde	4400 Nov 09 06:31	16°♏27'51		
	4398 Apr 12 14:54	0°♑		evening set	4400 Nov 24 19:53	11°♏48'14		
	4398 May 06 19:47	0°♒		inferior conj	4400 Nov 30 02:32	8°♏41'03	-4°-30'-37	
	4398 May 31 01:53	0°♍		minimum elong	4400 Nov 30 11:35	8°♏27'12	4°28'11	
morning set	4398 Jun 05 00:52	6°♍07'18		min. Earth dist.	4400 Nov 30 23:26	8°♏09'06	0.27328 AU	
	4398 Jun 24 09:40	0°♎		morning rise	4400 Dec 06 02:34	5°♏08'34		
asc. node	4398 Jul 03 22:31	11°♎44'40		asc. node	4400 Dec 18 17:27	0°♏51'27		
				direct	4400 Dec 21 00:01	0°♏45'05		
superior conj	4398 Jul 12 11:54	22°♎16'36	0°20'20	greatest brilliancy	4401 Jan 03 21:23	4°♏17'29	-4.6m	
minimum elong	4398 Jul 12 07:41	22°♎03'37	0°20'06		4401 Feb 05 16:19	0°♐		
max. Earth dist.	4398 Jul 13 05:29	23°♎10'42	1.73393 AU	morning max el	4401 Feb 09 17:10	4°♐02'15	46°57'27	
	4398 Jul 18 18:34	0°♏			4401 Mar 05 19:12	0°♑		
	4398 Aug 12 03:56	0°♍			4401 Mar 31 17:57	0°♒		
evening rise	4398 Aug 17 18:23	6°♍53'10		desc. node	4401 Apr 09 08:13	10°♒10'56		
	4398 Sep 05 13:49	0°♎			4401 Apr 25 21:30	0°♑		
	4398 Sep 30 01:01	0°♎			4401 May 20 17:00	0°♒		
desc. node	4398 Oct 23 13:07	28°♎42'29			4401 Jun 14 09:19	0°♍		
	4398 Oct 24 14:34	0°♏			4401 Jul 09 00:10	0°♎		
	4398 Nov 18 07:18	0°♐		asc. node	4401 Jul 31 10:17	27°♎23'37		
	4398 Dec 13 04:52	0°♑			4401 Aug 02 13:24	0°♏		
	4399 Jan 07 12:37	0°♒		morning set	4401 Aug 12 15:54	12°♏22'48		
	4399 Feb 02 22:31	0°♑			4401 Aug 27 00:10	0°♍		
asc. node	4399 Feb 13 15:09	11°♑24'49		max. Earth dist.	4401 Sep 15 22:01	24°♍32'07	1.73187 AU	
evening max el	4399 Feb 17 02:40	14°♑59'27	47°06'30					
	4399 Mar 04 21:16	0°♒		superior conj	4401 Sep 18 02:46	27°♍14'59	1°23'31	
greatest brilliancy	4399 Mar 26 14:59	15°♒05'21	-4.6m	minimum elong	4401 Sep 17 23:10	27°♍03'52	1°23'29	
retrograde	4399 Apr 08 20:08	18°♒19'09			4401 Sep 20 08:12	0°♎		
evening set	4399 Apr 26 02:07	12°♒33'50			4401 Oct 14 14:09	0°♎		
inferior conj	4399 Apr 29 20:48	10°♒14'03	7°33'15	evening rise	4401 Oct 24 20:49	12°♎44'11		
minimum elong	4399 Apr 30 06:18	9°♒59'10	7°31'41		4401 Nov 07 19:03	0°♏		
min. Earth dist.	4399 Apr 29 17:17	10°♒19'32	0.27828 AU	desc. node	4401 Nov 20 01:00	15°♏11'19		
morning rise	4399 May 04 10:40	7°♒26'15			4401 Dec 01 23:36	0°♐		
direct	4399 May 20 18:13	2°♒16'16			4401 Dec 26 04:17	0°♑		
greatest brilliancy	4399 Jun 01 06:35	4°♒40'09	-4.5m		4402 Jan 19 10:18	0°♒		
desc. node	4399 Jun 05 05:44	6°♒27'11			4402 Feb 12 20:58	0°♑		
	4399 Jul 06 00:27	0°♍			4402 Mar 09 19:09	0°♒		
morning max el	4399 Jul 08 21:22	2°♍44'05	45°54'42	asc. node	4402 Mar 13 03:01	3°♒55'57		
	4399 Aug 04 08:18	0°♎			4402 Apr 04 18:25	0°♍		
	4399 Aug 31 04:52	0°♏		evening max el	4402 Apr 29 17:00	26°♍28'53	46°13'44	

	4402 May 03 07:32	0°☿				4404 Nov 22 10:41	0°♊	
greatest brilliancy	4402 Jun 03 11:40	23°☿59'28	-4.5m	max. Earth dist.		4404 Nov 23 20:30	1°♊45'31	1.71949 AU
retrograde	4402 Jun 18 07:07	27°☿51'31						
desc. node	4402 Jul 02 17:31	23°☿45'19		superior conj		4404 Nov 26 18:50	5°♊25'04	0°47'10
evening set	4402 Jul 03 06:54	23°☿27'09		minimum elong		4404 Nov 27 04:18	5°♊54'36	0°46'47
inferior conj	4402 Jul 09 16:28	19°☿36'27	-1°-39'-32			4404 Dec 16 10:40	0°♋	
minimum elong	4402 Jul 09 12:49	19°☿42'09	1°38'28	desc. node		4404 Dec 17 12:46	1°♋21'41	
min. Earth dist.	4402 Jul 09 07:48	19°☿50'00	0.28725 AU	evening rise		4405 Jan 05 15:39	25°♋18'50	
morning rise	4402 Jul 15 19:15	15°☿56'17				4405 Jan 09 09:22	0°♌	
direct	4402 Jul 31 03:42	11°☿24'45				4405 Feb 02 07:37	0°♌	
greatest brilliancy	4402 Aug 13 02:15	14°☿21'44	-4.5m			4405 Feb 26 07:08	0°♌	
	4402 Sep 05 13:41	0°♌				4405 Mar 22 10:49	0°♍	
morning max el	4402 Sep 17 21:45	11°♌09'17	45°44'18	asc. node		4405 Apr 09 15:03	22°♍18'43	
	4402 Oct 06 11:53	0°♍				4405 Apr 15 22:43	0°♍	
asc. node	4402 Oct 23 20:00	19°♍00'12				4405 May 11 00:20	0°☿	
	4402 Nov 02 11:42	0°♎				4405 Jun 06 01:29	0°♌	
	4402 Nov 27 22:45	0°♍				4405 Jul 04 04:41	0°♍	
	4402 Dec 22 14:49	0°♊		evening max el		4405 Jul 09 04:48	4°♍54'27	45°31'36
	4403 Jan 15 20:48	0°♋		desc. node		4405 Jul 30 05:30	23°♍03'12	
	4403 Feb 08 21:41	0°♌				4405 Aug 10 03:09	0°♎	
desc. node	4403 Feb 12 10:24	4°♌25'05		greatest brilliancy		4405 Aug 13 18:15	1°♎44'57	-4.5m
	4403 Mar 04 20:17	0°♌		retrograde		4405 Aug 26 21:20	4°♎47'10	
morning set	4403 Mar 21 09:57	20°♌46'46				4405 Sep 11 18:25	30°♎	
	4403 Mar 28 18:32	0°♍		evening set		4405 Sep 13 16:10	28°♎53'43	
	4403 Apr 21 18:07	0°♍		inferior conj		4405 Sep 17 09:31	26°♎36'07	-8°-24'-23
				minimum elong		4405 Sep 17 05:09	26°♎42'58	8°24'07
superior conj	4403 Apr 30 10:51	10°♍50'45	-1°-13'-4	min. Earth dist.		4405 Sep 17 15:21	26°♎26'58	0.29018 AU
minimum elong	4403 Apr 30 20:51	11°♍21'56	1°12'49	morning rise		4405 Sep 20 17:59	24°♎31'20	
max. Earth dist.	4403 May 04 10:06	15°♍47'23	1.72159 AU	direct		4405 Oct 08 23:02	18°♎18'14	
	4403 May 15 20:27	0°♍		greatest brilliancy		4405 Oct 23 07:23	21°♎55'04	-4.5m
asc. node	4403 Jun 05 12:42	25°♍35'46				4405 Nov 05 08:19	0°♎	
evening rise	4403 Jun 08 09:15	29°♍07'20		asc. node		4405 Nov 20 07:40	12°♎39'25	
	4403 Jun 09 02:20	0°☿		morning max el		4405 Nov 27 16:26	19°♎44'59	46°19'24
	4403 Jul 03 11:57	0°♌				4405 Dec 07 16:00	0°♍	
	4403 Jul 28 01:36	0°♍				4406 Jan 03 14:09	0°♊	
	4403 Aug 21 20:31	0°♎				4406 Jan 28 21:57	0°♋	
	4403 Sep 15 23:13	0°♍				4406 Feb 22 13:26	0°♌	
desc. node	4403 Sep 25 03:11	10°♍48'58		desc. node		4406 Mar 11 22:19	21°♌23'39	
	4403 Oct 11 13:45	0°♊				4406 Mar 18 21:24	0°♌	
	4403 Nov 07 00:23	0°♋				4406 Apr 12 02:19	0°♍	
evening max el	4403 Dec 04 06:17	28°♋51'52	46°52'07			4406 May 06 06:54	0°♍	
	4403 Dec 05 09:46	0°♌				4406 May 30 12:46	0°♍	
greatest brilliancy	4404 Jan 11 19:41	28°♌51'03	-4.7m	morning set		4406 Jun 02 16:58	3°♍55'22	
	4404 Jan 14 22:27	0°♌				4406 Jun 23 20:22	0°☿	
asc. node	4404 Jan 16 05:21	0°♌23'03		asc. node		4406 Jul 03 00:29	11°☿17'52	
retrograde	4404 Jan 23 14:53	1°♌26'14						
	4404 Jan 31 23:39	30°♌		superior conj		4406 Jul 10 05:27	20°☿10'10	0°17'10
evening set	4404 Feb 07 23:25	26°♌46'35		minimum elong		4406 Jul 10 01:50	19°☿59'04	0°16'59
min. Earth dist.	4404 Feb 12 14:15	24°♌01'53	0.26718 AU	max. Earth dist.		4406 Jul 11 00:43	21°☿09'28	1.73375 AU
inferior conj	4404 Feb 13 04:21	23°♌40'13	6°32'09			4406 Jul 18 05:12	0°♌	
minimum elong	4404 Feb 12 17:31	23°♌56'52	6°29'42			4406 Aug 11 14:38	0°♍	
morning rise	4404 Feb 17 11:50	21°♌04'57		evening rise		4406 Aug 15 13:05	4°♍50'13	
direct	4404 Mar 04 15:54	15°♌59'53				4406 Sep 05 00:40	0°♎	
greatest brilliancy	4404 Mar 15 19:01	18°♌19'01	-4.7m			4406 Sep 29 12:11	0°♍	
	4404 Apr 03 14:32	0°♌		desc. node		4406 Oct 22 15:06	28°♍13'17	
morning max el	4404 Apr 23 19:09	18°♌19'27	46°40'23			4406 Oct 24 02:10	0°♊	
	4404 May 05 04:06	0°♍				4406 Nov 17 19:32	0°♋	
desc. node	4404 May 06 20:04	1°♍45'45				4406 Dec 12 18:05	0°♌	
	4404 Jun 01 09:58	0°♍				4407 Jan 07 03:31	0°♌	
	4404 Jun 27 09:40	0°♍				4407 Feb 02 17:05	0°♍	
	4404 Jul 22 19:53	0°☿		asc. node		4407 Feb 12 17:15	10°♍35'16	
	4404 Aug 16 21:31	0°♌		evening max el		4407 Feb 14 16:20	12°♍35'42	47°07'28
asc. node	4404 Aug 27 22:14	13°♌19'23				4407 Mar 05 05:51	0°♍	
	4404 Sep 10 15:38	0°♍		greatest brilliancy		4407 Mar 24 06:20	12°♍45'43	-4.6m
	4404 Oct 05 02:51	0°♎		retrograde		4407 Apr 06 10:58	15°♍59'31	
morning set	4404 Oct 20 02:48	18°♎32'10		evening set		4407 Apr 23 19:39	10°♍09'30	
	4404 Oct 29 08:35	0°♍		inferior conj		4407 Apr 27 11:10	7°♍54'43	7°45'07

minimum elong	4407 Apr 27 20:19	7°♄40'26	7°43'41	minimum elong	4409 Sep 15 16:40	24°♍57'17	1°22'46
min. Earth dist.	4407 Apr 27 07:21	8°♄00'41	0.27794 AU		4409 Sep 19 18:42	0°♌	
morning rise	4407 May 01 21:11	5°♄12'53			4409 Oct 14 00:45	0°♍	
	4407 May 16 19:52	30°♌		evening rise	4409 Oct 22 13:02	10°♍32'36	
direct	4407 May 18 07:52	29°♌57'18			4409 Nov 07 05:51	0°♎	
	4407 May 19 20:10	0°♌		desc. node	4409 Nov 19 02:57	14°♎43'26	
greatest brilliancy	4407 May 29 20:04	2°♌21'26	-4.5m		4409 Dec 01 10:40	0°♏	
desc. node	4407 Jun 04 07:36	4°♌55'43			4409 Dec 25 15:42	0°♐	
	4407 Jul 05 23:56	0°♍			4410 Jan 18 22:09	0°♑	
morning max el	4407 Jul 06 12:40	0°♍30'35	45°56'03		4410 Feb 12 09:28	0°♒	
	4407 Aug 04 00:14	0°♎			4410 Mar 09 08:46	0°♓	
	4407 Aug 30 18:10	0°♏		asc. node	4410 Mar 12 05:05	3°♓21'21	
asc. node	4407 Sep 25 10:07	29°♏59'31			4410 Apr 04 10:30	0°♐	
	4407 Sep 25 10:17	0°♐		evening max el	4410 Apr 27 09:00	24°♐16'02	46°15'46
	4407 Oct 20 09:38	0°♑			4410 May 03 07:12	0°♑	
	4407 Nov 13 21:20	0°♒		greatest brilliancy	4410 Jun 01 05:48	21°♑51'11	-4.5m
	4407 Dec 08 01:29	0°♓		retrograde	4410 Jun 15 23:21	25°♑40'50	
morning set	4408 Jan 01 00:19	29°♓57'11		evening set	4410 Jun 30 23:05	21°♑17'01	
	4408 Jan 01 01:12	0°♏		desc. node	4410 Jul 01 19:38	20°♑48'14	
desc. node	4408 Jan 15 00:34	17°♏32'20		inferior conj	4410 Jul 07 08:29	17°♑26'11	-1°-19'-26
	4408 Jan 24 22:32	0°♐		minimum elong	4410 Jul 07 05:33	17°♑30'46	1°18'36
				min. Earth dist.	4410 Jul 07 00:01	17°♑39'27	0.28691 AU
superior conj	4408 Feb 11 02:36	21°♐35'50	0°-59'-27	morning rise	4410 Jul 13 12:34	13°♑44'03	
minimum elong	4408 Feb 10 14:36	20°♐58'04	0°59'01	direct	4410 Jul 28 19:44	9°♑15'11	
max. Earth dist.	4408 Feb 11 08:19	21°♐53'47	1.71127 AU	greatest brilliancy	4410 Aug 10 15:30	12°♑09'17	-4.5m
	4408 Feb 17 18:52	0°♑			4410 Sep 05 17:52	0°♒	
	4408 Mar 12 15:38	0°♒		morning max el	4410 Sep 15 12:43	8°♒57'41	45°43'52
evening rise	4408 Mar 23 01:49	13°♒04'28			4410 Oct 06 04:36	0°♓	
	4408 Apr 05 14:40	0°♓		asc. node	4410 Oct 22 21:56	18°♓25'03	
	4408 Apr 29 18:01	0°♐			4410 Nov 02 01:18	0°♌	
asc. node	4408 May 07 02:51	9°♐05'49			4410 Nov 27 11:02	0°♍	
	4408 May 24 03:36	0°♑			4410 Dec 22 02:28	0°♎	
	4408 Jun 17 21:28	0°♒			4411 Jan 15 08:07	0°♏	
	4408 Jul 13 03:08	0°♓			4411 Feb 08 08:49	0°♐	
	4408 Aug 08 04:00	0°♌		desc. node	4411 Feb 11 12:31	3°♐56'56	
desc. node	4408 Aug 26 17:20	20°♌26'58			4411 Mar 04 07:17	0°♑	
	4408 Sep 04 18:26	0°♍		morning set	4411 Mar 18 20:27	18°♑15'05	
evening max el	4408 Sep 18 20:22	14°♍04'41	45°51'08		4411 Mar 28 05:23	0°♒	
	4408 Oct 07 00:04	0°♎			4411 Apr 21 04:51	0°♓	
greatest brilliancy	4408 Oct 26 19:37	11°♎56'44	-4.5m				
retrograde	4408 Nov 06 20:03	14°♎07'41		superior conj	4411 Apr 27 23:46	8°♓28'02	-1°-15'-1
evening set	4408 Nov 22 12:11	9°♎23'53		minimum elong	4411 Apr 28 09:24	8°♓58'04	1°14'48
inferior conj	4408 Nov 27 16:04	6°♎20'02	-4°-49'-50	max. Earth dist.	4411 May 02 01:52	13°♓33'40	1.72104 AU
minimum elong	4408 Nov 28 01:32	6°♎05'33	4°47'21		4411 May 15 07:08	0°♐	
min. Earth dist.	4408 Nov 28 13:13	5°♎47'40	0.27395 AU	asc. node	4411 Jun 04 14:42	25°♐08'54	
morning rise	4408 Dec 03 14:15	2°♎50'01		evening rise	4411 Jun 06 00:35	26°♐53'30	
	4408 Dec 09 18:00	30°♎			4411 Jun 08 13:02	0°♑	
asc. node	4408 Dec 17 19:27	28°♎24'05			4411 Jul 02 22:46	0°♒	
direct	4408 Dec 18 14:55	28°♎23'17			4411 Jul 27 12:39	0°♓	
	4408 Dec 27 19:02	0°♑			4411 Aug 21 08:01	0°♌	
greatest brilliancy	4409 Jan 01 12:40	1°♑56'36	-4.6m		4411 Sep 15 11:30	0°♍	
	4409 Feb 05 15:47	0°♒		desc. node	4411 Sep 24 05:12	10°♍17'36	
morning max el	4409 Feb 07 08:03	1°♒41'37	46°56'51		4411 Oct 11 03:27	0°♎	
	4409 Mar 05 11:41	0°♓			4411 Nov 06 16:53	0°♏	
	4409 Mar 31 07:54	0°♌		evening max el	4411 Dec 01 19:05	26°♒27'02	46°50'10
desc. node	4409 Apr 08 10:16	9°♌37'06			4411 Dec 05 09:50	0°♐	
	4409 Apr 25 10:09	0°♒		greatest brilliancy	4412 Jan 09 10:16	26°♒25'35	-4.7m
	4409 May 20 04:51	0°♓		asc. node	4412 Jan 15 07:27	28°♒18'53	
	4409 Jun 13 20:37	0°♐		retrograde	4412 Jan 21 02:44	28°♒58'18	
	4409 Jul 08 11:05	0°♑		evening set	4412 Feb 05 08:26	24°♒24'01	
asc. node	4409 Jul 30 12:25	26°♑57'27		min. Earth dist.	4412 Feb 10 03:47	21°♒33'09	0.26696 AU
	4409 Aug 02 00:03	0°♒		inferior conj	4412 Feb 10 16:49	21°♒13'07	6°14'46
morning set	4409 Aug 10 09:48	10°♒18'03		minimum elong	4412 Feb 10 06:01	21°♒29'43	6°12'13
	4409 Aug 26 10:41	0°♓		morning rise	4412 Feb 15 03:46	18°♒32'47	
max. Earth dist.	4409 Sep 13 17:57	22°♓33'08	1.73213 AU	direct	4412 Mar 02 03:47	13°♒32'50	
				greatest brilliancy	4412 Mar 13 09:53	15°♒54'27	-4.7m
superior conj	4409 Sep 15 20:53	25°♓10'19	1°22'49		4412 Apr 04 02:43	0°♑	

morning max el	4412 Apr 21 06:59	15° ✕ 52'13	46°41'50			4414 Sep 28 23:20	0° ℓ	
	4412 May 04 23:10	0° Υ		desc. node		4414 Oct 21 17:04	27° ℓ 44'00	
desc. node	4412 May 05 21:58	1° Υ 00'50				4414 Oct 23 13:47	0° ✕	
	4412 Jun 01 00:49	0° ✕				4414 Nov 17 07:48	0° ☾	
	4412 Jun 26 22:36	0° II				4414 Dec 12 07:19	0° ≈	
	4412 Jul 22 07:48	0° ☾				4415 Jan 06 18:28	0° ✕	
	4412 Aug 16 08:48	0° Ω				4415 Feb 02 11:54	0° Υ	
asc. node	4412 Aug 27 00:13	12° Ω 51'51		asc. node		4415 Feb 11 19:15	9° Υ 45'17	
	4412 Sep 10 02:32	0° η		evening max el		4415 Feb 12 06:53	10° Υ 14'55	47°08'26
	4412 Oct 04 13:33	0° ♄				4415 Mar 05 17:07	0° ✕	
morning set	4412 Oct 17 19:20	16° ♄ 21'40		greatest brilliancy		4415 Mar 21 21:09	10° ✕ 26'02	-4.6m
	4412 Oct 28 19:12	0° ℓ		retrograde		4415 Apr 04 02:14	13° ✕ 40'15	
max. Earth dist.	4412 Nov 21 11:28	29° ℓ 29'12	1.71994 AU	evening set		4415 Apr 21 13:06	7° ✕ 45'35	
	4412 Nov 21 21:20	0° ✕		inferior conj		4415 Apr 25 01:35	5° ✕ 35'31	7°56'04
				minimum elong		4415 Apr 25 10:19	5° ✕ 21'55	7°54'49
superior conj	4412 Nov 24 09:12	3° ✕ 06'48	0°50'07	min. Earth dist.		4415 Apr 24 21:00	5° ✕ 42'40	0.27766 AU
minimum elong	4412 Nov 24 18:55	3° ✕ 37'10	0°49'43	morning rise		4415 Apr 29 07:43	2° ✕ 59'43	
	4412 Dec 15 21:24	0° ☾				4415 May 05 03:18	30° ℛ Υ	
desc. node	4412 Dec 16 14:51	0° ☾ 54'37		direct		4415 May 15 22:09	27° Υ 38'34	
evening rise	4413 Jan 03 03:43	22° ☾ 52'24				4415 May 27 06:51	0° ✕	
	4413 Jan 08 20:13	0° ≈		greatest brilliancy		4415 May 27 08:58	0° ✕ 02'05	-4.6m
	4413 Feb 01 18:38	0° ✕		desc. node		4415 Jun 03 09:46	3° ✕ 27'52	
	4413 Feb 25 18:21	0° Υ		morning max el		4415 Jul 04 04:25	28° ✕ 17'57	45°57'12
	4413 Mar 21 22:21	0° ✕				4415 Jul 05 22:31	0° II	
asc. node	4413 Apr 08 16:56	21° ✕ 48'19				4415 Aug 03 16:02	0° ☾	
	4413 Apr 15 10:46	0° II				4415 Aug 30 07:28	0° Ω	
	4413 May 10 13:19	0° ☾		asc. node		4415 Sep 24 12:05	29° Ω 29'21	
	4413 Jun 05 16:29	0° Ω				4415 Sep 24 22:24	0° η	
	4413 Jul 04 01:16	0° η				4415 Oct 19 21:08	0° ♄	
evening max el	4413 Jul 06 19:17	2° η 40'40	45°32'12			4415 Nov 13 08:31	0° ℓ	
desc. node	4413 Jul 29 07:35	21° η 55'22				4415 Dec 07 12:31	0° ✕	
greatest brilliancy	4413 Aug 11 06:23	29° η 31'00	-4.5m	morning set		4415 Dec 29 12:27	27° ✕ 30'27	
	4413 Aug 12 09:43	0° ♄				4415 Dec 31 12:11	0° ☾	
retrograde	4413 Aug 24 13:15	2° ♄ 37'40		desc. node		4416 Jan 14 02:41	17° ☾ 04'30	
	4413 Sep 05 03:11	30° ℛ η				4416 Jan 24 09:29	0° ≈	
evening set	4413 Sep 11 05:25	26° η 47'18						
inferior conj	4413 Sep 15 01:29	24° η 25'49	-8°-19'-23	superior conj		4416 Feb 08 12:54	19° ≈ 02'48	0°-56'-27
minimum elong	4413 Sep 14 20:26	24° η 33'43	8°19'01	minimum elong		4416 Feb 08 01:04	18° ≈ 25'33	0°56'01
min. Earth dist.	4413 Sep 15 06:18	24° η 18'17	0.29042 AU	max. Earth dist.		4416 Feb 08 17:04	19° ≈ 15'55	1.71122 AU
morning rise	4413 Sep 18 11:18	22° η 19'10				4416 Feb 17 05:48	0° ✕	
direct	4413 Oct 06 14:55	16° η 07'31				4416 Mar 12 02:34	0° Υ	
greatest brilliancy	4413 Oct 21 00:23	19° η 45'26	-4.5m	evening rise		4416 Mar 20 12:48	10° Υ 34'18	
	4413 Nov 05 21:10	0° ♄				4416 Apr 05 01:38	0° ✕	
asc. node	4413 Nov 19 09:38	11° ♄ 46'19				4416 Apr 29 05:06	0° II	
morning max el	4413 Nov 25 07:49	17° ♄ 30'14	46°18'02	asc. node		4416 May 06 04:53	8° II 37'45	
	4413 Dec 07 10:26	0° ℓ				4416 May 23 14:55	0° ☾	
	4414 Jan 03 04:41	0° ✕				4416 Jun 17 09:18	0° Ω	
	4414 Jan 28 10:53	0° ☾				4416 Jul 12 15:53	0° η	
	4414 Feb 22 01:31	0° ≈				4416 Aug 07 18:35	0° ♄	
desc. node	4414 Mar 11 00:19	20° ≈ 53'39		desc. node		4416 Aug 25 19:19	19° ♄ 46'54	
	4414 Mar 18 08:59	0° ✕				4416 Sep 04 13:24	0° ℓ	
	4414 Apr 11 13:34	0° Υ		evening max el		4416 Sep 16 11:09	11° ℓ 49'43	45°49'24
	4414 May 05 17:55	0° ✕				4416 Oct 07 14:58	0° ✕	
	4414 May 29 23:36	0° II		greatest brilliancy		4416 Oct 24 08:31	9° ✕ 36'30	-4.5m
morning set	4414 May 31 08:31	1° II 41'45		retrograde		4416 Nov 04 09:07	11° ✕ 46'59	
	4414 Jun 23 07:03	0° ☾		evening set		4416 Nov 20 04:36	6° ✕ 59'07	
asc. node	4414 Jul 02 02:36	10° ☾ 51'34		inferior conj		4416 Nov 25 05:39	3° ✕ 58'44	-5°-8'-23
				minimum elong		4416 Nov 25 15:26	3° ✕ 43'43	5°05'54
superior conj	4414 Jul 07 22:26	18° ☾ 02'03	0°13'55	min. Earth dist.		4416 Nov 26 03:11	3° ✕ 25'41	0.27460 AU
minimum elong	4414 Jul 07 19:29	17° ☾ 52'57	0°13'46	morning rise		4416 Dec 01 01:42	0° ✕ 31'13	
behind sun begin	4414 Jul 07 07:53	17° ☾ 17'17				4416 Dec 02 00:55	30° ℛ ℓ	
behind sun end	4414 Jul 08 07:04	18° ☾ 28'36		direct		4416 Dec 16 05:35	26° ℓ 01'09	
max. Earth dist.	4414 Jul 08 20:16	19° ☾ 09'16	1.73355 AU	asc. node		4416 Dec 16 21:36	26° ℓ 01'42	
	4414 Jul 17 15:49	0° Ω		greatest brilliancy		4416 Dec 30 03:30	29° ℓ 34'33	-4.6m
	4414 Aug 11 01:17	0° η				4416 Dec 31 00:14	0° ✕	
evening rise	4414 Aug 13 07:27	2° η 46'24		morning max el		4417 Feb 04 22:06	29° ✕ 18'16	46°56'17
	4414 Sep 04 11:31	0° ♄				4417 Feb 05 14:30	0° ☾	

	4417 Mar 05 04:03	0°♊			4419 Nov 06 10:12	0°♋		
	4417 Mar 30 21:51	0°♋		evening max el	4419 Nov 29 07:21	23°♋59'48	46°48'17	
desc. node	4417 Apr 07 12:12	9°♋02'42			4419 Dec 05 11:41	0°♌		
	4417 Apr 24 22:50	0°♍		greatest brilliancy	4420 Jan 07 00:21	23°♌58'16	-4.7m	
	4417 May 19 16:45	0°♎		asc. node	4420 Jan 14 09:25	26°♌08'12		
	4417 Jun 13 08:00	0°♏		retrograde	4420 Jan 18 14:51	26°♌29'25		
	4417 Jul 07 22:08	0°♐		evening set	4420 Feb 02 17:35	21°♌59'47		
asc. node	4417 Jul 29 14:24	26°♐30'15		min. Earth dist.	4420 Feb 07 17:16	19°♌03'14	0.26676 AU	
	4417 Aug 01 10:55	0°♑		inferior conj	4420 Feb 08 05:16	18°♌44'50	5°56'40	
morning set	4417 Aug 08 03:37	8°♑12'24		minimum elong	4420 Feb 07 18:33	19°♌01'15	5°54'02	
	4417 Aug 25 21:28	0°♒		morning rise	4420 Feb 12 19:38	15°♌59'44		
max. Earth dist.	4417 Sep 11 11:51	20°♒27'07	1.73242 AU	direct	4420 Feb 28 15:33	11°♌04'25		
				greatest brilliancy	4420 Mar 11 01:05	13°♌29'14	-4.7m	
superior conj	4417 Sep 13 14:53	23°♒04'31	1°21'59		4420 Apr 04 12:12	0°♓		
minimum elong	4417 Sep 13 10:05	22°♒49'42	1°21'56	morning max el	4420 Apr 18 19:39	13°♓25'56	46°43'19	
	4417 Sep 19 05:29	0°♈			4420 May 04 18:06	0°♈		
	4417 Oct 13 11:38	0°♉		desc. node	4420 May 05 00:06	0°♈16'08		
evening rise	4417 Oct 20 05:04	8°♉19'43			4420 May 31 15:49	0°♉		
	4417 Nov 06 16:55	0°♊			4420 Jun 26 11:47	0°♊		
desc. node	4417 Nov 18 05:01	14°♊15'08			4420 Jul 21 19:57	0°♋		
	4417 Nov 30 22:01	0°♋			4420 Aug 15 20:19	0°♌		
	4417 Dec 25 03:25	0°♌		asc. node	4420 Aug 26 02:12	12°♌23'33		
	4418 Jan 18 10:20	0°♍			4420 Sep 09 13:40	0°♍		
	4418 Feb 11 22:18	0°♎			4420 Oct 04 00:31	0°♎		
	4418 Mar 08 22:46	0°♏		morning set	4420 Oct 15 12:03	14°♎10'55		
asc. node	4418 Mar 11 07:02	2°♏45'26			4420 Oct 28 06:10	0°♏		
	4418 Apr 04 03:04	0°♐		max. Earth dist.	4420 Nov 19 03:29	27°♏15'01	1.72045 AU	
evening max el	4418 Apr 25 00:13	22°♐00'39	46°17'55		4420 Nov 21 08:22	0°♑		
	4418 May 03 08:11	0°♑						
greatest brilliancy	4418 May 29 23:53	19°♑42'38	-4.5m	superior conj	4420 Nov 21 23:33	0°♑47'23	0°52'58	
retrograde	4418 Jun 13 15:23	23°♑30'21		minimum elong	4420 Nov 22 09:28	1°♑18'19	0°52'35	
evening set	4418 Jun 28 15:39	19°♑06'41			4420 Dec 15 08:32	0°♒		
desc. node	4418 Jun 30 21:40	17°♑49'08		desc. node	4420 Dec 15 16:57	0°♒26'18		
min. Earth dist.	4418 Jul 04 16:44	15°♑28'44	0.28659 AU	evening rise	4420 Dec 31 15:37	20°♒24'13		
inferior conj	4418 Jul 05 00:45	15°♑16'09	0°-59'-28		4421 Jan 08 07:28	0°♓		
minimum elong	4418 Jul 04 22:33	15°♑19'36	0°58'50		4421 Feb 01 06:01	0°♓		
morning rise	4418 Jul 11 05:58	11°♑32'07			4421 Feb 25 05:57	0°♈		
direct	4418 Jul 26 11:34	7°♑05'41			4421 Mar 21 10:16	0°♉		
greatest brilliancy	4418 Aug 08 05:36	9°♑57'29	-4.5m	asc. node	4421 Apr 07 19:00	21°♉17'18		
	4418 Sep 05 20:38	0°♒			4421 Apr 14 23:13	0°♊		
morning max el	4418 Sep 13 03:14	6°♒44'12	45°43'18		4421 May 10 02:44	0°♋		
	4418 Oct 05 21:21	0°♒			4421 Jun 05 08:02	0°♌		
asc. node	4418 Oct 21 23:59	17°♒49'26			4421 Jul 03 22:54	0°♍		
	4418 Nov 01 15:08	0°♈		evening max el	4421 Jul 04 10:54	0°♍29'00	45°33'01	
	4418 Nov 26 23:36	0°♉		desc. node	4421 Jul 28 09:34	20°♍45'04		
	4418 Dec 21 14:24	0°♊		greatest brilliancy	4421 Aug 08 18:43	27°♍17'15	-4.5m	
	4419 Jan 14 19:44	0°♋			4421 Aug 17 05:49	0°♎		
	4419 Feb 07 20:14	0°♌		retrograde	4421 Aug 22 05:56	0°♎28'22		
desc. node	4419 Feb 10 14:25	3°♌27'15			4421 Aug 27 03:02	30°♏♒		
	4419 Mar 03 18:33	0°♍		evening set	4421 Sep 08 18:49	24°♒41'26		
morning set	4419 Mar 16 06:46	15°♍41'47		inferior conj	4421 Sep 12 17:44	22°♒15'47	-8°-13'-42	
	4419 Mar 27 16:32	0°♎		minimum elong	4421 Sep 12 12:02	22°♒24'41	8°13'14	
	4419 Apr 20 15:54	0°♏		min. Earth dist.	4421 Sep 12 21:09	22°♒10'26	0.29062 AU	
				morning rise	4421 Sep 16 05:08	20°♒06'56		
superior conj	4419 Apr 25 12:46	6°♏04'35	-1°-16'-50	direct	4421 Oct 04 07:27	13°♒57'18		
minimum elong	4419 Apr 25 21:58	6°♏33'15	1°16'39	greatest brilliancy	4421 Oct 18 16:47	17°♒35'18	-4.5m	
max. Earth dist.	4419 Apr 29 15:19	11°♏11'42	1.72044 AU		4421 Nov 06 06:49	0°♐		
	4419 May 14 18:07	0°♑		asc. node	4421 Nov 18 11:49	10°♐54'15		
evening rise	4419 Jun 03 16:01	24°♑39'06		morning max el	4421 Nov 23 00:06	15°♐17'23	46°16'21	
asc. node	4419 Jun 03 16:50	24°♑41'37			4421 Dec 07 04:42	0°♑		
	4419 Jun 08 00:01	0°♒			4422 Jan 02 19:25	0°♒		
	4419 Jul 02 09:50	0°♓			4422 Jan 28 00:08	0°♋		
	4419 Jul 26 23:58	0°♈			4422 Feb 21 13:57	0°♌		
	4419 Aug 20 19:50	0°♉		desc. node	4422 Mar 10 02:21	20°♌22'39		
	4419 Sep 15 00:13	0°♊			4422 Mar 17 20:54	0°♍		
desc. node	4419 Sep 23 07:07	9°♊44'46			4422 Apr 11 01:07	0°♎		
	4419 Oct 10 17:43	0°♋			4422 May 05 05:12	0°♏		

morning set	4422 May 29 00:00	29°♄27'00		greatest brilliancy	4424 Oct 21 22:29	7°♂18'25	-4.5m
	4422 May 29 10:41	0°♂		retrograde	4424 Nov 01 22:03	9°♂27'51	
	4422 Jun 22 18:00	0°♄		evening set	4424 Nov 17 21:23	4°♂35'53	
asc. node	4422 Jul 01 04:34	10°♄24'00		inferior conj	4424 Nov 22 19:39	1°♂39'10	-5°-26'-1
				minimum elong	4424 Nov 23 05:39	1°♂23'44	5°23'35
superior conj	4422 Jul 05 15:29	15°♄53'12	0°10'40	min. Earth dist.	4424 Nov 23 17:43	1°♂05'11	0.27522 AU
minimum elong	4422 Jul 05 13:12	15°♄46'10	0°10'33		4424 Nov 25 12:29	30°♂	
behind sun begin	4422 Jul 04 19:44	14°♄52'25		morning rise	4424 Nov 28 13:20	28°♂14'19	
behind sun end	4422 Jul 06 06:39	16°♄39'55		direct	4424 Dec 13 20:02	23°♂40'45	
max. Earth dist.	4422 Jul 06 17:03	17°♄11'55	1.73332 AU	asc. node	4424 Dec 15 23:30	23°♂46'14	
	4422 Jul 17 02:41	0°♂		greatest brilliancy	4424 Dec 27 18:41	27°♂14'12	-4.6m
	4422 Aug 10 12:11	0°♂			4425 Jan 01 20:28	0°♂	
evening rise	4422 Aug 11 02:05	0°♂42'41		morning max el	4425 Feb 02 11:30	26°♂53'48	46°55'28
	4422 Sep 03 22:34	0°♄			4425 Feb 05 12:08	0°♄	
	4422 Sep 28 10:40	0°♂			4425 Mar 04 20:04	0°♄	
desc. node	4422 Oct 20 19:13	27°♂14'50			4425 Mar 30 11:41	0°♂	
	4422 Oct 23 01:35	0°♂		desc. node	4425 Apr 06 14:18	8°♂28'53	
	4422 Nov 16 20:18	0°♄			4425 Apr 24 11:31	0°♂	
	4422 Dec 11 20:55	0°♄			4425 May 19 04:41	0°♄	
	4423 Jan 06 09:59	0°♂			4425 Jun 12 19:25	0°♂	
	4423 Feb 02 07:45	0°♂			4425 Jul 07 09:12	0°♄	
evening max el	4423 Feb 09 22:12	7°♂54'42	47°09'10	asc. node	4425 Jul 28 16:21	26°♄02'59	
asc. node	4423 Feb 10 21:13	8°♂53'01			4425 Jul 31 21:44	0°♂	
	4423 Mar 06 09:05	0°♄		morning set	4425 Aug 05 21:09	6°♂05'57	
greatest brilliancy	4423 Mar 19 12:40	8°♄05'33	-4.6m		4425 Aug 25 08:10	0°♂	
retrograde	4423 Apr 01 17:25	11°♄18'46		max. Earth dist.	4425 Sep 09 05:23	18°♂20'14	1.73268 AU
evening set	4423 Apr 19 06:15	5°♄19'56					
inferior conj	4423 Apr 22 15:42	3°♄14'21	8°06'22	superior conj	4425 Sep 11 08:51	20°♂58'54	1°21'03
minimum elong	4423 Apr 22 23:55	3°♄01'33	8°05'17	minimum elong	4425 Sep 11 03:29	20°♂42'23	1°20'59
min. Earth dist.	4423 Apr 22 10:09	3°♄23'01	0.27731 AU		4425 Sep 18 16:12	0°♄	
morning rise	4423 Apr 26 17:50	0°♄44'38			4425 Oct 12 22:25	0°♂	
	4423 Apr 28 00:56	30°♂		evening rise	4425 Oct 17 21:20	6°♂07'58	
direct	4423 May 13 12:22	25°♂18'12			4425 Nov 06 03:52	0°♂	
greatest brilliancy	4423 May 24 20:26	27°♂39'40	-4.6m	desc. node	4425 Nov 17 07:04	13°♂47'12	
	4423 May 29 21:54	0°♄			4425 Nov 30 09:14	0°♄	
desc. node	4423 Jun 02 11:49	2°♄01'42			4425 Dec 24 14:57	0°♄	
morning max el	4423 Jul 01 19:45	26°♄03'29	45°58'25		4426 Jan 17 22:19	0°♂	
	4423 Jul 05 20:29	0°♂			4426 Feb 11 10:59	0°♂	
	4423 Aug 03 07:46	0°♄			4426 Mar 08 12:45	0°♄	
	4423 Aug 29 20:49	0°♂		asc. node	4426 Mar 10 09:05	2°♄10'03	
asc. node	4423 Sep 23 14:07	28°♂59'11			4426 Apr 03 19:54	0°♂	
	4423 Sep 24 10:34	0°♂		evening max el	4426 Apr 22 14:32	19°♂42'46	46°19'52
	4423 Oct 19 08:41	0°♄			4426 May 03 10:40	0°♄	
	4423 Nov 12 19:45	0°♂		greatest brilliancy	4426 May 27 17:01	17°♄31'58	-4.5m
	4423 Dec 06 23:36	0°♂		retrograde	4426 Jun 11 07:03	21°♄18'52	
morning set	4423 Dec 27 00:59	25°♂04'46		evening set	4426 Jun 26 07:58	16°♄54'51	
	4423 Dec 30 23:13	0°♄		desc. node	4426 Jun 29 23:35	14°♄46'35	
desc. node	4424 Jan 13 04:37	16°♄35'51		inferior conj	4426 Jul 02 16:41	13°♄05'06	0°-39'-8
	4424 Jan 23 20:32	0°♄		minimum elong	4426 Jul 02 15:13	13°♄07'23	0°38'43
				min. Earth dist.	4426 Jul 02 09:23	13°♄16'34	0.28628 AU
superior conj	4424 Feb 05 23:08	16°♄29'06	0°-53'-21	morning rise	4426 Jul 08 22:54	9°♄19'26	
minimum elong	4424 Feb 05 11:35	15°♄52'47	0°52'54	direct	4426 Jul 24 02:35	4°♄55'01	
max. Earth dist.	4424 Feb 05 23:56	16°♄31'38	1.71127 AU	greatest brilliancy	4426 Aug 05 20:23	7°♄45'58	-4.5m
	4424 Feb 16 16:54	0°♂			4426 Sep 05 21:56	0°♂	
	4424 Mar 11 13:42	0°♂		morning max el	4426 Sep 10 17:36	4°♂30'32	45°43'00
evening rise	4424 Mar 17 23:14	8°♂01'37			4426 Oct 05 13:37	0°♂	
	4424 Apr 04 12:48	0°♄		asc. node	4426 Oct 21 02:05	17°♂14'44	
	4424 Apr 28 16:22	0°♂			4426 Nov 01 04:38	0°♄	
asc. node	4424 May 05 06:59	8°♂09'20			4426 Nov 26 11:52	0°♂	
	4424 May 23 02:26	0°♄			4426 Dec 21 02:03	0°♂	
	4424 Jun 16 21:18	0°♂			4427 Jan 14 07:03	0°♄	
	4424 Jul 12 04:49	0°♄			4427 Feb 07 07:20	0°♄	
	4424 Aug 07 09:25	0°♄		desc. node	4427 Feb 09 16:29	2°♄59'02	
desc. node	4424 Aug 24 21:19	19°♄06'18			4427 Mar 03 05:29	0°♂	
	4424 Sep 04 08:55	0°♂		morning set	4427 Mar 13 17:23	13°♂10'24	
evening max el	4424 Sep 14 01:36	9°♂34'08	45°47'50		4427 Mar 27 03:21	0°♂	
	4424 Oct 08 10:37	0°♂			4427 Apr 20 02:38	0°♄	

superior conj	4427 Apr 23 01:50	3°♄42'10	-1°-18'-30			4429 Nov 06 13:30	0°♎	
minimum elong	4427 Apr 23 10:31	4°♄09'15	1°18'20	asc. node		4429 Nov 17 13:44	10°♎03'19	
max. Earth dist.	4427 Apr 27 02:27	8°♄43'23	1.71994 AU	morning max el		4429 Nov 20 16:13	13°♎05'11	46°14'42
	4427 May 14 04:51	0°♊				4429 Dec 06 22:12	0°♌	
evening rise	4427 Jun 01 07:09	22°♊24'28				4430 Jan 02 09:35	0°♏	
asc. node	4427 Jun 02 18:46	24°♊14'25				4430 Jan 27 12:52	0°♐	
	4427 Jun 07 10:47	0°♑				4430 Feb 21 01:55	0°♑	
	4427 Jul 01 20:43	0°♒		desc. node		4430 Mar 09 04:23	19°♑52'57	
	4427 Jul 26 11:07	0°♓				4430 Mar 17 08:23	0°♒	
	4427 Aug 20 07:29	0°♈				4430 Apr 10 12:16	0°♓	
	4427 Sep 14 12:45	0°♉				4430 May 04 16:04	0°♈	
desc. node	4427 Sep 22 09:16	9°♉13'12		morning set		4430 May 26 15:41	27°♈14'09	
	4427 Oct 10 07:51	0°♏				4430 May 28 21:19	0°♊	
	4427 Nov 06 03:33	0°♐				4430 Jun 22 04:29	0°♑	
evening max el	4427 Nov 26 20:11	21°♐35'11	46°46'31	asc. node		4430 Jun 30 06:33	9°♑57'49	
	4427 Dec 05 14:33	0°♒						
greatest brilliancy	4428 Jan 04 13:40	21°♒31'19	-4.7m	superior conj		4430 Jul 03 08:35	13°♒45'47	0°07'24
asc. node	4428 Jan 13 11:26	23°♒53'28		minimum elong		4430 Jul 03 06:59	13°♒40'52	0°07'19
retrograde	4428 Jan 16 03:33	24°♒02'03		behind sun begin		4430 Jul 02 10:15	12°♒37'02	
evening set	4428 Jan 31 03:01	19°♒36'29		behind sun end		4430 Jul 04 03:42	14°♒44'41	
inferior conj	4428 Feb 05 17:44	16°♒17'53	5°37'52	max. Earth dist.		4430 Jul 04 15:35	15°♒21'16	1.73309 AU
minimum elong	4428 Feb 05 07:14	16°♒33'57	5°35'10			4430 Jul 16 13:09	0°♒	
min. Earth dist.	4428 Feb 05 06:35	16°♒34'56	0.26656 AU	evening rise		4430 Aug 08 20:39	28°♒39'55	
morning rise	4428 Feb 10 11:30	13°♒28'18				4430 Aug 09 22:44	0°♓	
direct	4428 Feb 26 03:42	8°♒37'20				4430 Sep 03 09:18	0°♈	
greatest brilliancy	4428 Mar 08 15:52	11°♒05'07	-4.7m			4430 Sep 27 21:45	0°♉	
	4428 Apr 04 18:29	0°♏		desc. node		4430 Oct 19 21:10	26°♉45'51	
morning max el	4428 Apr 16 09:18	11°♏03'35	46°44'45			4430 Oct 22 13:08	0°♏	
desc. node	4428 May 04 02:09	29°♏33'14				4430 Nov 16 08:34	0°♐	
	4428 May 04 12:01	0°♑				4430 Dec 11 10:18	0°♑	
	4428 May 31 06:11	0°♒				4431 Jan 06 01:21	0°♒	
	4428 Jun 26 00:31	0°♊				4431 Feb 02 03:49	0°♓	
	4428 Jul 21 07:44	0°♑		evening max el		4431 Feb 07 13:29	5°♓35'18	47°09'47
	4428 Aug 15 07:32	0°♒		asc. node		4431 Feb 09 23:19	8°♓01'06	
asc. node	4428 Aug 25 04:18	11°♒56'23				4431 Mar 07 05:56	0°♈	
	4428 Sep 09 00:32	0°♓		greatest brilliancy		4431 Mar 17 05:09	5°♈47'09	-4.6m
	4428 Oct 03 11:11	0°♈		retrograde		4431 Mar 30 08:16	8°♈57'52	
morning set	4428 Oct 13 04:32	12°♈00'28		evening set		4431 Apr 16 23:17	2°♈55'21	
	4428 Oct 27 16:47	0°♉		inferior conj		4431 Apr 20 05:47	0°♈54'03	8°16'00
max. Earth dist.	4428 Nov 16 19:53	25°♉03'13	1.72090 AU	minimum elong		4431 Apr 20 13:26	0°♈42'06	8°15'04
				min. Earth dist.		4431 Apr 19 23:27	1°♈03'56	0.27693 AU
superior conj	4428 Nov 19 13:48	28°♉28'44	0°55'43			4431 Apr 21 16:33	30°♏♑	
minimum elong	4428 Nov 19 23:50	29°♉00'04	0°55'21	morning rise		4431 Apr 24 03:51	28°♑30'15	
	4428 Nov 20 19:03	0°♏		direct		4431 May 11 02:28	22°♑58'50	
desc. node	4428 Dec 14 18:51	29°♏58'32		greatest brilliancy		4431 May 22 07:27	25°♑17'34	-4.6m
	4428 Dec 14 19:19	0°♐				4431 May 31 12:43	0°♈	
evening rise	4428 Dec 29 03:34	17°♐57'23		desc. node		4431 Jun 01 13:41	0°♈39'06	
	4429 Jan 07 18:22	0°♑		morning max el		4431 Jun 29 10:18	23°♈48'06	45°59'44
	4429 Jan 31 17:03	0°♒				4431 Jul 05 17:12	0°♊	
	4429 Feb 24 17:10	0°♓				4431 Aug 02 22:49	0°♑	
	4429 Mar 20 21:47	0°♈				4431 Aug 29 09:42	0°♒	
asc. node	4429 Apr 06 21:06	20°♈47'44		asc. node		4431 Sep 22 16:11	28°♒30'03	
	4429 Apr 14 11:14	0°♊				4431 Sep 23 22:24	0°♓	
	4429 May 09 15:46	0°♑				4431 Oct 18 19:58	0°♈	
	4429 Jun 04 23:19	0°♒				4431 Nov 12 06:46	0°♉	
evening max el	4429 Jul 02 03:16	28°♒20'11	45°33'38			4431 Dec 06 10:29	0°♏	
	4429 Jul 03 20:56	0°♓		morning set		4431 Dec 24 13:18	22°♏39'05	
desc. node	4429 Jul 27 11:35	19°♓33'29				4431 Dec 30 10:03	0°♐	
greatest brilliancy	4429 Aug 06 07:42	25°♓04'51	-4.5m	desc. node		4432 Jan 12 06:40	16°♐08'17	
retrograde	4429 Aug 19 22:19	28°♓19'10				4432 Jan 23 07:22	0°♑	
evening set	4429 Sep 06 07:55	22°♓36'10						
inferior conj	4429 Sep 10 09:46	20°♓05'59	-8°-7'-20	superior conj		4432 Feb 03 09:15	13°♓55'55	0°-50'-8
minimum elong	4429 Sep 10 03:27	20°♓15'51	8°06'45	minimum elong		4432 Feb 02 22:04	13°♓20'46	0°49'40
min. Earth dist.	4429 Sep 10 11:45	20°♓02'53	0.29080 AU	max. Earth dist.		4432 Feb 03 04:33	13°♓41'10	1.71130 AU
morning rise	4429 Sep 13 22:56	17°♓54'33				4432 Feb 16 03:44	0°♒	
direct	4429 Oct 02 00:10	11°♓47'30				4432 Mar 11 00:34	0°♓	
greatest brilliancy	4429 Oct 16 07:59	15°♓24'14	-4.5m	evening rise		4432 Mar 15 09:35	5°♓29'27	

	4432 Apr 03 23:43	0°♄		asc. node	4434 Oct 20 04:00	16°♍39'51	
	4432 Apr 28 03:24	0°♂			4434 Oct 31 18:00	0°♌	
asc. node	4432 May 04 08:54	7°♂41'05			4434 Nov 26 00:07	0°♍	
	4432 May 22 13:43	0°♄			4434 Dec 20 13:46	0°♎	
	4432 Jun 16 09:05	0°♌			4435 Jan 13 18:29	0°♏	
	4432 Jul 11 17:34	0°♍			4435 Feb 06 18:37	0°♐	
	4432 Aug 07 00:09	0°♌		desc. node	4435 Feb 08 18:35	2°♐30'17	
desc. node	4432 Aug 23 23:25	18°♌26'16			4435 Mar 02 16:38	0°♑	
	4432 Sep 04 04:46	0°♍		morning set	4435 Mar 11 03:25	10°♑36'24	
evening max el	4432 Sep 11 14:59	7°♍16'35	45°46'06		4435 Mar 26 14:22	0°♒	
	4432 Oct 09 13:16	0°♎			4435 Apr 19 13:34	0°♓	
greatest brilliancy	4432 Oct 19 12:08	5°♎00'09	-4.5m				
retrograde	4432 Oct 30 10:38	7°♎08'53		superior conj	4435 Apr 20 14:24	1°♓17'30	-1°-20'-3
evening set	4432 Nov 15 14:03	2°♎12'19		minimum elong	4435 Apr 20 22:28	1°♓42'42	1°19'55
	4432 Nov 19 07:13	30°♍		max. Earth dist.	4435 Apr 24 11:35	6°♓08'15	1.71939 AU
inferior conj	4432 Nov 20 09:30	29°♍19'33	-5°-43'-8		4435 May 13 15:44	0°♈	
minimum elong	4432 Nov 20 19:41	29°♍03'51	5°40'44	evening rise	4435 May 29 22:03	20°♈08'38	
min. Earth dist.	4432 Nov 21 08:25	28°♍44'13	0.27592 AU	asc. node	4435 Jun 01 20:46	23°♈47'01	
morning rise	4432 Nov 26 00:39	25°♍57'42			4435 Jun 06 21:41	0°♉	
direct	4432 Dec 11 10:01	21°♍19'53			4435 Jul 01 07:44	0°♊	
asc. node	4432 Dec 15 01:32	21°♍35'33			4435 Jul 25 22:25	0°♋	
greatest brilliancy	4432 Dec 25 10:53	24°♍54'58	-4.6m		4435 Aug 19 19:18	0°♌	
	4433 Jan 03 02:48	0°♎			4435 Sep 14 01:30	0°♍	
morning max el	4433 Jan 31 00:41	24°♎28'41	46°54'50	desc. node	4435 Sep 21 11:15	8°♍40'41	
	4433 Feb 05 09:02	0°♏			4435 Oct 09 22:15	0°♎	
	4433 Mar 04 11:46	0°♐			4435 Nov 05 21:24	0°♏	
	4433 Mar 30 01:17	0°♑		evening max el	4435 Nov 24 09:51	19°♏12'34	46°44'34
desc. node	4433 Apr 05 16:21	7°♑55'26			4435 Dec 05 19:19	0°♐	
	4433 Apr 23 23:58	0°♒		greatest brilliancy	4436 Jan 02 01:49	19°♐02'23	-4.6m
	4433 May 18 16:26	0°♓		asc. node	4436 Jan 12 13:31	21°♐32'00	
	4433 Jun 12 06:40	0°♈		retrograde	4436 Jan 13 16:24	21°♐33'32	
	4433 Jul 06 20:07	0°♉		evening set	4436 Jan 28 12:31	17°♐11'39	
asc. node	4433 Jul 27 18:29	25°♐36'39		inferior conj	4436 Feb 03 06:01	13°♐49'30	5°18'08
	4433 Jul 31 08:26	0°♊		minimum elong	4436 Feb 02 19:49	14°♐05'05	5°15'26
morning set	4433 Aug 03 14:55	4°♊00'32		min. Earth dist.	4436 Feb 02 19:31	14°♐05'32	0.26645 AU
	4433 Aug 24 18:46	0°♋		morning rise	4436 Feb 08 03:12	10°♐55'32	
max. Earth dist.	4433 Sep 07 00:24	16°♋18'18	1.73295 AU	direct	4436 Feb 23 16:22	6°♐08'50	
				greatest brilliancy	4436 Mar 06 06:02	8°♐38'50	-4.7m
superior conj	4433 Sep 09 03:06	18°♋54'37	1°20'01		4436 Apr 04 23:19	0°♑	
minimum elong	4433 Sep 08 21:13	18°♋36'28	1°19'55	morning max el	4436 Apr 13 23:43	8°♑41'45	46°46'06
	4433 Sep 18 02:47	0°♌		desc. node	4436 May 03 04:03	28°♑49'12	
	4433 Oct 12 09:08	0°♍			4436 May 04 06:00	0°♒	
evening rise	4433 Oct 15 13:57	3°♍57'37			4436 May 30 20:46	0°♓	
	4433 Nov 05 14:49	0°♎			4436 Jun 25 13:28	0°♈	
desc. node	4433 Nov 16 09:01	13°♎18'57			4436 Jul 20 19:44	0°♉	
	4433 Nov 29 20:30	0°♏			4436 Aug 14 18:56	0°♊	
	4433 Dec 24 02:36	0°♐		asc. node	4436 Aug 24 06:17	11°♊28'12	
	4434 Jan 17 10:27	0°♑			4436 Sep 08 11:36	0°♋	
	4434 Feb 10 23:50	0°♒			4436 Oct 02 22:06	0°♌	
	4434 Mar 08 02:55	0°♓		morning set	4436 Oct 10 21:25	9°♌50'38	
asc. node	4434 Mar 09 11:08	1°♓34'13			4436 Oct 27 03:39	0°♍	
	4434 Apr 03 13:06	0°♈		max. Earth dist.	4436 Nov 14 11:09	22°♍47'12	1.72133 AU
evening max el	4434 Apr 20 04:31	17°♈24'08	46°22'04				
	4434 May 03 14:44	0°♉		superior conj	4436 Nov 17 04:38	26°♍11'20	0°58'21
greatest brilliancy	4434 May 25 09:11	15°♉20'10	-4.5m	minimum elong	4436 Nov 17 14:43	26°♍42'48	0°57'59
retrograde	4434 Jun 08 23:05	19°♉07'48			4436 Nov 20 05:57	0°♎	
evening set	4434 Jun 24 00:32	14°♉42'51		desc. node	4436 Dec 13 20:56	29°♎30'41	
desc. node	4434 Jun 29 01:43	11°♉42'46			4436 Dec 14 06:19	0°♏	
inferior conj	4434 Jun 30 08:41	10°♉54'15	0°-18'-38	evening rise	4436 Dec 26 16:00	15°♏31'20	
minimum elong	4434 Jun 30 08:00	10°♉55'20	0°18'28		4437 Jan 07 05:30	0°♐	
min. Earth dist.	4434 Jun 30 02:01	11°♉04'43	0.28596 AU		4437 Jan 31 04:23	0°♑	
morning rise	4434 Jul 06 15:49	7°♉07'21			4437 Feb 24 04:45	0°♒	
direct	4434 Jul 21 17:31	2°♉44'22			4437 Mar 20 09:42	0°♓	
greatest brilliancy	4434 Aug 03 11:54	5°♉35'31	-4.5m	asc. node	4437 Apr 05 22:59	20°♓16'09	
	4434 Sep 05 21:55	0°♊			4437 Apr 13 23:43	0°♈	
morning max el	4434 Sep 08 09:00	2°♊19'29	45°42'50		4437 May 09 05:21	0°♉	
	4434 Oct 05 05:33	0°♋			4437 Jun 04 15:19	0°♊	

evening max el	4437 Jun 29 20:00	26°Ω11'07	45°34'29			4439 Dec 05 21:38	0°♂	
	4437 Jul 03 20:23	0°♂		morning set		4439 Dec 22 01:54	20°♂13'22	
desc. node	4437 Jul 26 13:40	18°♂18'59				4439 Dec 29 21:10	0°♂	
greatest brilliancy	4437 Aug 03 22:00	22°♂53'22	-4.5m	desc. node		4440 Jan 11 08:45	15°♂39'52	
retrograde	4437 Aug 17 14:31	26°♂09'22				4440 Jan 22 18:29	0°≈	
evening set	4437 Sep 03 21:09	20°♂30'39						
inferior conj	4437 Sep 08 01:58	17°♂55'47	-8°00'-22	superior conj		4440 Jan 31 19:44	11°≈23'02	0°-46'-49
minimum elong	4437 Sep 07 19:06	18°♂06'32	7°59'39	minimum elong		4440 Jan 31 09:00	10°≈49'17	0°46'22
min. Earth dist.	4437 Sep 08 02:39	17°♂54'43	0.29092 AU	max. Earth dist.		4440 Jan 31 07:08	10°≈43'24	1.71135 AU
morning rise	4437 Sep 11 17:02	15°♂41'22				4440 Feb 15 14:52	0°♂	
direct	4437 Sep 29 17:06	9°♂37'27				4440 Mar 10 11:42	0°♀	
greatest brilliancy	4437 Oct 13 22:10	13°♂11'14	-4.5m	evening rise		4440 Mar 12 20:14	2°♀57'23	
	4437 Nov 06 18:26	0°♂				4440 Apr 03 10:53	0°♂	
asc. node	4437 Nov 16 15:45	9°♂12'44				4440 Apr 27 14:42	0°♂	
morning max el	4437 Nov 18 07:55	10°♂51'16	46°13'06	asc. node		4440 May 03 10:57	7°♂12'28	
	4437 Dec 06 15:36	0°♂				4440 May 22 01:19	0°♂	
	4438 Jan 01 23:53	0°♂				4440 Jun 15 21:14	0°♂	
	4438 Jan 27 01:48	0°♂				4440 Jul 11 06:44	0°♂	
	4438 Feb 20 14:07	0°≈				4440 Aug 06 15:27	0°♂	
desc. node	4438 Mar 08 06:23	19°≈22'16		desc. node		4440 Aug 23 01:24	17°♂44'23	
	4438 Mar 16 20:08	0°♂				4440 Sep 04 01:39	0°♂	
	4438 Apr 09 23:44	0°♀		evening max el		4440 Sep 09 04:01	4°♂57'27	45°44'39
	4438 May 04 03:19	0°♂				4440 Oct 11 03:37	0°♂	
morning set	4438 May 24 07:00	24°♂58'45		greatest brilliancy		4440 Oct 17 01:00	2°♂40'45	-4.5m
	4438 May 28 08:23	0°♂		retrograde		4440 Oct 27 23:40	4°♂50'09	
	4438 Jun 21 15:25	0°♂				4440 Nov 12 22:46	30°♂♂	
asc. node	4438 Jun 29 08:40	9°♂30'44		evening set		4440 Nov 13 06:55	29°♂48'32	
				inferior conj		4440 Nov 17 23:34	26°♂59'55	-5°-59'-25
superior conj	4438 Jul 01 01:17	11°♂35'49	0°04'05	minimum elong		4440 Nov 18 09:51	26°♂44'04	5°57'05
minimum elong	4438 Jul 01 00:23	11°♂33'04	0°04'03	min. Earth dist.		4440 Nov 18 23:12	26°♂23'29	0.27663 AU
behind sun begin	4438 Jun 30 01:52	10°♂23'42		morning rise		4440 Nov 23 12:05	23°♂41'33	
behind sun end	4438 Jul 01 22:55	12°♂42'27		direct		4440 Dec 09 00:12	18°♂58'53	
max. Earth dist.	4438 Jul 02 13:22	13°♂26'57	1.73280 AU	asc. node		4440 Dec 14 03:39	19°♂29'46	
	4438 Jul 16 00:01	0°♂		greatest brilliancy		4440 Dec 23 04:06	22°♂36'59	-4.6m
evening rise	4438 Aug 06 14:58	26°♂35'09				4441 Jan 04 00:56	0°♂	
	4438 Aug 09 09:39	0°♂		morning max el		4441 Jan 28 14:37	22°♂04'55	46°54'07
	4438 Sep 02 20:25	0°♂				4441 Feb 05 05:28	0°♂	
	4438 Sep 27 09:11	0°♂				4441 Mar 04 03:28	0°≈	
desc. node	4438 Oct 18 23:08	26°♂15'48				4441 Mar 29 14:59	0°♂	
	4438 Oct 22 01:05	0°♂		desc. node		4441 Apr 04 18:15	7°♂21'07	
	4438 Nov 15 21:15	0°♂				4441 Apr 23 12:33	0°♀	
	4438 Dec 11 00:08	0°≈				4441 May 18 04:17	0°♂	
	4439 Jan 05 17:16	0°♂				4441 Jun 11 18:04	0°♂	
	4439 Feb 02 00:50	0°♀		asc. node		4441 Jul 06 07:12	0°♂	
evening max el	4439 Feb 05 04:14	3°♀13'43	47°10'15			4441 Jul 26 20:27	25°♂09'11	
asc. node	4439 Feb 09 01:19	7°♀07'13				4441 Jul 30 19:20	0°♂	
	4439 Mar 08 11:06	0°♂		morning set		4441 Aug 01 08:34	1°♂54'08	
greatest brilliancy	4439 Mar 14 22:05	3°♂28'34	-4.7m			4441 Aug 24 05:34	0°♂	
retrograde	4439 Mar 27 22:35	6°♂36'12		max. Earth dist.		4441 Sep 04 20:11	14°♂18'01	1.73322 AU
evening set	4439 Apr 14 16:14	0°♂30'27						
	4439 Apr 15 12:09	30°♂♀		superior conj		4441 Sep 06 21:13	16°♂49'12	1°18'51
inferior conj	4439 Apr 17 19:59	28°♀33'09	8°24'38	minimum elong		4441 Sep 06 14:50	16°♂29'30	1°18'44
minimum elong	4439 Apr 18 03:01	28°♀22'09	8°23'52			4441 Sep 17 13:35	0°♂	
min. Earth dist.	4439 Apr 17 13:12	28°♀43'46	0.27658 AU			4441 Oct 11 20:02	0°♂	
morning rise	4439 Apr 21 14:02	26°♀15'04		evening rise		4441 Oct 13 06:32	1°♂46'41	
direct	4439 May 08 16:22	20°♀38'44				4441 Nov 05 01:56	0°♂	
greatest brilliancy	4439 May 19 19:28	22°♀55'27	-4.6m	desc. node		4441 Nov 15 11:06	12°♂50'40	
desc. node	4439 May 31 15:51	29°♀18'36				4441 Nov 29 07:55	0°♂	
	4439 Jun 01 16:22	0°♂				4441 Dec 23 14:24	0°≈	
morning max el	4439 Jun 27 00:08	21°♂29'34	46°00'58			4442 Jan 16 22:45	0°♂	
	4439 Jul 05 13:42	0°♂				4442 Feb 10 12:54	0°♀	
	4439 Aug 02 14:08	0°♂				4442 Mar 07 17:24	0°♂	
	4439 Aug 28 22:54	0°♂		asc. node		4442 Mar 08 13:04	0°♂57'24	
asc. node	4439 Sep 21 18:08	27°♂59'34				4442 Apr 03 06:49	0°♂	
	4439 Sep 23 10:32	0°♂		evening max el		4442 Apr 17 19:09	15°♂06'46	46°24'22
	4439 Oct 18 07:33	0°♂				4442 May 03 20:54	0°♂	
	4439 Nov 11 18:03	0°♂		greatest brilliancy		4442 May 23 00:37	13°♂07'16	-4.5m

retrograde	4442 Jun 06 15:34	16° \mathfrak{C} 56'38		superior conj	4444 Nov 14 19:31	23° \mathfrak{M} 54'28	1°00'52
evening set	4442 Jun 21 17:16	12° \mathfrak{C} 30'24		minimum elong	4444 Nov 15 05:34	24° \mathfrak{M} 25'47	1°00'31
inferior conj	4442 Jun 28 00:42	8° \mathfrak{C} 43'09	0°01'49		4444 Nov 19 16:47	0° \mathfrak{J}	
minimum elong	4442 Jun 28 00:46	8° \mathfrak{C} 43'02	0°01'47	desc. node	4444 Dec 12 23:01	29° \mathfrak{J} 03'04	
transit middle	4442 Jun 28 00:46	8° \mathfrak{C} 43'02	0°01'47		4444 Dec 13 17:14	0° \mathfrak{C}	
transit begin	4442 Jun 27 20:44	8° \mathfrak{C} 49'21		evening rise	4444 Dec 24 04:10	13° \mathfrak{C} 04'48	
transit end	4442 Jun 28 04:48	8° \mathfrak{C} 36'44			4445 Jan 06 16:33	0° \approx	
min. Earth dist.	4442 Jun 27 18:22	8° \mathfrak{C} 53'04	0.28567 AU		4445 Jan 30 15:36	0° \mathfrak{H}	
desc. node	4442 Jun 28 03:42	8° \mathfrak{C} 38'27			4445 Feb 23 16:11	0° \mathfrak{Y}	
morning rise	4442 Jul 04 08:37	4° \mathfrak{C} 55'27			4445 Mar 19 21:28	0° \mathfrak{B}	
direct	4442 Jul 19 08:48	0° \mathfrak{C} 33'27		asc. node	4445 Apr 05 01:04	19° \mathfrak{B} 45'41	
greatest brilliancy	4442 Aug 01 03:25	3° \mathfrak{C} 25'00	-4.5m		4445 Apr 13 12:05	0° \mathfrak{H}	
	4442 Sep 05 20:56	0° \mathfrak{Q}			4445 May 08 18:51	0° \mathfrak{C}	
morning max el	4442 Sep 06 01:16	0° \mathfrak{Q} 10'18	45°42'34		4445 Jun 04 07:24	0° \mathfrak{Q}	
	4442 Oct 04 21:21	0° \mathfrak{M}		evening max el	4445 Jun 27 12:18	24° \mathfrak{Q} 01'26	45°35'19
asc. node	4442 Oct 19 06:02	16° \mathfrak{M} 05'06			4445 Jul 03 20:43	0° \mathfrak{M}	
	4442 Oct 31 07:23	0° \mathfrak{L}		desc. node	4445 Jul 25 15:38	17° \mathfrak{M} 02'41	
	4442 Nov 25 12:24	0° \mathfrak{M}		greatest brilliancy	4445 Aug 01 13:15	20° \mathfrak{M} 43'42	-4.5m
	4442 Dec 20 01:31	0° \mathfrak{J}		retrograde	4445 Aug 15 06:23	24° \mathfrak{M} 00'23	
	4443 Jan 13 05:56	0° \mathfrak{C}		evening set	4445 Sep 01 10:20	18° \mathfrak{M} 26'20	
	4443 Feb 06 05:52	0° \approx		inferior conj	4445 Sep 05 18:13	15° \mathfrak{M} 46'37	-7°-52'-39
desc. node	4443 Feb 07 20:29	2° \approx 00'59		minimum elong	4445 Sep 05 10:50	15° \mathfrak{M} 58'13	7°51'48
	4443 Mar 02 03:46	0° \mathfrak{H}		min. Earth dist.	4445 Sep 05 17:54	15° \mathfrak{M} 47'08	0.29099 AU
morning set	4443 Mar 08 13:22	8° \mathfrak{H} 02'07		morning rise	4445 Sep 09 11:18	13° \mathfrak{M} 28'57	
	4443 Mar 26 01:24	0° \mathfrak{Y}		direct	4445 Sep 27 09:42	7° \mathfrak{M} 28'31	
				greatest brilliancy	4445 Oct 11 11:48	10° \mathfrak{M} 58'29	-4.5m
superior conj	4443 Apr 18 02:47	28° \mathfrak{Y} 52'03	-1°-21'-27		4445 Nov 06 21:14	0° \mathfrak{L}	
minimum elong	4443 Apr 18 10:12	29° \mathfrak{Y} 15'13	1°21'21	asc. node	4445 Nov 15 17:53	8° \mathfrak{L} 24'04	
	4443 Apr 19 00:32	0° \mathfrak{B}		morning max el	4445 Nov 15 22:34	8° \mathfrak{L} 35'36	46°11'24
max. Earth dist.	4443 Apr 21 21:08	3° \mathfrak{B} 34'09	1.71887 AU		4445 Dec 06 08:24	0° \mathfrak{M}	
	4443 May 13 02:39	0° \mathfrak{H}			4446 Jan 01 13:51	0° \mathfrak{J}	
evening rise	4443 May 27 12:51	17° \mathfrak{H} 52'25			4446 Jan 26 14:30	0° \mathfrak{C}	
asc. node	4443 May 31 22:53	23° \mathfrak{H} 19'55			4446 Feb 20 02:07	0° \approx	
	4443 Jun 06 08:36	0° \mathfrak{C}		desc. node	4446 Mar 07 08:26	18° \approx 52'20	
	4443 Jun 30 18:45	0° \mathfrak{Q}			4446 Mar 16 07:42	0° \mathfrak{H}	
	4443 Jul 25 09:43	0° \mathfrak{M}			4446 Apr 09 10:57	0° \mathfrak{Y}	
	4443 Aug 19 07:10	0° \mathfrak{L}			4446 May 03 14:17	0° \mathfrak{B}	
	4443 Sep 13 14:21	0° \mathfrak{M}		morning set	4446 May 21 22:04	22° \mathfrak{B} 43'26	
desc. node	4443 Sep 20 13:12	8° \mathfrak{M} 07'50			4446 May 27 19:09	0° \mathfrak{H}	
	4443 Oct 09 12:52	0° \mathfrak{J}			4446 Jun 21 02:04	0° \mathfrak{C}	
	4443 Nov 05 15:45	0° \mathfrak{C}		asc. node	4446 Jun 28 10:36	9° \mathfrak{C} 03'54	
evening max el	4443 Nov 22 00:24	16° \mathfrak{C} 52'11	46°42'38				
	4443 Dec 06 02:11	0° \approx		superior conj	4446 Jun 28 17:56	9° \mathfrak{C} 26'30	0°00'45
greatest brilliancy	4443 Dec 30 14:13	16° \approx 34'01	-4.6m	minimum elong	4446 Jun 28 17:45	9° \mathfrak{C} 25'58	0°00'43
retrograde	4444 Jan 11 05:24	19° \approx 05'04		behind sun begin	4446 Jun 27 18:40	8° \mathfrak{C} 14'49	
asc. node	4444 Jan 11 15:28	19° \approx 04'51		behind sun end	4446 Jun 29 16:51	10° \mathfrak{C} 37'07	
evening set	4444 Jan 25 22:21	14° \approx 46'54		max. Earth dist.	4446 Jun 30 10:03	11° \mathfrak{C} 30'06	1.73249 AU
inferior conj	4444 Jan 31 18:19	11° \approx 21'22	4°57'48		4446 Jul 15 10:38	0° \mathfrak{Q}	
minimum elong	4444 Jan 31 08:29	11° \approx 36'22	4°55'07	evening rise	4446 Aug 04 09:18	24° \mathfrak{Q} 31'15	
min. Earth dist.	4444 Jan 31 08:22	11° \approx 36'32	0.26631 AU		4446 Aug 08 20:20	0° \mathfrak{M}	
morning rise	4444 Feb 05 18:46	8° \approx 23'06			4446 Sep 02 07:16	0° \mathfrak{L}	
direct	4444 Feb 21 05:25	3° \approx 40'54			4446 Sep 26 20:20	0° \mathfrak{M}	
greatest brilliancy	4444 Mar 03 19:24	6° \approx 11'55	-4.7m	desc. node	4446 Oct 18 01:17	25° \mathfrak{M} 47'16	
	4444 Apr 05 02:16	0° \mathfrak{H}			4446 Oct 21 12:44	0° \mathfrak{J}	
morning max el	4444 Apr 11 13:52	6° \mathfrak{H} 19'39	46°47'13		4446 Nov 15 09:41	0° \mathfrak{C}	
desc. node	4444 May 02 06:12	28° \mathfrak{H} 06'42			4446 Dec 10 13:49	0° \approx	
	4444 May 03 23:26	0° \mathfrak{Y}			4447 Jan 05 09:13	0° \mathfrak{H}	
	4444 May 30 11:05	0° \mathfrak{B}			4447 Feb 01 22:25	0° \mathfrak{Y}	
	4444 Jun 25 02:13	0° \mathfrak{H}		evening max el	4447 Feb 02 17:58	0° \mathfrak{Y} 49'52	47°10'34
	4444 Jul 20 07:34	0° \mathfrak{C}		asc. node	4447 Feb 08 03:17	6° \mathfrak{Y} 12'31	
	4444 Aug 14 06:11	0° \mathfrak{Q}			4447 Mar 10 05:22	0° \mathfrak{B}	
asc. node	4444 Aug 23 08:16	11° \mathfrak{Q} 00'31		greatest brilliancy	4447 Mar 12 15:05	1° \mathfrak{B} 09'55	-4.7m
	4444 Sep 07 22:30	0° \mathfrak{M}		retrograde	4447 Mar 25 12:23	4° \mathfrak{B} 14'27	
	4444 Oct 02 08:51	0° \mathfrak{L}			4447 Apr 09 02:02	30° \mathfrak{B} 14'27	
morning set	4444 Oct 08 14:23	7° \mathfrak{L} 41'32		evening set	4447 Apr 12 08:46	28° \mathfrak{Y} 05'48	
	4444 Oct 26 14:25	0° \mathfrak{M}		inferior conj	4447 Apr 15 10:01	26° \mathfrak{Y} 12'16	8°32'25
max. Earth dist.	4444 Nov 12 00:09	20° \mathfrak{M} 24'35	1.72180 AU	minimum elong	4447 Apr 15 16:20	26° \mathfrak{Y} 02'22	8°31'49

min. Earth dist.	4447 Apr 15 03:00	26° Υ 23'14	0.27620 AU	evening rise	4449 Oct 10 23:19	29° Ω 37'08	
morning rise	4447 Apr 19 00:06	23° Υ 59'54			4449 Oct 11 06:43	0° \mathbb{M}	
direct	4447 May 06 05:29	18° Υ 18'34			4449 Nov 04 12:49	0° \mathcal{A}	
greatest brilliancy	4447 May 17 08:16	20° Υ 34'28	-4.6m	desc. node	4449 Nov 14 13:08	12° \mathcal{A} 23'00	
desc. node	4447 May 30 17:54	28° Υ 00'56			4449 Nov 28 19:05	0° \mathcal{C}	
	4447 Jun 02 12:18	0° \mathcal{B}			4449 Dec 23 01:55	0° \approx	
morning max el	4447 Jun 24 13:21	19° \mathcal{B} 10'10	46°02'19		4450 Jan 16 10:45	0° \mathcal{H}	
	4447 Jul 05 09:13	0° \mathbb{I}			4450 Feb 10 01:42	0° Υ	
	4447 Aug 02 04:53	0° \mathcal{G}			4450 Mar 07 07:41	0° \mathcal{B}	
	4447 Aug 28 11:41	0° \mathcal{Q}		asc. node	4450 Mar 07 15:09	0° \mathcal{B} 21'43	
asc. node	4447 Sep 20 20:11	27° \mathcal{Q} 30'26			4450 Apr 03 00:38	0° \mathbb{I}	
	4447 Sep 22 22:18	0° \mathbb{P}		evening max el	4450 Apr 15 10:42	12° \mathbb{I} 52'22	46°26'31
	4447 Oct 17 18:46	0° \mathcal{A}			4450 May 04 05:14	0° \mathcal{G}	
	4447 Nov 11 04:58	0° \mathbb{M}		greatest brilliancy	4450 May 20 16:33	10° \mathcal{G} 55'22	-4.6m
	4447 Dec 05 08:25	0° \mathcal{A}		retrograde	4450 Jun 04 08:15	14° \mathcal{G} 45'30	
morning set	4447 Dec 19 14:52	17° \mathcal{A} 49'55		evening set	4450 Jun 19 10:06	10° \mathcal{G} 17'54	
	4447 Dec 29 07:56	0° \mathcal{C}		inferior conj	4450 Jun 25 16:35	6° \mathcal{G} 32'01	0°22'24
desc. node	4448 Jan 10 10:42	15° \mathcal{C} 12'07		minimum elong	4450 Jun 25 17:25	6° \mathcal{G} 30'43	0°22'09
	4448 Jan 22 05:17	0° \approx		min. Earth dist.	4450 Jun 25 10:19	6° \mathcal{G} 41'49	0.28538 AU
max. Earth dist.	4448 Jan 28 11:01	7° \approx 50'46	1.71151 AU	desc. node	4450 Jun 27 05:40	5° \mathcal{G} 34'12	
				morning rise	4450 Jul 02 01:10	2° \mathcal{G} 43'51	
superior conj	4448 Jan 29 06:14	8° \approx 51'09	0°-43'-24		4450 Jul 08 00:13	30° \mathcal{R} \mathbb{I}	
minimum elong	4448 Jan 28 20:02	8° \approx 19'07	0°42'59	direct	4450 Jul 17 00:35	28° \mathbb{I} 22'42	
	4448 Feb 15 01:42	0° \mathcal{H}			4450 Jul 26 11:29	0° \mathcal{G}	
	4448 Mar 09 22:34	0° Υ		greatest brilliancy	4450 Jul 29 18:15	1° \mathcal{G} 14'01	-4.5m
evening rise	4448 Mar 10 06:35	0° Υ 25'09		morning max el	4450 Sep 03 17:49	28° \mathcal{G} 02'30	45°42'21
	4448 Apr 02 21:49	0° \mathcal{B}			4450 Sep 05 18:47	0° \mathcal{Q}	
	4448 Apr 27 01:45	0° \mathbb{I}			4450 Oct 04 12:39	0° \mathbb{P}	
asc. node	4448 May 02 13:01	6° \mathbb{I} 44'38		asc. node	4450 Oct 18 08:09	15° \mathbb{P} 31'27	
	4448 May 21 12:40	0° \mathcal{G}			4450 Oct 30 20:25	0° \mathcal{A}	
	4448 Jun 15 09:08	0° \mathcal{Q}			4450 Nov 25 00:26	0° \mathbb{M}	
	4448 Jul 10 19:43	0° \mathbb{P}			4450 Dec 19 13:01	0° \mathcal{A}	
	4448 Aug 06 06:40	0° \mathcal{A}			4451 Jan 12 17:10	0° \mathcal{C}	
desc. node	4448 Aug 22 03:24	17° \mathcal{A} 02'56			4451 Feb 05 16:54	0° \approx	
	4448 Sep 03 22:56	0° \mathbb{M}		desc. node	4451 Feb 06 22:34	1° \approx 33'00	
evening max el	4448 Sep 06 17:20	2° \mathbb{M} 40'08	45°43'18		4451 Mar 01 14:38	0° \mathcal{H}	
	4448 Oct 13 14:44	0° \mathcal{A}		morning set	4451 Mar 05 23:47	5° \mathcal{H} 30'03	
greatest brilliancy	4448 Oct 14 12:56	0° \mathcal{A} 21'41	-4.5m		4451 Mar 25 12:11	0° Υ	
retrograde	4448 Oct 25 13:17	2° \mathcal{A} 32'57					
	4448 Nov 05 22:46	30° \mathcal{R} \mathbb{M}		superior conj	4451 Apr 15 15:22	26° Υ 27'51	-1°-22'-41
evening set	4448 Nov 10 23:51	27° \mathbb{M} 26'06		minimum elong	4451 Apr 15 22:04	26° Υ 48'48	1°22'37
inferior conj	4448 Nov 15 13:40	24° \mathbb{M} 41'39	-6°-14'-55		4451 Apr 18 11:15	0° \mathcal{B}	
minimum elong	4448 Nov 16 00:00	24° \mathbb{M} 25'45	6°12'41	max. Earth dist.	4451 Apr 19 09:49	1° \mathcal{B} 10'26	1.71841 AU
min. Earth dist.	4448 Nov 16 13:38	24° \mathbb{M} 04'46	0.27732 AU		4451 May 12 13:21	0° \mathbb{I}	
morning rise	4448 Nov 20 23:28	21° \mathbb{M} 27'13		evening rise	4451 May 25 03:39	15° \mathbb{I} 36'42	
direct	4448 Dec 06 14:46	16° \mathbb{M} 39'21		asc. node	4451 May 31 00:49	22° \mathbb{I} 52'47	
asc. node	4448 Dec 13 05:32	17° \mathbb{M} 30'02			4451 Jun 05 19:20	0° \mathcal{G}	
greatest brilliancy	4448 Dec 20 21:27	20° \mathbb{M} 20'49	-4.6m		4451 Jun 30 05:37	0° \mathcal{Q}	
	4449 Jan 04 16:43	0° \mathcal{A}			4451 Jul 24 20:54	0° \mathbb{P}	
morning max el	4449 Jan 26 05:24	19° \mathcal{A} 44'43	46°53'22		4451 Aug 18 18:56	0° \mathcal{A}	
	4449 Feb 05 00:50	0° \mathcal{C}			4451 Sep 13 03:08	0° \mathbb{M}	
	4449 Mar 03 18:33	0° \approx		desc. node	4451 Sep 19 15:21	7° \mathbb{M} 35'51	
	4449 Mar 29 04:14	0° \mathcal{H}			4451 Oct 09 03:31	0° \mathcal{A}	
desc. node	4449 Apr 03 20:23	6° \mathcal{H} 48'32			4451 Nov 05 10:24	0° \mathcal{C}	
	4449 Apr 23 00:47	0° Υ		evening max el	4451 Nov 19 15:12	14° \mathcal{C} 32'55	46°40'34
	4449 May 17 15:53	0° \mathcal{B}			4451 Dec 06 11:23	0° \approx	
	4449 Jun 11 05:12	0° \mathbb{I}		greatest brilliancy	4451 Dec 28 03:32	14° \approx 07'19	-4.6m
	4449 Jul 05 18:01	0° \mathcal{G}		retrograde	4452 Jan 08 18:09	16° \approx 36'57	
asc. node	4449 Jul 25 22:25	24° \mathcal{G} 42'40		asc. node	4452 Jan 10 17:30	16° \approx 32'11	
morning set	4449 Jul 30 02:03	29° \mathcal{G} 48'04		evening set	4452 Jan 23 08:32	12° \approx 22'32	
	4449 Jul 30 05:57	0° \mathcal{Q}		inferior conj	4452 Jan 29 06:39	8° \approx 53'47	4°36'56
	4449 Aug 23 16:05	0° \mathbb{P}		minimum elong	4452 Jan 28 21:16	9° \approx 08'07	4°34'18
max. Earth dist.	4449 Sep 02 17:39	12° \mathbb{P} 23'51	1.73348 AU	min. Earth dist.	4452 Jan 28 21:32	9° \approx 07'43	0.26616 AU
				morning rise	4452 Feb 03 10:12	5° \approx 51'14	
superior conj	4449 Sep 04 15:16	14° \mathbb{P} 44'24	1°17'35	direct	4452 Feb 18 18:27	1° \approx 13'41	
minimum elong	4449 Sep 04 08:25	14° \mathbb{P} 23'19	1°17'27	greatest brilliancy	4452 Mar 01 08:41	3° \approx 45'14	-4.7m
	4449 Sep 17 00:08	0° \mathcal{A}			4452 Apr 05 03:31	0° \mathcal{H}	

morning max el	4452 Apr 09 03:03	3° X 55'38	46°48'27		4454 Oct 21 00:37	0° X	
desc. node	4452 May 01 08:14	27° X 25'01			4454 Nov 14 22:24	0° Z	
	4452 May 03 16:18	0° Y			4454 Dec 10 03:50	0° \approx	
	4452 May 30 01:03	0° B			4455 Jan 05 01:39	0° X	
	4452 Jun 24 14:45	0° II		evening max el	4455 Jan 31 06:48	28° X 22'59	47°10'49
	4452 Jul 19 19:15	0° S			4455 Feb 01 21:08	0° Y	
	4452 Aug 13 17:21	0° Q		asc. node	4455 Feb 07 05:24	5° Y 16'20	
asc. node	4452 Aug 22 10:22	10° Q 33'19		greatest brilliancy	4455 Mar 10 07:21	28° Y 49'18	-4.7m
	4452 Sep 07 09:22	0° M			4455 Mar 13 04:52	0° B	
	4452 Oct 01 19:34	0° A		retrograde	4455 Mar 23 02:07	1° B 51'50	
morning set	4452 Oct 06 07:19	5° A 32'32			4455 Apr 01 14:56	30° R Y	
	4452 Oct 26 01:07	0° M		evening set	4455 Apr 10 00:57	25° Y 40'20	
max. Earth dist.	4452 Nov 09 12:47	18° M 01'06	1.72228 AU	inferior conj	4455 Apr 12 23:59	23° Y 50'21	8°39'23
				minimum elong	4455 Apr 13 05:33	23° Y 41'39	8°38'55
superior conj	4452 Nov 12 10:33	21° M 38'21	1°03'16	min. Earth dist.	4455 Apr 12 16:49	24° Y 01'32	0.27584 AU
minimum elong	4452 Nov 12 20:31	22° M 09'20	1°02'57	morning rise	4455 Apr 16 10:18	21° Y 43'37	
	4452 Nov 19 03:33	0° X		direct	4455 May 03 18:20	15° Y 57'01	
desc. node	4452 Dec 12 00:55	28° X 34'59		greatest brilliancy	4455 May 14 21:57	18° Y 13'26	-4.6m
	4452 Dec 13 04:08	0° Z		desc. node	4455 May 29 19:48	26° Y 44'28	
evening rise	4452 Dec 21 16:29	10° Z 38'50			4455 Jun 03 03:32	0° B	
	4453 Jan 06 03:37	0° \approx		morning max el	4455 Jun 22 02:56	16° B 50'44	46°03'57
	4453 Jan 30 02:50	0° X			4455 Jul 05 04:26	0° II	
	4453 Feb 23 03:39	0° Y			4455 Aug 01 19:40	0° S	
	4453 Mar 19 09:16	0° B			4455 Aug 28 00:35	0° Q	
asc. node	4453 Apr 04 03:09	19° B 15'13		asc. node	4455 Sep 19 22:14	27° Q 00'46	
	4453 Apr 13 00:27	0° II			4455 Sep 22 10:15	0° M	
	4453 May 08 08:24	0° S			4455 Oct 17 06:13	0° A	
	4453 Jun 03 23:41	0° Q			4455 Nov 10 16:10	0° M	
evening max el	4453 Jun 25 03:47	21° Q 49'50	45°36'05		4455 Dec 04 19:32	0° X	
	4453 Jul 03 22:16	0° M		greatest brilliancy	4455 Dec 05 08:10	0° X 39'27	-3.9m
desc. node	4453 Jul 24 17:41	15° M 44'09		morning set	4455 Dec 17 03:52	15° X 25'42	
greatest brilliancy	4453 Jul 30 04:29	18° M 33'54	-4.5m		4455 Dec 28 19:01	0° Z	
retrograde	4453 Aug 12 22:01	21° M 51'38		desc. node	4456 Jan 09 12:47	14° Z 43'55	
evening set	4453 Aug 29 23:34	16° M 22'10			4456 Jan 21 16:23	0° \approx	
inferior conj	4453 Sep 03 10:37	13° M 37'42	-7°-44'-19	max. Earth dist.	4456 Jan 25 17:52	5° \approx 06'27	1.71167 AU
minimum elong	4453 Sep 03 02:44	13° M 50'05	7°43'20				
min. Earth dist.	4453 Sep 03 09:37	13° M 39'15	0.29107 AU	superior conj	4456 Jan 26 16:36	6° \approx 17'58	0°-39'-54
morning rise	4453 Sep 07 05:51	11° M 16'33		minimum elong	4456 Jan 26 07:02	5° \approx 47'52	0°39'29
direct	4453 Sep 25 01:57	5° M 19'39			4456 Feb 14 12:50	0° X	
greatest brilliancy	4453 Oct 09 02:30	8° M 46'59	-4.5m	evening rise	4456 Mar 07 16:57	27° X 52'02	
	4453 Nov 06 22:41	0° A			4456 Mar 09 09:44	0° Y	
morning max el	4453 Nov 13 12:32	6° A 18'06	46°09'48		4456 Apr 02 09:04	0° B	
asc. node	4453 Nov 14 19:47	7° A 35'24			4456 Apr 26 13:11	0° II	
	4453 Dec 06 00:57	0° M		asc. node	4456 May 01 14:58	6° II 15'19	
	4454 Jan 01 03:44	0° X			4456 May 21 00:24	0° S	
	4454 Jan 26 03:12	0° Z			4456 Jun 14 21:25	0° Q	
	4454 Feb 19 14:10	0° \approx			4456 Jul 10 09:04	0° M	
desc. node	4454 Mar 06 10:28	18° \approx 22'08			4456 Aug 05 22:22	0° A	
	4454 Mar 15 19:20	0° X		desc. node	4456 Aug 21 05:32	16° A 20'31	
	4454 Apr 08 22:17	0° Y			4456 Sep 03 21:19	0° M	
	4454 May 03 01:21	0° B		evening max el	4456 Sep 04 07:24	0° M 24'06	45°42'02
morning set	4454 May 19 13:17	20° B 28'07		greatest brilliancy	4456 Oct 12 00:09	28° M 01'31	-4.5m
	4454 May 27 06:01	0° II			4456 Oct 19 11:51	0° X	
	4454 Jun 20 12:48	0° S		retrograde	4456 Oct 23 03:30	0° X 15'18	
					4456 Oct 26 17:34	30° R M	
superior conj	4454 Jun 26 10:50	7° S 17'42	0°-2'-35	evening set	4456 Nov 08 16:55	25° M 03'13	
minimum elong	4454 Jun 26 11:25	7° S 19'29	0°02'36	inferior conj	4456 Nov 13 03:54	22° M 22'45	-6°-29'-40
behind sun begin	4454 Jun 25 12:25	6° S 08'38		minimum elong	4456 Nov 13 14:11	22° M 06'55	6°27'33
behind sun end	4454 Jun 27 10:24	8° S 30'19		min. Earth dist.	4456 Nov 14 03:44	21° M 46'05	0.27805 AU
asc. node	4454 Jun 27 12:38	8° S 37'12		morning rise	4456 Nov 18 10:51	19° M 12'32	
max. Earth dist.	4454 Jun 28 06:00	9° S 30'42	1.73215 AU	direct	4456 Dec 04 06:01	14° M 19'20	
	4454 Jul 14 21:21	0° Q		asc. node	4456 Dec 12 07:36	15° M 34'07	
evening rise	4454 Aug 02 03:53	22° Q 27'50		greatest brilliancy	4456 Dec 18 14:31	18° M 03'31	-4.6m
	4454 Aug 08 07:07	0° M			4457 Jan 05 05:00	0° X	
	4454 Sep 01 18:16	0° A		morning max el	4457 Jan 23 21:01	17° X 25'32	46°52'27
	4454 Sep 26 07:41	0° M			4457 Feb 04 20:08	0° Z	
desc. node	4454 Oct 17 03:14	25° M 17'25			4457 Mar 03 09:51	0° \approx	

	4457 Mar 28 17:46	0° H			4459 Oct 08 18:37	0° J		
desc. node	4457 Apr 02 22:25	6° H 14'39			4459 Nov 05 05:48	0° Z		
	4457 Apr 22 13:20	0° Y		evening max el	4459 Nov 17 05:18	12° Z 11'31	46°38'29	
	4457 May 17 03:48	0° B			4459 Dec 06 23:59	0° \approx		
	4457 Jun 10 16:41	0° II		greatest brilliancy	4459 Dec 25 17:32	11° \approx 41'04	-4.6m	
	4457 Jul 05 05:13	0° S		retrograde	4460 Jan 06 06:22	14° \approx 08'22		
asc. node	4457 Jul 25 00:34	24° S 15'32		asc. node	4460 Jan 09 19:34	13° \approx 52'59		
morning set	4457 Jul 27 19:42	27° S 41'17		evening set	4460 Jan 20 19:00	9° \approx 57'24		
	4457 Jul 29 16:56	0° O		inferior conj	4460 Jan 26 19:03	6° \approx 25'51	4°15'31	
	4457 Aug 23 02:57	0° M		minimum elong	4460 Jan 26 10:13	6° \approx 39'22	4°12'58	
max. Earth dist.	4457 Aug 31 15:57	10° M 31'11	1.73366 AU	min. Earth dist.	4460 Jan 26 11:04	6° \approx 38'03	0.26609 AU	
				morning rise	4460 Feb 01 01:34	3° \approx 18'55		
superior conj	4457 Sep 02 09:29	12° M 39'11	1°16'13		4460 Feb 08 12:30	30° R Z		
minimum elong	4457 Sep 02 02:14	12° M 16'49	1°16'03	direct	4460 Feb 16 07:01	28° Z 45'51		
	4457 Sep 16 10:59	0° A			4460 Feb 24 07:06	0° \approx		
evening rise	4457 Oct 08 16:22	27° A 27'32		greatest brilliancy	4460 Feb 27 22:45	1° \approx 18'32	-4.7m	
	4457 Oct 10 17:41	0° M			4460 Apr 05 04:00	0° H		
	4457 Nov 04 00:03	0° J		morning max el	4460 Apr 06 15:22	1° H 28'05	46°49'27	
desc. node	4457 Nov 13 15:06	11° J 54'06		desc. node	4460 Apr 30 10:09	26° H 42'21		
	4457 Nov 28 06:38	0° Z			4460 May 03 09:15	0° Y		
	4457 Dec 22 13:52	0° \approx			4460 May 29 15:15	0° B		
	4458 Jan 15 23:14	0° H			4460 Jun 24 03:31	0° II		
	4458 Feb 09 15:03	0° Y			4460 Jul 19 07:11	0° S		
asc. node	4458 Mar 06 17:11	29° Y 44'07			4460 Aug 13 04:45	0° O		
	4458 Mar 06 22:40	0° B		asc. node	4460 Aug 21 12:21	10° O 05'05		
	4458 Apr 02 19:26	0° II			4460 Sep 06 20:28	0° M		
evening max el	4458 Apr 13 02:35	10° II 37'16	46°28'41		4460 Oct 01 06:32	0° A		
	4458 May 04 17:24	0° S		morning set	4460 Oct 04 00:11	3° A 22'38		
greatest brilliancy	4458 May 18 09:25	8° S 43'04	-4.6m		4460 Oct 25 12:02	0° M		
retrograde	4458 Jun 02 00:49	12° S 32'15		max. Earth dist.	4460 Nov 07 01:49	15° M 38'19	1.72272 AU	
evening set	4458 Jun 17 02:56	8° S 03'25						
inferior conj	4458 Jun 23 08:15	4° S 18'53	0°43'12	superior conj	4460 Nov 10 01:53	19° M 22'36	1°05'33	
minimum elong	4458 Jun 23 09:51	4° S 16'22	0°42'42	minimum elong	4460 Nov 10 11:42	19° M 53'09	1°05'14	
min. Earth dist.	4458 Jun 23 01:55	4° S 28'46	0.28506 AU		4460 Nov 18 14:29	0° J		
desc. node	4458 Jun 26 07:48	2° S 28'14		desc. node	4460 Dec 11 03:03	28° J 07'12		
morning rise	4458 Jun 29 17:19	0° S 30'24			4460 Dec 12 15:09	0° Z		
	4458 Jun 30 16:10	30° R II		evening rise	4460 Dec 19 05:10	8° Z 13'48		
direct	4458 Jul 14 16:27	26° II 10'09			4461 Jan 05 14:46	0° \approx		
greatest brilliancy	4458 Jul 27 07:56	28° II 59'58	-4.5m		4461 Jan 29 14:12	0° H		
	4458 Jul 29 13:19	0° S			4461 Feb 22 15:15	0° Y		
morning max el	4458 Sep 01 10:03	25° S 52'42	45°42'16		4461 Mar 18 21:15	0° B		
	4458 Sep 05 16:17	0° O		asc. node	4461 Apr 03 05:02	18° B 43'24		
	4458 Oct 04 04:05	0° M			4461 Apr 12 13:06	0° II		
asc. node	4458 Oct 17 10:03	14° M 56'30			4461 May 07 22:20	0° S		
	4458 Oct 30 09:41	0° A			4461 Jun 03 16:35	0° O		
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	4458 Dec 19 00:48	0° J			4461 Jul 04 01:43	0° M		
	4459 Jan 12 04:41	0° Z		desc. node	4461 Jul 23 19:44	14° M 22'14		
	4459 Feb 05 04:16	0° \approx		greatest brilliancy	4461 Jul 27 18:47	16° M 22'02	-4.5m	
desc. node	4459 Feb 06 00:40	1° \approx 03'55		retrograde	4461 Aug 10 13:36	19° M 42'05		
	4459 Mar 01 01:54	0° H		evening set	4461 Aug 27 12:36	14° M 16'58		
morning set	4459 Mar 03 09:43	2° H 55'15		inferior conj	4461 Sep 01 02:51	11° M 27'54	-7°-35'-19	
	4459 Mar 24 23:21	0° Y		minimum elong	4461 Aug 31 18:32	11° M 40'58	7°34'11	
				min. Earth dist.	4461 Sep 01 01:20	11° M 30'16	0.29112 AU	
superior conj	4459 Apr 13 03:20	24° Y 00'27	-1°-23'-47	morning rise	4461 Sep 05 00:22	9° M 03'13		
minimum elong	4459 Apr 13 09:12	24° Y 18'50	1°23'44	direct	4461 Sep 22 17:40	3° M 09'46		
max. Earth dist.	4459 Apr 16 23:24	28° Y 48'14	1.71791 AU	greatest brilliancy	4461 Oct 06 18:10	6° M 36'04	-4.5m	
	4459 Apr 17 22:22	0° B			4461 Nov 06 23:03	0° A		
	4459 May 12 00:25	0° II		morning max el	4461 Nov 11 02:42	4° A 00'46	46°08'24	
evening rise	4459 May 22 17:54	13° II 18'05		asc. node	4461 Nov 13 21:51	6° A 47'29		
asc. node	4459 May 30 02:51	22° II 24'54			4461 Dec 05 17:18	0° M		
	4459 Jun 05 06:26	0° S			4461 Dec 31 17:32	0° J		
	4459 Jun 29 16:52	0° O			4462 Jan 25 15:48	0° Z		
	4459 Jul 24 08:29	0° M			4462 Feb 19 02:06	0° \approx		
	4459 Aug 18 07:06	0° A		desc. node	4462 Mar 05 12:27	17° \approx 52'04		
	4459 Sep 12 16:20	0° M			4462 Mar 15 06:52	0° H		
desc. node	4459 Sep 18 17:18	7° M 02'10			4462 Apr 08 09:33	0° Y		

	4462 May 02 12:24	0°♄		retrograde	4464 Oct 20 17:44	27°♌58'08	
morning set	4462 May 17 04:06	18°♄11'22		evening set	4464 Nov 06 09:58	22°♌41'08	
	4462 May 26 16:55	0°♄		inferior conj	4464 Nov 10 18:03	20°♌04'30	-6°-43'-46
	4462 Jun 19 23:35	0°♄		minimum elong	4464 Nov 11 04:14	19°♌48'49	6°41'46
				min. Earth dist.	4464 Nov 11 17:27	19°♌28'28	0.27876 AU
superior conj	4462 Jun 24 03:18	5°♌07'23	0°-5'-57	morning rise	4464 Nov 15 21:59	16°♌58'35	
minimum elong	4462 Jun 24 04:36	5°♌11'24	0°05'54	direct	4464 Dec 01 21:27	12°♌00'13	
behind sun begin	4462 Jun 23 06:46	4°♌04'05		asc. node	4464 Dec 11 09:43	13°♌43'13	
behind sun end	4462 Jun 25 02:27	6°♌18'42		greatest brilliancy	4464 Dec 16 06:23	15°♌45'31	-4.6m
max. Earth dist.	4462 Jun 25 23:27	7°♌23'25	1.73182 AU		4465 Jan 05 13:46	0°♌	
asc. node	4462 Jun 26 14:45	8°♌10'32		morning max el	4465 Jan 21 12:33	15°♌07'10	46°51'27
	4462 Jul 14 08:06	0°♌			4465 Feb 04 14:36	0°♌	
evening rise	4462 Jul 30 22:01	20°♌22'59			4465 Mar 03 00:37	0°♌	
	4462 Aug 07 17:57	0°♌			4465 Mar 28 06:50	0°♌	
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	4462 Sep 25 19:04	0°♌			4465 Apr 22 01:25	0°♌	
desc. node	4462 Oct 16 05:13	24°♌47'35			4465 May 16 15:14	0°♌	
	4462 Oct 20 12:33	0°♌			4465 Jun 10 03:42	0°♌	
	4462 Nov 14 11:10	0°♌			4465 Jul 04 15:56	0°♌	
	4462 Dec 09 17:55	0°♌		asc. node	4465 Jul 24 02:30	23°♌49'03	
	4463 Jan 04 18:15	0°♌		morning set	4465 Jul 25 13:28	25°♌36'15	
evening max el	4463 Jan 28 19:50	25°♌57'24	47°11'13		4465 Jul 29 03:29	0°♌	
	4463 Feb 01 20:32	0°♌			4465 Aug 22 13:25	0°♌	
asc. node	4463 Feb 06 07:23	4°♌19'24		max. Earth dist.	4465 Aug 29 13:24	8°♌37'06	1.73387 AU
greatest brilliancy	4463 Mar 07 22:27	26°♌28'10	-4.7m				
retrograde	4463 Mar 20 16:17	29°♌30'25		superior conj	4465 Aug 31 03:40	10°♌34'57	1°14'45
evening set	4463 Apr 07 16:54	23°♌16'08		minimum elong	4465 Aug 30 20:02	10°♌11'25	1°14'33
inferior conj	4463 Apr 10 14:01	21°♌29'20	8°45'22		4465 Sep 15 21:30	0°♌	
minimum elong	4463 Apr 10 18:49	21°♌21'51	8°45'01	evening rise	4465 Oct 06 09:15	25°♌18'29	
min. Earth dist.	4463 Apr 10 06:23	21°♌41'14	0.27551 AU		4465 Oct 10 04:21	0°♌	
morning rise	4463 Apr 13 20:52	19°♌28'02			4465 Nov 03 10:56	0°♌	
direct	4463 May 01 07:30	13°♌36'20		desc. node	4465 Nov 12 17:11	11°♌26'34	
greatest brilliancy	4463 May 12 11:39	15°♌53'25	-4.6m		4465 Nov 27 17:50	0°♌	
desc. node	4463 May 28 21:58	25°♌31'34			4465 Dec 22 01:29	0°♌	
	4463 Jun 03 14:34	0°♌			4466 Jan 15 11:26	0°♌	
morning max el	4463 Jun 19 17:23	14°♌33'55	46°05'23		4466 Feb 09 04:09	0°♌	
	4463 Jul 04 22:57	0°♌		asc. node	4466 Mar 05 19:08	29°♌07'09	
	4463 Aug 01 10:09	0°♌			4466 Mar 06 13:25	0°♌	
	4463 Aug 27 13:17	0°♌			4466 Apr 02 14:15	0°♌	
asc. node	4463 Sep 19 00:11	26°♌31'12		evening max el	4466 Apr 10 18:45	8°♌24'09	46°30'55
	4463 Sep 21 22:02	0°♌			4466 May 05 08:44	0°♌	
	4463 Oct 16 17:29	0°♌		greatest brilliancy	4466 May 16 03:28	6°♌34'06	-4.6m
	4463 Nov 10 03:10	0°♌		retrograde	4466 May 30 17:22	10°♌20'58	
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greatest brilliancy	4463 Dec 13 18:06	11°♌50'56	-3.9m	min. Earth dist.	4466 Jun 20 17:50	2°♌17'50	0.28471 AU
morning set	4463 Dec 14 16:52	13°♌02'09		inferior conj	4466 Jun 21 00:08	2°♌07'59	1°03'48
	4463 Dec 28 05:54	0°♌		minimum elong	4466 Jun 21 02:30	2°♌04'16	1°03'05
desc. node	4464 Jan 08 14:50	14°♌16'10			4466 Jun 24 11:08	30°♌	
	4464 Jan 21 03:17	0°♌		desc. node	4466 Jun 25 09:46	29°♌26'31	
max. Earth dist.	4464 Jan 23 02:48	2°♌29'23	1.71181 AU	morning rise	4466 Jun 27 09:27	28°♌19'13	
				direct	4466 Jul 12 08:28	24°♌00'02	
superior conj	4464 Jan 24 03:00	3°♌45'28	0°-36'-19	greatest brilliancy	4466 Jul 24 20:55	26°♌47'03	-4.5m
minimum elong	4464 Jan 23 18:07	3°♌17'32	0°35'55		4466 Jul 31 07:34	0°♌	
	4464 Feb 13 23:44	0°♌		morning max el	4466 Aug 30 01:37	23°♌42'56	45°42'01
evening rise	4464 Mar 05 03:33	25°♌20'31			4466 Sep 05 12:24	0°♌	
	4464 Mar 08 20:37	0°♌			4466 Oct 03 18:49	0°♌	
	4464 Apr 01 20:00	0°♌		asc. node	4466 Oct 16 12:08	14°♌23'26	
	4464 Apr 26 00:16	0°♌			4466 Oct 29 22:27	0°♌	
asc. node	4464 Apr 30 17:02	5°♌47'27			4466 Nov 24 00:34	0°♌	
	4464 May 20 11:48	0°♌			4466 Dec 18 12:12	0°♌	
	4464 Jun 14 09:25	0°♌			4467 Jan 11 15:49	0°♌	
	4464 Jul 09 22:15	0°♌			4467 Feb 04 15:14	0°♌	
	4464 Aug 05 14:05	0°♌		desc. node	4467 Feb 05 02:34	0°♌35'30	
desc. node	4464 Aug 20 07:28	15°♌37'42		morning set	4467 Feb 28 19:32	0°♌21'15	
evening max el	4464 Sep 01 22:21	28°♌10'53	45°40'48		4467 Feb 28 12:46	0°♌	
	4464 Sep 03 20:26	0°♌			4467 Mar 24 10:09	0°♌	
greatest brilliancy	4464 Oct 09 11:33	25°♌42'21	-4.5m				




































































































































superior conj	4467 Apr 10 15:17	21° Υ 34'07	-1°-24'-44	morning rise	4469 Sep 02 19:18	6° η 51'40	
minimum elong	4467 Apr 10 20:17	21° Υ 49'45	1°24'42	direct	4469 Sep 20 09:34	1° η 01'38	
max. Earth dist.	4467 Apr 14 12:27	26° Υ 25'28	1.71738 AU	greatest brilliancy	4469 Oct 04 10:31	4° η 27'50	-4.5m
	4467 Apr 17 09:06	0° \mathcal{B}			4469 Nov 06 21:49	0° \mathcal{B}	
	4467 May 11 11:06	0° Π		morning max el	4469 Nov 08 17:49	1° \mathcal{B} 47'07	46°06'54
evening rise	4467 May 20 08:08	11° Π 00'30		asc. node	4469 Nov 12 23:57	6° \mathcal{B} 01'34	
asc. node	4467 May 29 04:57	21° Π 58'29			4469 Dec 05 09:02	0° \mathcal{M}	
	4467 Jun 04 17:06	0° \mathcal{S}			4469 Dec 31 06:59	0° \mathcal{X}	
	4467 Jun 29 03:40	0° \mathcal{Q}			4470 Jan 25 04:13	0° \mathcal{Z}	
	4467 Jul 23 19:36	0° η			4470 Feb 18 13:58	0° \approx	
	4467 Aug 17 18:51	0° \mathcal{B}		desc. node	4470 Mar 04 14:30	17° \approx 22'21	
	4467 Sep 12 05:10	0° \mathcal{M}			4470 Mar 14 18:21	0° \mathcal{H}	
desc. node	4467 Sep 17 19:17	6° \mathcal{M} 29'39			4470 Apr 07 20:44	0° Υ	
	4467 Oct 08 09:32	0° \mathcal{X}			4470 May 01 23:21	0° \mathcal{B}	
	4467 Nov 05 01:25	0° \mathcal{Z}		morning set	4470 May 14 18:33	15° \mathcal{B} 53'44	
evening max el	4467 Nov 14 18:30	9° \mathcal{Z} 48'47	46°36'13		4470 May 26 03:40	0° Π	
	4467 Dec 07 16:24	0° \approx			4470 Jun 19 10:15	0° \mathcal{S}	
greatest brilliancy	4467 Dec 23 08:11	9° \approx 16'11	-4.6m				
retrograde	4468 Jan 03 18:06	11° \approx 40'33		superior conj	4470 Jun 21 19:38	2° \mathcal{S} 56'57	0°-9'-18
asc. node	4468 Jan 08 21:32	11° \approx 08'19		minimum elong	4470 Jun 21 21:41	3° \mathcal{S} 03'16	0°09'13
evening set	4468 Jan 18 05:37	7° \approx 32'27		behind sun begin	4470 Jun 21 02:24	2° \mathcal{S} 03'48	
inferior conj	4468 Jan 24 07:24	3° \approx 58'44	3°53'27	behind sun end	4470 Jun 22 16:58	4° \mathcal{S} 02'43	
minimum elong	4468 Jan 23 23:10	4° \approx 11'21	3°51'01	max. Earth dist.	4470 Jun 23 16:49	5° \mathcal{S} 16'14	1.73148 AU
min. Earth dist.	4468 Jan 24 00:59	4° \approx 08'33	0.26604 AU	asc. node	4470 Jun 25 16:40	7° \mathcal{S} 43'40	
morning rise	4468 Jan 29 16:44	0° \approx 47'35			4470 Jul 13 18:45	0° \mathcal{Q}	
	4468 Jan 31 04:27	30° \mathcal{R} \mathcal{Z}		evening rise	4470 Jul 28 16:19	18° \mathcal{Q} 19'03	
direct	4468 Feb 13 19:03	26° \mathcal{Z} 18'33			4470 Aug 07 04:39	0° η	
greatest brilliancy	4468 Feb 25 13:41	28° \mathcal{Z} 53'36	-4.7m		4470 Aug 31 16:10	0° \mathcal{B}	
	4468 Feb 28 00:23	0° \approx			4470 Sep 25 06:17	0° \mathcal{M}	
morning max el	4468 Apr 04 03:09	29° \approx 00'01	46°50'33	desc. node	4470 Oct 15 07:22	24° \mathcal{M} 18'48	
	4468 Apr 05 03:01	0° \mathcal{H}			4470 Oct 20 00:21	0° \mathcal{X}	
desc. node	4468 Apr 29 12:19	26° \mathcal{H} 01'50			4470 Nov 13 23:51	0° \mathcal{Z}	
	4468 May 03 01:31	0° Υ			4470 Dec 09 08:04	0° \approx	
	4468 May 29 04:57	0° \mathcal{B}			4471 Jan 04 11:10	0° \mathcal{H}	
	4468 Jun 23 15:51	0° Π		evening max el	4471 Jan 26 09:40	23° \mathcal{H} 33'29	47°11'16
	4468 Jul 18 18:41	0° \mathcal{S}			4471 Feb 01 21:15	0° Υ	
	4468 Aug 12 15:44	0° \mathcal{Q}		asc. node	4471 Feb 05 09:22	3° Υ 20'33	
asc. node	4468 Aug 20 14:20	9° \mathcal{Q} 38'07		greatest brilliancy	4471 Mar 05 12:49	24° Υ 04'51	-4.7m
	4468 Sep 06 07:09	0° η		retrograde	4471 Mar 18 06:41	27° Υ 07'15	
	4468 Sep 30 17:05	0° \mathcal{B}		evening set	4471 Apr 05 08:06	20° Υ 50'42	
morning set	4468 Oct 01 17:23	1° \mathcal{B} 14'58		inferior conj	4471 Apr 08 03:40	19° Υ 06'29	8°50'23
	4468 Oct 24 22:35	0° \mathcal{M}		minimum elong	4471 Apr 08 07:38	19° Υ 00'18	8°50'09
max. Earth dist.	4468 Nov 04 17:14	13° \mathcal{M} 23'55	1.72326 AU	min. Earth dist.	4471 Apr 07 19:15	19° Υ 19'33	0.27516 AU
				morning rise	4471 Apr 11 07:18	17° Υ 10'16	
superior conj	4468 Nov 07 17:25	17° \mathcal{M} 08'34	1°07'43	direct	4471 Apr 28 20:42	11° Υ 13'57	
minimum elong	4468 Nov 08 03:01	17° \mathcal{M} 38'25	1°07'25	greatest brilliancy	4471 May 10 00:11	13° Υ 30'55	-4.6m
	4468 Nov 18 01:08	0° \mathcal{X}		desc. node	4471 May 27 23:57	24° Υ 19'42	
desc. node	4468 Dec 10 05:05	27° \mathcal{X} 39'54			4471 Jun 03 22:57	0° \mathcal{B}	
	4468 Dec 12 01:57	0° \mathcal{Z}		morning max el	4471 Jun 17 08:21	12° \mathcal{B} 17'52	46°06'57
evening rise	4468 Dec 16 17:51	5° \mathcal{Z} 49'32			4471 Jul 04 17:07	0° Π	
	4469 Jan 05 01:45	0° \approx			4471 Aug 01 00:31	0° \mathcal{S}	
	4469 Jan 29 01:22	0° \mathcal{H}			4471 Aug 27 01:56	0° \mathcal{Q}	
	4469 Feb 22 02:41	0° Υ		asc. node	4471 Sep 18 02:14	26° \mathcal{Q} 02'01	
	4469 Mar 18 09:03	0° \mathcal{B}			4471 Sep 21 09:46	0° η	
asc. node	4469 Apr 02 07:09	18° \mathcal{B} 12'53			4471 Oct 16 04:43	0° \mathcal{B}	
	4469 Apr 12 01:33	0° Π			4471 Nov 09 14:09	0° \mathcal{M}	
	4469 May 07 12:08	0° \mathcal{S}			4471 Dec 03 17:18	0° \mathcal{X}	
	4469 Jun 03 09:32	0° \mathcal{Q}		morning set	4471 Dec 12 06:38	10° \mathcal{X} 41'09	
evening max el	4469 Jun 20 09:01	17° \mathcal{Q} 21'36	45°38'14		4471 Dec 27 16:47	0° \mathcal{Z}	
	4469 Jul 04 06:30	0° η		desc. node	4472 Jan 07 16:46	13° \mathcal{Z} 48'07	
desc. node	4469 Jul 22 21:43	12° η 58'54		max. Earth dist.	4472 Jan 20 13:36	29° \mathcal{Z} 58'03	1.71203 AU
greatest brilliancy	4469 Jul 25 08:23	14° η 10'38	-4.5m		4472 Jan 20 14:13	0° \approx	
retrograde	4469 Aug 08 05:54	17° η 34'27					
evening set	4469 Aug 25 01:52	12° η 13'21		superior conj	4472 Jan 21 13:45	1° \approx 13'59	0°-32'-41
inferior conj	4469 Aug 29 19:20	9° η 19'52	-7°-25'-38	minimum elong	4472 Jan 21 05:38	0° \approx 48'29	0°32'19
minimum elong	4469 Aug 29 10:38	9° η 33'31	7°24'23		4472 Feb 13 10:43	0° \mathcal{H}	
min. Earth dist.	4469 Aug 29 17:10	9° η 23'16	0.29115 AU	evening rise	4472 Mar 02 14:01	22° \mathcal{H} 48'02	

	4472 Mar 08 07:41	0°Υ			4474 Oct 03 09:49	0°η		
	4472 Apr 01 07:10	0°Ϡ		asc. node	4474 Oct 15 14:12	13°η49'27		
	4472 Apr 25 11:37	0°Π			4474 Oct 29 11:31	0°Ϸ		
asc. node	4472 Apr 29 19:05	5°Π18'45			4474 Nov 23 12:44	0°ℓ		
	4472 May 19 23:28	0°Ϣ			4474 Dec 17 23:54	0°Ϡ		
	4472 Jun 13 21:42	0°Ω			4475 Jan 11 03:15	0°Ϡ		
	4472 Jul 09 11:45	0°η		desc. node	4475 Feb 04 04:39	0°≈06'48		
	4472 Aug 05 06:16	0°Ϸ			4475 Feb 04 02:29	0°≈		
desc. node	4472 Aug 19 09:30	14°Ϸ54'02		morning set	4475 Feb 26 05:45	27°≈47'40		
evening max el	4472 Aug 30 13:53	25°Ϸ58'44	45°39'40		4475 Feb 27 23:53	0°Ϡ		
	4472 Sep 03 20:48	0°ℓ			4475 Mar 23 21:12	0°Υ		
greatest brilliancy	4472 Oct 07 00:10	23°ℓ24'50	-4.5m					
retrograde	4472 Oct 18 07:54	25°ℓ41'25		superior conj	4475 Apr 08 03:30	19°Υ07'45	-1°-25'-29	
evening set	4472 Nov 04 03:19	20°ℓ19'53		minimum elong	4475 Apr 08 07:35	19°Υ20'33	1°25'29	
inferior conj	4472 Nov 08 08:30	17°ℓ47'00	-6°-57'-1	max. Earth dist.	4475 Apr 12 00:19	23°Υ58'06	1.71690 AU	
minimum elong	4472 Nov 08 18:30	17°ℓ31'33	6°55'10		4475 Apr 16 20:06	0°Ϡ		
min. Earth dist.	4472 Nov 09 07:28	17°ℓ11'34	0.27940 AU		4475 May 10 22:05	0°Π		
morning rise	4472 Nov 13 09:16	14°ℓ45'19		evening rise	4475 May 17 22:13	8°Π41'20		
direct	4472 Nov 29 13:02	9°ℓ42'04		asc. node	4475 May 28 06:52	21°Π30'18		
asc. node	4472 Dec 10 11:35	11°ℓ56'40			4475 Jun 04 04:10	0°Ϣ		
greatest brilliancy	4472 Dec 13 21:06	13°ℓ26'26	-4.6m		4475 Jun 28 14:55	0°Ω		
	4473 Jan 05 20:01	0°Ϡ			4475 Jul 23 07:13	0°η		
morning max el	4473 Jan 19 03:35	12°Ϡ47'36	46°50'19		4475 Aug 17 07:06	0°Ϸ		
	4473 Feb 04 08:39	0°Ϡ			4475 Sep 11 18:35	0°ℓ		
	4473 Mar 02 15:19	0°≈		desc. node	4475 Sep 16 21:25	5°ℓ56'03		
	4473 Mar 27 20:00	0°Ϡ			4475 Oct 08 01:07	0°Ϡ		
desc. node	4473 Apr 01 02:28	5°Ϡ08'56			4475 Nov 04 22:07	0°Ϡ		
	4473 Apr 21 13:43	0°Υ		evening max el	4475 Nov 12 06:58	7°Ϡ23'18	46°34'04	
	4473 May 16 03:00	0°Ϡ			4475 Dec 08 15:05	0°≈		
	4473 Jun 09 15:05	0°Π		greatest brilliancy	4475 Dec 20 22:29	6°≈49'52	-4.6m	
	4473 Jul 04 03:00	0°Ϣ		retrograde	4476 Jan 01 05:50	9°≈12'05		
morning set	4473 Jul 23 06:53	23°Ϣ29'08		asc. node	4476 Jan 07 23:34	8°≈16'45		
asc. node	4473 Jul 23 04:30	23°Ϣ21'50		evening set	4476 Jan 15 16:27	5°≈06'03		
	4473 Jul 28 14:20	0°Ω		inferior conj	4476 Jan 21 19:47	1°≈30'46	3°30'57	
	4473 Aug 22 00:11	0°η		minimum elong	4476 Jan 21 12:12	1°≈42'23	3°28'40	
max. Earth dist.	4473 Aug 27 09:51	6°η39'01	1.73402 AU	min. Earth dist.	4476 Jan 21 15:04	1°≈37'59	0.26601 AU	
					4476 Jan 24 07:33	30°RϠ		
superior conj	4473 Aug 28 21:40	8°η29'21	1°13'09	morning rise	4476 Jan 27 07:48	28°Ϡ15'47		
minimum elong	4473 Aug 28 13:43	8°η04'50	1°12'58	direct	4476 Feb 11 06:54	23°Ϡ50'08		
	4473 Sep 15 08:18	0°Ϸ		greatest brilliancy	4476 Feb 23 05:23	26°Ϡ28'46	-4.7m	
evening rise	4473 Oct 04 02:14	23°Ϸ08'54			4476 Mar 01 01:57	0°≈		
	4473 Oct 09 15:19	0°ℓ		morning max el	4476 Apr 01 15:33	26°≈32'35	46°51'47	
	4473 Nov 02 22:08	0°Ϡ			4476 Apr 05 01:24	0°Ϡ		
desc. node	4473 Nov 11 19:11	10°Ϡ57'56		desc. node	4476 Apr 28 14:19	25°Ϡ20'39		
	4473 Nov 27 05:19	0°Ϡ			4476 May 02 17:46	0°Υ		
	4473 Dec 21 13:21	0°≈			4476 May 28 18:46	0°Ϡ		
	4474 Jan 14 23:52	0°Ϡ			4476 Jun 23 04:25	0°Π		
	4474 Feb 08 17:30	0°Υ			4476 Jul 18 06:30	0°Ϣ		
asc. node	4474 Mar 04 21:14	28°Υ29'38			4476 Aug 12 03:06	0°Ω		
	4474 Mar 06 04:35	0°Ϡ		asc. node	4476 Aug 19 16:26	9°Ω10'16		
	4474 Apr 02 09:57	0°Π			4476 Sep 05 18:15	0°η		
evening max el	4474 Apr 08 10:14	6°Π08'03	46°32'47	morning set	4476 Sep 29 10:18	29°η05'11		
	4474 May 06 06:30	0°Ϣ			4476 Sep 30 04:04	0°Ϸ		
greatest brilliancy	4474 May 13 21:48	4°Ϣ23'33	-4.6m		4476 Oct 24 09:32	0°ℓ		
retrograde	4474 May 28 09:07	8°Ϣ07'21		max. Earth dist.	4476 Nov 02 10:17	11°ℓ13'31	1.72375 AU	
evening set	4474 Jun 12 13:19	3°Ϣ36'10						
inferior conj	4474 Jun 18 15:48	29°Π54'55	1°24'30	superior conj	4476 Nov 05 08:48	14°ℓ52'53	1°09'45	
minimum elong	4474 Jun 18 18:55	29°Π50'01	1°23'33	minimum elong	4476 Nov 05 18:07	15°ℓ21'53	1°09'30	
min. Earth dist.	4474 Jun 18 09:55	0°Ϣ04'07	0.28438 AU		4476 Nov 17 12:09	0°Ϡ		
	4474 Jun 18 12:33	30°RΠ		desc. node	4476 Dec 09 07:00	27°Ϡ11'06		
desc. node	4474 Jun 24 11:44	26°Π24'14			4476 Dec 11 13:06	0°Ϡ		
morning rise	4474 Jun 25 01:08	26°Π05'51		evening rise	4476 Dec 14 06:35	3°Ϡ24'31		
direct	4474 Jul 09 23:53	21°Π47'39			4477 Jan 04 13:04	0°≈		
greatest brilliancy	4474 Jul 22 10:03	24°Π32'08	-4.5m		4477 Jan 28 12:53	0°Ϡ		
	4474 Aug 01 13:37	0°Ϣ			4477 Feb 21 14:26	0°Υ		
morning max el	4474 Aug 27 16:14	21°Ϣ29'16	45°41'57		4477 Mar 17 21:10	0°Ϡ		
	4474 Sep 05 08:28	0°Ω		asc. node	4477 Apr 01 09:11	17°Ϡ41'11		

	4477 Apr 11 14:21	0°♊			4479 Sep 20 21:34	0°♎		
	4477 May 07 02:20	0°♌			4479 Oct 15 16:04	0°♍		
	4477 Jun 03 03:08	0°♍			4479 Nov 09 01:17	0°♎		
evening max el	4477 Jun 18 00:15	15°♌08'40	45°39'21		4479 Dec 03 04:22	0°♏		
	4477 Jul 04 13:57	0°♎		morning set	4479 Dec 09 20:12	8°♏18'59		
desc. node	4477 Jul 21 23:46	11°♎31'42			4479 Dec 27 03:51	0°♐		
greatest brilliancy	4477 Jul 22 21:02	11°♎56'51	-4.5m	desc. node	4480 Jan 06 18:53	13°♐20'04		
retrograde	4477 Aug 05 22:28	15°♎25'17		max. Earth dist.	4480 Jan 17 21:58	27°♐18'44	1.71219 AU	
evening set	4477 Aug 22 14:58	10°♎08'07						
inferior conj	4477 Aug 27 11:39	7°♎10'10	-7°-15'-14	superior conj	4480 Jan 19 00:18	28°♐41'28	0°-28'-58	
minimum elong	4477 Aug 27 02:36	7°♎24'20	7°13'51	minimum elong	4480 Jan 18 17:01	28°♐18'37	0°28'38	
min. Earth dist.	4477 Aug 27 08:37	7°♎14'55	0.29120 AU		4480 Jan 20 01:17	0°♑		
morning rise	4477 Aug 31 14:10	4°♎38'23			4480 Feb 12 21:47	0°♒		
	4477 Sep 10 12:19	30°♎♌		evening rise	4480 Feb 29 00:18	20°♒14'42		
direct	4477 Sep 18 01:43	28°♌51'47			4480 Mar 07 18:48	0°♓		
	4477 Sep 25 22:30	0°♎			4480 Mar 31 18:24	0°♒		
greatest brilliancy	4477 Oct 02 03:06	2°♎18'28	-4.5m		4480 Apr 24 23:01	0°♊		
morning max el	4477 Nov 06 09:49	29°♎34'29	46°05'29	asc. node	4480 Apr 28 21:00	4°♊49'27		
	4477 Nov 06 20:13	0°♍			4480 May 19 11:12	0°♌		
asc. node	4477 Nov 12 01:51	5°♍14'33			4480 Jun 13 10:03	0°♍		
	4477 Dec 05 00:57	0°♎			4480 Jul 09 01:20	0°♎		
	4477 Dec 30 20:40	0°♏			4480 Aug 04 22:42	0°♍		
	4478 Jan 24 16:52	0°♐		desc. node	4480 Aug 18 11:38	14°♍10'12		
	4478 Feb 18 02:02	0°♑		evening max el	4480 Aug 28 04:56	23°♍45'32	45°38'27	
desc. node	4478 Mar 03 16:33	16°♑52'03			4480 Sep 03 22:23	0°♎		
	4478 Mar 14 06:03	0°♒		greatest brilliancy	4480 Oct 04 13:19	21°♎08'05	-4.5m	
	4478 Apr 07 08:08	0°♓		retrograde	4480 Oct 15 21:25	23°♎24'49		
	4478 May 01 10:30	0°♒		evening set	4480 Nov 01 20:34	17°♎58'54		
morning set	4478 May 12 09:07	13°♒35'39		inferior conj	4480 Nov 05 22:59	15°♎29'42	-7°-9'-25	
	4478 May 25 14:39	0°♊		minimum elong	4480 Nov 06 08:43	15°♎14'38	7°07'43	
	4478 Jun 18 21:07	0°♌		min. Earth dist.	4480 Nov 06 21:45	14°♎54'29	0.28010 AU	
				morning rise	4480 Nov 10 20:28	12°♎32'14		
superior conj	4478 Jun 19 12:06	0°♌46'15	0°-12'-37	direct	4480 Nov 27 04:22	7°♎23'56		
minimum elong	4478 Jun 19 14:53	0°♌54'50	0°12'31	asc. node	4480 Dec 09 13:41	10°♎13'55		
behind sun begin	4478 Jun 19 00:11	0°♌09'28		greatest brilliancy	4480 Dec 11 11:57	11°♎07'11	-4.6m	
behind sun end	4478 Jun 20 05:36	1°♌40'12			4481 Jan 06 00:28	0°♏		
max. Earth dist.	4478 Jun 21 11:56	3°♌13'46	1.73114 AU	morning max el	4481 Jan 16 17:45	10°♏25'22	46°49'08	
asc. node	4478 Jun 24 18:42	7°♌16'34			4481 Feb 04 02:26	0°♐		
	4478 Jul 13 05:35	0°♍			4481 Mar 02 05:56	0°♑		
evening rise	4478 Jul 26 10:48	16°♍15'00			4481 Mar 27 09:06	0°♒		
	4478 Aug 06 15:35	0°♎		desc. node	4481 Mar 31 04:28	4°♒35'56		
	4478 Aug 31 03:20	0°♍			4481 Apr 21 01:56	0°♓		
	4478 Sep 24 17:50	0°♎			4481 May 15 14:38	0°♒		
desc. node	4478 Oct 14 09:17	23°♎48'13			4481 Jun 09 02:19	0°♊		
	4478 Oct 19 12:31	0°♏			4481 Jul 03 13:56	0°♌		
	4478 Nov 13 12:56	0°♐		morning set	4481 Jul 21 00:29	21°♌22'56		
	4478 Dec 08 22:38	0°♑		asc. node	4481 Jul 22 06:37	22°♌55'18		
	4479 Jan 04 04:39	0°♒			4481 Jul 28 01:04	0°♍		
evening max el	4479 Jan 24 00:26	21°♒11'28	47°11'24		4481 Aug 21 10:50	0°♎		
	4479 Feb 01 23:29	0°♓		max. Earth dist.	4481 Aug 25 05:04	4°♎37'41	1.73414 AU	
asc. node	4479 Feb 04 11:28	2°♓20'12						
greatest brilliancy	4479 Mar 03 03:11	21°♓41'10	-4.7m	superior conj	4481 Aug 26 16:02	6°♎25'20	1°11'29	
retrograde	4479 Mar 15 21:27	24°♓43'30		minimum elong	4481 Aug 26 07:48	5°♎59'58	1°11'16	
evening set	4479 Apr 02 22:59	18°♓25'22			4481 Sep 14 18:58	0°♍		
inferior conj	4479 Apr 05 17:19	16°♓43'04	8°54'35	evening rise	4481 Oct 01 19:37	21°♍01'07		
minimum elong	4479 Apr 05 20:26	16°♓38'14	8°54'27		4481 Oct 09 02:07	0°♎		
min. Earth dist.	4479 Apr 05 07:53	16°♓57'43	0.27478 AU		4481 Nov 02 09:11	0°♏		
morning rise	4479 Apr 08 18:01	14°♓51'29		desc. node	4481 Nov 10 21:11	10°♏29'37		
direct	4479 Apr 26 10:20	8°♓51'13			4481 Nov 26 16:43	0°♐		
greatest brilliancy	4479 May 07 11:51	11°♓06'57	-4.6m		4481 Dec 21 01:12	0°♑		
desc. node	4479 May 27 01:55	23°♓09'28			4482 Jan 14 12:20	0°♒		
	4479 Jun 04 05:07	0°♒			4482 Feb 08 06:58	0°♓		
morning max el	4479 Jun 14 23:36	10°♒02'10	46°08'32	asc. node	4482 Mar 03 23:14	27°♓51'42		
	4479 Jul 04 10:57	0°♊			4482 Mar 05 19:55	0°♒		
	4479 Jul 31 14:47	0°♌			4482 Apr 02 06:10	0°♊		
	4479 Aug 26 14:36	0°♍		evening max el	4482 Apr 06 00:44	3°♊49'41	46°34'52	
asc. node	4479 Sep 17 04:18	25°♍32'41			4482 May 07 12:12	0°♌		

greatest brilliancy	4482 May 11 15:51	2°☿13'07	-4.6m			4484 Oct 23 20:08	0°♍	
retrograde	4482 May 26 00:38	5°☿54'37		max. Earth dist.		4484 Oct 31 04:11	9°♍06'57	1.72418 AU
evening set	4482 Jun 10 06:39	1°☿21'46						
	4482 Jun 12 14:56	30°♊II		superior conj		4484 Nov 03 00:38	12°♍39'50	1°11'40
inferior conj	4482 Jun 16 07:33	27°♊42'44	1°45'03	minimum elong		4484 Nov 03 09:39	13°♍07'51	1°11'26
minimum elong	4482 Jun 16 11:24	27°♊36'41	1°43'53			4484 Nov 16 22:47	0°♊	
min. Earth dist.	4482 Jun 16 02:22	27°♊50'52	0.28404 AU	desc. node		4484 Dec 08 09:09	26°♊44'16	
morning rise	4482 Jun 22 16:42	23°♊53'33				4484 Dec 10 23:51	0°♊	
desc. node	4482 Jun 23 13:53	23°♊25'24		evening rise		4484 Dec 11 19:54	1°♊02'36	
direct	4482 Jul 07 14:52	19°♊35'58				4485 Jan 03 23:59	0°♊	
greatest brilliancy	4482 Jul 20 00:01	22°♊18'51	-4.5m			4485 Jan 28 00:01	0°♊	
	4482 Aug 02 10:57	0°☿				4485 Feb 21 01:50	0°♊	
morning max el	4482 Aug 25 06:47	19°☿16'07	45°42'05			4485 Mar 17 09:00	0°♊	
	4482 Sep 05 03:36	0°♊		asc. node		4485 Mar 31 11:06	17°♊09'55	
	4482 Oct 03 00:18	0°♊				4485 Apr 11 02:57	0°♊	
asc. node	4482 Oct 14 16:06	13°♊16'02				4485 May 06 16:26	0°☿	
	4482 Oct 29 00:12	0°♊				4485 Jun 02 20:53	0°♊	
	4482 Nov 23 00:34	0°♍		evening max el		4485 Jun 15 16:25	12°♊58'47	45°40'41
	4482 Dec 17 11:19	0°♊				4485 Jul 04 23:43	0°♊	
desc. node	4483 Jan 10 14:26	0°☿		greatest brilliancy		4485 Jul 20 10:31	9°♊45'10	-4.5m
	4483 Feb 03 06:44	29°☿38'38		desc. node		4485 Jul 21 01:50	10°♊02'38	
	4483 Feb 03 13:33	0°♊		retrograde		4485 Aug 03 15:21	13°♊17'09	
morning set	4483 Feb 23 15:29	25°♊12'55		evening set		4485 Aug 20 04:14	8°♊03'59	
	4483 Feb 27 10:52	0°♊		inferior conj		4485 Aug 25 04:00	5°♊01'34	-7°-4'-22
	4483 Mar 23 08:07	0°♊		minimum elong		4485 Aug 24 18:40	5°♊16'09	7°02'50
				min. Earth dist.		4485 Aug 24 23:50	5°♊08'05	0.29119 AU
superior conj	4483 Apr 05 15:10	16°♊40'05	-1°-26'-7	morning rise		4485 Aug 29 09:06	2°♊26'11	
minimum elong	4483 Apr 05 18:17	16°♊49'51	1°26'06			4485 Sep 02 20:18	30°♊♊	
max. Earth dist.	4483 Apr 09 08:09	21°♊18'32	1.71639 AU	direct		4485 Sep 15 18:20	26°♊43'17	
	4483 Apr 16 06:56	0°♊				4485 Sep 29 10:31	0°♊	
	4483 May 10 08:53	0°♊		greatest brilliancy		4485 Sep 29 18:47	0°♊09'22	-4.5m
evening rise	4483 May 15 11:50	6°♊21'18		morning max el		4485 Nov 04 02:23	27°♊24'46	46°04'03
asc. node	4483 May 27 08:56	21°♊03'18				4485 Nov 06 17:16	0°♊	
	4483 Jun 03 15:00	0°☿		asc. node		4485 Nov 11 03:57	4°♊29'58	
	4483 Jun 28 01:55	0°♊				4485 Dec 04 16:09	0°♍	
	4483 Jul 22 18:35	0°♊				4485 Dec 30 09:49	0°♊	
	4483 Aug 16 19:07	0°♊				4486 Jan 24 05:01	0°☿	
desc. node	4483 Sep 11 07:44	0°♍				4486 Feb 17 13:38	0°♊	
	4483 Sep 15 23:23	5°♍22'49		desc. node		4486 Mar 02 18:32	16°♊22'54	
	4483 Oct 07 16:30	0°♊				4486 Mar 13 17:17	0°♊	
	4483 Nov 04 19:00	0°☿				4486 Apr 06 19:07	0°♊	
evening max el	4483 Nov 09 19:34	4°☿59'46	46°32'01			4486 Apr 30 21:18	0°♊	
	4483 Dec 09 21:15	0°♊		morning set		4486 May 09 23:31	11°♊17'58	
greatest brilliancy	4483 Dec 18 11:39	4°♊24'02	-4.6m			4486 May 25 01:18	0°♊	
retrograde	4483 Dec 29 18:04	6°♊45'39						
asc. node	4484 Jan 07 01:37	5°♊21'20		superior conj		4486 Jun 17 04:11	28°♊35'08	0°-15'-58
evening set	4484 Jan 13 03:41	2°♊40'53		minimum elong		4486 Jun 17 07:42	28°♊45'59	0°15'49
	4484 Jan 17 19:46	30°♊☿		behind sun begin		4486 Jun 17 04:45	28°♊36'53	
inferior conj	4484 Jan 19 08:19	29°☿04'24	3°08'10	behind sun end		4486 Jun 17 10:39	28°♊55'06	
minimum elong	4484 Jan 19 01:25	29°☿14'55	3°06'03			4486 Jun 18 07:41	0°☿	
min. Earth dist.	4484 Jan 19 05:04	29°☿09'21	0.26609 AU	max. Earth dist.		4486 Jun 19 07:37	1°☿13'50	1.73080 AU
morning rise	4484 Jan 24 22:57	25°☿46'00		asc. node		4486 Jun 23 20:49	6°☿50'33	
direct	4484 Feb 08 19:14	21°☿23'05				4486 Jul 12 16:09	0°♊	
greatest brilliancy	4484 Feb 20 21:31	24°☿05'46	-4.7m	evening rise		4486 Jul 24 04:55	14°♊10'46	
	4484 Mar 02 10:30	0°♊				4486 Aug 06 02:13	0°♊	
morning max el	4484 Mar 30 05:09	24°♊08'52	46°52'46			4486 Aug 30 14:09	0°♊	
	4484 Apr 04 22:41	0°♊		desc. node		4486 Sep 24 05:04	0°♍	
desc. node	4484 Apr 27 16:16	24°♊40'21				4486 Oct 13 11:19	23°♍18'58	
	4484 May 02 09:32	0°♊				4486 Oct 19 00:22	0°♊	
	4484 May 28 08:15	0°♊				4486 Nov 13 01:45	0°☿	
	4484 Jun 22 16:40	0°♊				4486 Dec 08 12:59	0°♊	
	4484 Jul 17 17:58	0°☿				4487 Jan 03 22:05	0°♊	
	4484 Aug 11 14:06	0°♊		evening max el		4487 Jan 21 15:58	18°♊52'42	47°11'26
asc. node	4484 Aug 18 18:24	8°♊43'09				4487 Feb 02 02:39	0°♊	
	4484 Sep 05 04:59	0°♊		asc. node		4487 Feb 03 13:28	1°♊19'36	
morning set	4484 Sep 27 03:29	26°♊57'25		greatest brilliancy		4487 Feb 28 18:10	19°♊19'48	-4.7m
	4484 Sep 29 14:40	0°♊		retrograde		4487 Mar 13 12:03	22°♊21'05	

evening set	4487 Mar 31 13:34	16°♈02'18		4489 Sep 14 05:37	0°♎	
inferior conj	4487 Apr 03 07:05	14°♈21'12	8°57'51	evening rise	4489 Sep 29 12:55	18°♎53'13
minimum elong	4487 Apr 03 09:19	14°♈17'43	8°57'46		4489 Oct 08 12:55	0°♎
min. Earth dist.	4487 Apr 02 20:37	14°♈37'27	0.27440 AU		4489 Nov 01 20:13	0°♏
morning rise	4487 Apr 06 05:14	12°♈33'31		desc. node	4489 Nov 09 23:17	10°♏01'42
direct	4487 Apr 24 00:19	6°♈30'13			4489 Nov 26 04:05	0°♐
greatest brilliancy	4487 May 04 23:06	8°♈43'47	-4.6m		4489 Dec 20 13:01	0°♑
desc. node	4487 May 26 04:05	22°♈02'52			4490 Jan 14 00:49	0°♒
	4487 Jun 04 08:49	0°♉			4490 Feb 07 20:30	0°♓
morning max el	4487 Jun 12 14:22	7°♉46'11	46°09'54	asc. node	4490 Mar 03 01:12	27°♓13'19
	4487 Jul 04 04:04	0°♊			4490 Mar 05 11:29	0°♈
	4487 Jul 31 04:40	0°♊			4490 Apr 02 03:04	0°♊
	4487 Aug 26 02:56	0°♋		evening max el	4490 Apr 03 14:38	1°♊29'34 46°36'56
asc. node	4487 Sep 16 06:15	25°♋03'50			4490 May 09 08:00	0°♋
	4487 Sep 20 09:05	0°♌		greatest brilliancy	4490 May 09 08:57	0°♋01'09 -4.6m
	4487 Oct 15 03:06	0°♌		retrograde	4490 May 23 16:08	3°♋41'47
	4487 Nov 08 12:07	0°♍			4490 Jun 06 08:21	30°♋♊
	4487 Dec 02 15:08	0°♎		evening set	4490 Jun 08 00:02	29°♊06'43
morning set	4487 Dec 07 09:53	5°♎58'13		inferior conj	4490 Jun 13 23:16	25°♊30'21 2°05'31
	4487 Dec 26 14:37	0°♐		minimum elong	4490 Jun 14 03:49	25°♊23'11 2°04'10
desc. node	4488 Jan 05 20:55	12°♐52'38		min. Earth dist.	4490 Jun 13 18:51	25°♊37'17 0.28372 AU
max. Earth dist.	4488 Jan 15 03:27	24°♐31'18	1.71238 AU	morning rise	4490 Jun 20 08:03	21°♊41'27
				desc. node	4490 Jun 22 15:50	20°♊29'54
superior conj	4488 Jan 16 11:06	26°♐10'41	0°-25'-13	direct	4490 Jul 05 05:30	17°♊23'53
minimum elong	4488 Jan 16 04:43	25°♐50'37	0°24'55	greatest brilliancy	4490 Jul 17 14:47	20°♊06'26 -4.5m
	4488 Jan 19 12:05	0°♑			4490 Aug 03 02:45	0°♋
	4488 Feb 12 08:37	0°♒		morning max el	4490 Aug 22 21:33	17°♋03'21 45°42'14
evening rise	4488 Feb 26 10:45	17°♒42'40			4490 Sep 04 22:16	0°♌
	4488 Mar 07 05:40	0°♓			4490 Oct 02 14:44	0°♌
	4488 Mar 31 05:21	0°♈		asc. node	4490 Oct 13 18:13	12°♌43'09
	4488 Apr 24 10:09	0°♊			4490 Oct 28 12:57	0°♌
asc. node	4488 Apr 27 23:07	4°♊21'34			4490 Nov 22 12:30	0°♍
	4488 May 18 22:41	0°♋			4490 Dec 16 22:49	0°♎
	4488 Jun 12 22:12	0°♌			4491 Jan 10 01:41	0°♐
	4488 Jul 08 14:52	0°♌		desc. node	4491 Feb 02 08:40	29°♐09'47
	4488 Aug 04 15:18	0°♍			4491 Feb 03 00:40	0°♑
desc. node	4488 Aug 17 13:34	13°♍25'43		morning set	4491 Feb 21 01:09	22°♑37'41
evening max el	4488 Aug 25 19:20	21°♍31'13	45°37'18		4491 Feb 26 21:55	0°♒
	4488 Sep 04 01:15	0°♍			4491 Mar 22 19:06	0°♓
greatest brilliancy	4488 Oct 02 03:02	18°♍52'40	-4.5m			
retrograde	4488 Oct 13 10:51	21°♍09'25		superior conj	4491 Apr 03 02:45	14°♓11'45 -1°-26'-33
evening set	4488 Oct 30 13:55	15°♍39'06		minimum elong	4491 Apr 03 04:51	14°♓18'19 1°26'34
inferior conj	4488 Nov 03 13:40	13°♍13'38	-7°-21'-3	max. Earth dist.	4491 Apr 06 14:01	18°♓32'27 1.71594 AU
minimum elong	4488 Nov 03 23:04	12°♍59'03	7°19'31		4491 Apr 15 17:53	0°♈
min. Earth dist.	4488 Nov 04 12:25	12°♍38'22	0.28076 AU		4491 May 09 19:49	0°♊
morning rise	4488 Nov 08 07:47	10°♍20'33		evening rise	4491 May 13 01:23	4°♊00'36
direct	4488 Nov 24 19:22	5°♍06'59		asc. node	4491 May 26 11:01	20°♊35'52
asc. node	4488 Dec 08 15:47	8°♍35'53			4491 Jun 03 01:59	0°♋
greatest brilliancy	4488 Dec 09 03:34	8°♍50'01	-4.6m		4491 Jun 27 13:04	0°♌
	4489 Jan 06 02:54	0°♎			4491 Jul 22 06:06	0°♌
morning max el	4489 Jan 14 07:16	8°♎02'15	46°47'55		4491 Aug 16 07:20	0°♍
	4489 Feb 03 19:35	0°♐			4491 Sep 10 21:11	0°♍
	4489 Mar 01 20:09	0°♑		desc. node	4491 Sep 15 01:22	4°♍48'54
	4489 Mar 26 21:55	0°♒			4491 Oct 07 08:25	0°♎
desc. node	4489 Mar 30 06:25	4°♒03'27			4491 Nov 04 17:04	0°♐
	4489 Apr 20 13:56	0°♓		evening max el	4491 Nov 07 08:48	2°♐37'04 46°29'54
	4489 May 15 02:05	0°♈			4491 Dec 11 18:10	0°♑
	4489 Jun 08 13:22	0°♊		greatest brilliancy	4491 Dec 15 23:59	1°♑56'08 -4.6m
	4489 Jul 03 00:44	0°♋		retrograde	4491 Dec 27 06:38	4°♑17'56
morning set	4489 Jul 18 18:08	19°♋17'07		asc. node	4492 Jan 06 03:35	2°♑19'08
asc. node	4489 Jul 21 08:34	22°♋28'36		evening set	4492 Jan 10 15:02	0°♑14'04
	4489 Jul 27 11:42	0°♌			4492 Jan 11 01:35	30°♑♒
	4489 Aug 20 21:25	0°♌		inferior conj	4492 Jan 16 20:39	26°♒36'37 2°44'48
max. Earth dist.	4489 Aug 22 23:18	2°♌33'31	1.73431 AU	minimum elong	4492 Jan 16 14:32	26°♒45'56 2°42'53
				min. Earth dist.	4492 Jan 16 18:36	26°♒39'44 0.26617 AU
superior conj	4489 Aug 24 10:21	4°♌21'23	1°09'43	morning rise	4492 Jan 22 13:48	23°♒15'10
minimum elong	4489 Aug 24 01:52	3°♌55'17	1°09'28	direct	4492 Feb 06 08:01	18°♒54'48

greatest brilliancy	4492 Feb 18 12:52	21°  40'55	-4.7m		4494 Aug 30 01:24	0° 	
	4492 Mar 03 10:20	0° 			4494 Sep 23 16:43	0° 	
morning max el	4492 Mar 27 19:17	21°  45'48	46°53'40	desc. node	4494 Oct 12 13:27	22°  48'53	
	4492 Apr 04 19:30	0° 			4494 Oct 18 12:39	0° 	
desc. node	4492 Apr 26 18:26	24°  00'32			4494 Nov 12 15:01	0° 	
	4492 May 02 01:16	0° 			4494 Dec 08 03:54	0° 	
	4492 May 27 21:52	0° 			4495 Jan 03 16:25	0° 	
	4492 Jun 22 05:06	0° 		evening max el	4495 Jan 19 06:53	16°  30'36	47°11'05
	4492 Jul 17 05:41	0° 			4495 Feb 02 08:24	0° 	
	4492 Aug 11 01:21	0° 		asc. node	4495 Feb 02 15:27	0°  15'42	
asc. node	4492 Aug 17 20:25	8°  15'21		greatest brilliancy	4495 Feb 26 09:58	16°  57'06	-4.7m
	4492 Sep 04 15:58	0° 		retrograde	4495 Mar 11 01:55	19°  55'48	
morning set	4492 Sep 24 20:49	24°  49'20		evening set	4495 Mar 29 03:23	13°  37'27	
	4492 Sep 29 01:32	0° 		inferior conj	4495 Mar 31 20:33	11°  56'45	9°00'06
	4492 Oct 23 07:00	0° 		minimum elong	4495 Mar 31 21:53	11°  54'40	9°00'05
max. Earth dist.	4492 Oct 28 22:01	6°  59'20	1.72466 AU	min. Earth dist.	4495 Mar 31 09:24	12°  14'05	0.27399 AU
				morning rise	4495 Apr 03 16:32	10°  12'12	
superior conj	4492 Oct 31 16:29	10°  25'56	1°13'28	direct	4495 Apr 21 13:44	4°  06'44	
minimum elong	4492 Nov 01 01:06	10°  52'44	1°13'15	greatest brilliancy	4495 May 02 10:34	6°  18'27	-4.6m
	4492 Nov 16 09:45	0° 		desc. node	4495 May 25 06:03	20°  55'59	
desc. node	4492 Dec 07 11:10	26°  21'52			4495 Jun 04 11:36	0° 	
evening rise	4492 Dec 09 08:58	28°  23'51		morning max el	4495 Jun 10 03:51	5°  25'24	46°11'23
	4492 Dec 10 10:58	0° 			4495 Jul 03 21:19	0° 	
	4493 Jan 03 11:18	0° 			4495 Jul 30 18:49	0° 	
	4493 Jan 27 11:32	0° 			4495 Aug 25 15:36	0° 	
	4493 Feb 20 13:37	0° 		asc. node	4495 Sep 15 08:19	24°  34'16	
	4493 Mar 16 21:13	0° 			4495 Sep 19 20:56	0° 	
asc. node	4493 Mar 30 13:12	16°  38'06			4495 Oct 14 14:30	0° 	
	4493 Apr 10 15:58	0° 			4495 Nov 07 23:17	0° 	
	4493 May 06 07:04	0° 			4495 Dec 02 02:14	0° 	
	4493 Jun 02 15:29	0° 		morning set	4495 Dec 04 23:56	3°  23'34	
evening max el	4493 Jun 13 09:07	10°  49'01	45°41'59		4495 Dec 26 01:43	0° 	
	4493 Jul 05 13:34	0° 		desc. node	4496 Jan 04 22:52	12°  23'53	
greatest brilliancy	4493 Jul 18 01:19	7°  33'59	-4.5m	max. Earth dist.	4496 Jan 12 08:06	21°  34'17	1.71264 AU
desc. node	4493 Jul 20 03:48	8° 					
retrograde	4493 Aug 01 08:04	11°  07'39		superior conj	4496 Jan 13 22:12	23°  39'55	0°-21'-26
evening set	4493 Aug 17 17:34	5°  58'45		minimum elong	4496 Jan 13 16:44	23°  22'45	0°21'11
inferior conj	4493 Aug 22 20:17	2°  51'49	-6°-52'-49		4496 Jan 18 23:12	0° 	
minimum elong	4493 Aug 22 10:45	3°  06'44	6°51'10		4496 Feb 11 19:48	0° 	
min. Earth dist.	4493 Aug 22 14:59	3°  00'06	0.29112 AU	evening rise	4496 Feb 23 21:10	15°  09'16	
morning rise	4493 Aug 27 04:00	0° 			4496 Mar 06 16:56	0° 	
	4493 Aug 27 12:38	30°  R Ω			4496 Mar 30 16:44	0° 	
direct	4493 Sep 13 11:12	24°  33'54			4496 Apr 23 21:43	0° 	
greatest brilliancy	4493 Sep 27 09:06	27°  57'39	-4.5m	asc. node	4496 Apr 27 01:08	3°  52'06	
	4493 Oct 01 09:44	0° 			4496 May 18 10:35	0° 	
morning max el	4493 Nov 01 18:21	25°  12'45	46°02'34		4496 Jun 12 10:49	0° 	
	4493 Nov 06 13:57	0° 			4496 Jul 08 04:54	0° 	
asc. node	4493 Nov 10 06:02	3°  45'05			4496 Aug 04 08:38	0° 	
	4493 Dec 04 07:31	0° 		desc. node	4496 Aug 16 15:36	12°  39'49	
	4493 Dec 29 23:16	0° 		evening max el	4496 Aug 23 08:48	19°  13'43	45°36'15
	4494 Jan 23 17:34	0° 			4496 Sep 04 06:21	0° 	
	4494 Feb 17 01:41	0° 		greatest brilliancy	4496 Sep 29 16:20	16°  35'58	-4.5m
desc. node	4494 Mar 01 20:36	15°  52'34		retrograde	4496 Oct 11 00:29	18°  53'32	
	4494 Mar 13 04:58	0° 		evening set	4496 Oct 28 07:13	13°  18'37	
	4494 Apr 06 06:31	0° 		inferior conj	4496 Nov 01 04:23	10°  56'57	-7°-31'-53
	4494 Apr 30 08:28	0° 		minimum elong	4496 Nov 01 13:25	10°  42'57	7°30'31
morning set	4494 May 07 13:35	8°  58'03		min. Earth dist.	4496 Nov 02 03:13	10°  21'32	0.28141 AU
	4494 May 24 12:20	0° 		morning rise	4496 Nov 05 19:10	8°  08'28	
				direct	4496 Nov 22 10:04	2°  49'13	
superior conj	4494 Jun 14 20:03	26°  22'07	0°-19'-19	greatest brilliancy	4496 Dec 06 20:08	6°  33'32	-4.6m
minimum elong	4494 Jun 15 00:18	26°  35'13	0°19'08	asc. node	4496 Dec 07 17:39	7°  00'22	
max. Earth dist.	4494 Jun 17 04:52	29°  17'27	1.73043 AU		4497 Jan 06 04:13	0° 	
	4494 Jun 17 18:39	0° 		morning max el	4497 Jan 11 20:56	5°  23'53	46°46'51
asc. node	4494 Jun 22 22:43	6°  22'41			4497 Feb 03 12:35	0° 	
	4494 Jul 12 03:06	0° 			4497 Mar 01 10:26	0° 	
evening rise	4494 Jul 21 22:58	12°  05'03			4497 Mar 26 10:54	0° 	
	4494 Aug 05 13:15	0° 		desc. node	4497 Mar 29 08:32	3°  30'57	

	4497 Apr 20 02:09	0°♄		evening max el	4499 Nov 04 22:50	0°♁16'57	46°27'48
	4497 May 14 13:48	0°♂		greatest brilliancy	4499 Dec 13 11:56	29°♁28'29	-4.6m
	4497 Jun 08 00:42	0°♂			4499 Dec 14 21:29	0°♁	
	4497 Jul 02 11:46	0°♁		retrograde	4499 Dec 24 19:27	1°♁50'34	
morning set	4497 Jul 16 11:27	17°♁09'31			4500 Jan 03 07:39	30°♁	
asc. node	4497 Jul 20 10:35	22°♁01'21		asc. node	4500 Jan 05 05:38	29°♁12'15	
	4497 Jul 26 22:33	0°♂		evening set	4500 Jan 08 02:42	27°♁47'33	
	4497 Aug 20 08:12	0°♂		inferior conj	4500 Jan 14 08:58	24°♁09'08	2°21'04
max. Earth dist.	4497 Aug 20 18:35	0°♂31'55	1.73446 AU	minimum elong	4500 Jan 14 03:40	24°♁17'12	2°19'25
				min. Earth dist.	4500 Jan 14 07:53	24°♁10'46	0.26628 AU
superior conj	4497 Aug 22 04:29	2°♂16'16	1°07'50	morning rise	4500 Jan 20 04:27	20°♁44'53	
minimum elong	4497 Aug 21 19:48	1°♂49'32	1°07'34	direct	4500 Feb 03 21:16	16°♁27'01	
	4497 Sep 13 16:28	0°♂		greatest brilliancy	4500 Feb 16 03:28	19°♁15'25	-4.7m
evening rise	4497 Sep 27 06:18	16°♂45'04			4500 Mar 05 03:50	0°♁	
	4497 Oct 07 23:56	0°♂		morning max el	4500 Mar 26 09:42	19°♁23'55	46°54'38
	4497 Nov 01 07:28	0°♂			4500 Apr 05 15:27	0°♂	
desc. node	4497 Nov 09 01:15	9°♂32'44		desc. node	4500 Apr 26 20:22	23°♂21'02	
	4497 Nov 25 15:40	0°♁			4500 May 02 16:33	0°♄	
	4497 Dec 20 01:03	0°♁			4500 May 28 11:06	0°♂	
	4498 Jan 13 13:30	0°♂			4500 Jun 22 17:13	0°♂	
	4498 Feb 07 10:14	0°♄			4500 Jul 17 17:09	0°♁	
asc. node	4498 Mar 02 03:18	26°♄34'51			4500 Aug 11 12:24	0°♂	
	4498 Mar 05 03:20	0°♂		asc. node	4500 Aug 17 22:30	7°♂48'24	
evening max el	4498 Apr 01 04:29	29°♂09'06	46°38'55		4500 Sep 05 02:46	0°♂	
	4498 Apr 02 00:51	0°♂		morning set	4500 Sep 23 14:10	22°♂42'00	
greatest brilliancy	4498 May 07 01:06	27°♂47'18	-4.6m		4500 Sep 29 12:13	0°♂	
	4498 May 12 12:14	0°♁			4500 Oct 23 17:39	0°♂	
retrograde	4498 May 21 07:54	1°♁28'18		max. Earth dist.	4500 Oct 27 14:32	4°♂48'23	1.72509 AU
	4498 May 29 20:28	30°♂					
evening set	4498 Jun 05 17:27	26°♂50'31		superior conj	4500 Oct 30 08:27	8°♂13'08	1°15'09
inferior conj	4498 Jun 11 14:53	23°♂17'05	2°25'55	minimum elong	4500 Oct 30 16:37	8°♂38'31	1°14'57
minimum elong	4498 Jun 11 20:08	23°♂08'50	2°24'21		4500 Nov 16 20:30	0°♂	
min. Earth dist.	4498 Jun 11 11:01	23°♂23'08	0.28343 AU	evening rise	4500 Dec 07 22:09	26°♂16'10	
morning rise	4498 Jun 17 23:11	19°♂28'57		desc. node	4500 Dec 07 13:05	25°♂47'55	
desc. node	4498 Jun 21 17:49	17°♂37'26			4500 Dec 10 21:53	0°♁	
direct	4498 Jul 02 20:10	15°♂10'48			4501 Jan 03 22:24	0°♁	
greatest brilliancy	4498 Jul 15 06:10	17°♂54'04	-4.5m		4501 Jan 27 22:52	0°♂	
	4498 Aug 03 14:48	0°♁			4501 Feb 21 01:13	0°♄	
morning max el	4498 Aug 20 13:07	14°♁52'04	45°42'30		4501 Mar 17 09:14	0°♂	
	4498 Sep 04 16:35	0°♂		asc. node	4501 Mar 30 15:14	16°♂06'46	
	4498 Oct 02 05:04	0°♂			4501 Apr 11 04:46	0°♂	
asc. node	4498 Oct 12 20:16	12°♂10'07			4501 May 06 21:30	0°♁	
	4498 Oct 28 01:39	0°♂			4501 Jun 03 10:08	0°♂	
	4498 Nov 22 00:25	0°♂		evening max el	4501 Jun 12 01:49	8°♂40'24	45°43'17
	4498 Dec 16 10:19	0°♂			4501 Jul 07 07:23	0°♂	
	4499 Jan 09 12:58	0°♁		greatest brilliancy	4501 Jul 16 17:13	5°♂25'31	-4.5m
desc. node	4499 Feb 01 10:44	28°♁41'22		desc. node	4501 Jul 20 05:51	6°♂54'14	
	4499 Feb 02 11:48	0°♁		retrograde	4501 Jul 31 00:36	8°♂59'36	
morning set	4499 Feb 18 11:09	20°♁03'31		evening set	4501 Aug 16 07:12	3°♂55'06	
	4499 Feb 26 08:57	0°♂		inferior conj	4501 Aug 21 12:46	0°♂43'40	-6°-40'-42
	4499 Mar 22 06:03	0°♄		minimum elong	4501 Aug 21 03:05	0°♂58'51	6°38'58
				min. Earth dist.	4501 Aug 21 06:34	0°♂53'23	0.29104 AU
superior conj	4499 Mar 31 14:33	11°♄44'09	-1°-26'-49		4501 Aug 22 16:40	30°♂	
minimum elong	4499 Mar 31 15:37	11°♄47'30	1°26'51	morning rise	4501 Aug 25 23:05	28°♂00'34	
max. Earth dist.	4499 Apr 03 21:33	15°♄51'41	1.71550 AU	direct	4501 Sep 12 04:14	22°♂26'12	
	4499 Apr 15 04:45	0°♂		greatest brilliancy	4501 Sep 25 23:07	25°♂46'44	-4.5m
	4499 May 09 06:40	0°♂			4501 Oct 03 16:40	0°♂	
evening rise	4499 May 10 15:06	1°♂40'36		morning max el	4501 Oct 31 09:38	23°♂00'08	46°01'03
asc. node	4499 May 25 12:56	20°♂08'06			4501 Nov 07 09:37	0°♂	
	4499 Jun 02 12:54	0°♁		asc. node	4501 Nov 10 07:56	3°♂01'18	
	4499 Jun 27 00:12	0°♂			4501 Dec 04 22:20	0°♂	
	4499 Jul 21 17:37	0°♂			4501 Dec 30 12:17	0°♂	
	4499 Aug 15 19:33	0°♂			4502 Jan 24 05:43	0°♁	
	4499 Sep 10 10:42	0°♂			4502 Feb 17 13:20	0°♁	
desc. node	4499 Sep 14 03:30	4°♂15'24		desc. node	4502 Mar 01 22:38	15°♁23'19	
	4499 Oct 07 00:29	0°♂			4502 Mar 13 16:17	0°♂	
	4499 Nov 04 15:54	0°♁			4502 Apr 06 17:34	0°♄	

	4502 Apr 30 19:19	0°♄		minimum elong	4504 Oct 31 03:51	8°♌28'44	7°40'33
morning set	4502 May 06 03:38	6°♄38'58		min. Earth dist.	4504 Oct 31 17:53	8°♌06'59	0.28211 AU
	4502 May 24 23:01	0°♌		morning rise	4504 Nov 04 06:47	5°♌58'21	
				direct	4504 Nov 21 01:05	0°♌33'08	
superior conj	4502 Jun 13 12:03	24°♌10'38	0°-22'-37	greatest brilliancy	4504 Dec 05 13:40	4°♌19'57	-4.6m
minimum elong	4502 Jun 13 17:00	24°♌25'54	0°22'24	asc. node	4504 Dec 07 19:45	5°♌29'52	
max. Earth dist.	4502 Jun 16 02:18	27°♌22'50	1.72998 AU		4505 Jan 07 03:57	0°♌	
	4502 Jun 18 05:13	0°♌		morning max el	4505 Jan 10 11:32	3°♌18'55	46°45'37
asc. node	4502 Jun 23 00:48	5°♌56'33			4505 Feb 04 05:00	0°♌	
	4502 Jul 12 13:38	0°♌			4505 Mar 02 00:20	0°♌	
evening rise	4502 Jul 20 17:10	10°♌01'02			4505 Mar 26 23:32	0°♌	
	4502 Aug 05 23:52	0°♌		desc. node	4505 Mar 29 10:31	2°♌58'57	
	4502 Aug 30 12:17	0°♌			4505 Apr 20 14:02	0°♌	
	4502 Sep 24 04:01	0°♌			4505 May 15 01:11	0°♌	
desc. node	4502 Oct 12 15:21	22°♌19'10			4505 Jun 08 11:43	0°♌	
	4502 Oct 19 00:37	0°♌			4505 Jul 02 22:31	0°♌	
	4502 Nov 13 04:01	0°♌		morning set	4505 Jul 15 04:40	15°♌02'21	
	4502 Dec 08 18:38	0°♌		asc. node	4505 Jul 20 12:40	21°♌35'12	
	4503 Jan 04 10:48	0°♌			4505 Jul 27 09:08	0°♌	
evening max el	4503 Jan 17 20:39	14°♌06'40	47°10'40	max. Earth dist.	4505 Aug 19 15:01	28°♌34'47	1.73456 AU
asc. node	4503 Feb 02 17:32	29°♌11'38					
	4503 Feb 03 15:52	0°♌		superior conj	4505 Aug 20 22:41	0°♌12'13	1°05'51
greatest brilliancy	4503 Feb 25 02:12	14°♌35'48	-4.7m	minimum elong	4505 Aug 20 13:51	29°♌45'01	1°05'35
retrograde	4503 Mar 09 15:15	17°♌31'24			4505 Aug 20 18:43	0°♌	
evening set	4503 Mar 27 16:36	11°♌14'23			4505 Sep 14 03:00	0°♌	
inferior conj	4503 Mar 30 09:59	9°♌33'16	9°01'22	evening rise	4505 Sep 26 00:00	14°♌38'59	
minimum elong	4503 Mar 30 10:22	9°♌32'40	9°01'23		4505 Oct 08 10:37	0°♌	
min. Earth dist.	4503 Mar 29 22:29	9°♌51'10	0.27359 AU		4505 Nov 01 18:24	0°♌	
morning rise	4503 Apr 02 04:17	7°♌51'09		desc. node	4505 Nov 09 03:16	9°♌04'52	
direct	4503 Apr 20 02:37	1°♌44'00			4505 Nov 26 02:58	0°♌	
greatest brilliancy	4503 Apr 30 23:09	3°♌55'05	-4.6m		4505 Dec 20 12:52	0°♌	
desc. node	4503 May 25 08:00	19°♌51'48			4506 Jan 14 02:02	0°♌	
	4503 Jun 05 12:33	0°♌			4506 Feb 07 23:55	0°♌	
morning max el	4503 Jun 08 16:32	3°♌03'26	46°13'04	asc. node	4506 Mar 02 05:17	25°♌56'07	
	4503 Jul 04 13:48	0°♌			4506 Mar 05 19:18	0°♌	
	4503 Jul 31 08:21	0°♌		evening max el	4506 Mar 30 18:52	26°♌50'18	46°41'03
	4503 Aug 26 03:43	0°♌			4506 Apr 02 23:20	0°♌	
asc. node	4503 Sep 15 10:21	24°♌06'04		greatest brilliancy	4506 May 05 16:50	25°♌33'09	-4.6m
	4503 Sep 20 08:16	0°♌		retrograde	4506 May 19 23:59	29°♌14'49	
	4503 Oct 15 01:27	0°♌		evening set	4506 Jun 04 10:51	24°♌34'02	
	4503 Nov 08 10:04	0°♌		inferior conj	4506 Jun 10 06:18	21°♌03'36	2°46'09
	4503 Dec 02 12:59	0°♌		minimum elong	4506 Jun 10 12:14	20°♌54'19	2°44'25
morning set	4503 Dec 03 14:01	1°♌18'08		min. Earth dist.	4506 Jun 10 02:38	21°♌09'20	0.28315 AU
	4503 Dec 26 12:28	0°♌		morning rise	4506 Jun 16 13:59	17°♌16'42	
desc. node	4504 Jan 05 01:00	11°♌56'49		desc. node	4506 Jun 21 19:57	14°♌48'55	
max. Earth dist.	4504 Jan 10 13:47	18°♌53'37	1.71292 AU	direct	4506 Jul 01 11:07	12°♌57'34	
				greatest brilliancy	4506 Jul 13 20:58	15°♌41'11	-4.5m
superior conj	4504 Jan 12 09:16	21°♌10'08	0°-17'-37		4506 Aug 04 23:32	0°♌	
minimum elong	4504 Jan 12 04:45	20°♌55'57	0°17'24	morning max el	4506 Aug 19 05:21	12°♌42'51	45°42'50
	4504 Jan 19 09:59	0°♌			4506 Sep 05 10:17	0°♌	
	4504 Feb 12 06:37	0°♌			4506 Oct 02 19:02	0°♌	
evening rise	4504 Feb 22 07:28	12°♌36'45		asc. node	4506 Oct 12 22:10	11°♌37'27	
	4504 Mar 07 03:50	0°♌			4506 Oct 28 14:04	0°♌	
	4504 Mar 31 03:46	0°♌			4506 Nov 22 12:04	0°♌	
	4504 Apr 24 08:57	0°♌			4506 Dec 16 21:35	0°♌	
asc. node	4504 Apr 27 03:04	3°♌23'22			4507 Jan 10 00:02	0°♌	
	4504 May 18 22:12	0°♌		desc. node	4507 Feb 01 12:48	28°♌13'22	
	4504 Jun 12 23:08	0°♌			4507 Feb 02 22:47	0°♌	
	4504 Jul 08 18:41	0°♌		morning set	4507 Feb 16 21:01	17°♌29'20	
	4504 Aug 05 01:52	0°♌			4507 Feb 26 19:53	0°♌	
desc. node	4504 Aug 16 17:43	11°♌54'50			4507 Mar 22 16:55	0°♌	
evening max el	4504 Aug 21 22:07	16°♌57'21	45°35'26				
	4504 Sep 05 12:53	0°♌		superior conj	4507 Mar 30 01:44	9°♌14'41	-1°-26'-55
greatest brilliancy	4504 Sep 28 04:29	14°♌19'48	-4.5m	minimum elong	4507 Mar 30 01:45	9°♌14'45	1°26'57
retrograde	4504 Oct 09 14:38	16°♌39'44		max. Earth dist.	4507 Apr 02 06:00	13°♌13'47	1.71511 AU
evening set	4504 Oct 27 00:28	11°♌00'04			4507 Apr 15 15:35	0°♌	
inferior conj	4504 Oct 30 19:16	8°♌42'03	-7°-41'-45	evening rise	4507 May 09 04:09	29°♌18'38	

	4507 May 09 17:29	0°♂		asc. node	4509 Nov 09 10:03	2°♂18'02	
asc. node	4507 May 25 15:00	19°♂40'54			4509 Dec 04 13:11	0°♂	
	4507 Jun 02 23:48	0°♂			4509 Dec 30 01:24	0°♂	
	4507 Jun 27 11:19	0°♂			4510 Jan 23 17:59	0°♂	
	4507 Jul 22 05:09	0°♂			4510 Feb 17 01:04	0°♂	
	4507 Aug 16 07:48	0°♂		desc. node	4510 Mar 01 00:36	14°♂53'33	
	4507 Sep 11 00:16	0°♂			4510 Mar 13 03:41	0°♂	
desc. node	4507 Sep 14 05:26	3°♂41'17			4510 Apr 06 04:43	0°♂	
	4507 Oct 07 16:46	0°♂			4510 Apr 30 06:19	0°♂	
evening max el	4507 Nov 03 13:29	27°♂58'57	46°25'46	morning set	4510 May 03 17:35	4°♂19'02	
	4507 Nov 05 15:33	0°♂			4510 May 24 09:55	0°♂	
greatest brilliancy	4507 Dec 12 00:34	27°♂02'43	-4.6m				
retrograde	4507 Dec 23 08:19	29°♂24'09		superior conj	4510 Jun 11 03:48	21°♂57'34	0°-25'-55
asc. node	4508 Jan 05 07:41	26°♂01'57		minimum elong	4510 Jun 11 09:25	22°♂14'57	0°25'41
evening set	4508 Jan 06 14:50	25°♂21'58		max. Earth dist.	4510 Jun 13 21:33	25°♂20'40	1.72958 AU
inferior conj	4508 Jan 12 21:27	21°♂42'42	1°57'20		4510 Jun 17 16:03	0°♂	
minimum elong	4508 Jan 12 16:59	21°♂49'29	1°55'55	asc. node	4510 Jun 22 02:52	5°♂29'31	
min. Earth dist.	4508 Jan 12 21:19	21°♂42'53	0.26641 AU		4510 Jul 12 00:27	0°♂	
morning rise	4508 Jan 18 19:02	18°♂15'41		evening rise	4510 Jul 18 10:54	7°♂54'42	
direct	4508 Feb 02 10:42	14°♂00'28			4510 Aug 05 10:48	0°♂	
greatest brilliancy	4508 Feb 14 17:22	16°♂49'45	-4.7m		4510 Aug 29 23:28	0°♂	
	4508 Mar 05 16:42	0°♂			4510 Sep 23 15:40	0°♂	
morning max el	4508 Mar 23 23:36	17°♂00'50	46°55'12	desc. node	4510 Oct 11 17:23	21°♂48'47	
	4508 Apr 05 10:49	0°♂			4510 Oct 18 12:58	0°♂	
desc. node	4508 Apr 25 22:22	22°♂41'55			4510 Nov 12 17:26	0°♂	
	4508 May 02 07:42	0°♂			4510 Dec 08 09:52	0°♂	
	4508 May 28 00:21	0°♂			4511 Jan 04 05:57	0°♂	
	4508 Jun 22 05:24	0°♂		evening max el	4511 Jan 15 09:45	11°♂40'23	47°10'22
	4508 Jul 17 04:39	0°♂		asc. node	4511 Feb 01 19:32	28°♂05'11	
	4508 Aug 10 23:29	0°♂			4511 Feb 04 02:19	0°♂	
asc. node	4508 Aug 17 00:27	7°♂20'51		greatest brilliancy	4511 Feb 22 18:22	12°♂14'04	-4.7m
	4508 Sep 04 13:37	0°♂		retrograde	4511 Mar 07 04:37	15°♂07'12	
morning set	4508 Sep 21 07:21	20°♂34'00		evening set	4511 Mar 25 05:30	8°♂52'08	
	4508 Sep 28 22:57	0°♂		inferior conj	4511 Mar 27 23:38	7°♂09'58	9°01'44
	4508 Oct 23 04:23	0°♂		minimum elong	4511 Mar 27 23:04	7°♂10'51	9°01'44
max. Earth dist.	4508 Oct 25 04:54	2°♂30'32	1.72550 AU	min. Earth dist.	4511 Mar 27 11:53	7°♂28'15	0.27317 AU
				morning rise	4511 Mar 30 16:45	5°♂29'35	
superior conj	4508 Oct 28 00:35	6°♂00'42	1°16'41		4511 Apr 11 23:48	30°♂	
minimum elong	4508 Oct 28 08:16	6°♂24'34	1°16'32	direct	4511 Apr 17 15:13	29°♂21'16	
	4508 Nov 16 07:19	0°♂			4511 Apr 23 10:19	0°♂	
evening rise	4508 Dec 05 11:35	23°♂54'14		greatest brilliancy	4511 Apr 28 12:31	1°♂32'36	-4.6m
desc. node	4508 Dec 06 15:13	25°♂20'27		desc. node	4511 May 24 10:12	18°♂49'33	
	4508 Dec 10 08:50	0°♂			4511 Jun 05 12:27	0°♂	
	4509 Jan 03 09:32	0°♂		morning max el	4511 Jun 06 05:22	0°♂41'14	46°14'36
	4509 Jan 27 10:11	0°♂			4511 Jul 04 06:13	0°♂	
	4509 Feb 20 12:51	0°♂			4511 Jul 30 22:06	0°♂	
	4509 Mar 16 21:22	0°♂			4511 Aug 25 16:08	0°♂	
asc. node	4509 Mar 29 17:08	15°♂34'38		asc. node	4511 Sep 14 12:18	23°♂36'30	
	4509 Apr 10 17:48	0°♂			4511 Sep 19 19:58	0°♂	
	4509 May 06 12:21	0°♂			4511 Oct 14 12:45	0°♂	
	4509 Jun 03 05:38	0°♂			4511 Nov 07 21:12	0°♂	
evening max el	4509 Jun 09 17:45	6°♂28'51	45°44'35	morning set	4511 Dec 01 04:03	28°♂57'36	
	4509 Jul 08 08:29	0°♂			4511 Dec 02 00:03	0°♂	
greatest brilliancy	4509 Jul 14 09:31	3°♂16'17	-4.5m		4511 Dec 25 23:32	0°♂	
desc. node	4509 Jul 19 07:54	5°♂14'35		desc. node	4512 Jan 04 02:59	11°♂28'14	
retrograde	4509 Jul 28 16:35	6°♂50'12		max. Earth dist.	4512 Jan 07 22:16	16°♂14'43	1.71322 AU
evening set	4509 Aug 13 20:43	1°♂50'03					
	4509 Aug 16 22:16	30°♂		superior conj	4512 Jan 09 20:20	18°♂39'18	0°-13'-46
inferior conj	4509 Aug 19 05:04	28°♂34'20	-6°-28'-4	minimum elong	4512 Jan 09 16:47	18°♂28'11	0°13'35
minimum elong	4509 Aug 18 19:17	28°♂49'43	6°26'12	behind sun begin	4512 Jan 09 02:23	17°♂42'58	
min. Earth dist.	4509 Aug 18 22:21	28°♂44'53	0.29093 AU	behind sun end	4512 Jan 10 07:11	19°♂13'24	
morning rise	4509 Aug 23 17:58	25°♂47'10			4512 Jan 18 21:05	0°♂	
direct	4509 Sep 09 20:30	20°♂17'16			4512 Feb 11 17:46	0°♂	
greatest brilliancy	4509 Sep 23 12:55	23°♂34'28	-4.5m	evening rise	4512 Feb 19 17:57	10°♂03'50	
	4509 Oct 04 15:24	0°♂			4512 Mar 06 15:03	0°♂	
morning max el	4509 Oct 28 23:58	20°♂44'26	45°59'39		4512 Mar 30 15:03	0°♂	
	4509 Nov 07 04:59	0°♂			4512 Apr 23 20:26	0°♂	

asc. node	4512 Apr 26 05:10	2°II54'28		4514 Nov 22 00:01	0°ML	
	4512 May 18 10:04	0°S		4514 Dec 16 09:09	0°J	
	4512 Jun 12 11:48	0°Q		4515 Jan 09 11:24	0°Z	
	4512 Jul 08 08:57	0°P		4515 Jan 31 14:45	27°Z44'07	
	4512 Aug 04 19:58	0°A		4515 Feb 02 10:03	0°≈	
desc. node	4512 Aug 15 19:39	11°A07'29		4515 Feb 14 06:51	14°≈54'15	
evening max el	4512 Aug 19 12:16	14°A41'53	45°34'36	4515 Feb 26 07:05	0°K	
	4512 Sep 05 22:41	0°ML		4515 Mar 22 04:04	0°Y	
greatest brilliancy	4512 Sep 25 15:47	12°ML01'31	-4.5m			
retrograde	4512 Oct 07 05:19	14°ML24'43		superior conj	4515 Mar 27 12:48	6°Y43'56 -1°-26'-51
evening set	4512 Oct 24 17:35	8°ML40'25		minimum elong	4515 Mar 27 11:43	6°Y40'35 1°26'52
inferior conj	4512 Oct 28 10:06	6°ML25'49	-7°-50'-51	max. Earth dist.	4515 Mar 30 16:14	10°Y40'30 1.71472 AU
minimum elong	4512 Oct 28 18:11	6°ML13'17	7°49'49		4515 Apr 15 02:41	0°B
min. Earth dist.	4512 Oct 29 08:09	5°ML51'40	0.28279 AU	evening rise	4515 May 06 17:10	26°B55'37
morning rise	4512 Nov 01 18:24	3°ML47'00			4515 May 09 04:34	0°II
	4512 Nov 09 10:44	30°R A		asc. node	4515 May 24 17:05	19°II12'58
direct	4512 Nov 18 16:31	28°A15'52			4515 Jun 02 10:57	0°S
	4512 Nov 28 07:41	0°ML			4515 Jun 26 22:39	0°Q
greatest brilliancy	4512 Dec 03 06:59	2°ML05'07	-4.6m		4515 Jul 21 16:52	0°P
asc. node	4512 Dec 06 21:49	4°ML01'14			4515 Aug 15 20:15	0°A
	4513 Jan 07 03:06	0°J			4515 Sep 10 14:09	0°ML
morning max el	4513 Jan 08 03:01	1°J00'14	46°44'21	desc. node	4515 Sep 13 07:28	3°ML06'47
	4513 Feb 03 21:31	0°Z			4515 Oct 07 09:36	0°J
	4513 Mar 01 14:27	0°≈		evening max el	4515 Nov 01 04:00	25°J39'49 46°23'26
	4513 Mar 26 12:27	0°K			4515 Nov 05 16:45	0°Z
desc. node	4513 Mar 28 12:29	2°K25'58		greatest brilliancy	4515 Dec 09 14:13	24°Z37'04 -4.6m
	4513 Apr 20 02:12	0°Y		retrograde	4515 Dec 20 20:40	26°Z56'26
	4513 May 14 12:50	0°B		evening set	4516 Jan 04 03:10	22°Z55'03
	4513 Jun 07 22:58	0°II		asc. node	4516 Jan 04 09:38	22°Z46'25
	4513 Jul 02 09:30	0°S		inferior conj	4516 Jan 10 09:53	19°Z15'19 1°33'18
morning set	4513 Jul 12 22:14	12°S55'27		minimum elong	4516 Jan 10 06:19	19°Z20'45 1°32'09
asc. node	4513 Jul 19 14:36	21°S07'44		min. Earth dist.	4516 Jan 10 11:07	19°Z13'25 0.26657 AU
	4513 Jul 26 19:58	0°Q		morning rise	4516 Jan 16 09:20	15°Z45'30
max. Earth dist.	4513 Aug 17 13:19	26°Q42'25	1.73471 AU	direct	4516 Jan 30 23:44	11°Z32'53
				greatest brilliancy	4516 Feb 12 07:31	14°Z23'10 -4.7m
superior conj	4513 Aug 18 17:01	28°Q07'37	1°03'49		4516 Mar 06 02:41	0°≈
minimum elong	4513 Aug 18 08:04	27°Q40'06	1°03'30	morning max el	4516 Mar 21 12:28	14°≈34'10 46°55'48
	4513 Aug 20 05:32	0°P			4516 Apr 05 05:54	0°K
	4513 Sep 13 13:54	0°A		desc. node	4516 Apr 25 00:33	22°K03'06
evening rise	4513 Sep 23 17:47	12°A32'00			4516 May 01 22:50	0°Y
	4513 Oct 07 21:41	0°ML			4516 May 27 13:40	0°B
	4513 Nov 01 05:44	0°J			4516 Jun 21 17:41	0°II
desc. node	4513 Nov 08 05:22	8°J36'07			4516 Jul 16 16:17	0°S
	4513 Nov 25 14:40	0°Z			4516 Aug 10 10:41	0°Q
	4513 Dec 20 01:05	0°≈		asc. node	4516 Aug 16 02:29	6°Q53'14
	4514 Jan 13 15:00	0°K			4516 Sep 04 00:32	0°P
	4514 Feb 07 14:05	0°Y		morning set	4516 Sep 19 01:00	18°P27'16
asc. node	4514 Mar 01 07:16	25°Y15'59			4516 Sep 28 09:45	0°A
	4514 Mar 05 11:54	0°B			4516 Oct 22 15:12	0°ML
evening max el	4514 Mar 28 10:25	24°B33'25	46°43'12	max. Earth dist.	4516 Oct 22 19:56	0°ML14'40 1.72598 AU
	4514 Apr 02 23:11	0°II				
greatest brilliancy	4514 May 03 09:21	23°II19'24	-4.6m	superior conj	4516 Oct 25 17:11	3°ML49'37 1°18'06
retrograde	4514 May 17 16:33	27°II00'44		minimum elong	4516 Oct 26 00:21	4°ML11'53 1°17'58
evening set	4514 Jun 02 04:34	22°II17'05			4516 Nov 15 18:15	0°J
inferior conj	4514 Jun 07 21:50	18°II49'39	3°06'10	evening rise	4516 Dec 03 01:15	21°J32'40
minimum elong	4514 Jun 08 04:25	18°II39'23	3°04'17	desc. node	4516 Dec 05 17:15	24°J52'12
min. Earth dist.	4514 Jun 07 18:04	18°II55'33	0.28281 AU		4516 Dec 09 19:57	0°Z
morning rise	4514 Jun 14 04:43	15°II04'19			4517 Jan 02 20:51	0°≈
desc. node	4514 Jun 20 21:54	12°II05'05			4517 Jan 26 21:44	0°K
direct	4514 Jun 29 02:36	10°II44'11			4517 Feb 20 00:42	0°Y
greatest brilliancy	4514 Jul 11 10:40	13°II26'46	-4.5m		4517 Mar 16 09:43	0°B
	4514 Aug 05 05:57	0°S		asc. node	4517 Mar 28 19:17	15°B02'41
morning max el	4514 Aug 16 21:48	10°S33'46	45°43'06		4517 Apr 10 07:04	0°II
	4514 Sep 05 03:46	0°Q			4517 May 06 03:30	0°S
	4514 Oct 02 09:07	0°P			4517 Jun 03 01:50	0°Q
asc. node	4514 Oct 12 00:17	11°P04'49		evening max el	4517 Jun 07 09:00	4°Q15'22 45°46'00
	4514 Oct 28 02:43	0°A			4517 Jul 09 19:57	0°P

greatest brilliancy	4517 Jul 12 01:27	1° $\mathring{\text{M}}$ 06'36	-4.5m		4519 Dec 25 10:19	0° $\mathring{\text{Z}}$	
desc. node	4517 Jul 18 09:53	3° $\mathring{\text{M}}$ 31'35		desc. node	4520 Jan 03 04:58	11° $\mathring{\text{Z}}$ 00'33	
retrograde	4517 Jul 26 08:35	4° $\mathring{\text{M}}$ 41'25		max. Earth dist.	4520 Jan 05 10:33	13° $\mathring{\text{Z}}$ 48'42	1.71354 AU
evening set	4517 Aug 11 10:31	29° $\mathring{\text{Q}}$ 45'15					
	4517 Aug 11 00:04	30° $\mathring{\text{R}}$ $\mathring{\text{Q}}$		superior conj	4520 Jan 07 07:54	16° $\mathring{\text{Z}}$ 11'02	0°-9'-56
inferior conj	4517 Aug 16 21:35	26° $\mathring{\text{Q}}$ 25'44	-6°-14'-54	minimum elong	4520 Jan 07 05:20	16° $\mathring{\text{Z}}$ 02'59	0°09'49
minimum elong	4517 Aug 16 11:45	26° $\mathring{\text{Q}}$ 41'11	6°12'56	behind sun begin	4520 Jan 06 08:32	14° $\mathring{\text{Z}}$ 57'40	
min. Earth dist.	4517 Aug 16 14:43	26° $\mathring{\text{Q}}$ 36'32	0.29078 AU	behind sun end	4520 Jan 08 02:08	17° $\mathring{\text{Z}}$ 08'18	
morning rise	4517 Aug 21 13:03	23° $\mathring{\text{Q}}$ 34'32			4520 Jan 18 07:55	0° \approx	
direct	4517 Sep 07 12:26	18° $\mathring{\text{Q}}$ 08'56			4520 Feb 11 04:41	0° $\mathring{\text{H}}$	
greatest brilliancy	4517 Sep 21 03:32	21° $\mathring{\text{Q}}$ 23'46	-4.5m	evening rise	4520 Feb 17 04:44	7° $\mathring{\text{H}}$ 32'35	
	4517 Oct 05 07:55	0° $\mathring{\text{M}}$			4520 Mar 06 02:04	0° $\mathring{\text{Y}}$	
morning max el	4517 Oct 26 14:09	18° $\mathring{\text{M}}$ 28'51	45°58'24		4520 Mar 30 02:13	0° $\mathring{\text{B}}$	
	4517 Nov 06 23:40	0° $\mathring{\text{A}}$			4520 Apr 23 07:48	0° $\mathring{\text{I}}$	
asc. node	4517 Nov 08 12:06	1° $\mathring{\text{A}}$ 35'32		asc. node	4520 Apr 25 07:11	2° $\mathring{\text{I}}$ 25'38	
	4517 Dec 04 03:46	0° $\mathring{\text{M}}$			4520 May 17 21:51	0° $\mathring{\text{S}}$	
	4517 Dec 29 14:24	0° $\mathring{\text{X}}$			4520 Jun 12 00:23	0° $\mathring{\text{Q}}$	
	4518 Jan 23 06:13	0° $\mathring{\text{Z}}$			4520 Jul 07 23:12	0° $\mathring{\text{M}}$	
	4518 Feb 16 12:51	0° \approx			4520 Aug 04 14:15	0° $\mathring{\text{A}}$	
desc. node	4518 Feb 28 02:42	14° \approx 23'54		desc. node	4520 Aug 14 21:43	10° $\mathring{\text{A}}$ 20'24	
	4518 Mar 12 15:09	0° $\mathring{\text{H}}$		evening max el	4520 Aug 17 03:19	12° $\mathring{\text{A}}$ 29'26	45°33'57
	4518 Apr 05 15:57	0° $\mathring{\text{Y}}$			4520 Sep 06 11:24	0° $\mathring{\text{M}}$	
	4518 Apr 29 17:21	0° $\mathring{\text{B}}$		greatest brilliancy	4520 Sep 23 03:04	9° $\mathring{\text{M}}$ 44'28	-4.5m
morning set	4518 May 01 07:03	1° $\mathring{\text{B}}$ 57'21		retrograde	4520 Oct 04 20:24	12° $\mathring{\text{M}}$ 10'53	
	4518 May 23 20:48	0° $\mathring{\text{I}}$		evening set	4520 Oct 22 10:43	6° $\mathring{\text{M}}$ 22'22	
				inferior conj	4520 Oct 26 01:01	4° $\mathring{\text{M}}$ 10'54	-7°-59'-19
superior conj	4518 Jun 08 19:22	19° $\mathring{\text{I}}$ 44'00	0°-29'-12	minimum elong	4520 Oct 26 08:35	3° $\mathring{\text{M}}$ 59'12	7°58'25
minimum elong	4518 Jun 09 01:39	20° $\mathring{\text{I}}$ 03'25	0°28'55	min. Earth dist.	4520 Oct 26 22:11	3° $\mathring{\text{M}}$ 38'09	0.28341 AU
max. Earth dist.	4518 Jun 11 15:12	23° $\mathring{\text{I}}$ 13'33	1.72913 AU	morning rise	4520 Oct 30 06:07	1° $\mathring{\text{M}}$ 36'54	
	4518 Jun 17 02:51	0° $\mathring{\text{S}}$			4520 Nov 02 03:17	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
asc. node	4518 Jun 21 04:48	5° $\mathring{\text{S}}$ 02'12		direct	4520 Nov 16 08:24	26° $\mathring{\text{A}}$ 00'12	
	4518 Jul 11 11:15	0° $\mathring{\text{Q}}$		greatest brilliancy	4520 Nov 30 23:14	29° $\mathring{\text{A}}$ 50'24	-4.6m
evening rise	4518 Jul 16 04:41	5° $\mathring{\text{Q}}$ 48'39			4520 Dec 01 07:00	0° $\mathring{\text{M}}$	
	4518 Aug 04 21:41	0° $\mathring{\text{M}}$		asc. node	4520 Dec 05 23:44	2° $\mathring{\text{M}}$ 36'38	
	4518 Aug 29 10:36	0° $\mathring{\text{A}}$		morning max el	4521 Jan 05 19:08	28° $\mathring{\text{M}}$ 44'46	46°43'08
	4518 Sep 23 03:12	0° $\mathring{\text{M}}$			4521 Jan 07 00:47	0° $\mathring{\text{X}}$	
desc. node	4518 Oct 10 19:32	21° $\mathring{\text{M}}$ 19'15			4521 Feb 03 13:14	0° $\mathring{\text{Z}}$	
	4518 Oct 18 01:11	0° $\mathring{\text{X}}$			4521 Mar 01 03:59	0° \approx	
	4518 Nov 12 06:44	0° $\mathring{\text{Z}}$			4521 Mar 26 00:52	0° $\mathring{\text{H}}$	
	4518 Dec 08 01:06	0° \approx		desc. node	4521 Mar 27 14:38	1° $\mathring{\text{H}}$ 54'52	
	4519 Jan 04 01:29	0° $\mathring{\text{H}}$			4521 Apr 19 13:59	0° $\mathring{\text{Y}}$	
evening max el	4519 Jan 12 22:24	9° $\mathring{\text{H}}$ 13'14	47°09'44		4521 May 14 00:09	0° $\mathring{\text{B}}$	
asc. node	4519 Jan 31 21:31	26° $\mathring{\text{H}}$ 56'52			4521 Jun 07 09:58	0° $\mathring{\text{I}}$	
	4519 Feb 04 16:22	0° $\mathring{\text{Y}}$			4521 Jul 01 20:14	0° $\mathring{\text{S}}$	
greatest brilliancy	4519 Feb 20 09:30	9° $\mathring{\text{Y}}$ 50'21	-4.7m	morning set	4521 Jul 10 15:22	10° $\mathring{\text{S}}$ 47'56	
retrograde	4519 Mar 04 17:55	12° $\mathring{\text{Y}}$ 42'09		asc. node	4521 Jul 18 16:40	20° $\mathring{\text{S}}$ 41'22	
evening set	4519 Mar 22 17:27	6° $\mathring{\text{Y}}$ 29'39			4521 Jul 26 06:33	0° $\mathring{\text{Q}}$	
min. Earth dist.	4519 Mar 25 01:02	5° $\mathring{\text{Y}}$ 04'10	0.27281 AU	max. Earth dist.	4521 Aug 15 12:08	24° $\mathring{\text{Q}}$ 52'29	1.73478 AU
inferior conj	4519 Mar 25 12:59	4° $\mathring{\text{Y}}$ 45'36	9°00'56				
minimum elong	4519 Mar 25 11:28	4° $\mathring{\text{Y}}$ 47'57	9°00'53	superior conj	4521 Aug 16 10:56	26° $\mathring{\text{Q}}$ 02'37	1°01'38
morning rise	4519 Mar 28 05:35	3° $\mathring{\text{Y}}$ 06'07		minimum elong	4521 Aug 16 01:55	25° $\mathring{\text{Q}}$ 34'55	1°01'20
	4519 Apr 02 20:34	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$			4521 Aug 19 16:04	0° $\mathring{\text{M}}$	
direct	4519 Apr 15 03:31	26° $\mathring{\text{H}}$ 57'12			4521 Sep 13 00:30	0° $\mathring{\text{A}}$	
greatest brilliancy	4519 Apr 26 02:14	29° $\mathring{\text{H}}$ 09'45	-4.6m	evening rise	4521 Sep 21 11:24	10° $\mathring{\text{A}}$ 25'30	
	4519 Apr 28 02:48	0° $\mathring{\text{Y}}$			4521 Oct 07 08:26	0° $\mathring{\text{M}}$	
desc. node	4519 May 23 12:08	17° $\mathring{\text{Y}}$ 48'01			4521 Oct 31 16:46	0° $\mathring{\text{X}}$	
morning max el	4519 Jun 03 18:50	28° $\mathring{\text{Y}}$ 20'18	46°16'20	desc. node	4521 Nov 07 07:20	8° $\mathring{\text{X}}$ 07'55	
	4519 Jun 05 11:22	0° $\mathring{\text{B}}$			4521 Nov 25 02:04	0° $\mathring{\text{Z}}$	
	4519 Jul 03 22:17	0° $\mathring{\text{I}}$			4521 Dec 19 12:58	0° \approx	
	4519 Jul 30 11:36	0° $\mathring{\text{S}}$			4522 Jan 13 03:35	0° $\mathring{\text{H}}$	
	4519 Aug 25 04:19	0° $\mathring{\text{Q}}$			4522 Feb 07 03:53	0° $\mathring{\text{Y}}$	
asc. node	4519 Sep 13 14:23	23° $\mathring{\text{Q}}$ 07'59		asc. node	4522 Feb 28 09:23	24° $\mathring{\text{Y}}$ 37'25	
	4519 Sep 19 07:25	0° $\mathring{\text{M}}$			4522 Mar 05 04:17	0° $\mathring{\text{B}}$	
	4519 Oct 13 23:49	0° $\mathring{\text{A}}$		evening max el	4522 Mar 26 02:22	22° $\mathring{\text{B}}$ 18'45	46°45'02
	4519 Nov 07 08:04	0° $\mathring{\text{M}}$			4522 Apr 02 23:38	0° $\mathring{\text{I}}$	
morning set	4519 Nov 28 18:45	26° $\mathring{\text{M}}$ 40'04		greatest brilliancy	4522 May 01 02:24	21° $\mathring{\text{I}}$ 07'04	-4.6m
	4519 Dec 01 10:50	0° $\mathring{\text{X}}$		retrograde	4522 May 15 08:45	24° $\mathring{\text{I}}$ 46'41	

evening set	4522 May 30 22:13	20°II00'15			4524 Nov 15 04:56	0°♂	
inferior conj	4522 Jun 05 13:09	16°II35'48	3°26'07	evening rise	4524 Nov 30 14:46	19°♂11'35	
minimum elong	4522 Jun 05 20:20	16°II24'35	3°24'04	desc. node	4524 Dec 04 19:10	24°♂24'28	
min. Earth dist.	4522 Jun 05 09:17	16°II41'51	0.28253 AU		4524 Dec 09 06:48	0°♂	
morning rise	4522 Jun 11 18:59	12°II52'07			4525 Jan 02 07:54	0°≈	
desc. node	4522 Jun 19 23:55	9°II25'54			4525 Jan 26 09:02	0°♂	
direct	4522 Jun 26 18:05	8°II30'58			4525 Feb 19 12:19	0°♀	
greatest brilliancy	4522 Jul 08 23:27	11°II11'23	-4.5m		4525 Mar 15 21:52	0°♂	
	4522 Aug 05 10:08	0°♂		asc. node	4525 Mar 27 21:16	14°♂31'03	
morning max el	4522 Aug 14 13:44	8°♂23'57	45°43'22		4525 Apr 09 20:08	0°II	
	4522 Sep 04 20:39	0°♂			4525 May 05 18:29	0°♂	
	4522 Oct 01 22:47	0°♂			4525 Jun 02 22:16	0°♂	
asc. node	4522 Oct 11 02:20	10°♂32'59		evening max el	4525 Jun 04 23:40	2°♂01'28	45°47'29
	4522 Oct 27 14:58	0°♂		greatest brilliancy	4525 Jul 09 15:58	28°♂55'58	-4.5m
	4522 Nov 21 11:34	0°♂			4525 Jul 12 02:08	0°♂	
	4522 Dec 15 20:20	0°♂		desc. node	4525 Jul 17 11:56	1°♂45'38	
	4523 Jan 08 22:24	0°♂		retrograde	4525 Jul 24 00:36	2°♂33'32	
desc. node	4523 Jan 30 16:50	27°♂16'28			4525 Aug 04 10:26	30°♂♂	
	4523 Feb 01 20:56	0°≈		evening set	4525 Aug 09 00:19	27°♂40'44	
morning set	4523 Feb 11 17:01	12°≈21'24		inferior conj	4525 Aug 14 14:04	24°♂17'43	-6°-1'-4
	4523 Feb 25 17:52	0°♂		minimum elong	4525 Aug 14 04:14	24°♂33'09	5°59'02
	4523 Mar 21 14:46	0°♀		min. Earth dist.	4525 Aug 14 07:04	24°♂28'42	0.29068 AU
				morning rise	4525 Aug 19 08:09	21°♂22'37	
superior conj	4523 Mar 25 00:11	4°♀15'31	-1°-26'-36	direct	4525 Sep 05 04:12	16°♂00'54	
minimum elong	4523 Mar 24 22:02	4°♀08'46	1°26'37	greatest brilliancy	4525 Sep 18 19:25	19°♂15'06	-4.5m
max. Earth dist.	4523 Mar 28 03:45	8°♀12'34	1.71431 AU		4525 Oct 05 20:01	0°♂	
	4523 Apr 14 13:19	0°♂		morning max el	4525 Oct 24 04:56	16°♂15'05	45°57'09
evening rise	4523 May 04 06:20	24°♂34'13			4525 Nov 06 17:46	0°♂	
	4523 May 08 15:14	0°II		asc. node	4525 Nov 07 14:01	0°♂53'28	
asc. node	4523 May 23 19:00	18°II45'47			4525 Dec 03 18:05	0°♂	
	4523 Jun 01 21:44	0°♂			4525 Dec 29 03:12	0°♂	
	4523 Jun 26 09:40	0°♂			4526 Jan 22 18:14	0°♂	
	4523 Jul 21 04:19	0°♂			4526 Feb 16 00:25	0°≈	
	4523 Aug 15 08:30	0°♂		desc. node	4526 Feb 27 04:43	13°≈54'38	
	4523 Sep 10 03:53	0°♂			4526 Mar 12 02:24	0°♂	
desc. node	4523 Sep 12 09:35	2°♂33'08			4526 Apr 05 02:59	0°♀	
	4523 Oct 07 02:27	0°♂		morning set	4526 Apr 28 20:24	29°♀35'41	
evening max el	4523 Oct 29 17:41	23°♂19'44	46°21'12		4526 Apr 29 04:13	0°♂	
	4523 Nov 05 18:54	0°♂			4526 May 23 07:32	0°II	
greatest brilliancy	4523 Dec 07 04:29	22°♂13'20	-4.6m				
retrograde	4523 Dec 18 08:26	24°♂30'05		superior conj	4526 Jun 06 11:01	17°II31'09	0°-32'-25
evening set	4524 Jan 01 15:45	20°♂28'59		minimum elong	4526 Jun 06 17:56	17°II52'31	0°32'07
asc. node	4524 Jan 03 11:43	19°♂28'32		max. Earth dist.	4526 Jun 09 07:21	21°II02'20	1.72865 AU
inferior conj	4524 Jan 07 22:23	16°♂49'20	1°09'03		4526 Jun 16 13:28	0°♂	
minimum elong	4524 Jan 07 19:45	16°♂53'23	1°08'12	asc. node	4526 Jun 20 06:53	4°♂35'51	
min. Earth dist.	4524 Jan 08 01:21	16°♂44'50	0.26675 AU		4526 Jul 10 21:51	0°♂	
morning rise	4524 Jan 13 23:28	13°♂16'50		evening rise	4526 Jul 13 22:36	3°♂43'35	
direct	4524 Jan 28 12:20	9°♂06'26			4526 Aug 04 08:25	0°♂	
greatest brilliancy	4524 Feb 09 22:33	11°♂58'43	-4.7m		4526 Aug 28 21:37	0°♂	
	4524 Mar 06 09:30	0°≈			4526 Sep 22 14:44	0°♂	
morning max el	4524 Mar 19 00:49	12°≈07'12	46°56'32	desc. node	4526 Oct 09 21:25	20°♂48'54	
	4524 Apr 05 00:03	0°♂			4526 Oct 17 13:27	0°♂	
desc. node	4524 Apr 24 02:27	21°♂25'07			4526 Nov 11 20:10	0°♂	
	4524 May 01 13:19	0°♀			4526 Dec 07 16:35	0°≈	
	4524 May 27 02:27	0°♂			4527 Jan 03 21:39	0°♂	
	4524 Jun 21 05:30	0°II		evening max el	4527 Jan 10 11:38	6°♂47'43	47°09'17
	4524 Jul 16 03:32	0°♂		asc. node	4527 Jan 30 23:37	25°♂46'53	
	4524 Aug 09 21:34	0°♂			4527 Feb 05 11:10	0°♀	
asc. node	4524 Aug 15 04:34	6°♂26'37		greatest brilliancy	4527 Feb 17 23:27	7°♀25'12	-4.7m
	4524 Sep 03 11:12	0°♂		retrograde	4527 Mar 02 07:36	10°♀17'03	
morning set	4524 Sep 16 18:20	16°♂20'12		evening set	4527 Mar 20 04:46	4°♀07'36	
	4524 Sep 27 20:19	0°♂		min. Earth dist.	4527 Mar 22 13:46	2°♀40'14	0.27244 AU
max. Earth dist.	4524 Oct 20 11:10	28°♂00'12	1.72644 AU	inferior conj	4527 Mar 23 02:13	2°♀20'56	8°59'05
	4524 Oct 22 01:47	0°♂		minimum elong	4527 Mar 22 23:46	2°♀24'44	8°59'00
				morning rise	4527 Mar 25 18:53	0°♀41'37	
superior conj	4524 Oct 23 09:33	1°♂38'34	1°19'24		4527 Mar 26 22:48	30°♂♂	
minimum elong	4524 Oct 23 16:09	1°♂59'02	1°19'16	direct	4527 Apr 12 16:09	24°♂32'50	

greatest brilliancy	4527 Apr 23 15:27	26° Υ 46'19	-4.6m	evening rise	4529 Sep 19 05:22	8° Ω 19'29	
	4527 Apr 30 09:34	0° Υ			4529 Oct 06 19:24	0° \mathbb{M}	
desc. node	4527 May 22 14:08	16° Υ 48'07			4529 Oct 31 04:01	0° \mathcal{Z}	
morning max el	4527 Jun 01 09:15	26° Υ 01'45	46°18'06	desc. node	4529 Nov 06 09:22	7° \mathcal{Z} 39'15	
	4527 Jun 05 09:20	0° \mathcal{B}			4529 Nov 24 13:44	0° \mathcal{B}	
	4527 Jul 03 14:02	0° \mathbb{I}			4529 Dec 19 01:14	0° \approx	
	4527 Jul 30 00:55	0° \mathcal{S}			4530 Jan 12 16:40	0° \mathcal{H}	
	4527 Aug 24 16:24	0° Ω			4530 Feb 06 18:18	0° Υ	
asc. node	4527 Sep 12 16:24	22° Ω 39'22		asc. node	4530 Feb 27 11:21	23° Υ 56'28	
	4527 Sep 18 18:50	0° \mathbb{M}			4530 Mar 04 21:30	0° \mathcal{B}	
	4527 Oct 13 10:54	0° Ω		evening max el	4530 Mar 23 18:03	20° \mathcal{B} 01'49	46°46'57
	4527 Nov 06 19:01	0° \mathbb{M}			4530 Apr 03 02:03	0° \mathbb{I}	
morning set	4527 Nov 26 09:18	24° \mathbb{M} 21'44		greatest brilliancy	4530 Apr 28 20:28	18° \mathbb{I} 54'33	-4.6m
	4527 Nov 30 21:45	0° \mathcal{Z}		retrograde	4530 May 13 00:31	22° \mathbb{I} 31'05	
	4527 Dec 24 21:16	0° \mathcal{B}		evening set	4530 May 28 15:59	17° \mathbb{I} 41'58	
desc. node	4528 Jan 02 07:05	10° \mathcal{B} 32'45		inferior conj	4530 Jun 03 04:26	14° \mathbb{I} 20'43	3°45'42
max. Earth dist.	4528 Jan 02 21:51	11° \mathcal{B} 19'03	1.71384 AU	minimum elong	4530 Jun 03 12:11	14° \mathbb{I} 08'37	3°43'32
				min. Earth dist.	4530 Jun 03 00:42	14° \mathbb{I} 26'35	0.28217 AU
superior conj	4528 Jan 04 19:06	13° \mathcal{B} 41'04	0°-6'-3	morning rise	4530 Jun 09 08:57	10° \mathbb{I} 38'42	
minimum elong	4528 Jan 04 17:33	13° \mathcal{B} 36'10	0°05'59	desc. node	4530 Jun 19 02:01	6° \mathbb{I} 50'20	
behind sun begin	4528 Jan 03 17:26	12° \mathcal{B} 20'29		direct	4530 Jun 24 09:19	6° \mathbb{I} 16'39	
behind sun end	4528 Jan 05 17:39	14° \mathcal{B} 51'52		greatest brilliancy	4530 Jul 06 11:43	8° \mathbb{I} 54'10	-4.5m
	4528 Jan 17 18:54	0° \approx			4530 Aug 05 13:03	0° \mathcal{S}	
	4528 Feb 10 15:44	0° \mathcal{H}		morning max el	4530 Aug 12 04:53	6° \mathcal{S} 11'15	45°43'45
evening rise	4528 Feb 14 15:07	4° \mathcal{H} 59'42			4530 Sep 04 13:30	0° Ω	
	4528 Mar 05 13:12	0° Υ			4530 Oct 01 12:36	0° \mathbb{M}	
	4528 Mar 29 13:29	0° \mathcal{B}		asc. node	4530 Oct 10 04:13	10° \mathbb{M} 00'01	
	4528 Apr 22 19:18	0° \mathbb{I}			4530 Oct 27 03:26	0° Ω	
asc. node	4528 Apr 24 09:08	1° \mathbb{I} 56'13			4530 Nov 20 23:20	0° \mathbb{M}	
	4528 May 17 09:47	0° \mathcal{S}			4530 Dec 15 07:47	0° \mathcal{Z}	
	4528 Jun 11 13:10	0° Ω			4531 Jan 08 09:41	0° \mathcal{B}	
	4528 Jul 07 13:42	0° \mathbb{M}		desc. node	4531 Jan 29 18:52	26° \mathcal{B} 47'35	
	4528 Aug 04 09:07	0° Ω			4531 Feb 01 08:10	0° \approx	
desc. node	4528 Aug 13 23:49	9° Ω 32'29		morning set	4531 Feb 09 03:00	9° \approx 46'48	
evening max el	4528 Aug 14 19:09	10° Ω 18'47	45°33'22		4531 Feb 25 05:04	0° \mathcal{H}	
	4528 Sep 07 04:29	0° \mathbb{M}			4531 Mar 21 01:54	0° Υ	
greatest brilliancy	4528 Sep 20 14:50	7° \mathbb{M} 28'12	-4.5m				
retrograde	4528 Oct 02 11:19	9° \mathbb{M} 57'09		superior conj	4531 Mar 22 11:04	1° Υ 44'04	-1°-26'-10
evening set	4528 Oct 20 03:48	4° \mathbb{M} 04'56		minimum elong	4531 Mar 22 07:52	1° Υ 34'01	1°26'10
inferior conj	4528 Oct 23 16:06	1° \mathbb{M} 56'10	-8°-6'-48	max. Earth dist.	4531 Mar 25 11:54	5° Υ 32'38	1.71392 AU
minimum elong	4528 Oct 23 23:04	1° \mathbb{M} 45'20	8°06'03		4531 Apr 14 00:26	0° \mathcal{B}	
min. Earth dist.	4528 Oct 24 12:09	1° \mathbb{M} 25'04	0.28405 AU	evening rise	4531 May 01 18:45	22° \mathcal{B} 09'01	
	4528 Oct 26 19:42	30° \mathbb{R} Ω			4531 May 08 02:21	0° \mathbb{I}	
morning rise	4528 Oct 27 18:05	29° Ω 26'38		asc. node	4531 May 22 21:05	18° \mathbb{I} 17'48	
direct	4528 Nov 14 00:42	23° Ω 44'49			4531 Jun 01 08:56	0° \mathcal{S}	
greatest brilliancy	4528 Nov 28 14:36	27° Ω 34'18	-4.6m		4531 Jun 25 21:05	0° Ω	
	4528 Dec 03 01:35	0° \mathbb{M}			4531 Jul 20 16:10	0° \mathbb{M}	
asc. node	4528 Dec 05 01:51	1° \mathbb{M} 14'41			4531 Aug 14 21:11	0° Ω	
morning max el	4529 Jan 03 10:55	26° \mathbb{M} 27'41	46°41'35		4531 Sep 09 18:06	0° \mathbb{M}	
	4529 Jan 06 22:02	0° \mathcal{Z}		desc. node	4531 Sep 11 11:30	1° \mathbb{M} 57'39	
	4529 Feb 03 05:06	0° \mathcal{B}			4531 Oct 06 19:59	0° \mathcal{Z}	
	4529 Feb 28 17:47	0° \approx		evening max el	4531 Oct 27 06:40	20° \mathcal{Z} 57'21	46°19'03
	4529 Mar 25 13:35	0° \mathcal{H}			4531 Nov 05 22:56	0° \mathcal{B}	
desc. node	4529 Mar 26 16:35	1° \mathcal{H} 22'16		greatest brilliancy	4531 Dec 04 18:43	19° \mathcal{B} 49'23	-4.6m
	4529 Apr 19 02:00	0° Υ		retrograde	4531 Dec 15 20:13	22° \mathcal{B} 04'06	
	4529 May 13 11:41	0° \mathcal{B}		evening set	4531 Dec 30 04:45	18° \mathcal{B} 02'33	
	4529 Jun 06 21:08	0° \mathbb{I}		asc. node	4532 Jan 02 13:44	16° \mathcal{B} 08'28	
	4529 Jul 01 07:11	0° \mathcal{S}		inferior conj	4532 Jan 05 11:09	14° \mathcal{B} 23'30	0°45'00
morning set	4529 Jul 08 08:39	8° \mathcal{S} 40'13		minimum elong	4532 Jan 05 09:25	14° \mathcal{B} 26'09	0°44'27
asc. node	4529 Jul 17 18:44	20° \mathcal{S} 14'25		min. Earth dist.	4532 Jan 05 15:57	14° \mathcal{B} 16'11	0.26701 AU
	4529 Jul 25 17:22	0° Ω		morning rise	4532 Jan 11 13:39	10° \mathcal{B} 48'42	
max. Earth dist.	4529 Aug 13 10:19	22° Ω 59'55	1.73480 AU	direct	4532 Jan 26 00:55	6° \mathcal{B} 39'47	
				greatest brilliancy	4532 Feb 07 14:44	9° \mathcal{B} 35'23	-4.7m
superior conj	4529 Aug 14 05:07	23° Ω 57'46	0°59'24		4532 Mar 06 14:35	0° \approx	
minimum elong	4529 Aug 13 20:07	23° Ω 30'05	0°59'05	morning max el	4532 Mar 16 13:19	9° \approx 39'27	46°57'01
	4529 Aug 19 02:50	0° \mathbb{M}			4532 Apr 04 18:12	0° \mathcal{H}	
	4529 Sep 12 11:19	0° Ω		desc. node	4532 Apr 23 04:27	20° \mathcal{H} 46'17	

	4532 May 01 04:08	0°♄			4534 Dec 07 08:29	0°♁	
	4532 May 26 15:39	0°♂			4535 Jan 03 18:40	0°♂	
	4532 Jun 20 17:46	0°♂	evening max el		4535 Jan 08 02:04	4°♂24'57	47°08'45
	4532 Jul 15 15:10	0°♁	asc. node		4535 Jan 30 01:36	24°♂34'15	
	4532 Aug 09 08:48	0°♂			4535 Feb 06 12:51	0°♄	
asc. node	4532 Aug 14 06:31	5°♂58'31	greatest brilliancy		4535 Feb 15 12:54	4°♄59'16	-4.7m
	4532 Sep 02 22:11	0°♄	retrograde		4535 Feb 27 21:47	7°♄51'45	
morning set	4532 Sep 14 11:39	14°♄12'08	evening set		4535 Mar 17 15:40	1°♄46'07	
	4532 Sep 27 07:12	0°♁	min. Earth dist.		4535 Mar 20 02:11	0°♄16'38	0.27205 AU
max. Earth dist.	4532 Oct 18 04:11	25°♁50'16	1.72689 AU	inferior conj	4535 Mar 20 15:30	29°♂56'03	8°56'17
				minimum elong	4535 Mar 20 12:07	0°♄01'16	8°56'08
superior conj	4532 Oct 21 02:10	29°♁27'22	1°20'33		4535 Mar 20 12:57	30°♂♂	
minimum elong	4532 Oct 21 08:11	29°♁46'00	1°20'28	morning rise	4535 Mar 23 08:42	28°♂16'11	
	4532 Oct 21 12:42	0°♂		direct	4535 Apr 10 05:20	22°♂08'33	
	4532 Nov 14 15:57	0°♂		greatest brilliancy	4535 Apr 21 03:44	24°♂21'49	-4.6m
evening rise	4532 Nov 28 04:47	16°♂51'14			4535 May 01 21:13	0°♄	
desc. node	4532 Dec 03 21:19	23°♂56'30		desc. node	4535 May 21 16:17	15°♄49'52	
	4532 Dec 08 17:58	0°♁		morning max el	4535 May 30 00:11	23°♄44'21	46°19'41
	4533 Jan 01 19:14	0°♁			4535 Jun 05 06:33	0°♂	
	4533 Jan 25 20:36	0°♂			4535 Jul 03 05:39	0°♂	
	4533 Feb 19 00:15	0°♄			4535 Jul 29 14:16	0°♁	
	4533 Mar 15 10:22	0°♂			4535 Aug 24 04:35	0°♂	
asc. node	4533 Mar 26 23:12	13°♂58'04		asc. node	4535 Sep 11 18:22	22°♂10'12	
	4533 Apr 09 09:39	0°♂			4535 Sep 18 06:22	0°♄	
	4533 May 05 10:09	0°♁			4535 Oct 12 22:04	0°♁	
evening max el	4533 Jun 02 14:33	29°♁46'40	45°49'07		4535 Nov 06 06:00	0°♂	
	4533 Jun 02 20:01	0°♂		morning set	4535 Nov 24 00:01	22°♂04'00	
greatest brilliancy	4533 Jul 07 06:02	26°♂43'20	-4.5m		4535 Nov 30 08:41	0°♂	
desc. node	4533 Jul 16 13:57	29°♂54'18			4535 Dec 24 08:13	0°♁	
	4533 Jul 17 02:26	0°♄		max. Earth dist.	4535 Dec 31 08:04	8°♂46'07	1.71416 AU
retrograde	4533 Jul 21 17:06	0°♄24'21		desc. node	4536 Jan 01 09:04	10°♂04'31	
	4533 Jul 26 05:34	30°♂♂					
evening set	4533 Aug 06 14:12	25°♂34'37		superior conj	4536 Jan 02 06:37	11°♂12'06	0°-2'-11
inferior conj	4533 Aug 12 06:28	22°♂08'20	-5°-46'-45	minimum elong	4536 Jan 02 06:03	11°♂10'19	0°02'09
minimum elong	4533 Aug 11 20:41	22°♂23'41	5°44'38	behind sun begin	4536 Jan 01 04:38	9°♂50'35	
min. Earth dist.	4533 Aug 11 23:08	22°♂19'50	0.29054 AU	behind sun end	4536 Jan 03 07:28	12°♂30'04	
morning rise	4533 Aug 17 03:11	19°♂09'38			4536 Jan 17 05:55	0°♁	
direct	4533 Sep 02 19:58	13°♂51'36			4536 Feb 10 02:50	0°♂	
greatest brilliancy	4533 Sep 16 11:38	17°♂05'59	-4.5m	evening rise	4536 Feb 12 01:46	2°♂27'29	
	4533 Oct 06 05:21	0°♄			4536 Mar 05 00:22	0°♄	
morning max el	4533 Oct 21 20:32	14°♄02'45	45°55'59		4536 Mar 29 00:45	0°♂	
	4533 Nov 06 11:44	0°♁			4536 Apr 22 06:47	0°♂	
asc. node	4533 Nov 06 16:09	0°♁11'46		asc. node	4536 Apr 23 11:15	1°♂27'25	
	4533 Dec 03 08:29	0°♂			4536 May 16 21:42	0°♁	
	4533 Dec 28 16:08	0°♂			4536 Jun 11 01:59	0°♂	
	4534 Jan 22 06:25	0°♁			4536 Jul 07 04:24	0°♄	
	4534 Feb 15 12:08	0°♁			4536 Aug 04 04:35	0°♁	
desc. node	4534 Feb 26 06:41	13°♁24'41		evening max el	4536 Aug 12 10:59	8°♁07'56	45°32'40
	4534 Mar 11 13:49	0°♂		desc. node	4536 Aug 13 01:44	8°♁43'03	
	4534 Apr 04 14:12	0°♄			4536 Sep 08 03:47	0°♂	
morning set	4534 Apr 26 09:43	27°♄13'07		greatest brilliancy	4536 Sep 18 03:53	5°♂13'18	-4.5m
	4534 Apr 28 15:17	0°♂		retrograde	4536 Sep 30 01:52	7°♂43'21	
	4534 May 22 18:29	0°♂		evening set	4536 Oct 17 20:44	1°♂48'04	
					4536 Oct 20 19:25	30°♂♂	
superior conj	4534 Jun 04 02:24	15°♂16'33	0°-35'-36	inferior conj	4536 Oct 21 07:13	29°♁41'40	-8°-13'-30
minimum elong	4534 Jun 04 09:56	15°♂39'49	0°35'18	minimum elong	4536 Oct 21 13:33	29°♁31'49	8°12'55
max. Earth dist.	4534 Jun 06 22:54	18°♂48'22	1.72823 AU	min. Earth dist.	4536 Oct 22 02:17	29°♁12'02	0.28462 AU
	4534 Jun 16 00:22	0°♁		morning rise	4536 Oct 25 06:08	27°♁16'23	
asc. node	4534 Jun 19 08:57	4°♁08'36		direct	4536 Nov 11 16:50	21°♁29'53	
	4534 Jul 10 08:45	0°♂		greatest brilliancy	4536 Nov 26 05:11	25°♁17'23	-4.6m
evening rise	4534 Jul 11 16:12	1°♂36'37		asc. node	4536 Dec 04 03:52	29°♁55'19	
	4534 Aug 03 19:26	0°♄			4536 Dec 04 06:41	0°♂	
	4534 Aug 28 08:55	0°♁		morning max el	4537 Jan 01 01:41	24°♂08'27	46°40'02
	4534 Sep 22 02:29	0°♂			4537 Jan 06 18:26	0°♂	
desc. node	4534 Oct 08 23:28	20°♂18'24			4537 Feb 02 20:35	0°♁	
	4534 Oct 17 01:58	0°♂			4537 Feb 28 07:19	0°♁	
	4534 Nov 11 09:53	0°♁			4537 Mar 25 02:06	0°♂	

desc. node	4537 Mar 25 18:34	0° Υ 50'15		greatest brilliancy	4539 Dec 02 08:02	17° C 24'41	-4.6m
	4537 Apr 18 13:51	0° Υ		retrograde	4539 Dec 13 08:03	19° C 38'24	
	4537 May 12 23:04	0° B		evening set	4539 Dec 27 17:44	15° C 35'41	
	4537 Jun 06 08:10	0° II		asc. node	4540 Jan 01 15:42	12° C 46'22	
	4537 Jun 30 17:59	0° C		inferior conj	4540 Jan 02 23:42	11° C 57'40	0°20'44
morning set	4537 Jul 06 01:59	6° C 33'04		minimum elong	4540 Jan 02 22:54	11° C 58'54	0°20'28
asc. node	4537 Jul 16 20:40	19° C 47'28		min. Earth dist.	4540 Jan 03 06:16	11° C 47'38	0.26731 AU
	4537 Jul 25 04:01	0° Ω		morning rise	4540 Jan 09 03:29	8° C 21'05	
				direct	4540 Jan 23 13:22	4° C 12'59	
superior conj	4537 Aug 11 23:16	21° Ω 53'16	0°57'05	greatest brilliancy	4540 Feb 05 07:28	7° C 13'08	-4.7m
minimum elong	4537 Aug 11 14:20	21° Ω 25'46	0°56'45		4540 Mar 06 17:37	0° \approx	
max. Earth dist.	4537 Aug 11 07:21	21° Ω 04'18	1.73484 AU	morning max el	4540 Mar 14 02:18	7° \approx 13'39	46°57'37
	4537 Aug 18 13:28	0° M			4540 Apr 04 11:36	0° K	
	4537 Sep 11 22:01	0° A		desc. node	4540 Apr 22 06:38	20° K 09'18	
evening rise	4537 Sep 16 23:14	6° A 13'28			4540 Apr 30 18:24	0° Υ	
	4537 Oct 06 06:17	0° M			4540 May 26 04:24	0° B	
	4537 Oct 30 15:10	0° J			4540 Jun 20 05:38	0° II	
desc. node	4537 Nov 05 11:26	7° J 11'04			4540 Jul 15 02:27	0° C	
	4537 Nov 24 01:18	0° C			4540 Aug 08 19:41	0° Ω	
	4537 Dec 18 13:21	0° \approx		asc. node	4540 Aug 13 08:32	5° Ω 31'40	
	4538 Jan 12 05:36	0° K			4540 Sep 02 08:49	0° M	
	4538 Feb 06 08:37	0° Υ		morning set	4540 Sep 12 05:10	12° M 05'49	
asc. node	4538 Feb 26 13:19	23° Υ 15'47			4540 Sep 26 17:45	0° A	
	4538 Mar 04 14:50	0° B		max. Earth dist.	4540 Oct 15 23:45	23° A 49'21	1.72735 AU
evening max el	4538 Mar 21 08:56	17° B 43'13	46°48'43				
	4538 Apr 03 05:47	0° II		superior conj	4540 Oct 18 18:59	27° A 17'48	1°21'35
greatest brilliancy	4538 Apr 26 14:49	16° II 42'44	-4.6m	minimum elong	4540 Oct 19 00:23	27° A 34'33	1°21'31
retrograde	4538 May 10 15:41	20° II 15'55			4540 Oct 20 23:16	0° M	
evening set	4538 May 26 09:49	15° II 24'00			4540 Nov 14 02:39	0° J	
inferior conj	4538 May 31 19:43	12° II 06'15	4°05'00	evening rise	4540 Nov 25 18:56	14° J 32'15	
minimum elong	4538 Jun 01 03:57	11° II 53'20	4°02'45	desc. node	4540 Dec 02 23:18	23° J 28'56	
min. Earth dist.	4538 May 31 16:22	12° II 11'29	0.28182 AU		4540 Dec 08 04:51	0° C	
morning rise	4538 Jun 06 22:38	8° II 26'03			4541 Jan 01 06:20	0° \approx	
desc. node	4538 Jun 18 03:58	4° II 20'23			4541 Jan 25 07:57	0° K	
direct	4538 Jun 22 00:05	4° II 02'52			4541 Feb 18 11:58	0° Υ	
greatest brilliancy	4538 Jul 04 00:41	6° II 38'17	-4.5m		4541 Mar 14 22:38	0° B	
	4538 Aug 05 14:10	0° C		asc. node	4541 Mar 26 01:20	13° B 26'29	
morning max el	4538 Aug 09 19:09	3° C 57'07	45°44'12		4541 Apr 08 22:58	0° II	
	4538 Sep 04 05:44	0° Ω			4541 May 05 01:42	0° C	
	4538 Oct 01 02:02	0° M		evening max el	4541 May 31 06:02	27° C 34'20	45°50'49
asc. node	4538 Oct 09 06:22	9° M 28'37			4541 Jun 02 18:13	0° Ω	
	4538 Oct 26 15:37	0° A		greatest brilliancy	4541 Jul 04 20:10	24° Ω 31'42	-4.5m
	4538 Nov 20 10:54	0° M		desc. node	4541 Jul 15 15:57	27° Ω 59'43	
	4538 Dec 14 19:01	0° J		retrograde	4541 Jul 19 10:00	28° Ω 15'59	
	4539 Jan 07 20:46	0° C		evening set	4541 Aug 04 04:11	23° Ω 29'07	
desc. node	4539 Jan 28 20:49	26° C 19'16		inferior conj	4541 Aug 09 22:48	19° Ω 59'41	-5°-31'-52
	4539 Jan 31 19:08	0° \approx		minimum elong	4541 Aug 09 13:08	20° Ω 14'49	5°29'42
morning set	4539 Feb 06 12:56	7° \approx 12'51		min. Earth dist.	4541 Aug 09 14:53	20° Ω 12'04	0.29038 AU
	4539 Feb 24 15:57	0° K		morning rise	4541 Aug 14 22:10	16° Ω 57'28	
				direct	4541 Aug 31 12:09	11° Ω 43'06	
superior conj	4539 Mar 19 21:54	29° K 13'26	-1°-25'-34	greatest brilliancy	4541 Sep 14 03:33	14° Ω 57'34	-4.5m
minimum elong	4539 Mar 19 17:39	29° K 00'05	1°25'32		4541 Oct 06 11:37	0° M	
	4539 Mar 20 12:44	0° Υ		morning max el	4541 Oct 19 12:44	11° M 53'08	45°54'54
max. Earth dist.	4539 Mar 22 17:56	2° Υ 46'57	1.71356 AU	asc. node	4541 Nov 05 18:09	29° M 31'15	
	4539 Apr 13 11:15	0° B			4541 Nov 06 04:53	0° A	
evening rise	4539 Apr 29 07:03	19° B 44'15			4541 Dec 02 22:22	0° M	
	4539 May 07 13:12	0° II			4541 Dec 28 04:41	0° J	
asc. node	4539 May 21 23:07	17° II 50'31			4542 Jan 21 18:17	0° C	
	4539 May 31 19:53	0° C			4542 Feb 14 23:36	0° \approx	
	4539 Jun 25 08:14	0° Ω		desc. node	4542 Feb 25 08:46	12° \approx 55'46	
	4539 Jul 20 03:45	0° M			4542 Mar 11 01:01	0° K	
	4539 Aug 14 09:36	0° A			4542 Apr 04 01:11	0° Υ	
	4539 Sep 09 08:10	0° M		morning set	4542 Apr 23 22:34	24° Υ 49'48	
desc. node	4539 Sep 10 13:34	1° M 23'18			4542 Apr 28 02:06	0° B	
	4539 Oct 06 13:39	0° J			4542 May 22 05:10	0° II	
evening max el	4539 Oct 24 19:00	18° J 34'15	46°16'47				
	4539 Nov 06 04:39	0° C		superior conj	4542 Jun 01 17:26	13° II 01'37	0°-38'-47

minimum elong	4542 Jun 02 01:31	13° Π 26'40	0°38'26	minimum elong	4544 Oct 19 04:04	27° Δ 19'05	8°19'03
max. Earth dist.	4542 Jun 04 16:28	16° Π 41'25	1.72779 AU	min. Earth dist.	4544 Oct 19 16:48	26° Δ 59'15	0.28517 AU
	4542 Jun 15 10:58	0° Σ		morning rise	4544 Oct 22 18:23	25° Δ 06'38	
asc. node	4542 Jun 18 10:50	3° Σ 41'45		direct	4544 Nov 09 08:31	19° Δ 15'31	
evening rise	4542 Jul 09 09:41	29° Σ 30'12		greatest brilliancy	4544 Nov 23 20:00	23° Δ 01'13	-4.6m
	4542 Jul 09 19:22	0° Ω		asc. node	4544 Dec 03 05:47	28° Δ 38'26	
	4542 Aug 03 06:12	0° Π			4544 Dec 05 03:34	0° Π	
	4542 Aug 27 19:58	0° Δ		morning max el	4544 Dec 29 15:36	21° Π 47'28	46°38'41
	4542 Sep 21 14:00	0° Π			4545 Jan 06 14:04	0° Σ	
desc. node	4542 Oct 08 01:36	19° Π 48'57			4545 Feb 02 11:41	0° Σ	
	4542 Oct 16 14:14	0° Σ			4545 Feb 27 20:36	0° \approx	
	4542 Nov 10 23:24	0° Σ		desc. node	4545 Mar 24 20:42	0° Σ 19'12	
	4542 Dec 07 00:18	0° \approx			4545 Mar 24 14:25	0° Σ	
	4543 Jan 03 16:07	0° Σ			4545 Apr 18 01:34	0° Υ	
evening max el	4543 Jan 05 16:55	2° Σ 04'04	47°07'53		4545 May 12 10:22	0° Σ	
asc. node	4543 Jan 29 03:35	23° Σ 19'53			4545 Jun 05 19:10	0° Π	
	4543 Feb 08 00:54	0° Υ			4545 Jun 30 04:45	0° Σ	
greatest brilliancy	4543 Feb 13 02:30	2° Υ 33'41	-4.7m	morning set	4545 Jul 03 19:03	4° Σ 25'05	
retrograde	4543 Feb 25 11:44	5° Υ 25'54		asc. node	4545 Jul 15 22:44	19° Σ 21'01	
	4543 Mar 14 02:16	30° Σ			4545 Jul 24 14:40	0° Ω	
evening set	4543 Mar 15 01:53	29° Σ 24'57		max. Earth dist.	4545 Aug 09 02:45	19° Ω 03'45	1.73484 AU
min. Earth dist.	4543 Mar 17 14:20	27° Σ 52'37	0.27166 AU				
inferior conj	4543 Mar 18 04:30	27° Σ 30'44	8°52'28	superior conj	4545 Aug 09 17:16	19° Ω 48'23	0°54'41
minimum elong	4543 Mar 18 00:15	27° Σ 37'19	8°52'12	minimum elong	4545 Aug 09 08:25	19° Ω 21'11	0°54'20
morning rise	4543 Mar 20 22:45	25° Σ 49'27			4545 Aug 18 00:04	0° Π	
direct	4543 Apr 07 18:40	19° Σ 44'00			4545 Sep 11 08:42	0° Δ	
greatest brilliancy	4543 Apr 18 15:21	21° Σ 56'15	-4.6m	evening rise	4545 Sep 14 17:06	4° Δ 07'37	
	4543 May 02 22:29	0° Υ			4545 Oct 05 17:10	0° Π	
desc. node	4543 May 20 18:13	14° Υ 52'34			4545 Oct 30 02:22	0° Σ	
morning max el	4543 May 27 14:33	21° Υ 25'44	46°21'17	desc. node	4545 Nov 04 13:24	6° Σ 42'26	
	4543 Jun 05 02:53	0° Σ			4545 Nov 23 12:56	0° Σ	
	4543 Jul 02 20:49	0° Π			4545 Dec 18 01:33	0° \approx	
	4543 Jul 29 03:17	0° Σ			4546 Jan 11 18:36	0° Σ	
	4543 Aug 23 16:29	0° Ω			4546 Feb 05 23:02	0° Υ	
asc. node	4543 Sep 10 20:26	21° Ω 42'04		asc. node	4546 Feb 25 15:28	22° Υ 35'22	
	4543 Sep 17 17:39	0° Π			4546 Mar 04 08:27	0° Σ	
	4543 Oct 12 09:01	0° Δ		evening max el	4546 Mar 18 22:48	15° Σ 22'15	46°50'26
	4543 Nov 05 16:47	0° Π			4546 Apr 03 11:15	0° Π	
morning set	4543 Nov 21 15:06	19° Π 48'05		greatest brilliancy	4546 Apr 24 08:36	14° Π 30'17	-4.6m
	4543 Nov 29 19:25	0° Σ		retrograde	4546 May 08 06:45	18° Π 01'08	
	4543 Dec 23 18:57	0° Σ		evening set	4546 May 24 03:49	13° Π 05'55	
max. Earth dist.	4543 Dec 28 16:57	6° Σ 09'47	1.71447 AU	inferior conj	4546 May 29 11:07	9° Π 51'59	4°23'58
				minimum elong	4546 May 29 19:49	9° Π 38'20	4°21'37
superior conj	4543 Dec 30 18:36	8° Σ 45'28	0°01'41	min. Earth dist.	4546 May 29 08:20	9° Π 56'21	0.28153 AU
minimum elong	4543 Dec 30 19:02	8° Σ 46'47	0°01'40	morning rise	4546 Jun 04 12:16	6° Π 13'55	
behind sun begin	4543 Dec 29 17:38	7° Σ 27'11		desc. node	4546 Jun 17 06:00	1° Π 55'34	
behind sun end	4543 Dec 31 20:25	10° Σ 06'24		direct	4546 Jun 19 14:36	1° Π 49'00	
desc. node	4543 Dec 31 11:04	9° Σ 37'04		greatest brilliancy	4546 Jul 01 14:59	4° Π 23'44	-4.5m
	4544 Jan 16 16:43	0° \approx			4546 Aug 05 14:11	0° Σ	
evening rise	4544 Feb 09 12:37	29° \approx 56'33		morning max el	4546 Aug 07 09:32	1° Σ 42'48	45°44'44
	4544 Feb 09 13:43	0° Σ			4546 Sep 03 21:48	0° Ω	
	4544 Mar 04 11:21	0° Υ			4546 Sep 30 15:27	0° Π	
	4544 Mar 28 11:53	0° Σ		asc. node	4546 Oct 08 08:22	8° Π 56'42	
	4544 Apr 21 18:10	0° Π			4546 Oct 26 03:49	0° Δ	
asc. node	4544 Apr 22 13:13	0° Π 58'27			4546 Nov 19 22:29	0° Π	
	4544 May 16 09:35	0° Σ			4546 Dec 14 06:19	0° Σ	
	4544 Jun 10 14:48	0° Ω			4547 Jan 07 07:56	0° Σ	
	4544 Jul 06 19:10	0° Π		desc. node	4547 Jan 27 22:56	25° Σ 51'05	
	4544 Aug 04 00:30	0° Δ			4547 Jan 31 06:13	0° \approx	
evening max el	4544 Aug 10 01:56	5° Δ 55'15	45°32'04	morning set	4547 Feb 03 23:06	4° \approx 39'14	
desc. node	4544 Aug 12 03:49	7° Δ 53'29			4547 Feb 24 02:57	0° Σ	
	4544 Sep 09 12:00	0° Π					
greatest brilliancy	4544 Sep 15 17:46	2° Π 59'46	-4.5m	superior conj	4547 Mar 17 09:01	26° Σ 43'18	-1°-24'-47
retrograde	4544 Sep 27 16:06	5° Π 30'13		minimum elong	4547 Mar 17 03:44	26° Σ 26'43	1°24'44
	4544 Oct 14 18:44	30° Σ			4547 Mar 19 23:40	0° Υ	
evening set	4544 Oct 15 13:31	29° Δ 32'11		max. Earth dist.	4547 Mar 19 22:10	29° Σ 55'19	1.71319 AU
inferior conj	4544 Oct 18 22:25	27° Δ 27'53	-8°-19'-31		4547 Apr 12 22:08	0° Σ	

evening rise	4547 Apr 26 19:38	17°♄20'08		morning max el	4549 Oct 17 05:15	9°♎43'32	45°53'39
	4547 May 07 00:07	0°♈		asc. node	4549 Nov 04 20:05	28°♎50'01	
asc. node	4547 May 21 01:04	17°♈22'41			4549 Nov 05 22:03	0°♈	
	4547 May 31 06:55	0°♄			4549 Dec 02 12:29	0°♈	
	4547 Jun 24 19:32	0°♈			4549 Dec 27 17:30	0°♄	
	4547 Jul 19 15:32	0°♎			4550 Jan 21 06:25	0°♄	
	4547 Aug 13 22:17	0°♈			4550 Feb 14 11:20	0°♈	
	4547 Sep 08 22:36	0°♈		desc. node	4550 Feb 24 10:49	12°♈25'53	
desc. node	4547 Sep 09 15:40	0°♈48'12			4550 Mar 10 12:30	0°♄	
	4547 Oct 06 07:57	0°♄			4550 Apr 03 12:29	0°♎	
evening max el	4547 Oct 22 07:45	16°♄11'59	46°14'42	morning set	4550 Apr 21 11:18	22°♎25'00	
	4547 Nov 06 12:53	0°♄			4550 Apr 27 13:15	0°♄	
greatest brilliancy	4547 Nov 29 20:28	14°♄59'00	-4.6m		4550 May 21 16:10	0°♈	
retrograde	4547 Dec 10 20:33	17°♄12'53					
evening set	4547 Dec 25 07:05	13°♄08'29		superior conj	4550 May 30 08:28	10°♈45'34	0°-41'-54
inferior conj	4547 Dec 31 12:21	9°♄31'40	0°-3'-30	minimum elong	4550 May 30 17:04	11°♈12'14	0°41'32
minimum elong	4547 Dec 31 12:29	9°♄31'28	0°03'28	max. Earth dist.	4550 Jun 02 11:14	14°♈37'05	1.72730 AU
transit middle	4547 Dec 31 12:29	9°♄31'28	0°03'28		4550 Jun 14 21:53	0°♄	
transit begin	4547 Dec 31 08:29	9°♄37'32		asc. node	4550 Jun 17 12:58	3°♄14'38	
transit end	4547 Dec 31 16:28	9°♄25'23		evening rise	4550 Jul 07 03:18	27°♄23'15	
asc. node	4547 Dec 31 17:47	9°♄23'24			4550 Jul 09 06:18	0°♈	
min. Earth dist.	4547 Dec 31 20:20	9°♄19'29	0.26766 AU		4550 Aug 02 17:15	0°♎	
morning rise	4548 Jan 06 17:17	5°♄53'47			4550 Aug 27 07:19	0°♈	
direct	4548 Jan 21 02:25	1°♄45'57			4550 Sep 21 01:53	0°♈	
greatest brilliancy	4548 Feb 03 00:03	4°♄50'26	-4.7m	desc. node	4550 Oct 07 03:29	19°♈17'40	
	4548 Mar 06 19:26	0°♈			4550 Oct 16 02:55	0°♄	
morning max el	4548 Mar 11 16:32	4°♈50'25	46°58'13		4550 Nov 10 13:25	0°♄	
	4548 Apr 04 04:52	0°♄			4550 Dec 06 16:49	0°♈	
desc. node	4548 Apr 21 08:32	19°♄31'13		evening max el	4551 Jan 03 07:50	29°♈42'16	47°07'00
	4548 Apr 30 08:43	0°♎			4551 Jan 03 14:52	0°♄	
	4548 May 25 17:14	0°♄		asc. node	4551 Jan 28 05:41	22°♄02'20	
	4548 Jun 19 17:36	0°♈			4551 Feb 10 09:30	0°♎	
	4548 Jul 14 13:52	0°♄		greatest brilliancy	4551 Feb 10 17:01	0°♎08'16	-4.7m
	4548 Aug 08 06:44	0°♈		retrograde	4551 Feb 23 01:22	2°♎58'52	
asc. node	4548 Aug 12 10:38	5°♈04'26			4551 Mar 07 02:37	30°♄	
	4548 Sep 01 19:41	0°♎		evening set	4551 Mar 12 11:48	27°♄03'28	
morning set	4548 Sep 09 22:47	9°♎59'02		min. Earth dist.	4551 Mar 15 02:44	25°♄27'19	0.27127 AU
	4548 Sep 26 04:33	0°♈		inferior conj	4551 Mar 15 17:33	25°♄04'25	8°47'36
max. Earth dist.	4548 Oct 13 19:28	21°♈48'07	1.72777 AU	minimum elong	4551 Mar 15 12:26	25°♄12'19	8°47'13
				morning rise	4551 Mar 18 13:14	23°♄20'56	
superior conj	4548 Oct 16 11:48	25°♈07'32	1°22'30	direct	4551 Apr 05 08:00	17°♄18'35	
minimum elong	4548 Oct 16 16:33	25°♈22'15	1°22'26	greatest brilliancy	4551 Apr 16 03:04	19°♄29'33	-4.6m
	4548 Oct 20 10:07	0°♈			4551 May 03 17:36	0°♎	
	4548 Nov 13 13:37	0°♄		desc. node	4551 May 19 20:16	13°♎55'42	
evening rise	4548 Nov 23 09:07	12°♄12'41		morning max el	4551 May 25 04:04	19°♎03'45	46°22'51
desc. node	4548 Dec 02 01:16	23°♄00'34			4551 Jun 04 23:00	0°♄	
	4548 Dec 07 15:59	0°♄			4551 Jul 02 12:08	0°♈	
	4548 Dec 31 17:41	0°♈			4551 Jul 28 16:33	0°♄	
	4549 Jan 24 19:36	0°♄			4551 Aug 23 04:39	0°♈	
	4549 Feb 18 00:01	0°♎		asc. node	4551 Sep 09 22:28	21°♈13'00	
	4549 Mar 14 11:17	0°♄			4551 Sep 17 05:11	0°♎	
asc. node	4549 Mar 25 03:18	12°♄53'20			4551 Oct 11 20:14	0°♈	
	4549 Apr 08 12:40	0°♈			4551 Nov 05 03:52	0°♈	
	4549 May 04 17:45	0°♄		morning set	4551 Nov 19 06:15	17°♈31'24	
evening max el	4549 May 28 22:25	25°♄23'37	45°52'38		4551 Nov 29 06:28	0°♄	
	4549 Jun 02 17:36	0°♈		max. Earth dist.	4551 Dec 23 06:02	0°♄	
greatest brilliancy	4549 Jul 02 11:14	22°♈21'01	-4.5m		4551 Dec 25 23:45	3°♄25'52	1.71484 AU
desc. node	4549 Jul 14 18:01	26°♈00'41					
retrograde	4549 Jul 17 03:08	26°♈07'17		superior conj	4551 Dec 28 06:33	6°♄17'37	0°05'31
evening set	4549 Aug 01 18:32	21°♈23'18		minimum elong	4551 Dec 28 07:57	6°♄21'59	0°05'27
inferior conj	4549 Aug 07 15:17	17°♈05'44	-5°-16'-33	behind sun begin	4551 Dec 27 07:47	5°♄06'14	
minimum elong	4549 Aug 07 05:48	18°♈05'34	5°14'22	behind sun end	4551 Dec 29 08:07	7°♄37'44	
min. Earth dist.	4549 Aug 07 06:33	18°♈04'23	0.29020 AU	desc. node	4551 Dec 30 13:12	9°♄08'55	
morning rise	4549 Aug 12 17:15	14°♈45'04			4552 Jan 16 03:53	0°♈	
direct	4549 Aug 29 04:58	9°♈34'29		evening rise	4552 Feb 06 23:09	27°♈23'31	
greatest brilliancy	4549 Sep 11 18:49	12°♈47'54	-4.5m		4552 Feb 09 00:57	0°♄	
	4549 Oct 06 16:13	0°♎			4552 Mar 03 22:42	0°♎	

	4552 Mar 27 23:22	0°♄		4554 Sep 03 13:46	0°♌	
	4552 Apr 21 05:57	0°♈		4554 Sep 30 04:52	0°♍	
asc. node	4552 Apr 21 15:11	0°♈28'22	asc. node	4554 Oct 07 10:17	8°♍24'17	
	4552 May 15 21:53	0°♊		4554 Oct 25 16:02	0°♎	
	4552 Jun 10 04:05	0°♌		4554 Nov 19 10:06	0°♏	
	4552 Jul 06 10:29	0°♍		4554 Dec 13 17:37	0°♐	
	4552 Aug 03 21:24	0°♎		4555 Jan 06 19:05	0°♑	
evening max el	4552 Aug 07 16:14	3°♎40'19 45°31'40	desc. node	4555 Jan 27 00:57	25°♑22'37	
desc. node	4552 Aug 11 05:54	7°♎02'19		4555 Jan 30 17:18	0°♒	
	4552 Sep 11 12:24	0°♏	morning set	4555 Feb 01 09:22	2°♒05'53	
greatest brilliancy	4552 Sep 13 07:30	0°♏45'52 -4.5m		4555 Feb 23 13:59	0°♓	
retrograde	4552 Sep 25 06:29	3°♏17'27				
	4552 Oct 08 07:34	30°♐♌	superior conj	4555 Mar 14 19:42	24°♓11'28 -1°-23'-48	
evening set	4552 Oct 13 06:16	27°♌16'54	minimum elong	4555 Mar 14 13:26	23°♓51'47 1°23'45	
inferior conj	4552 Oct 16 13:53	25°♌14'26 -8°-24'-37	max. Earth dist.	4555 Mar 17 01:39	27°♓00'57 1.71292 AU	
minimum elong	4552 Oct 16 18:49	25°♌06'44 8°24'15		4555 Mar 19 10:41	0°♑	
min. Earth dist.	4552 Oct 17 07:44	24°♌46'35 0.28571 AU		4555 Apr 12 09:09	0°♒	
morning rise	4552 Oct 20 07:09	22°♌56'57	evening rise	4555 Apr 24 07:37	14°♓53'43	
direct	4552 Nov 06 23:57	17°♌01'21		4555 May 06 11:09	0°♈	
greatest brilliancy	4552 Nov 21 11:50	20°♌46'22 -4.6m	asc. node	4555 May 20 03:09	16°♈54'59	
asc. node	4552 Dec 02 07:56	27°♌23'55		4555 May 30 18:03	0°♊	
	4552 Dec 05 19:13	0°♍		4555 Jun 24 06:54	0°♌	
morning max el	4552 Dec 27 05:17	19°♍25'17 46°37'07		4555 Jul 19 03:24	0°♍	
	4553 Jan 06 09:25	0°♎		4555 Aug 13 11:07	0°♎	
	4553 Feb 02 02:55	0°♑	desc. node	4555 Sep 08 17:34	0°♏12'10	
	4553 Feb 27 10:07	0°♒		4555 Sep 08 13:15	0°♐	
desc. node	4553 Mar 23 22:39	29°♒46'44		4555 Oct 06 02:42	0°♑	
	4553 Mar 24 03:00	0°♓	evening max el	4555 Oct 19 21:30	13°♑52'35 46°12'47	
	4553 Apr 17 13:32	0°♑		4555 Nov 06 23:49	0°♒	
	4553 May 11 21:54	0°♒	greatest brilliancy	4555 Nov 27 08:31	12°♒33'51 -4.6m	
	4553 Jun 05 06:23	0°♈	retrograde	4555 Dec 08 09:40	14°♒48'19	
	4553 Jun 29 15:46	0°♊	evening set	4555 Dec 22 20:49	10°♒42'10	
morning set	4553 Jul 01 11:56	2°♊15'43	inferior conj	4555 Dec 29 01:07	7°♒06'36 0°-27'-33	
asc. node	4553 Jul 15 00:48	18°♊53'48	minimum elong	4555 Dec 29 02:11	7°♒04'59 0°27'13	
	4553 Jul 24 01:34	0°♌	min. Earth dist.	4555 Dec 29 10:09	6°♒52'50 0.26800 AU	
			asc. node	4555 Dec 30 19:47	6°♒01'51	
superior conj	4553 Aug 07 11:17	17°♌42'55 0°52'11	morning rise	4556 Jan 04 06:59	3°♒27'48	
minimum elong	4553 Aug 07 02:35	17°♌16'08 0°51'50		4556 Jan 13 00:17	30°♓♌	
max. Earth dist.	4553 Aug 06 20:50	16°♌58'28 1.73483 AU	direct	4556 Jan 18 16:05	29°♓20'11	
	4553 Aug 17 10:55	0°♍		4556 Jan 24 11:23	0°♒	
	4553 Sep 10 19:35	0°♎	greatest brilliancy	4556 Jan 31 15:34	2°♒27'28 -4.7m	
evening rise	4553 Sep 12 11:11	2°♎01'56		4556 Mar 06 19:42	0°♒	
	4553 Oct 05 04:13	0°♏	morning max el	4556 Mar 09 07:20	2°♒29'17 46°58'28	
	4553 Oct 29 13:43	0°♑		4556 Apr 03 21:38	0°♓	
desc. node	4553 Nov 03 15:27	6°♑13'40	desc. node	4556 Apr 20 10:34	18°♓54'07	
	4553 Nov 23 00:44	0°♒		4556 Apr 29 22:48	0°♑	
	4553 Dec 17 13:57	0°♒		4556 May 25 05:58	0°♒	
	4554 Jan 11 07:53	0°♓		4556 Jun 19 05:30	0°♈	
	4554 Feb 05 13:54	0°♑		4556 Jul 14 01:12	0°♊	
asc. node	4554 Feb 24 17:24	21°♑52'58		4556 Aug 07 17:42	0°♌	
	4554 Mar 04 02:51	0°♒	asc. node	4556 Aug 11 12:35	4°♌37'00	
evening max el	4554 Mar 16 11:58	12°♓58'23 46°52'10		4556 Sep 01 06:27	0°♍	
	4554 Apr 03 19:36	0°♈	morning set	4556 Sep 07 16:10	7°♍51'55	
greatest brilliancy	4554 Apr 22 01:22	12°♈15'01 -4.6m		4556 Sep 25 15:14	0°♎	
retrograde	4554 May 05 21:50	15°♈44'47	max. Earth dist.	4556 Oct 11 14:05	19°♎43'53 1.72816 AU	
evening set	4554 May 21 21:36	10°♈45'47				
inferior conj	4554 May 27 02:13	7°♈36'01 4°42'35	superior conj	4556 Oct 14 04:34	22°♎57'28 1°23'17	
minimum elong	4554 May 27 11:20	7°♈21'43 4°40'11	minimum elong	4556 Oct 14 08:38	23°♎10'04 1°23'14	
min. Earth dist.	4554 May 26 23:55	7°♈39'36 0.28124 AU		4556 Oct 19 20:51	0°♏	
morning rise	4554 Jun 02 01:26	4°♈00'35		4556 Nov 13 00:27	0°♑	
	4554 Jun 12 11:01	30°♓♒	evening rise	4556 Nov 20 23:22	9°♓53'49	
desc. node	4554 Jun 16 08:07	29°♓34'09	desc. node	4556 Dec 01 03:24	22°♓33'09	
direct	4554 Jun 17 04:35	29°♓33'18		4556 Dec 07 02:57	0°♒	
	4554 Jun 22 01:04	0°♈		4556 Dec 31 04:51	0°♒	
greatest brilliancy	4554 Jun 29 05:36	2°♈08'23 -4.5m		4557 Jan 24 07:01	0°♓	
morning max el	4554 Aug 05 00:17	29°♈28'38 45°45'25		4557 Feb 17 11:48	0°♑	
	4554 Aug 05 13:24	0°♊		4557 Mar 13 23:42	0°♒	

asc. node	4557 Mar 24 05:16	12°♄20'49			4559 Oct 11 07:05	0°♊	
	4557 Apr 08 02:15	0°♈			4559 Nov 04 14:34	0°♌	
	4557 May 04 09:54	0°♊		morning set	4559 Nov 16 21:13	15°♌15'19	
evening max el	4557 May 26 15:06	23°♊13'50	45°54'18		4559 Nov 28 17:08	0°♍	
	4557 Jun 02 18:00	0°♋			4559 Dec 22 16:46	0°♎	
greatest brilliancy	4557 Jun 30 03:29	20°♋11'42	-4.5m	max. Earth dist.	4559 Dec 23 07:37	0°♏46'32	1.71524 AU
desc. node	4557 Jul 13 20:02	23°♋56'52					
retrograde	4557 Jul 14 19:57	23°♋58'02		superior conj	4559 Dec 25 18:28	3°♏50'55	0°09'19
evening set	4557 Jul 30 08:49	19°♋17'11		minimum elong	4559 Dec 25 20:48	3°♏58'14	0°09'12
inferior conj	4557 Aug 05 07:31	15°♋41'29	-5°00'-37	behind sun begin	4559 Dec 24 23:41	2°♏52'01	
minimum elong	4557 Aug 04 22:16	15°♋55'58	4°58'26	behind sun end	4559 Dec 26 17:56	5°♏04'27	
min. Earth dist.	4557 Aug 04 22:08	15°♋56'11	0.28999 AU	desc. node	4559 Dec 29 15:09	8°♏41'21	
morning rise	4557 Aug 10 12:00	12°♋32'18			4560 Jan 15 14:41	0°♐	
direct	4557 Aug 26 21:38	7°♋25'51		evening rise	4560 Feb 04 09:43	24°♐51'45	
greatest brilliancy	4557 Sep 09 08:41	10°♋36'39	-4.5m		4560 Feb 08 11:51	0°♑	
	4557 Oct 06 18:54	0°♒			4560 Mar 03 09:40	0°♑	
morning max el	4557 Oct 14 20:59	7°♒32'40	45°52'26		4560 Mar 27 10:27	0°♒	
asc. node	4557 Nov 03 22:15	28°♒10'28		asc. node	4560 Apr 20 17:19	0°♈00'09	
	4557 Nov 05 14:38	0°♊			4560 Apr 20 17:16	0°♈	
	4557 Dec 02 02:13	0°♌			4560 May 15 09:43	0°♉	
	4557 Dec 27 05:58	0°♍			4560 Jun 09 16:54	0°♋	
	4558 Jan 20 18:12	0°♎			4560 Jul 06 01:29	0°♌	
	4558 Feb 13 22:43	0°♏			4560 Aug 03 18:33	0°♍	
desc. node	4558 Feb 23 12:45	11°♏56'48		evening max el	4560 Aug 05 06:09	1°♍25'41	45°31'11
	4558 Mar 09 23:36	0°♑		desc. node	4560 Aug 10 07:49	6°♍10'54	
	4558 Apr 02 23:23	0°♒		greatest brilliancy	4560 Sep 10 20:18	28°♍31'53	-4.5m
morning set	4558 Apr 19 00:16	20°♒02'06			4560 Sep 15 03:29	0°♎	
	4558 Apr 26 23:59	0°♓		retrograde	4560 Sep 22 21:03	1°♎05'51	
	4558 May 21 02:48	0°♈			4560 Sep 30 08:28	30°♎	
				evening set	4560 Oct 10 22:36	25°♎03'01	
superior conj	4558 May 27 23:29	8°♈30'29	0°-44'-56	inferior conj	4560 Oct 14 05:20	23°♎01'59	-8°-28'-46
minimum elong	4558 May 28 08:33	8°♈58'37	0°44'35	minimum elong	4560 Oct 14 09:31	22°♎55'27	8°28'32
max. Earth dist.	4558 May 31 06:58	12°♈36'41	1.72686 AU	min. Earth dist.	4560 Oct 14 22:39	22°♎34'58	0.28627 AU
	4558 Jun 14 08:28	0°♉		morning rise	4560 Oct 17 20:11	20°♎48'03	
asc. node	4558 Jun 16 15:00	2°♉48'16		direct	4560 Nov 04 15:12	14°♎48'01	
evening rise	4558 Jul 04 20:37	25°♉16'15		greatest brilliancy	4560 Nov 19 04:37	18°♎33'53	-4.6m
	4558 Jul 08 16:56	0°♋		asc. node	4560 Dec 01 09:55	26°♎12'09	
	4558 Aug 02 04:03	0°♌			4560 Dec 06 06:26	0°♍	
	4558 Aug 26 18:24	0°♍		morning max el	4560 Dec 24 19:34	17°♍05'46	46°35'38
	4558 Sep 20 13:29	0°♎			4561 Jan 06 03:51	0°♍	
desc. node	4558 Oct 06 05:34	18°♎47'43			4561 Feb 01 17:35	0°♎	
	4558 Oct 15 15:22	0°♏			4561 Feb 26 23:11	0°♏	
	4558 Nov 10 03:16	0°♐		desc. node	4561 Mar 23 00:39	29°♏15'37	
	4558 Dec 06 09:18	0°♑			4561 Mar 23 15:09	0°♑	
evening max el	4558 Dec 31 22:09	27°♑19'51	47°06'01		4561 Apr 17 01:05	0°♒	
	4559 Jan 03 14:12	0°♒			4561 May 11 09:01	0°♓	
asc. node	4559 Jan 27 07:40	20°♓43'09			4561 Jun 04 17:11	0°♈	
greatest brilliancy	4559 Feb 08 08:39	27°♓45'16	-4.7m	morning set	4561 Jun 29 05:06	0°♉08'28	
	4559 Feb 15 07:51	0°♑			4561 Jun 29 02:21	0°♉	
retrograde	4559 Feb 20 14:38	0°♒32'59		asc. node	4561 Jul 14 02:43	18°♉27'34	
	4559 Feb 25 18:20	30°♒			4561 Jul 23 12:01	0°♋	
evening set	4559 Mar 09 21:27	24°♒43'55		max. Earth dist.	4561 Aug 04 16:48	15°♋00'13	1.73485 AU
min. Earth dist.	4559 Mar 12 15:32	23°♒02'58	0.27082 AU				
inferior conj	4559 Mar 13 06:38	22°♒39'36	8°41'47	superior conj	4561 Aug 05 05:33	15°♋39'28	0°49'39
minimum elong	4559 Mar 13 00:41	22°♒48'49	8°41'16	minimum elong	4561 Aug 04 21:02	15°♋13'15	0°49'18
morning rise	4559 Mar 16 04:07	20°♒53'20			4561 Aug 16 21:21	0°♌	
direct	4559 Apr 02 20:43	14°♒54'41		evening rise	4561 Sep 10 05:32	29°♌58'11	
greatest brilliancy	4559 Apr 13 15:17	17°♒04'49	-4.6m		4561 Sep 10 06:07	0°♍	
	4559 May 04 07:07	0°♑			4561 Oct 04 14:58	0°♎	
desc. node	4559 May 18 22:23	13°♑01'46			4561 Oct 29 00:48	0°♏	
morning max el	4559 May 22 16:38	16°♑40'52	46°24'27	desc. node	4561 Nov 02 17:31	5°♏45'49	
	4559 Jun 04 17:54	0°♒			4561 Nov 22 12:16	0°♐	
	4559 Jul 02 02:44	0°♓			4561 Dec 17 02:06	0°♑	
	4559 Jul 28 05:16	0°♈			4562 Jan 10 20:59	0°♒	
	4559 Aug 22 16:23	0°♋			4562 Feb 05 04:39	0°♌	
asc. node	4559 Sep 09 00:25	20°♋44'51		asc. node	4562 Feb 23 19:24	21°♑11'03	
	4559 Sep 16 16:22	0°♌			4562 Mar 03 21:24	0°♓	

evening max el	4562 Mar 14 01:45	10° R 36'54	46°53'55		4564 Aug 31 17:09	0° M	
	4562 Apr 04 06:29	0° II		morning set	4564 Sep 05 09:59	5° M 46'24	
greatest brilliancy	4562 Apr 19 17:25	9° II 59'32	-4.6m		4564 Sep 25 01:52	0° L	
retrograde	4562 May 03 13:22	13° II 29'18		max. Earth dist.	4564 Oct 09 08:21	17° L 38'51	1.72854 AU
evening set	4562 May 19 15:27	8° II 26'10					
inferior conj	4562 May 24 17:17	5° II 20'46	5°00'46	superior conj	4564 Oct 11 21:51	20° L 49'18	1°23'55
minimum elong	4562 May 25 02:47	5° II 05'55	4°58'22	minimum elong	4564 Oct 12 01:14	20° L 59'48	1°23'54
min. Earth dist.	4562 May 24 15:13	5° II 24'00	0.28092 AU		4564 Oct 19 07:31	0° M	
morning rise	4562 May 30 14:25	1° II 48'30			4564 Nov 12 11:16	0° R	
	4562 Jun 03 04:00	30° R		evening rise	4564 Nov 18 14:00	7° R 36'14	
direct	4562 Jun 14 18:48	27° R 18'19		desc. node	4564 Nov 30 05:22	22° R 05'13	
desc. node	4562 Jun 15 10:02	27° R 18'48			4564 Dec 06 13:58	0° L	
greatest brilliancy	4562 Jun 26 20:00	29° R 53'50	-4.5m		4564 Dec 30 16:07	0° \approx	
	4562 Jun 27 02:00	0° II			4565 Jan 23 18:37	0° K	
morning max el	4562 Aug 02 15:55	27° II 17'44	45°46'15		4565 Feb 16 23:49	0° Y	
	4562 Aug 05 11:11	0° L			4565 Mar 13 12:22	0° R	
	4562 Sep 03 05:03	0° L		asc. node	4565 Mar 23 07:24	11° R 48'04	
	4562 Sep 29 17:50	0° M			4565 Apr 07 16:07	0° II	
asc. node	4562 Oct 06 12:26	7° M 53'43			4565 May 04 02:30	0° L	
	4562 Oct 25 03:56	0° L		evening max el	4565 May 24 07:30	21° L 02'49	45°56'03
	4562 Nov 18 21:28	0° M			4565 Jun 02 19:52	0° L	
	4562 Dec 13 04:45	0° R		greatest brilliancy	4565 Jun 27 20:33	18° L 03'05	-4.5m
	4563 Jan 06 06:05	0° L		retrograde	4565 Jul 12 12:26	21° L 48'31	
desc. node	4563 Jan 26 02:55	24° L 54'31		desc. node	4565 Jul 12 22:01	21° L 48'20	
morning set	4563 Jan 29 19:38	29° L 33'02		evening set	4565 Jul 27 23:23	17° L 10'47	
	4563 Jan 30 04:13	0° \approx		inferior conj	4565 Aug 02 23:52	13° L 32'15	-4°-44'-24
	4563 Feb 23 00:51	0° K		minimum elong	4565 Aug 02 14:54	13° L 46'19	4°42'12
				min. Earth dist.	4565 Aug 02 14:13	13° L 47'23	0.28972 AU
superior conj	4563 Mar 12 06:09	21° K 39'25	-1°-22'-40	morning rise	4565 Aug 08 06:45	10° L 19'26	
minimum elong	4563 Mar 11 22:57	21° K 16'48	1°22'34	direct	4565 Aug 24 14:04	5° L 17'15	
max. Earth dist.	4563 Mar 14 07:48	24° K 15'26	1.71268 AU	greatest brilliancy	4565 Sep 06 22:00	8° L 24'33	-4.5m
	4563 Mar 18 21:31	0° Y			4565 Oct 06 20:10	0° M	
	4563 Apr 11 20:00	0° R		morning max el	4565 Oct 12 12:00	5° M 20'02	45°51'24
evening rise	4563 Apr 21 19:33	12° R 27'34		asc. node	4565 Nov 03 00:13	27° M 30'45	
	4563 May 05 22:03	0° II			4565 Nov 05 06:57	0° L	
asc. node	4563 May 19 05:11	16° II 27'34			4565 Dec 01 15:51	0° M	
	4563 May 30 05:02	0° L			4565 Dec 26 18:27	0° R	
	4563 Jun 23 18:07	0° L			4566 Jan 20 06:06	0° L	
	4563 Jul 18 15:07	0° M			4566 Feb 13 10:17	0° \approx	
	4563 Aug 12 23:47	0° L		desc. node	4566 Feb 22 14:51	11° \approx 27'30	
desc. node	4563 Sep 07 19:40	29° L 37'08			4566 Mar 09 10:58	0° K	
	4563 Sep 08 03:49	0° M			4566 Apr 02 10:35	0° Y	
	4563 Oct 05 21:45	0° R		morning set	4566 Apr 16 12:35	17° Y 36'08	
evening max el	4563 Oct 17 12:06	11° R 35'57	46°10'38		4566 Apr 26 11:02	0° R	
	4563 Nov 07 14:17	0° L			4566 May 20 13:43	0° II	
greatest brilliancy	4563 Nov 24 20:37	10° L 09'09	-4.6m				
retrograde	4563 Dec 05 22:39	12° L 23'39		superior conj	4566 May 25 14:00	6° II 12'57	0°-47'-57
evening set	4563 Dec 20 10:46	8° L 15'47		minimum elong	4566 May 25 23:30	6° II 42'24	0°47'35
inferior conj	4563 Dec 26 13:49	4° L 41'27	0°-51'-30	max. Earth dist.	4566 May 29 01:53	10° II 32'52	1.72634 AU
minimum elong	4563 Dec 26 15:48	4° L 38'26	0°50'53		4566 Jun 13 19:20	0° L	
min. Earth dist.	4563 Dec 26 23:51	4° L 26'11	0.26841 AU	asc. node	4566 Jun 15 16:54	2° L 20'39	
asc. node	4563 Dec 29 21:45	2° L 41'09		evening rise	4566 Jul 02 13:36	23° L 07'18	
morning rise	4564 Jan 01 20:22	1° L 01'51			4566 Jul 08 03:50	0° L	
	4564 Jan 03 21:14	30° R			4566 Aug 01 15:06	0° M	
direct	4564 Jan 16 06:00	26° R 54'25			4566 Aug 26 05:46	0° L	
	4564 Jan 29 03:26	0° L			4566 Sep 20 01:21	0° M	
greatest brilliancy	4564 Jan 29 06:22	0° L 03'19	-4.7m	desc. node	4566 Oct 05 07:39	18° M 17'05	
	4564 Mar 06 18:59	0° \approx			4566 Oct 15 04:04	0° R	
morning max el	4564 Mar 06 21:54	0° \approx 07'21	46°58'40		4566 Nov 09 17:25	0° L	
	4564 Apr 03 14:07	0° K			4566 Dec 06 02:16	0° \approx	
desc. node	4564 Apr 19 12:43	18° K 17'38		evening max el	4566 Dec 29 11:19	24° \approx 53'59	47°04'45
	4564 Apr 29 12:45	0° Y			4567 Jan 03 14:54	0° K	
	4564 May 24 18:36	0° R		asc. node	4567 Jan 26 09:39	19° K 20'24	
	4564 Jun 18 17:20	0° II		greatest brilliancy	4567 Feb 06 00:10	25° K 20'46	-4.7m
	4564 Jul 13 12:30	0° L		retrograde	4567 Feb 18 03:16	28° K 05'36	
	4564 Aug 07 04:37	0° L		evening set	4567 Mar 07 06:36	22° K 23'07	
asc. node	4564 Aug 10 14:38	4° L 10'03		min. Earth dist.	4567 Mar 10 04:39	20° K 36'18	0.27046 AU

inferior conj	4567 Mar 10 19:34	20° K 13'11	8°34'52			4569 Aug 16 08:14	0° M	
minimum elong	4567 Mar 10 12:49	20° K 23'39	8°34'11	evening rise		4569 Sep 07 23:32	27° M 52'10	
morning rise	4567 Mar 13 19:13	18° K 23'32				4569 Sep 09 17:05	0° L	
direct	4567 Mar 31 08:50	12° K 28'43				4569 Oct 04 02:08	0° M	
greatest brilliancy	4567 Apr 11 04:48	14° K 39'36	-4.6m			4569 Oct 28 12:19	0° J	
	4567 May 04 17:54	0° Y		desc. node		4569 Nov 01 19:27	5° J 16'13	
desc. node	4567 May 18 00:18	12° Y 06'50				4569 Nov 22 00:15	0° Z	
morning max el	4567 May 20 04:50	14° Y 15'12	46°26'08			4569 Dec 16 14:41	0° \approx	
	4567 Jun 04 12:53	0° B				4570 Jan 10 10:29	0° K	
	4567 Jul 01 17:38	0° H				4570 Feb 04 19:51	0° Y	
	4567 Jul 27 18:19	0° S		asc. node		4570 Feb 22 21:32	20° Y 28'20	
	4567 Aug 22 04:26	0° Q				4570 Mar 03 16:42	0° B	
asc. node	4567 Sep 08 02:31	20° Q 16'08		evening max el		4570 Mar 11 16:28	8° B 17'10	46°55'38
	4567 Sep 16 03:51	0° M				4570 Apr 04 21:28	0° H	
	4567 Oct 10 18:15	0° L		greatest brilliancy		4570 Apr 17 08:50	7° H 42'37	-4.6m
	4567 Nov 04 01:34	0° M		retrograde		4570 May 01 05:15	11° H 12'51	
morning set	4567 Nov 14 12:39	12° M 59'46		evening set		4570 May 17 09:23	6° H 05'26	
	4567 Nov 28 04:05	0° J		inferior conj		4570 May 22 08:20	3° H 04'19	5°18'35
max. Earth dist.	4567 Dec 20 18:50	28° J 16'53	1.71563 AU	minimum elong		4570 May 22 18:08	2° H 49'02	5°16'09
	4567 Dec 22 03:45	0° Z		min. Earth dist.		4570 May 22 06:06	3° H 07'50	0.28067 AU
						4570 May 27 09:55	30° R B	
superior conj	4567 Dec 23 07:03	1° Z 25'32	0°13'02	morning rise		4570 May 28 03:13	29° B 35'36	
minimum elong	4567 Dec 23 10:18	1° Z 35'42	0°12'54	direct		4570 Jun 12 09:34	25° B 02'13	
behind sun begin	4567 Dec 22 18:45	0° Z 47'00		desc. node		4570 Jun 14 12:05	25° B 07'23	
behind sun end	4567 Dec 24 01:50	2° Z 24'23		greatest brilliancy		4570 Jun 24 09:43	27° B 37'19	-4.5m
desc. node	4567 Dec 28 17:08	8° Z 13'08				4570 Jun 29 10:34	0° H	
	4568 Jan 15 01:45	0° \approx		morning max el		4570 Jul 31 08:18	25° H 07'18	45°46'55
evening rise	4568 Feb 01 20:54	22° \approx 21'11				4570 Aug 05 08:43	0° S	
	4568 Feb 07 23:01	0° K				4570 Sep 02 20:36	0° Q	
	4568 Mar 02 20:57	0° Y				4570 Sep 29 07:08	0° M	
	4568 Mar 26 21:56	0° B		asc. node		4570 Oct 05 14:25	7° M 21'29	
asc. node	4568 Apr 19 19:16	29° B 29'55				4570 Oct 24 16:09	0° L	
	4568 Apr 20 05:05	0° H				4570 Nov 18 09:09	0° M	
	4568 May 14 22:06	0° S				4570 Dec 12 16:09	0° J	
	4568 Jun 09 06:22	0° Q				4571 Jan 05 17:22	0° Z	
	4568 Jul 05 17:17	0° M		desc. node		4571 Jan 25 05:00	24° Z 25'56	
evening max el	4568 Aug 02 20:12	29° M 10'03	45°31'01	morning set		4571 Jan 27 06:07	27° Z 00'08	
	4568 Aug 03 17:08	0° L				4571 Jan 29 15:24	0° \approx	
desc. node	4568 Aug 09 09:55	5° L 17'30				4571 Feb 22 11:57	0° K	
greatest brilliancy	4568 Sep 08 07:56	26° L 15'26	-4.5m					
retrograde	4568 Sep 20 12:07	28° L 53'13		superior conj		4571 Mar 09 16:48	19° K 07'10	-1°-21'-21
evening set	4568 Oct 08 14:40	22° L 48'14		minimum elong		4571 Mar 09 08:44	18° K 41'47	1°21'13
inferior conj	4568 Oct 11 20:45	20° L 48'18	-8°-32'-17	max. Earth dist.		4571 Mar 11 16:44	21° K 37'50	1.71240 AU
minimum elong	4568 Oct 12 00:10	20° L 42'59	8°32'08			4571 Mar 18 08:35	0° Y	
min. Earth dist.	4568 Oct 12 13:17	20° L 22'33	0.28679 AU			4571 Apr 11 07:02	0° B	
morning rise	4568 Oct 15 09:26	18° L 37'46		evening rise		4571 Apr 19 07:40	10° B 01'24	
direct	4568 Nov 02 06:45	12° L 33'29				4571 May 05 09:07	0° H	
greatest brilliancy	4568 Nov 16 21:42	16° L 20'56	-4.6m	asc. node		4571 May 18 07:06	15° H 59'13	
asc. node	4568 Nov 30 11:52	25° L 01'12				4571 May 29 16:14	0° S	
	4568 Dec 06 15:09	0° M				4571 Jun 23 05:37	0° Q	
morning max el	4568 Dec 22 10:56	14° M 48'09	46°34'19			4571 Jul 18 03:11	0° M	
	4569 Jan 05 22:12	0° J				4571 Aug 12 12:54	0° L	
	4569 Feb 01 08:22	0° Z		desc. node		4571 Sep 06 21:43	29° L 00'39	
	4569 Feb 26 12:25	0° \approx				4571 Sep 07 18:58	0° M	
desc. node	4569 Mar 22 02:46	28° \approx 44'08				4571 Oct 05 17:47	0° J	
	4569 Mar 23 03:32	0° K		evening max el		4571 Oct 15 02:51	9° J 18'48	46°08'35
	4569 Apr 16 12:56	0° Y				4571 Nov 08 10:12	0° Z	
	4569 May 10 20:30	0° B		greatest brilliancy		4571 Nov 22 09:27	7° Z 44'44	-4.6m
	4569 Jun 04 04:25	0° H		retrograde		4571 Dec 03 11:14	9° Z 58'12	
morning set	4569 Jun 26 21:45	27° H 58'03		evening set		4571 Dec 18 00:55	5° Z 48'41	
	4569 Jun 28 13:24	0° S		inferior conj		4571 Dec 24 02:32	2° Z 15'48	-1°-15'-17
asc. node	4569 Jul 13 04:48	18° S 00'17		minimum elong		4571 Dec 24 05:25	2° Z 11'25	1°14'23
	4569 Jul 22 22:57	0° Q		min. Earth dist.		4571 Dec 24 13:41	1° Z 58'49	0.26881 AU
						4571 Dec 27 20:55	30° R J	
superior conj	4569 Aug 02 23:15	13° Q 32'46	0°47'00	asc. node		4571 Dec 28 23:49	29° J 21'29	
minimum elong	4569 Aug 02 14:57	13° Q 07'15	0°46'38	morning rise		4571 Dec 30 09:28	28° J 35'25	
max. Earth dist.	4569 Aug 02 13:27	13° Q 02'38	1.73483 AU	direct		4572 Jan 13 19:43	24° J 28'13	

greatest brilliancy	4572 Jan 26 20:41	27°♂37'52	-4.7m		4574 Sep 19 13:10	0°♍	
	4572 Jan 31 10:36	0°♂		desc. node	4574 Oct 04 09:33	17°♍45'58	
morning max el	4572 Mar 04 11:46	27°♂43'04	46°58'50		4574 Oct 14 16:48	0°♂	
	4572 Mar 06 17:31	0°≈			4574 Nov 09 07:43	0°♂	
	4572 Apr 03 06:28	0°♂			4574 Dec 05 19:36	0°≈	
desc. node	4572 Apr 18 14:34	17°♂40'13		evening max el	4574 Dec 26 23:59	22°≈26'58	47°03'37
	4572 Apr 29 02:41	0°♀			4575 Jan 03 16:53	0°♂	
	4572 May 24 07:15	0°♂		asc. node	4575 Jan 25 11:44	17°♂55'10	
	4572 Jun 18 05:11	0°♂		greatest brilliancy	4575 Feb 03 15:01	22°♂55'33	-4.7m
	4572 Jul 12 23:50	0°♂		retrograde	4575 Feb 15 15:53	25°♂38'36	
	4572 Aug 06 15:39	0°♂		evening set	4575 Mar 04 15:29	20°♂02'38	
asc. node	4572 Aug 09 16:40	3°♂42'46		min. Earth dist.	4575 Mar 07 17:47	18°♂09'47	0.27008 AU
	4572 Aug 31 04:01	0°♂		inferior conj	4575 Mar 08 08:28	17°♂47'05	8°26'58
morning set	4572 Sep 03 03:34	3°♂39'42		minimum elong	4575 Mar 08 00:59	17°♂58'40	8°26'05
	4572 Sep 24 12:41	0°♂		morning rise	4575 Mar 11 10:36	15°♂53'46	
max. Earth dist.	4572 Oct 06 23:53	15°♂24'54	1.72894 AU	direct	4575 Mar 28 20:46	10°♂02'53	
				greatest brilliancy	4575 Apr 08 18:56	12°♂15'35	-4.6m
superior conj	4572 Oct 09 14:56	18°♂40'01	1°24'27		4575 May 05 01:35	0°♀	
minimum elong	4572 Oct 09 17:37	18°♂48'20	1°24'26	desc. node	4575 May 17 02:22	11°♀14'01	
	4572 Oct 18 18:23	0°♍		morning max el	4575 May 17 17:35	11°♀51'25	46°27'52
	4572 Nov 11 22:14	0°♂			4575 Jun 04 07:06	0°♂	
evening rise	4572 Nov 16 04:24	5°♂17'30			4575 Jul 01 08:05	0°♂	
desc. node	4572 Nov 29 07:21	21°♂36'50			4575 Jul 27 07:02	0°♂	
	4572 Dec 06 01:07	0°♂			4575 Aug 21 16:11	0°♂	
	4572 Dec 30 03:31	0°≈		asc. node	4575 Sep 07 04:30	19°♂47'59	
	4573 Jan 23 06:19	0°♂			4575 Sep 15 15:02	0°♂	
	4573 Feb 16 11:57	0°♀			4575 Oct 10 05:09	0°♂	
	4573 Mar 13 01:09	0°♂			4575 Nov 03 12:21	0°♍	
asc. node	4573 Mar 22 09:19	11°♂14'24		morning set	4575 Nov 12 04:07	10°♍45'04	
	4573 Apr 07 06:08	0°♂			4575 Nov 27 14:52	0°♂	
	4573 May 03 19:24	0°♂		max. Earth dist.	4575 Dec 18 07:11	25°♂51'18	1.71606 AU
evening max el	4573 May 21 23:14	18°♂50'10	45°57'52				
	4573 Jun 02 23:09	0°♂		superior conj	4575 Dec 20 19:25	28°♂59'53	0°16'46
greatest brilliancy	4573 Jun 25 13:25	15°♂54'23	-4.5m	minimum elong	4575 Dec 20 23:32	29°♂12'47	0°16'35
retrograde	4573 Jul 10 04:29	19°♂39'27			4575 Dec 21 14:36	0°♂	
desc. node	4573 Jul 12 00:04	19°♂35'34		desc. node	4575 Dec 27 19:17	7°♂45'49	
evening set	4573 Jul 25 14:10	15°♂04'25			4576 Jan 14 12:41	0°≈	
inferior conj	4573 Jul 31 16:18	11°♂23'29	-4°-27'-45	evening rise	4576 Jan 30 07:44	19°≈50'01	
minimum elong	4573 Jul 31 07:41	11°♂37'01	4°25'35		4576 Feb 07 10:01	0°♂	
min. Earth dist.	4573 Jul 31 06:44	11°♂38'32	0.28949 AU		4576 Mar 02 08:03	0°♀	
morning rise	4573 Aug 06 01:30	8°♂07'02			4576 Mar 26 09:12	0°♂	
direct	4573 Aug 22 06:09	3°♂08'56		asc. node	4576 Apr 18 21:15	29°♂00'32	
greatest brilliancy	4573 Sep 04 12:01	6°♂13'21	-4.5m		4576 Apr 19 16:39	0°♂	
	4573 Oct 06 20:17	0°♂			4576 May 14 10:15	0°♂	
morning max el	4573 Oct 10 02:29	3°♂05'58	45°50'16		4576 Jun 08 19:37	0°♂	
asc. node	4573 Nov 02 02:09	26°♂51'06			4576 Jul 05 08:57	0°♂	
	4573 Nov 04 23:05	0°♂		evening max el	4576 Jul 31 11:21	26°♂58'21	45°31'00
	4573 Dec 01 05:28	0°♍			4576 Aug 03 16:11	0°♂	
	4573 Dec 26 06:56	0°♂		desc. node	4576 Aug 08 11:59	4°♂24'12	
	4574 Jan 19 17:59	0°♂		greatest brilliancy	4576 Sep 05 19:02	24°♂00'07	-4.5m
	4574 Feb 12 21:49	0°≈		retrograde	4576 Sep 18 03:49	26°♂42'28	
desc. node	4574 Feb 21 16:53	10°≈58'11		evening set	4576 Oct 06 06:37	20°♂35'50	
	4574 Mar 08 22:15	0°♂		inferior conj	4576 Oct 09 12:22	18°♂36'27	-8°-34'-56
	4574 Apr 01 21:42	0°♀		minimum elong	4576 Oct 09 15:02	18°♂32'19	8°34'50
morning set	4574 Apr 14 00:45	15°♀09'52		min. Earth dist.	4576 Oct 10 03:42	18°♂12'36	0.28731 AU
	4574 Apr 25 21:59	0°♂		morning rise	4576 Oct 12 23:14	16°♂28'50	
	4574 May 20 00:33	0°♂		direct	4576 Oct 30 23:00	10°♂20'59	
				greatest brilliancy	4576 Nov 14 14:30	14°♂09'26	-4.6m
superior conj	4574 May 23 04:37	3°♂55'57	0°-50'-53	asc. node	4576 Nov 29 13:59	23°♂53'52	
minimum elong	4574 May 23 14:28	4°♂26'30	0°50'30		4576 Dec 06 20:53	0°♍	
max. Earth dist.	4574 May 26 18:44	8°♂22'53	1.72578 AU	morning max el	4576 Dec 20 03:01	12°♍33'39	46°32'40
	4574 Jun 13 06:05	0°♂			4577 Jan 05 15:47	0°♂	
asc. node	4574 Jun 14 19:02	1°♂54'00			4577 Jan 31 22:46	0°♂	
evening rise	4574 Jun 30 06:40	20°♂59'00			4577 Feb 26 01:23	0°≈	
	4574 Jul 07 14:36	0°♂		desc. node	4577 Mar 21 04:42	28°≈12'49	
	4574 Aug 01 02:02	0°♂			4577 Mar 22 15:39	0°♂	
	4574 Aug 25 17:01	0°♂			4577 Apr 16 00:30	0°♀	

	4577 May 10 07:40	0°♄		greatest brilliancy	4579 Nov 19 23:25	5°♄23'35	-4.6m
	4577 Jun 03 15:18	0°♂		retrograde	4579 Nov 30 23:32	7°♄35'11	
morning set	4577 Jun 24 14:25	25°♂48'47		evening set	4579 Dec 15 15:35	3°♄23'48	
	4577 Jun 28 00:04	0°♄			4579 Dec 21 10:54	30°♄	
asc. node	4577 Jul 12 06:51	17°♄34'04		inferior conj	4579 Dec 21 15:38	29°♄52'46	-1°-38'-40
	4577 Jul 22 09:30	0°♄		minimum elong	4579 Dec 21 19:22	29°♄47'03	1°37'29
				min. Earth dist.	4579 Dec 22 04:07	29°♄33'40	0.26921 AU
superior conj	4577 Jul 31 17:05	11°♄27'37	0°44'17	morning rise	4579 Dec 27 22:38	26°♄11'42	
minimum elong	4577 Jul 31 09:04	11°♄02'56	0°43'56	asc. node	4579 Dec 28 01:50	26°♄07'28	
max. Earth dist.	4577 Jul 31 11:37	11°♄10'47	1.73478 AU	direct	4580 Jan 11 09:21	22°♄04'31	
	4577 Aug 15 18:45	0°♄		greatest brilliancy	4580 Jan 24 11:43	25°♄15'16	-4.7m
evening rise	4577 Sep 05 17:55	25°♄48'26			4580 Feb 01 21:28	0°♄	
	4577 Sep 09 03:40	0°♄		morning max el	4580 Mar 02 00:43	25°♄17'46	46°58'48
	4577 Oct 03 12:56	0°♄			4580 Mar 06 14:41	0°♄	
	4577 Oct 27 23:27	0°♄			4580 Apr 02 22:11	0°♄	
desc. node	4577 Oct 31 21:32	4°♄48'21		desc. node	4580 Apr 17 16:40	17°♄04'39	
	4577 Nov 21 11:51	0°♄			4580 Apr 28 16:13	0°♄	
	4577 Dec 16 02:57	0°♄			4580 May 23 19:38	0°♄	
	4578 Jan 09 23:47	0°♄			4580 Jun 17 16:49	0°♄	
	4578 Feb 04 11:02	0°♄			4580 Jul 12 10:57	0°♄	
asc. node	4578 Feb 21 23:26	19°♄45'00			4580 Aug 06 02:25	0°♄	
	4578 Mar 03 12:24	0°♄		asc. node	4580 Aug 08 18:38	3°♄15'58	
evening max el	4578 Mar 09 08:06	6°♄00'07	46°57'15		4580 Aug 30 14:36	0°♄	
	4578 Apr 05 17:26	0°♄		morning set	4580 Aug 31 21:08	1°♄33'46	
greatest brilliancy	4578 Apr 15 01:05	5°♄26'59	-4.6m		4580 Sep 23 23:14	0°♄	
retrograde	4578 Apr 28 21:10	8°♄56'17		max. Earth dist.	4580 Oct 04 15:38	13°♄12'30	1.72934 AU
evening set	4578 May 15 03:19	3°♄44'47					
inferior conj	4578 May 19 23:13	0°♄48'00	5°36'01	superior conj	4580 Oct 07 08:15	16°♄32'26	1°24'52
minimum elong	4578 May 20 09:16	0°♄32'19	5°33'35	minimum elong	4580 Oct 07 10:13	16°♄38'30	1°24'51
min. Earth dist.	4578 May 19 20:38	0°♄52'03	0.28035 AU		4580 Oct 18 04:59	0°♄	
	4578 May 21 06:03	30°♄			4580 Nov 11 08:58	0°♄	
morning rise	4578 May 25 15:37	27°♄23'04		evening rise	4580 Nov 13 19:13	3°♄00'57	
direct	4578 Jun 10 00:28	22°♄46'33		desc. node	4580 Nov 28 09:29	21°♄09'44	
desc. node	4578 Jun 13 14:11	23°♄01'22			4580 Dec 05 12:01	0°♄	
greatest brilliancy	4578 Jun 21 22:09	25°♄19'53	-4.5m		4580 Dec 29 14:39	0°♄	
	4578 Jun 30 22:34	0°♄			4581 Jan 22 17:45	0°♄	
morning max el	4578 Jul 29 00:25	22°♄57'15	45°47'38		4581 Feb 15 23:48	0°♄	
	4578 Aug 05 05:02	0°♄			4581 Mar 12 13:42	0°♄	
	4578 Sep 02 11:28	0°♄		asc. node	4581 Mar 21 11:20	10°♄41'39	
	4578 Sep 28 19:54	0°♄			4581 Apr 06 20:03	0°♄	
asc. node	4578 Oct 04 16:20	6°♄50'32			4581 May 03 12:29	0°♄	
	4578 Oct 24 03:54	0°♄		evening max el	4581 May 19 14:09	16°♄35'40	45°59'33
	4578 Nov 17 20:23	0°♄			4581 Jun 03 04:11	0°♄	
	4578 Dec 12 03:09	0°♄		greatest brilliancy	4581 Jun 23 05:47	13°♄44'56	-4.5m
	4579 Jan 05 04:13	0°♄		retrograde	4581 Jul 07 20:23	17°♄30'27	
desc. node	4579 Jan 24 07:01	23°♄58'22		desc. node	4581 Jul 11 02:06	17°♄18'02	
morning set	4579 Jan 24 16:58	24°♄29'33		evening set	4581 Jul 23 04:59	12°♄57'40	
	4579 Jan 29 02:12	0°♄		inferior conj	4581 Jul 29 08:41	9°♄14'47	-4°-10'-33
	4579 Feb 21 22:45	0°♄		minimum elong	4581 Jul 29 00:27	9°♄27'43	4°08'26
				min. Earth dist.	4581 Jul 28 23:25	9°♄29'20	0.28923 AU
superior conj	4579 Mar 07 03:15	16°♄35'09	-1°-19'-51	morning rise	4581 Aug 03 20:08	5°♄54'54	
minimum elong	4579 Mar 06 18:22	16°♄07'14	1°19'42	direct	4581 Aug 19 21:46	1°♄00'33	
max. Earth dist.	4579 Mar 09 01:42	19°♄01'11	1.71220 AU	greatest brilliancy	4581 Sep 02 02:57	4°♄03'30	-4.5m
	4579 Mar 17 19:22	0°♄			4581 Oct 06 19:07	0°♄	
	4579 Apr 10 17:51	0°♄		morning max el	4581 Oct 07 16:53	0°♄52'11	45°49'21
evening rise	4579 Apr 16 19:13	7°♄34'01		asc. node	4581 Nov 01 04:21	26°♄13'08	
	4579 May 04 19:57	0°♄			4581 Nov 04 14:43	0°♄	
asc. node	4579 May 17 09:13	15°♄32'07			4581 Nov 30 18:46	0°♄	
	4579 May 29 03:10	0°♄			4581 Dec 25 19:10	0°♄	
	4579 Jun 22 16:50	0°♄			4582 Jan 19 05:39	0°♄	
	4579 Jul 17 14:58	0°♄			4582 Feb 12 09:08	0°♄	
	4579 Aug 12 01:45	0°♄		desc. node	4582 Feb 20 18:50	10°♄29'16	
desc. node	4579 Sep 05 23:39	28°♄24'33			4582 Mar 08 09:21	0°♄	
	4579 Sep 07 09:57	0°♄			4582 Apr 01 08:36	0°♄	
	4579 Oct 05 13:59	0°♄		morning set	4582 Apr 11 13:03	12°♄44'29	
evening max el	4579 Oct 12 17:16	7°♄02'10	46°06'32		4582 Apr 25 08:45	0°♄	
	4579 Nov 09 12:11	0°♄			4582 May 19 11:13	0°♄	

superior conj	4582 May 20 19:18	1° Π 39'32	0°-53'-43	asc. node	4584 Nov 28 15:59	22° Ω 47'21	
minimum elong	4582 May 21 05:27	2° Π 11'00	0°53'20		4584 Dec 07 01:00	0° \mathbb{M}	
max. Earth dist.	4582 May 24 09:55	6° Π 08'07	1.72529 AU	morning max el	4584 Dec 17 19:04	10° \mathbb{M} 18'36	46°31'03
	4582 Jun 12 16:45	0° \mathfrak{S}			4585 Jan 05 09:13	0° \mathcal{A}	
asc. node	4582 Jun 13 21:03	1° \mathfrak{S} 27'20			4585 Jan 31 13:11	0° \mathfrak{Z}	
evening rise	4582 Jun 27 23:36	18° \mathfrak{S} 50'30			4585 Feb 25 14:24	0° \approx	
	4582 Jul 07 01:20	0° Ω		desc. node	4585 Mar 20 06:45	27° \approx 41'25	
	4582 Jul 31 12:56	0° \mathbb{M}			4585 Mar 22 03:54	0° \mathcal{H}	
	4582 Aug 25 04:14	0° $\underline{\mathfrak{A}}$			4585 Apr 15 12:13	0° \mathcal{Y}	
	4582 Sep 19 00:57	0° \mathbb{M}			4585 May 09 19:01	0° \mathcal{B}	
desc. node	4582 Oct 03 11:38	17° \mathbb{M} 15'34			4585 Jun 03 02:23	0° Π	
	4582 Oct 14 05:33	0° \mathcal{A}		morning set	4585 Jun 22 07:16	23° Π 39'25	
	4582 Nov 08 22:06	0° \mathfrak{Z}			4585 Jun 27 10:57	0° \mathfrak{S}	
	4582 Dec 05 13:13	0° \approx		asc. node	4585 Jul 11 08:47	17° \mathfrak{S} 06'50	
evening max el	4582 Dec 24 12:54	20° \approx 01'00	47°02'27		4585 Jul 21 20:15	0° Ω	
	4583 Jan 03 20:15	0° \mathcal{H}					
asc. node	4583 Jan 24 13:43	16° \mathcal{H} 27'08		superior conj	4585 Jul 29 11:01	9° Ω 22'02	0°41'30
greatest brilliancy	4583 Feb 01 04:58	20° \mathcal{H} 29'30	-4.7m	minimum elong	4585 Jul 29 03:20	8° Ω 58'23	0°41'11
retrograde	4583 Feb 13 04:54	23° \mathcal{H} 12'09		max. Earth dist.	4585 Jul 29 11:00	9° Ω 22'00	1.73473 AU
evening set	4583 Mar 02 00:14	17° \mathcal{H} 42'31			4585 Aug 15 05:30	0° \mathbb{M}	
inferior conj	4583 Mar 05 21:24	15° \mathcal{H} 21'14	8°17'55	evening rise	4585 Sep 03 12:21	23° \mathbb{M} 44'02	
minimum elong	4583 Mar 05 13:13	15° \mathcal{H} 33'50	8°16'52		4585 Sep 08 14:33	0° $\underline{\mathfrak{A}}$	
min. Earth dist.	4583 Mar 05 06:44	15° \mathcal{H} 43'50	0.26971 AU		4585 Oct 03 00:03	0° \mathbb{M}	
morning rise	4583 Mar 09 02:20	13° \mathcal{H} 24'00			4585 Oct 27 10:55	0° \mathcal{A}	
direct	4583 Mar 26 09:00	7° \mathcal{H} 37'13		desc. node	4585 Oct 30 23:35	4° \mathcal{A} 19'17	
greatest brilliancy	4583 Apr 06 08:57	9° \mathcal{H} 51'52	-4.6m		4585 Nov 20 23:48	0° \mathfrak{Z}	
	4583 May 05 06:50	0° \mathcal{Y}			4585 Dec 15 15:35	0° \approx	
morning max el	4583 May 15 07:14	9° \mathcal{Y} 30'08	46°29'36		4586 Jan 09 13:30	0° \mathcal{H}	
desc. node	4583 May 16 04:29	10° \mathcal{Y} 22'42			4586 Feb 04 02:44	0° \mathcal{Y}	
	4583 Jun 04 00:47	0° \mathcal{B}		asc. node	4586 Feb 21 01:29	19° \mathcal{Y} 00'39	
	4583 Jun 30 22:19	0° Π			4586 Mar 03 09:05	0° \mathcal{B}	
	4583 Jul 26 19:41	0° \mathfrak{S}		evening max el	4586 Mar 06 23:50	3° \mathcal{B} 42'15	46°58'42
	4583 Aug 21 03:57	0° Ω			4586 Apr 06 21:37	0° Π	
asc. node	4583 Sep 06 06:29	19° Ω 19'38		greatest brilliancy	4586 Apr 12 18:11	3° Π 11'17	-4.6m
	4583 Sep 15 02:18	0° \mathbb{M}		retrograde	4586 Apr 26 12:39	6° Π 38'11	
	4583 Oct 09 16:07	0° $\underline{\mathfrak{A}}$		evening set	4586 May 12 21:15	1° Π 22'47	
	4583 Nov 02 23:11	0° \mathbb{M}			4586 May 15 04:20	30° $\mathcal{R}\mathcal{B}$	
morning set	4583 Nov 09 19:39	8° \mathbb{M} 30'31		inferior conj	4586 May 17 14:00	28° \mathcal{B} 30'20	5°52'55
	4583 Nov 27 01:42	0° \mathcal{A}		minimum elong	4586 May 18 00:14	28° \mathcal{B} 14'21	5°50'33
max. Earth dist.	4583 Dec 15 21:07	23° \mathcal{A} 30'35	1.71648 AU	min. Earth dist.	4586 May 17 11:07	28° \mathcal{B} 34'50	0.28002 AU
				morning rise	4586 May 23 03:40	25° \mathcal{B} 09'15	
superior conj	4583 Dec 18 07:52	26° \mathcal{A} 34'28	0°20'27	direct	4586 Jun 07 15:23	20° \mathcal{B} 29'38	
minimum elong	4583 Dec 18 12:48	26° \mathcal{A} 49'57	0°20'13	desc. node	4586 Jun 12 16:07	20° \mathcal{B} 58'46	
	4583 Dec 21 01:30	0° \mathfrak{Z}		greatest brilliancy	4586 Jun 19 10:02	23° \mathcal{B} 00'25	-4.5m
desc. node	4583 Dec 26 21:13	7° \mathfrak{Z} 17'41			4586 Jul 02 00:36	0° Π	
	4584 Jan 13 23:41	0° \approx		morning max el	4586 Jul 26 15:39	20° Π 44'01	45°48'28
evening rise	4584 Jan 27 18:43	17° \approx 19'11			4586 Aug 05 01:04	0° \mathfrak{S}	
	4584 Feb 06 21:07	0° \mathcal{H}			4586 Sep 02 02:29	0° Ω	
	4584 Mar 01 19:15	0° \mathcal{Y}			4586 Sep 28 08:55	0° \mathbb{M}	
	4584 Mar 25 20:35	0° \mathcal{B}		asc. node	4586 Oct 03 18:30	6° \mathbb{M} 19'26	
asc. node	4584 Apr 17 23:22	28° \mathcal{B} 31'15			4586 Oct 23 15:58	0° $\underline{\mathfrak{A}}$	
	4584 Apr 19 04:21	0° Π			4586 Nov 17 08:01	0° \mathbb{M}	
	4584 May 13 22:31	0° \mathfrak{S}			4586 Dec 11 14:32	0° \mathcal{A}	
	4584 Jun 08 09:03	0° Ω			4587 Jan 04 15:29	0° \mathfrak{Z}	
	4584 Jul 05 01:00	0° \mathbb{M}		morning set	4587 Jan 22 03:36	21° \mathfrak{Z} 57'07	
evening max el	4584 Jul 29 03:12	24° \mathbb{M} 47'48	45°30'50	desc. node	4587 Jan 23 09:00	23° \mathfrak{Z} 29'24	
	4584 Aug 03 16:35	0° $\underline{\mathfrak{A}}$			4587 Jan 28 13:23	0° \approx	
desc. node	4584 Aug 07 13:54	3° $\underline{\mathfrak{A}}$ 28'51			4587 Feb 21 09:54	0° \mathcal{H}	
greatest brilliancy	4584 Sep 03 06:52	21° $\underline{\mathfrak{A}}$ 44'54	-4.5m				
retrograde	4584 Sep 15 19:31	24° $\underline{\mathfrak{A}}$ 30'39		superior conj	4587 Mar 04 13:31	14° \mathcal{H} 01'31	-1°-18'-11
evening set	4584 Oct 03 22:11	18° $\underline{\mathfrak{A}}$ 23'11		minimum elong	4587 Mar 04 03:56	13° \mathcal{H} 31'22	1°18'00
inferior conj	4584 Oct 07 03:54	16° $\underline{\mathfrak{A}}$ 23'42	-8°-36'-46	max. Earth dist.	4587 Mar 06 09:17	16° \mathcal{H} 19'05	1.71197 AU
minimum elong	4584 Oct 07 05:48	16° $\underline{\mathfrak{A}}$ 20'46	8°36'45		4587 Mar 17 06:31	0° \mathcal{Y}	
min. Earth dist.	4584 Oct 07 17:46	16° $\underline{\mathfrak{A}}$ 02'07	0.28778 AU		4587 Apr 10 05:00	0° \mathcal{B}	
morning rise	4584 Oct 10 13:15	14° $\underline{\mathfrak{A}}$ 18'26		evening rise	4587 Apr 14 06:37	5° \mathcal{B} 04'56	
direct	4584 Oct 28 15:31	8° $\underline{\mathfrak{A}}$ 07'51			4587 May 04 07:09	0° Π	
greatest brilliancy	4584 Nov 12 06:19	11° $\underline{\mathfrak{A}}$ 55'58	-4.6m	asc. node	4587 May 16 11:13	15° Π 03'32	

	4587 May 28 14:31	0°☿			4589 Nov 04 06:25	0°♊
	4587 Jun 22 04:29	0°♋			4589 Nov 30 08:13	0°♌
	4587 Jul 17 03:12	0°♍			4589 Dec 25 07:36	0°♎
	4587 Aug 11 15:05	0°♏			4590 Jan 18 17:34	0°♐
desc. node	4587 Sep 05 01:46	27°♑47'42			4590 Feb 11 20:46	0°♒
	4587 Sep 07 01:31	0°♓		desc. node	4590 Feb 19 20:56	9°♓59'47
	4587 Oct 05 11:20	0°♈			4590 Mar 07 20:47	0°♉
evening max el	4587 Oct 10 06:30	4°♈41'33	46°04'21		4590 Mar 31 19:52	0°♊
	4587 Nov 11 02:05	0°♋		morning set	4590 Apr 09 00:41	10°♊15'46
greatest brilliancy	4587 Nov 17 13:22	3°♋00'54	-4.6m		4590 Apr 24 19:51	0°♋
retrograde	4587 Nov 28 11:19	5°♋10'39				
evening set	4587 Dec 13 06:14	0°♌56'47		superior conj	4590 May 18 09:28	29°♌20'27 0°-56'-29
	4587 Dec 14 23:06	30°♌♈		minimum elong	4590 May 18 19:52	29°♌52'43 0°56'08
inferior conj	4587 Dec 19 04:36	27°♈28'02	-2°-1'-50		4590 May 18 22:12	0°♉
minimum elong	4587 Dec 19 09:10	27°♈21'02	2°00'24	max. Earth dist.	4590 May 21 23:44	3°♉48'08 1.72475 AU
min. Earth dist.	4587 Dec 19 18:41	27°♈06'28	0.26970 AU		4590 Jun 12 03:42	0°♊
morning rise	4587 Dec 25 11:28	23°♈46'38		asc. node	4590 Jun 12 22:58	0°♊59'29
asc. node	4587 Dec 27 03:49	22°♈54'52		evening rise	4590 Jun 25 16:15	16°♊40'18
direct	4588 Jan 08 22:29	19°♈38'49			4590 Jul 06 12:21	0°♋
greatest brilliancy	4588 Jan 22 03:50	22°♈52'14	-4.7m		4590 Jul 31 00:07	0°♌
	4588 Feb 02 23:11	0°♉			4590 Aug 24 15:45	0°♍
morning max el	4588 Feb 28 13:07	22°♉49'19	46°58'52		4590 Sep 18 13:02	0°♎
	4588 Mar 06 11:44	0°♊		desc. node	4590 Oct 02 13:42	16°♎44'16
	4588 Apr 02 14:08	0°♋			4590 Oct 13 18:36	0°♌
desc. node	4588 Apr 16 18:47	16°♋28'12			4590 Nov 08 12:49	0°♍
	4588 Apr 28 06:03	0°♎			4590 Dec 05 07:24	0°♏
	4588 May 23 08:18	0°♏		evening max el	4590 Dec 22 02:21	17°♏36'14 47°01'12
	4588 Jun 17 04:45	0°♐			4591 Jan 04 01:37	0°♉
	4588 Jul 11 22:24	0°♑		asc. node	4591 Jan 23 15:43	14°♉55'25
asc. node	4588 Aug 05 13:33	0°♒		greatest brilliancy	4591 Jan 29 17:46	18°♉01'26 -4.7m
morning set	4588 Aug 07 20:41	2°♒48'17		retrograde	4591 Feb 10 18:16	20°♉44'40
	4588 Aug 29 14:47	29°♒26'56		evening set	4591 Feb 27 08:43	15°♉21'17
	4588 Aug 30 01:33	0°♓		inferior conj	4591 Mar 03 10:08	12°♉54'06 8°07'53
	4588 Sep 23 10:07	0°♏		minimum elong	4591 Mar 03 01:20	13°♉07'38 8°06'38
max. Earth dist.	4588 Oct 02 09:21	11°♏05'12	1.72972 AU	min. Earth dist.	4591 Mar 02 19:12	13°♉17'04 0.26939 AU
				morning rise	4591 Mar 06 18:07	10°♉52'41
superior conj	4588 Oct 05 01:46	14°♏24'28	1°25'07	direct	4591 Mar 23 21:40	5°♉10'20
minimum elong	4588 Oct 05 03:01	14°♏28'19	1°25'08	greatest brilliancy	4591 Apr 03 22:25	7°♉26'23 -4.6m
	4588 Oct 17 15:54	0°♐			4591 May 05 10:40	0°♊
	4588 Nov 10 20:01	0°♑		morning max el	4591 May 12 21:31	7°♊09'25 46°31'15
evening rise	4588 Nov 11 10:15	0°♑44'13		desc. node	4591 May 15 06:23	9°♊30'54
desc. node	4588 Nov 27 11:25	20°♑40'56			4591 Jun 03 18:23	0°♋
	4588 Dec 04 23:17	0°♒			4591 Jun 30 12:39	0°♌
	4588 Dec 29 02:12	0°♓			4591 Jul 26 08:26	0°♍
	4589 Jan 22 05:38	0°♔			4591 Aug 20 15:49	0°♎
	4589 Feb 15 12:09	0°♕		asc. node	4591 Sep 05 08:35	18°♎51'20
	4589 Mar 12 02:46	0°♖			4591 Sep 14 13:39	0°♏
asc. node	4589 Mar 20 13:26	10°♖07'43			4591 Oct 09 03:11	0°♐
	4589 Apr 06 10:32	0°♗			4591 Nov 02 10:07	0°♑
	4589 May 03 06:23	0°♘		morning set	4591 Nov 07 11:27	6°♑16'30
evening max el	4589 May 17 04:25	14°♘18'25	46°01'28		4591 Nov 26 12:37	0°♒
	4589 Jun 03 11:59	0°♙		max. Earth dist.	4591 Dec 13 10:28	21°♒07'56 1.71685 AU
greatest brilliancy	4589 Jun 20 21:03	11°♙32'49	-4.5m			
retrograde	4589 Jul 05 12:31	15°♙20'19		superior conj	4591 Dec 15 20:44	24°♒10'13 0°24'03
desc. node	4589 Jul 10 04:05	14°♙54'30		minimum elong	4591 Dec 16 02:27	24°♒28'08 0°23'47
evening set	4589 Jul 20 19:49	10°♙49'11			4591 Dec 20 12:27	0°♓
min. Earth dist.	4589 Jul 26 15:54	7°♙18'53	0.28899 AU	desc. node	4591 Dec 25 23:14	6°♓49'41
inferior conj	4589 Jul 27 00:57	7°♙04'42	-3°-52'-56		4592 Jan 13 10:42	0°♔
minimum elong	4589 Jul 26 17:08	7°♙16'58	3°50'53	evening rise	4592 Jan 25 06:03	14°♔49'22
morning rise	4589 Aug 01 14:37	3°♙41'43			4592 Feb 06 08:13	0°♕
	4589 Aug 09 21:18	30°♙♘			4592 Mar 01 06:29	0°♖
direct	4589 Aug 17 13:12	28°♘50'38			4592 Mar 25 08:02	0°♗
	4589 Aug 25 12:30	0°♚		asc. node	4592 Apr 17 01:19	28°♗01'07
greatest brilliancy	4589 Aug 30 18:55	1°♚53'42	-4.5m		4592 Apr 18 16:10	0°♘
morning max el	4589 Oct 05 07:53	28°♚39'00	45°48'37		4592 May 13 10:57	0°♙
	4589 Oct 06 17:25	0°♛			4592 Jun 07 22:41	0°♚
asc. node	4589 Oct 31 06:15	25°♛33'58			4592 Jul 04 17:25	0°♛

evening max el	4592 Jul 26 19:17	22° \mathbb{M} 37'43	45°30'52	desc. node	4595 Jan 22 11:05	23° \mathcal{C} 01'46	
	4592 Aug 03 18:17	0° $\underline{\mathcal{A}}$			4595 Jan 28 00:16	0° \approx	
desc. node	4592 Aug 06 16:00	2° $\underline{\mathcal{A}}$ 32'46			4595 Feb 20 20:44	0° \mathbb{K}	
greatest brilliancy	4592 Aug 31 19:55	19° $\underline{\mathcal{A}}$ 31'21	-4.5m				
retrograde	4592 Sep 13 11:01	22° $\underline{\mathcal{A}}$ 19'04		superior conj	4595 Mar 01 23:58	11° \mathbb{K} 29'27	-1°-16'-22
evening set	4592 Oct 01 13:32	16° $\underline{\mathcal{A}}$ 11'35		minimum elong	4595 Mar 01 13:45	10° \mathbb{K} 57'19	1°16'08
inferior conj	4592 Oct 04 19:32	14° $\underline{\mathcal{A}}$ 11'23	-8°-37'-54	max. Earth dist.	4595 Mar 03 13:06	13° \mathbb{K} 26'11	1.71173 AU
minimum elong	4592 Oct 04 20:37	14° $\underline{\mathcal{A}}$ 09'42	8°37'55		4595 Mar 16 17:19	0° \mathbb{Y}	
min. Earth dist.	4592 Oct 05 07:56	13° $\underline{\mathcal{A}}$ 52'04	0.28820 AU		4595 Apr 09 15:47	0° \mathcal{B}	
morning rise	4592 Oct 08 03:36	12° $\underline{\mathcal{A}}$ 07'55		evening rise	4595 Apr 11 18:07	2° \mathcal{B} 37'17	
direct	4592 Oct 26 08:10	5° $\underline{\mathcal{A}}$ 55'18			4595 May 03 17:57	0° \mathbb{I}	
greatest brilliancy	4592 Nov 09 21:10	9° $\underline{\mathcal{A}}$ 41'31	-4.6m	asc. node	4595 May 15 13:11	14° \mathbb{I} 36'02	
asc. node	4592 Nov 27 17:57	21° $\underline{\mathcal{A}}$ 42'41			4595 May 28 01:27	0° \mathcal{C}	
	4592 Dec 07 03:25	0° \mathbb{M}			4595 Jun 21 15:44	0° \mathcal{Q}	
morning max el	4592 Dec 15 10:34	8° \mathbb{M} 02'28	46°29'27		4595 Jul 16 15:05	0° \mathbb{M}	
	4593 Jan 05 02:13	0° \mathcal{X}			4595 Aug 11 04:07	0° $\underline{\mathcal{A}}$	
	4593 Jan 31 03:20	0° \mathcal{C}		desc. node	4595 Sep 04 03:47	27° $\underline{\mathcal{A}}$ 11'23	
	4593 Feb 25 03:12	0° \approx			4595 Sep 06 16:56	0° \mathbb{M}	
desc. node	4593 Mar 19 08:50	27° \approx 10'47			4595 Oct 05 09:01	0° \mathcal{X}	
	4593 Mar 21 15:55	0° \mathbb{K}		evening max el	4595 Oct 07 19:02	2° \mathcal{X} 20'37	46°02'21
	4593 Apr 14 23:45	0° \mathbb{Y}			4595 Nov 13 11:34	0° \mathcal{C}	
	4593 May 09 06:14	0° \mathcal{B}		greatest brilliancy	4595 Nov 15 02:59	0° \mathcal{C} 39'29	-4.6m
	4593 Jun 02 13:20	0° \mathbb{I}		retrograde	4595 Nov 25 23:30	2° \mathcal{C} 48'14	
morning set	4593 Jun 19 23:55	21° \mathbb{I} 29'41			4595 Dec 07 22:00	30° \mathbb{R} \mathcal{X}	
	4593 Jun 26 21:43	0° \mathcal{C}		evening set	4595 Dec 10 21:10	28° \mathcal{X} 31'15	
asc. node	4593 Jul 10 10:53	16° \mathcal{C} 40'27		inferior conj	4595 Dec 16 17:44	25° \mathcal{X} 05'09	-2°-24'-28
	4593 Jul 21 06:54	0° \mathcal{Q}		minimum elong	4595 Dec 16 23:06	24° \mathcal{X} 56'56	2°22'50
				min. Earth dist.	4595 Dec 17 09:22	24° \mathcal{X} 41'13	0.27023 AU
superior conj	4593 Jul 27 04:41	7° \mathcal{Q} 15'59	0°38'40	morning rise	4595 Dec 23 00:16	21° \mathcal{X} 23'53	
minimum elong	4593 Jul 26 21:22	6° \mathcal{Q} 53'29	0°38'20	asc. node	4595 Dec 26 05:53	19° \mathcal{X} 48'16	
max. Earth dist.	4593 Jul 27 09:07	7° \mathcal{Q} 29'38	1.73461 AU	direct	4596 Jan 06 11:34	17° \mathcal{X} 14'42	
	4593 Aug 14 16:07	0° \mathbb{M}		greatest brilliancy	4596 Jan 19 20:49	20° \mathcal{X} 31'59	-4.7m
evening rise	4593 Sep 01 06:34	21° \mathbb{M} 39'29			4596 Feb 03 17:28	0° \mathcal{C}	
	4593 Sep 08 01:16	0° $\underline{\mathcal{A}}$		morning max el	4596 Feb 26 02:16	20° \mathcal{C} 23'56	46°58'52
	4593 Oct 02 11:01	0° \mathbb{M}			4596 Mar 06 07:39	0° \approx	
	4593 Oct 26 22:15	0° \mathcal{X}			4596 Apr 02 05:26	0° \mathbb{K}	
desc. node	4593 Oct 30 01:31	3° \mathcal{X} 50'19		desc. node	4596 Apr 15 20:39	15° \mathbb{K} 52'28	
	4593 Nov 20 11:37	0° \mathcal{C}			4596 Apr 27 19:21	0° \mathbb{Y}	
	4593 Dec 15 04:07	0° \approx			4596 May 22 20:28	0° \mathcal{B}	
	4594 Jan 09 03:07	0° \mathbb{K}			4596 Jun 16 16:12	0° \mathbb{I}	
	4594 Feb 03 18:25	0° \mathbb{Y}			4596 Jul 11 09:22	0° \mathcal{C}	
asc. node	4594 Feb 20 03:36	18° \mathbb{Y} 16'53			4596 Aug 05 00:14	0° \mathcal{Q}	
	4594 Mar 03 06:05	0° \mathcal{B}		asc. node	4596 Aug 06 22:45	2° \mathcal{Q} 22'03	
evening max el	4594 Mar 04 14:51	1° \mathcal{B} 23'24	47°00'05	morning set	4596 Aug 27 08:30	27° \mathcal{Q} 21'37	
	4594 Apr 08 13:21	0° \mathbb{I}			4596 Aug 29 12:05	0° \mathbb{M}	
greatest brilliancy	4594 Apr 10 12:04	0° \mathbb{I} 57'38	-4.6m		4596 Sep 22 20:37	0° $\underline{\mathcal{A}}$	
retrograde	4594 Apr 24 03:45	4° \mathbb{I} 21'12		max. Earth dist.	4596 Sep 30 04:29	9° $\underline{\mathcal{A}}$ 03'26	1.73012 AU
	4594 May 08 22:37	30° \mathbb{R} \mathcal{B}					
evening set	4594 May 10 15:20	29° \mathcal{B} 02'01		superior conj	4596 Oct 02 19:18	12° $\underline{\mathcal{A}}$ 17'43	1°25'16
inferior conj	4594 May 15 04:54	26° \mathcal{B} 13'57	6°09'15	minimum elong	4596 Oct 02 19:51	12° $\underline{\mathcal{A}}$ 19'24	1°25'17
minimum elong	4594 May 15 15:14	25° \mathcal{B} 57'47	6°06'56		4596 Oct 17 02:27	0° \mathbb{M}	
min. Earth dist.	4594 May 15 01:54	26° \mathcal{B} 18'38	0.27970 AU	evening rise	4596 Nov 09 01:21	28° \mathbb{M} 28'56	
morning rise	4594 May 20 15:35	22° \mathcal{B} 56'49			4596 Nov 10 06:41	0° \mathcal{X}	
direct	4594 Jun 05 06:07	18° \mathcal{B} 14'01		desc. node	4596 Nov 26 13:26	20° \mathcal{X} 13'32	
desc. node	4594 Jun 11 18:10	19° \mathcal{B} 02'03			4596 Dec 04 10:10	0° \mathcal{C}	
greatest brilliancy	4594 Jun 16 22:23	20° \mathcal{B} 42'23	-4.5m		4596 Dec 28 13:22	0° \approx	
	4594 Jul 02 19:12	0° \mathbb{I}			4597 Jan 21 17:10	0° \mathbb{K}	
morning max el	4594 Jul 24 06:07	18° \mathbb{I} 29'35	45°49'14		4597 Feb 15 00:09	0° \mathbb{Y}	
	4594 Aug 04 20:12	0° \mathcal{C}			4597 Mar 11 15:32	0° \mathcal{B}	
	4594 Sep 01 17:00	0° \mathcal{Q}		asc. node	4597 Mar 19 15:22	9° \mathcal{B} 34'14	
	4594 Sep 27 21:34	0° \mathbb{M}			4597 Apr 06 00:48	0° \mathbb{I}	
asc. node	4594 Oct 02 20:27	5° \mathbb{M} 48'39			4597 May 03 00:15	0° \mathcal{C}	
	4594 Oct 23 03:43	0° $\underline{\mathcal{A}}$		evening max el	4597 May 14 19:17	12° \mathcal{C} 04'00	46°03'34
	4594 Nov 16 19:17	0° \mathbb{M}			4597 Jun 03 21:50	0° \mathcal{Q}	
	4594 Dec 11 01:35	0° \mathcal{X}		greatest brilliancy	4597 Jun 18 11:59	9° \mathcal{Q} 21'55	-4.5m
	4595 Jan 04 02:25	0° \mathcal{C}		retrograde	4597 Jul 03 05:20	13° \mathcal{Q} 12'05	
morning set	4595 Jan 19 14:20	19° \mathcal{C} 25'56		desc. node	4597 Jul 09 06:09	12° \mathcal{Q} 28'13	

evening set	4597 Jul 18 10:59	8°04'21.4			4599 Dec 19 23:14	0°☾	
inferior conj	4597 Jul 24 17:20	4°05'56.23	-3°-35'-6	desc. node	4599 Dec 25 01:22	6°☾22'30	
minimum elong	4597 Jul 24 09:59	5°00'07.53	3°33'08		4600 Jan 12 21:35	0°≈	
min. Earth dist.	4597 Jul 24 08:12	5°00'10.41	0.28873 AU	evening rise	4600 Jan 22 17:09	12°≈19'13	
morning rise	4597 Jul 30 09:12	1°00'30.38			4600 Feb 05 19:11	0°☿	
	4597 Aug 02 05:41	30°☿☾			4600 Mar 01 17:36	0°☿	
direct	4597 Aug 15 05:00	26°☾42'31			4600 Mar 25 19:21	0°♄	
greatest brilliancy	4597 Aug 28 11:06	29°☾46'04	-4.5m	asc. node	4600 Apr 17 03:18	27°♄31'32	
	4597 Aug 28 23:44	0°♁			4600 Apr 19 03:51	0°♁	
morning max el	4597 Oct 02 23:54	26°00'29.49	45°47'47		4600 May 13 23:17	0°☾	
	4597 Oct 06 14:18	0°♊			4600 Jun 08 12:20	0°♁	
asc. node	4597 Oct 30 08:15	24°♊56'39			4600 Jul 05 10:02	0°♊	
	4597 Nov 03 21:27	0°♋		evening max el	4600 Jul 25 11:12	20°♊27'32	45°30'56
	4597 Nov 29 21:12	0°♌			4600 Aug 04 21:18	0°♋	
	4597 Dec 24 19:37	0°♍		desc. node	4600 Aug 06 18:03	1°♋35'48	
	4598 Jan 18 05:05	0°☾		greatest brilliancy	4600 Aug 30 10:05	17°♋19'44	-4.5m
	4598 Feb 11 08:00	0°≈		retrograde	4600 Sep 12 02:14	20°♋08'23	
desc. node	4598 Feb 18 22:57	9°≈31'16		evening set	4600 Sep 30 04:43	14°♋01'35	
	4598 Mar 07 07:48	0°☿		inferior conj	4600 Oct 03 11:19	12°♋00'12	-8°-38'-20
	4598 Mar 31 06:44	0°☿		minimum elong	4600 Oct 03 11:36	11°♋59'46	8°38'21
morning set	4598 Apr 06 12:10	7°☿47'36		min. Earth dist.	4600 Oct 03 22:30	11°♋42'44	0.28857 AU
	4598 Apr 24 06:36	0°♄		morning rise	4600 Oct 06 18:23	9°♋57'57	
				direct	4600 Oct 25 00:34	3°♋44'00	
superior conj	4598 May 15 23:30	27°♄01'52	0°-59'-12	greatest brilliancy	4600 Nov 08 11:20	7°♋27'08	-4.6m
minimum elong	4598 May 16 10:05	27°♄34'44	0°58'50	asc. node	4600 Nov 27 20:04	20°♋40'41	
	4598 May 18 08:52	0°♁			4600 Dec 08 04:11	0°♌	
max. Earth dist.	4598 May 19 13:14	1°♁28'02	1.72423 AU	morning max el	4600 Dec 14 01:03	5°♌44'29	46°27'41
	4598 Jun 11 14:19	0°☾					
asc. node	4598 Jun 12 01:06	0°☾33'17					
evening rise	4598 Jun 23 08:53	14°☾31'07					
	4598 Jul 05 23:00	0°♁					
	4598 Jul 30 10:55	0°♊					
	4598 Aug 24 02:53	0°♋					
	4598 Sep 18 00:47	0°♌					
desc. node	4598 Oct 01 15:37	16°♌13'30					
	4598 Oct 13 07:23	0°♍					
	4598 Nov 08 03:26	0°☾					
	4598 Dec 05 01:47	0°≈					
evening max el	4598 Dec 19 16:47	15°≈14'43	46°59'52				
	4599 Jan 04 08:53	0°☿					
asc. node	4599 Jan 22 17:49	13°☿21'06					
greatest brilliancy	4599 Jan 27 06:31	15°☿33'56	-4.7m				
retrograde	4599 Feb 08 07:48	18°☿17'26					
evening set	4599 Feb 24 17:06	13°☿00'30					
inferior conj	4599 Feb 28 22:44	10°☿27'16	7°56'53				
minimum elong	4599 Feb 28 13:24	10°☿41'36	7°55'25				
min. Earth dist.	4599 Feb 28 07:20	10°☿50'55	0.26906 AU				
morning rise	4599 Mar 04 09:55	8°☿21'25					
direct	4599 Mar 21 10:39	2°☿44'04					
greatest brilliancy	4599 Apr 01 10:44	5°☿00'09	-4.6m				
	4599 May 05 12:36	0°☿					
morning max el	4599 May 10 11:45	4°☿49'18	46°32'47				
desc. node	4599 May 14 08:29	8°☿41'19					
	4599 Jun 03 11:20	0°♄					
	4599 Jun 30 02:35	0°♁					
	4599 Jul 25 20:52	0°☾					
	4599 Aug 20 03:23	0°♁					
asc. node	4599 Sep 04 10:32	18°♁23'29					
	4599 Sep 14 00:41	0°♊					
	4599 Oct 08 13:56	0°♋					
	4599 Nov 01 20:46	0°♌					
morning set	4599 Nov 05 03:27	4°♌04'05					
	4599 Nov 25 23:18	0°♍					
max. Earth dist.	4599 Dec 10 21:48	18°♍39'41	1.71728 AU				
superior conj	4599 Dec 13 09:43	21°♍47'03	0°27'35				
minimum elong	4599 Dec 13 16:10	22°♍07'12	0°27'18				

superior conj	4601 Jul 25 22:10	5°♌09'20	0°35'45	minimum elong	4603 Dec 15 13:03	22°♏32'30	2°44'58
minimum elong	4601 Jul 25 15:17	4°♌48'08	0°35'26	min. Earth dist.	4603 Dec 15 23:52	22°♏15'58	0.27075 AU
max. Earth dist.	4601 Jul 26 05:21	5°♌31'25	1.73448 AU	morning rise	4603 Dec 21 12:58	19°♏01'19	
	4601 Aug 15 02:48	0°♍		asc. node	4603 Dec 26 07:52	16°♏46'13	
evening rise	4601 Aug 31 00:47	19°♍34'48		direct	4604 Jan 05 00:56	14°♏50'12	
	4601 Sep 08 12:03	0°♎		greatest brilliancy	4604 Jan 18 13:46	18°♏11'33	-4.7m
	4601 Oct 02 22:01	0°♎			4604 Feb 05 07:17	0°♏	
	4601 Oct 27 09:35	0°♏		morning max el	4604 Feb 24 16:19	18°♏00'29	46°58'50
desc. node	4601 Oct 30 03:36	3°♏21'51			4604 Mar 07 03:10	0°♏	
	4601 Nov 20 23:28	0°♏			4604 Apr 02 20:45	0°♏	
	4601 Dec 15 16:43	0°♏		desc. node	4604 Apr 15 22:45	15°♏16'58	
	4602 Jan 09 16:55	0°♏			4604 Apr 28 08:50	0°♏	
	4602 Feb 04 10:30	0°♏			4604 May 23 08:55	0°♏	
asc. node	4602 Feb 20 05:30	17°♏31'17			4604 Jun 17 03:59	0°♏	
evening max el	4602 Mar 03 04:46	29°♏00'52	47°01'16		4604 Jul 11 20:42	0°♏	
	4602 Mar 04 04:10	0°♏			4604 Aug 05 11:17	0°♏	
greatest brilliancy	4602 Apr 09 06:02	28°♏42'35	-4.6m	asc. node	4604 Aug 07 00:41	1°♏54'16	
	4602 Apr 12 07:39	0°♏		morning set	4604 Aug 26 01:53	25°♏14'11	
retrograde	4602 Apr 22 18:14	2°♏02'37			4604 Aug 29 22:58	0°♏	
	4602 May 02 18:39	30°♏			4604 Sep 23 07:28	0°♏	
evening set	4602 May 09 09:12	26°♏39'27		max. Earth dist.	4604 Sep 29 01:05	7°♏05'09	1.73050 AU
inferior conj	4602 May 13 19:34	23°♏56'02	6°25'09				
minimum elong	4602 May 14 05:56	23°♏39'47	6°22'55	superior conj	4604 Oct 01 12:36	10°♏09'11	1°25'18
min. Earth dist.	4602 May 13 16:44	24°♏00'28	0.27937 AU	minimum elong	4604 Oct 01 12:25	10°♏08'38	1°25'18
morning rise	4602 May 19 03:03	20°♏43'07			4604 Oct 17 13:21	0°♏	
direct	4602 Jun 03 20:04	15°♏56'44		evening rise	4604 Nov 07 16:29	26°♏12'40	
desc. node	4602 Jun 11 20:15	17°♏08'28			4604 Nov 10 17:45	0°♏	
greatest brilliancy	4602 Jun 15 11:20	18°♏23'42	-4.5m	desc. node	4604 Nov 26 15:32	19°♏45'14	
	4602 Jul 04 09:29	0°♏			4604 Dec 04 21:26	0°♏	
morning max el	4602 Jul 22 19:43	16°♏12'11	45°50'09		4604 Dec 29 00:53	0°♏	
	4602 Aug 05 15:02	0°♏			4605 Jan 22 05:00	0°♏	
	4602 Sep 02 07:34	0°♏			4605 Feb 15 12:25	0°♏	
	4602 Sep 28 10:20	0°♏			4605 Mar 12 04:37	0°♏	
asc. node	4602 Oct 02 22:23	5°♏17'24		asc. node	4605 Mar 19 17:23	9°♏00'08	
	4602 Oct 23 15:35	0°♏			4605 Apr 06 15:29	0°♏	
	4602 Nov 17 06:42	0°♏			4605 May 03 18:57	0°♏	
	4602 Dec 11 12:44	0°♏		evening max el	4605 May 13 10:55	9°♏50'18	46°05'29
	4603 Jan 04 13:27	0°♏			4605 Jun 05 12:00	0°♏	
morning set	4603 Jan 18 01:30	16°♏55'47		greatest brilliancy	4605 Jun 17 03:10	7°♏09'43	-4.5m
desc. node	4603 Jan 22 13:05	22°♏33'28		retrograde	4605 Jul 01 22:18	11°♏01'43	
	4603 Jan 28 11:16	0°♏		desc. node	4605 Jul 09 08:08	9°♏55'14	
	4603 Feb 21 07:44	0°♏		evening set	4605 Jul 17 02:09	6°♏23'06	
				inferior conj	4605 Jul 23 09:30	2°♏45'55	-3°-16'-39
superior conj	4603 Feb 28 10:28	8°♏56'57	-1°-14'-23	minimum elong	4605 Jul 23 02:41	2°♏56'35	3°14'47
minimum elong	4603 Feb 27 23:41	8°♏23'03	1°14'07	min. Earth dist.	4605 Jul 23 00:06	3°♏00'36	0.28848 AU
max. Earth dist.	4603 Mar 01 14:42	10°♏25'44	1.71161 AU		4605 Jul 27 21:55	30°♏	
	4603 Mar 17 04:21	0°♏		morning rise	4605 Jul 29 03:30	29°♏17'34	
evening rise	4603 Apr 10 05:15	0°♏07'37		direct	4605 Aug 13 21:02	24°♏32'22	
	4603 Apr 10 02:49	0°♏		greatest brilliancy	4605 Aug 27 02:28	27°♏35'43	-4.5m
	4603 May 04 05:04	0°♏			4605 Aug 31 23:13	0°♏	
asc. node	4603 May 15 15:16	14°♏07'58		morning max el	4605 Oct 01 16:18	24°♏20'15	45°46'58
	4603 May 28 12:43	0°♏			4605 Oct 07 11:02	0°♏	
	4603 Jun 22 03:21	0°♏		asc. node	4605 Oct 30 10:24	24°♏18'52	
	4603 Jul 17 03:21	0°♏			4605 Nov 04 12:43	0°♏	
	4603 Aug 11 17:37	0°♏			4605 Nov 30 10:29	0°♏	
desc. node	4603 Sep 04 05:42	26°♏33'27			4605 Dec 25 07:58	0°♏	
	4603 Sep 07 08:59	0°♏			4606 Jan 18 16:57	0°♏	
	4603 Oct 06 08:00	0°♏			4606 Feb 11 19:33	0°♏	
evening max el	4603 Oct 06 07:42	29°♏59'17	46°00'32	desc. node	4606 Feb 19 00:54	9°♏01'31	
greatest brilliancy	4603 Nov 13 15:54	28°♏16'47	-4.6m		4606 Mar 07 19:08	0°♏	
	4603 Nov 19 19:00	0°♏			4606 Mar 31 17:52	0°♏	
retrograde	4603 Nov 24 12:14	0°♏25'35		morning set	4606 Apr 04 23:59	5°♏19'36	
	4603 Nov 29 03:07	30°♏			4606 Apr 24 17:35	0°♏	
evening set	4603 Dec 09 12:18	26°♏05'02					
inferior conj	4603 Dec 15 06:56	22°♏41'52	-2°-46'-49	superior conj	4606 May 14 13:42	24°♏42'48	-1°-1'-47

minimum elong	4606 May 15 00:23	25°♄16'00	1°01'26	asc. node	4608 Nov 26 22:01	19°♊39'03	
max. Earth dist.	4606 May 18 05:20	29°♄15'04	1.72376 AU		4608 Dec 08 04:09	0°♌	
	4606 May 18 19:48	0°♈		morning max el	4608 Dec 11 15:05	3°♌24'31	46°26'01
asc. node	4606 Jun 12 03:05	0°♊05'40			4609 Jan 05 11:15	0°♈	
	4606 Jun 12 01:15	0°♊			4609 Jan 31 07:19	0°♊	
evening rise	4606 Jun 22 01:31	12°♊20'51			4609 Feb 25 04:48	0°♋	
	4606 Jul 06 10:00	0°♌		desc. node	4609 Mar 18 12:50	26°♋08'21	
	4606 Jul 30 22:06	0°♍			4609 Mar 21 16:06	0°♈	
	4606 Aug 24 14:27	0°♌			4609 Apr 14 23:01	0°♍	
	4606 Sep 18 13:01	0°♌			4609 May 09 04:48	0°♈	
desc. node	4606 Oct 01 17:42	15°♌41'56			4609 Jun 02 11:23	0°♈	
	4606 Oct 13 20:43	0°♈		morning set	4609 Jun 16 08:51	17°♈08'27	
	4606 Nov 08 18:41	0°♊			4609 Jun 26 19:21	0°♊	
	4606 Dec 05 21:07	0°♋		asc. node	4609 Jul 09 14:51	15°♊46'27	
evening max el	4606 Dec 18 07:37	12°♋53'03	46°58'25		4609 Jul 21 04:19	0°♌	
	4607 Jan 05 19:25	0°♈					
asc. node	4607 Jan 22 19:45	11°♈41'51		superior conj	4609 Jul 23 16:05	3°♌03'47	0°32'48
greatest brilliancy	4607 Jan 25 20:15	13°♈06'30	-4.7m	minimum elong	4609 Jul 23 09:38	2°♌43'58	0°32'31
retrograde	4607 Feb 06 21:12	15°♈48'48		max. Earth dist.	4609 Jul 24 01:20	3°♌32'14	1.73433 AU
evening set	4607 Feb 23 01:33	10°♈38'42			4609 Aug 14 13:33	0°♍	
inferior conj	4607 Feb 27 11:19	7°♈59'21	7°44'55	evening rise	4609 Aug 28 19:24	17°♍31'11	
minimum elong	4607 Feb 27 01:32	8°♈14'23	7°43'17		4609 Sep 07 22:57	0°♌	
min. Earth dist.	4607 Feb 26 19:43	8°♈23'19	0.26866 AU		4609 Oct 02 09:10	0°♌	
morning rise	4607 Mar 03 01:46	5°♈48'47			4609 Oct 26 21:07	0°♈	
direct	4607 Mar 19 23:36	0°♈16'58		desc. node	4609 Oct 29 05:39	2°♈52'43	
greatest brilliancy	4607 Mar 30 22:31	2°♈32'15	-4.6m		4609 Nov 20 11:32	0°♊	
	4607 May 06 13:30	0°♍			4609 Dec 15 05:33	0°♋	
morning max el	4607 May 09 01:22	2°♍26'55	46°34'24		4610 Jan 09 07:00	0°♈	
desc. node	4607 May 14 10:33	7°♍51'58			4610 Feb 04 02:59	0°♍	
	4607 Jun 04 04:10	0°♈		asc. node	4610 Feb 19 07:33	16°♍45'13	
	4607 Jun 30 16:35	0°♈		evening max el	4610 Feb 28 17:59	26°♍36'09	47°02'29
	4607 Jul 26 09:28	0°♊			4610 Mar 04 03:18	0°♈	
	4607 Aug 20 15:12	0°♌		greatest brilliancy	4610 Apr 06 23:19	26°♈26'16	-4.6m
asc. node	4607 Sep 04 12:32	17°♌54'49		retrograde	4610 Apr 20 08:48	29°♈43'59	
	4607 Sep 14 12:02	0°♍		evening set	4610 May 07 03:08	24°♈16'31	
	4607 Oct 09 01:01	0°♌		inferior conj	4610 May 11 10:17	21°♈38'00	6°40'24
	4607 Nov 02 07:46	0°♌		minimum elong	4610 May 11 20:38	21°♈21'48	6°38'15
morning set	4607 Nov 03 19:20	1°♌50'18		min. Earth dist.	4610 May 11 07:44	21°♈41'59	0.27904 AU
	4607 Nov 26 10:19	0°♈		morning rise	4610 May 16 14:25	18°♈29'41	
max. Earth dist.	4607 Dec 09 07:26	16°♈05'14	1.71770 AU	direct	4610 Jun 01 09:38	13°♈39'06	
				desc. node	4610 Jun 10 22:12	15°♈19'01	
superior conj	4607 Dec 11 22:44	19°♈23'09	0°31'05	greatest brilliancy	4610 Jun 13 01:09	16°♈05'53	-4.5m
minimum elong	4607 Dec 12 05:50	19°♈45'21	0°30'45		4610 Jul 04 20:07	0°♈	
	4607 Dec 20 10:19	0°♊		morning max el	4610 Jul 20 09:54	13°♈56'06	45°51'20
desc. node	4607 Dec 25 03:17	5°♊53'46			4610 Aug 05 09:19	0°♊	
	4608 Jan 13 08:45	0°♋			4610 Sep 01 21:51	0°♌	
evening rise	4608 Jan 21 04:14	9°♋48'08			4610 Sep 27 22:56	0°♍	
	4608 Feb 06 06:28	0°♈		asc. node	4610 Oct 02 00:34	4°♍47'14	
	4608 Mar 01 05:01	0°♍			4610 Oct 23 03:23	0°♌	
	4608 Mar 25 06:58	0°♈			4610 Nov 16 18:05	0°♌	
asc. node	4608 Apr 16 05:25	27°♈01'36			4610 Dec 10 23:55	0°♈	
	4608 Apr 18 15:47	0°♈			4611 Jan 04 00:33	0°♊	
	4608 May 13 11:52	0°♊		morning set	4611 Jan 15 12:34	14°♊25'05	
	4608 Jun 08 02:14	0°♌		desc. node	4611 Jan 21 15:05	22°♊05'01	
	4608 Jul 05 03:07	0°♍			4611 Jan 27 22:19	0°♋	
evening max el	4608 Jul 23 02:24	18°♍15'08	45°30'53		4611 Feb 20 18:46	0°♈	
	4608 Aug 05 02:20	0°♌					
desc. node	4608 Aug 05 19:58	0°♌36'46		superior conj	4611 Feb 25 20:39	6°♈23'23	-1°-12'-13
greatest brilliancy	4608 Aug 28 00:20	15°♌07'36	-4.5m	minimum elong	4611 Feb 25 09:24	5°♈48'00	1°11'56
retrograde	4608 Sep 09 17:12	17°♌57'21		max. Earth dist.	4611 Feb 26 17:39	7°♈29'28	1.71149 AU
evening set	4608 Sep 27 19:37	11°♌51'46			4611 Mar 16 15:21	0°♍	
inferior conj	4608 Oct 01 03:14	9°♌48'42	-8°-37'-53	evening rise	4611 Apr 07 16:16	27°♍37'36	
minimum elong	4608 Oct 01 02:43	9°♌49'30	8°37'53		4611 Apr 09 13:50	0°♈	
min. Earth dist.	4608 Oct 01 13:36	9°♌32'28	0.28895 AU		4611 May 03 16:08	0°♈	
morning rise	4608 Oct 04 09:42	7°♌47'05		asc. node	4611 May 14 17:15	13°♈39'43	
direct	4608 Oct 22 16:30	1°♌32'09			4611 May 27 23:57	0°♊	
greatest brilliancy	4608 Nov 06 02:14	5°♌13'00	-4.6m		4611 Jun 21 14:55	0°♌	

	4611 Jul 16 15:33	0°♎			4614 Feb 11 06:48	0°♊		
	4611 Aug 11 07:03	0°♊		desc. node	4614 Feb 18 03:01	8°♊33'10		
desc. node	4611 Sep 03 07:51	25°♊56'30			4614 Mar 07 06:13	0°♋		
	4611 Sep 07 01:03	0°♌			4614 Mar 31 04:48	0°♌		
evening max el	4611 Oct 03 21:15	27°♌41'02	45°58'40	morning set	4614 Apr 02 11:12	2°♌50'19		
	4611 Oct 06 07:43	0°♍			4614 Apr 24 04:24	0°♍		
greatest brilliancy	4611 Nov 11 03:36	25°♍53'40	-4.6m					
retrograde	4611 Nov 22 01:24	28°♍03'42		superior conj	4614 May 12 03:15	22°♍22'17	-1°-4'-18	
evening set	4611 Dec 07 03:40	23°♍39'17		minimum elong	4614 May 12 13:58	22°♍55'37	1°03'58	
inferior conj	4611 Dec 12 20:09	20°♍19'02	-3°-8'-43	max. Earth dist.	4614 May 15 21:57	27°♍04'13	1.72323 AU	
minimum elong	4611 Dec 13 02:59	20°♍08'37	3°06'41		4614 May 18 06:32	0°♎		
min. Earth dist.	4611 Dec 13 14:02	19°♍51'43	0.27136 AU	asc. node	4614 Jun 11 05:02	29°♎38'38		
morning rise	4611 Dec 19 01:31	16°♍39'38			4614 Jun 11 11:57	0°♏		
asc. node	4611 Dec 25 09:51	13°♍49'49		evening rise	4614 Jun 19 17:40	10°♏09'49		
direct	4612 Jan 02 15:03	12°♍26'11			4614 Jul 05 20:45	0°♐		
greatest brilliancy	4612 Jan 16 06:30	15°♍51'10	-4.6m		4614 Jul 30 09:02	0°♑		
	4612 Feb 05 17:35	0°♒			4614 Aug 24 01:45	0°♒		
morning max el	4612 Feb 22 07:29	15°♒39'55	46°58'40		4614 Sep 18 00:57	0°♓		
	4612 Mar 06 22:09	0°♓		desc. node	4614 Sep 30 19:46	15°♓11'17		
	4612 Apr 02 11:49	0°♋			4614 Oct 13 09:44	0°♋		
desc. node	4612 Apr 15 00:51	14°♋41'54			4614 Nov 08 09:38	0°♌		
	4612 Apr 27 22:06	0°♌			4614 Dec 05 16:23	0°♍		
	4612 May 22 21:09	0°♍		evening max el	4614 Dec 15 22:12	10°♍32'27	46°56'51	
	4612 Jun 16 15:34	0°♎			4615 Jan 06 08:34	0°♋		
	4612 Jul 11 07:50	0°♏		asc. node	4615 Jan 21 21:47	10°♋00'38		
asc. node	4612 Aug 04 22:07	0°♐		greatest brilliancy	4615 Jan 23 10:39	10°♋41'36	-4.7m	
morning set	4612 Aug 06 02:44	1°♐27'29		retrograde	4615 Feb 04 10:11	13°♋21'44		
	4612 Aug 23 19:42	23°♐08'44		evening set	4615 Feb 20 10:11	8°♋18'33		
	4612 Aug 29 09:39	0°♑		min. Earth dist.	4615 Feb 24 08:39	5°♋56'49	0.26836 AU	
	4612 Sep 22 18:04	0°♒		inferior conj	4615 Feb 25 00:02	5°♋33'07	7°31'58	
max. Earth dist.	4612 Sep 26 22:35	5°♒10'29	1.73081 AU	minimum elong	4615 Feb 24 13:53	5°♋48'45	7°30'09	
				morning rise	4615 Feb 28 17:51	3°♋17'31		
superior conj	4612 Sep 29 06:26	8°♒03'05	1°25'12		4615 Mar 07 05:57	30°♌		
minimum elong	4612 Sep 29 05:32	8°♒00'21	1°25'12	direct	4615 Mar 17 12:25	27°♌51'21		
	4612 Oct 17 00:00	0°♓			4615 Mar 28 04:40	0°♋		
evening rise	4612 Nov 05 08:12	23°♓59'07		greatest brilliancy	4615 Mar 28 11:23	0°♋06'30	-4.6m	
	4612 Nov 10 04:32	0°♋		morning max el	4615 May 06 14:11	0°♌03'02	46°35'47	
desc. node	4612 Nov 25 17:30	19°♋17'20			4615 May 06 12:58	0°♌		
	4612 Dec 04 08:28	0°♌		desc. node	4615 May 13 12:29	7°♌03'43		
	4612 Dec 28 12:13	0°♍			4615 Jun 03 20:28	0°♍		
	4613 Jan 21 16:42	0°♋			4615 Jun 30 06:14	0°♎		
	4613 Feb 15 00:39	0°♌			4615 Jul 25 21:45	0°♏		
asc. node	4613 Mar 11 17:41	0°♍			4615 Aug 20 02:40	0°♐		
	4613 Mar 18 19:29	8°♍26'27		asc. node	4615 Sep 03 14:38	17°♐27'24		
	4613 Apr 06 06:15	0°♎			4615 Sep 13 23:02	0°♑		
	4613 May 03 14:00	0°♏			4615 Oct 08 11:46	0°♒		
evening max el	4613 May 11 03:17	7°♏38'51	46°07'35	morning set	4615 Nov 01 11:25	29°♒38'13		
	4613 Jun 06 06:41	0°♐			4615 Nov 01 18:26	0°♓		
greatest brilliancy	4613 Jun 14 19:21	4°♐59'29	-4.5m		4615 Nov 25 20:58	0°♋		
retrograde	4613 Jun 29 15:15	8°♐51'52		max. Earth dist.	4615 Dec 06 17:17	13°♋32'45	1.71811 AU	
desc. node	4613 Jul 08 10:09	7°♐18'21						
evening set	4613 Jul 14 17:33	4°♐24'35		superior conj	4615 Dec 09 12:19	17°♋02'14	0°34'28	
min. Earth dist.	4613 Jul 20 15:57	0°♐51'16	0.28818 AU	minimum elong	4615 Dec 09 20:01	17°♋26'16	0°34'06	
inferior conj	4613 Jul 21 01:38	0°♐36'06	-2°-57'-54		4615 Dec 19 21:00	0°♌		
minimum elong	4613 Jul 20 19:23	0°♐45'54	2°56'11	desc. node	4615 Dec 24 05:20	5°♌26'36		
	4613 Jul 22 00:45	30°♑			4616 Jan 12 19:30	0°♍		
morning rise	4613 Jul 26 21:38	27°♑05'15		evening rise	4616 Jan 18 15:51	7°♍20'07		
direct	4613 Aug 11 13:25	22°♑23'06			4616 Feb 05 17:20	0°♋		
greatest brilliancy	4613 Aug 24 16:40	25°♑24'47	-4.5m		4616 Feb 29 16:03	0°♌		
	4613 Sep 02 06:32	0°♐			4616 Mar 24 18:16	0°♍		
morning max el	4613 Sep 29 08:42	22°♐11'50	45°46'19	asc. node	4616 Apr 15 07:21	26°♍31'57		
	4613 Oct 07 06:42	0°♑			4616 Apr 18 03:29	0°♎		
asc. node	4613 Oct 29 12:18	23°♑41'51			4616 May 13 00:16	0°♏		
	4613 Nov 04 03:23	0°♒			4616 Jun 07 16:05	0°♐		
	4613 Nov 29 23:16	0°♓			4616 Jul 04 20:24	0°♑		
	4613 Dec 24 19:54	0°♋		evening max el	4616 Jul 20 16:47	16°♑01'13	45°31'04	
	4614 Jan 18 04:26	0°♌		desc. node	4616 Aug 04 22:06	29°♑37'24		

	4616 Aug 05 09:16	0°♄			4619 Feb 20 05:38	0°♁	
greatest brilliancy	4616 Aug 25 13:44	12°♄55'02	-4.5m				
retrograde	4616 Sep 07 08:06	15°♄47'09		superior conj	4619 Feb 23 06:51	3°♁50'20	-1°-9'-54
evening set	4616 Sep 25 10:05	9°♄43'03		minimum elong	4619 Feb 22 19:14	3°♁13'49	1°09'35
inferior conj	4616 Sep 28 19:05	7°♄37'57	-8°-36'-40	max. Earth dist.	4619 Feb 23 23:22	4°♁42'19	1.71139 AU
minimum elong	4616 Sep 28 17:45	7°♄40'02	8°36'40		4619 Mar 16 02:12	0°♁	
min. Earth dist.	4616 Sep 29 04:47	7°♄22'44	0.28929 AU	evening rise	4619 Apr 05 03:28	25°♁08'44	
morning rise	4616 Oct 02 01:16	5°♄36'36			4619 Apr 09 00:40	0°♁	
	4616 Oct 14 14:40	30°♁♂			4619 May 03 03:00	0°♁	
direct	4616 Oct 20 08:02	29°♁♂20'53		asc. node	4619 May 13 19:14	13°♁12'02	
	4616 Oct 26 05:10	0°♄			4619 May 27 11:01	0°♁	
greatest brilliancy	4616 Nov 03 17:55	3°♄00'48	-4.5m		4619 Jun 21 02:22	0°♁	
asc. node	4616 Nov 26 00:01	18°♄39'52			4619 Jul 16 03:42	0°♁	
	4616 Dec 08 02:42	0°♁			4619 Aug 10 20:33	0°♄	
morning max el	4616 Dec 09 05:12	1°♁05'51	46°24'32	desc. node	4619 Sep 02 09:51	25°♄18'49	
	4617 Jan 05 03:06	0°♁			4619 Sep 06 17:25	0°♁	
	4617 Jan 30 20:51	0°♁		evening max el	4619 Oct 01 11:44	25°♁25'06	45°56'52
	4617 Feb 24 17:10	0°♁			4619 Oct 06 08:39	0°♁	
desc. node	4617 Mar 17 14:53	25°♁38'22		greatest brilliancy	4619 Nov 08 15:09	23°♁30'43	-4.6m
	4617 Mar 21 03:49	0°♁		retrograde	4619 Nov 19 14:45	25°♁41'50	
	4617 Apr 14 10:18	0°♁		evening set	4619 Dec 04 19:12	21°♁13'43	
	4617 May 08 15:47	0°♁		inferior conj	4619 Dec 10 09:22	17°♁56'20	-3°-30'-6
	4617 Jun 01 22:09	0°♁		minimum elong	4619 Dec 10 16:51	17°♁44'55	3°27'56
morning set	4617 Jun 14 01:04	14°♁57'37		min. Earth dist.	4619 Dec 11 03:52	17°♁28'05	0.27195 AU
	4617 Jun 26 05:58	0°♁		morning rise	4619 Dec 16 13:47	14°♁18'20	
asc. node	4617 Jul 08 16:56	15°♁20'21		asc. node	4619 Dec 24 11:56	10°♁58'50	
	4617 Jul 20 14:51	0°♁		direct	4619 Dec 31 05:32	10°♁02'36	
				greatest brilliancy	4620 Jan 13 22:06	13°♁29'37	-4.6m
superior conj	4617 Jul 21 09:32	0°♁57'28	0°29'48		4620 Feb 06 01:03	0°♁	
minimum elong	4617 Jul 21 03:35	0°♁39'10	0°29'30	morning max el	4620 Feb 19 22:47	13°♁19'59	46°58'20
max. Earth dist.	4617 Jul 21 19:31	1°♁28'12	1.73420 AU		4620 Mar 06 16:35	0°♁	
	4617 Aug 14 00:06	0°♁			4620 Apr 02 02:38	0°♁	
evening rise	4617 Aug 26 13:38	15°♁27'07		desc. node	4620 Apr 14 02:42	14°♁06'27	
	4617 Sep 07 09:37	0°♄			4620 Apr 27 11:13	0°♁	
	4617 Oct 01 20:04	0°♁			4620 May 22 09:16	0°♁	
	4617 Oct 26 08:25	0°♁			4620 Jun 16 03:02	0°♁	
desc. node	4617 Oct 28 07:35	2°♁23'58			4620 Jul 10 18:54	0°♁	
	4617 Nov 19 23:23	0°♁			4620 Aug 04 08:56	0°♁	
	4617 Dec 14 18:12	0°♁		asc. node	4620 Aug 05 04:47	1°♁00'44	
	4618 Jan 08 20:55	0°♁		morning set	4620 Aug 21 13:31	21°♁03'20	
	4618 Feb 03 19:25	0°♁			4620 Aug 28 20:20	0°♁	
asc. node	4618 Feb 18 09:40	15°♁59'47			4620 Sep 22 04:44	0°♄	
evening max el	4618 Feb 26 07:18	24°♁12'49	47°03'49	max. Earth dist.	4620 Sep 24 18:07	3°♄09'33	1.73115 AU
	4618 Mar 04 02:58	0°♁					
greatest brilliancy	4618 Apr 04 15:21	24°♁09'33	-4.6m	superior conj	4620 Sep 27 00:06	5°♄56'19	1°24'59
retrograde	4618 Apr 17 23:41	27°♁26'45		minimum elong	4620 Sep 26 22:32	5°♄51'28	1°24'59
evening set	4618 May 04 21:05	21°♁54'35			4620 Oct 16 10:44	0°♁	
inferior conj	4618 May 09 01:03	19°♁21'03	6°54'50	evening rise	4620 Nov 02 23:36	21°♁44'17	
minimum elong	4618 May 09 11:18	19°♁05'02	6°52'50		4620 Nov 09 15:26	0°♁	
min. Earth dist.	4618 May 08 22:33	19°♁24'59	0.27876 AU	desc. node	4620 Nov 24 19:30	18°♁49'18	
morning rise	4618 May 14 01:46	16°♁17'43			4620 Dec 03 19:36	0°♁	
direct	4618 May 29 23:19	11°♁22'21			4620 Dec 27 23:39	0°♁	
desc. node	4618 Jun 10 00:15	13°♁34'48			4621 Jan 21 04:30	0°♁	
greatest brilliancy	4618 Jun 10 15:17	13°♁49'27	-4.5m		4621 Feb 14 12:59	0°♁	
	4618 Jul 05 03:33	0°♁			4621 Mar 11 06:56	0°♁	
morning max el	4618 Jul 18 01:01	11°♁42'50	45°52'20	asc. node	4621 Mar 17 21:23	7°♁51'45	
	4618 Aug 05 02:58	0°♁			4621 Apr 05 21:18	0°♁	
	4618 Sep 01 11:53	0°♁			4621 May 03 09:42	0°♁	
	4618 Sep 27 11:23	0°♁		evening max el	4621 May 08 20:00	5°♁27'58	46°09'41
asc. node	4618 Oct 01 02:29	4°♁16'40			4621 Jun 07 08:18	0°♁	
	4618 Oct 22 15:01	0°♄		greatest brilliancy	4621 Jun 12 12:40	2°♁50'39	-4.5m
	4618 Nov 16 05:17	0°♁		retrograde	4621 Jun 27 08:00	6°♁41'54	
	4618 Dec 10 10:55	0°♁		desc. node	4621 Jul 07 12:12	4°♁37'03	
	4619 Jan 03 11:27	0°♁		evening set	4621 Jul 12 09:13	2°♁16'00	
morning set	4619 Jan 12 23:44	11°♁55'21			4621 Jul 16 05:46	30°♁♂	
desc. node	4619 Jan 20 17:09	21°♁37'18		inferior conj	4621 Jul 18 17:52	28°♁26'23	-2°-39'-2
	4619 Jan 27 09:11	0°♁		minimum elong	4621 Jul 18 12:12	28°♁35'15	2°37'26

min. Earth dist.	4621 Jul 18 08:01	28° $\overline{54}$ 1'49	0.28785 AU		4624 Jan 12 06:42	0° \approx	
morning rise	4621 Jul 24 15:42	24° $\overline{55}$ 2'59		evening rise	4624 Jan 16 03:12	4° \approx 50'00	
direct	4621 Aug 09 05:52	20° $\overline{56}$ 14'03			4624 Feb 05 04:39	0° H	
greatest brilliancy	4621 Aug 22 05:52	23° $\overline{56}$ 12'36	-4.5m		4624 Feb 29 03:32	0° Y	
	4621 Sep 03 05:01	0° Ω			4624 Mar 24 05:58	0° B	
morning max el	4621 Sep 27 00:25	20° Ω 01'26	45°45'27	asc. node	4624 Apr 14 09:21	26° B 01'19	
	4621 Oct 07 01:55	0° M			4624 Apr 17 15:35	0° II	
asc. node	4621 Oct 28 14:20	23° M 04'54			4624 May 12 13:07	0° $\overline{5}$	
	4621 Nov 03 18:04	0° $\underline{5}$			4624 Jun 07 06:26	0° Ω	
	4621 Nov 29 12:14	0° M			4624 Jul 04 14:26	0° M	
	4621 Dec 24 08:03	0° J		evening max el	4624 Jul 18 07:13	13° M 46'36	45°31'27
	4622 Jan 17 16:09	0° $\overline{5}$		desc. node	4624 Aug 04 00:07	28° M 35'33	
	4622 Feb 10 18:15	0° \approx			4624 Aug 05 19:16	0° $\underline{5}$	
desc. node	4622 Feb 17 05:01	8° \approx 03'51		greatest brilliancy	4624 Aug 23 02:18	10° $\underline{5}$ 41'02	-4.5m
	4622 Mar 06 17:27	0° H		retrograde	4624 Sep 04 23:35	13° $\underline{5}$ 36'59	
morning set	4622 Mar 30 22:16	0° Y 19'57		evening set	4624 Sep 23 00:25	7° $\underline{5}$ 34'34	
	4622 Mar 30 15:53	0° Y		inferior conj	4624 Sep 26 11:08	5° $\underline{5}$ 27'04	-8°-34'-42
	4622 Apr 23 15:24	0° B		minimum elong	4624 Sep 26 09:01	5° $\underline{5}$ 30'23	8°34'39
				min. Earth dist.	4624 Sep 26 19:58	5° $\underline{5}$ 13'14	0.28962 AU
superior conj	4622 May 09 16:47	20° B 01'00	-1°-6'-43	morning rise	4624 Sep 29 17:27	3° $\underline{5}$ 25'37	
minimum elong	4622 May 10 03:27	20° B 34'12	1°06'24		4624 Oct 06 00:19	30° R M	
max. Earth dist.	4622 May 13 14:35	24° B 52'46	1.72268 AU	direct	4624 Oct 17 23:51	27° M 09'28	
	4622 May 17 17:28	0° II			4624 Oct 30 14:34	0° $\underline{5}$	
asc. node	4622 Jun 10 07:10	29° II 11'35		greatest brilliancy	4624 Nov 01 10:34	0° $\underline{5}$ 49'42	-4.5m
	4622 Jun 10 22:51	0° $\overline{5}$		asc. node	4624 Nov 25 02:08	17° $\underline{5}$ 41'42	
evening rise	4622 Jun 17 09:46	7° $\overline{5}$ 57'56		morning max el	4624 Dec 06 20:04	28° $\underline{5}$ 48'30	46°22'56
	4622 Jul 05 07:41	0° Ω			4624 Dec 08 00:38	0° M	
	4622 Jul 29 20:09	0° M			4625 Jan 04 19:03	0° J	
	4622 Aug 23 13:16	0° $\underline{5}$			4625 Jan 30 10:40	0° $\overline{5}$	
	4622 Sep 17 13:11	0° M			4625 Feb 24 05:56	0° \approx	
desc. node	4622 Sep 29 21:40	14° M 39'20		desc. node	4625 Mar 16 16:50	25° \approx 06'37	
	4622 Oct 12 23:10	0° J			4625 Mar 20 15:58	0° H	
	4622 Nov 08 01:13	0° $\overline{5}$			4625 Apr 13 22:02	0° Y	
	4622 Dec 05 12:46	0° \approx			4625 May 08 03:12	0° B	
evening max el	4622 Dec 13 11:56	8° \approx 08'18	46°55'07		4625 Jun 01 09:18	0° II	
	4623 Jan 07 03:04	0° H		morning set	4625 Jun 11 17:04	12° II 44'49	
asc. node	4623 Jan 20 23:52	8° H 13'41			4625 Jun 25 16:56	0° $\overline{5}$	
greatest brilliancy	4623 Jan 21 01:34	8° H 15'29	-4.7m	asc. node	4625 Jul 07 18:56	14° $\overline{5}$ 52'52	
retrograde	4623 Feb 01 22:27	10° H 52'47					
evening set	4623 Feb 17 18:41	5° H 56'25		superior conj	4625 Jul 19 02:58	28° $\overline{5}$ 49'59	0°26'44
min. Earth dist.	4623 Feb 21 21:48	3° H 28'01	0.26802 AU	minimum elong	4625 Jul 18 21:33	28° $\overline{5}$ 33'17	0°26'27
inferior conj	4623 Feb 22 12:35	3° H 05'15	7°18'10	max. Earth dist.	4625 Jul 19 14:39	29° $\overline{5}$ 25'55	1.73405 AU
minimum elong	4623 Feb 22 02:07	3° H 21'23	7°16'08		4625 Jul 20 01:44	0° Ω	
morning rise	4623 Feb 26 09:46	0° H 44'32			4625 Aug 13 11:00	0° M	
	4623 Feb 27 17:03	30° R \approx		evening rise	4625 Aug 24 08:09	13° M 22'53	
direct	4623 Mar 15 00:29	25° \approx 23'56			4625 Sep 06 20:38	0° $\underline{5}$	
greatest brilliancy	4623 Mar 26 01:01	27° \approx 40'06	-4.6m		4625 Oct 01 07:19	0° M	
	4623 Mar 31 01:35	0° H			4625 Oct 25 20:02	0° J	
morning max el	4623 May 04 02:09	27° H 35'52	46°37'17	desc. node	4625 Oct 27 09:41	1° J 54'50	
	4623 May 06 11:49	0° Y			4625 Nov 19 11:34	0° $\overline{5}$	
desc. node	4623 May 12 14:36	6° Y 15'49			4625 Dec 14 07:14	0° \approx	
	4623 Jun 03 12:48	0° B			4626 Jan 08 11:22	0° H	
	4623 Jun 29 20:03	0° II			4626 Feb 03 12:39	0° Y	
	4623 Jul 25 10:15	0° $\overline{5}$		asc. node	4626 Feb 17 11:33	15° Y 11'28	
	4623 Aug 19 14:23	0° Ω		evening max el	4626 Feb 23 21:21	21° Y 49'44	47°04'53
asc. node	4623 Sep 02 16:35	16° Ω 58'47			4626 Mar 04 04:33	0° B	
	4623 Sep 13 10:16	0° M		greatest brilliancy	4626 Apr 02 06:28	21° B 49'21	-4.6m
	4623 Oct 07 22:47	0° $\underline{5}$		retrograde	4626 Apr 15 14:42	25° B 06'48	
morning set	4623 Oct 30 03:40	27° $\underline{5}$ 25'49		evening set	4626 May 02 14:44	19° B 29'47	
	4623 Nov 01 05:22	0° M		inferior conj	4626 May 06 15:29	17° B 01'21	7°08'51
	4623 Nov 25 07:57	0° J		minimum elong	4626 May 07 01:34	16° B 45'36	7°06'58
max. Earth dist.	4623 Dec 04 05:00	11° J 05'02	1.71862 AU	min. Earth dist.	4626 May 06 12:44	17° B 05'38	0.27847 AU
				morning rise	4626 May 11 12:37	14° B 03'29	
superior conj	4623 Dec 07 01:55	14° J 40'18	0°37'46	direct	4626 May 27 13:10	9° B 02'58	
minimum elong	4623 Dec 07 10:09	15° J 06'01	0°37'25	greatest brilliancy	4626 Jun 08 04:42	11° B 30'10	-4.5m
	4623 Dec 19 08:05	0° $\overline{5}$		desc. node	4626 Jun 09 02:20	11° B 52'25	
desc. node	4623 Dec 23 07:27	4° $\overline{5}$ 58'29			4626 Jul 05 09:24	0° II	

morning max el	4626 Jul 15 16:36	9°II29'20	45°53'30	asc. node	4629 Mar 16 23:27	7°817'26	
	4626 Aug 04 20:38	0°☿			4629 Apr 05 12:32	0°II	
	4626 Sep 01 02:05	0°♂			4629 May 03 06:04	0°☿	
	4626 Sep 27 00:02	0°♍		evening max el	4629 May 06 12:01	3°☿14'58	46°11'32
asc. node	4626 Sep 30 04:28	3°♍45'33			4629 Jun 08 21:15	0°♂	
	4626 Oct 22 02:52	0°♂		greatest brilliancy	4629 Jun 10 06:30	0°♂41'48	-4.5m
	4626 Nov 15 16:43	0°♌		retrograde	4629 Jun 25 00:07	4°♂31'04	
	4626 Dec 09 22:08	0°♊		desc. node	4629 Jul 06 14:11	1°♂50'36	
	4627 Jan 02 22:34	0°♋		evening set	4629 Jul 10 00:56	0°♂06'26	
morning set	4627 Jan 10 11:33	9°♋27'03			4629 Jul 10 05:36	30°☿☿	
desc. node	4627 Jan 19 19:09	21°♋08'41		inferior conj	4629 Jul 16 09:59	26°☿16'01	-2°-19'-42
	4627 Jan 26 20:17	0°♌		minimum elong	4629 Jul 16 04:58	26°☿23'54	2°18'16
	4627 Feb 19 16:45	0°♍		min. Earth dist.	4629 Jul 16 00:23	26°☿31'05	0.28753 AU
				morning rise	4629 Jul 22 09:30	22°☿40'01	
superior conj	4627 Feb 20 17:11	1°♍16'55	-1°-7'-28	direct	4629 Aug 06 21:51	18°☿04'22	
minimum elong	4627 Feb 20 05:20	0°♍39'36	1°07'05	greatest brilliancy	4629 Aug 19 19:15	20°☿59'56	-4.5m
max. Earth dist.	4627 Feb 21 08:06	2°♍03'50	1.71137 AU		4629 Sep 03 21:50	0°♂	
	4627 Mar 15 13:20	0°♎		morning max el	4629 Sep 24 15:07	17°♂48'25	45°44'46
evening rise	4627 Apr 02 14:28	22°♎38'06			4629 Oct 06 20:38	0°♍	
	4627 Apr 08 11:49	0°♏		asc. node	4629 Oct 27 16:28	22°♍28'42	
	4627 May 02 14:15	0°♐			4629 Nov 03 08:31	0°♂	
asc. node	4627 May 12 21:20	12°♐43'38			4629 Nov 29 01:02	0°♌	
	4627 May 26 22:26	0°☿			4629 Dec 23 20:03	0°♊	
	4627 Jun 20 14:10	0°♂			4630 Jan 17 03:45	0°♋	
	4627 Jul 15 16:13	0°♍			4630 Feb 10 05:34	0°♌	
	4627 Aug 10 10:26	0°♎		desc. node	4630 Feb 16 06:57	7°♌34'40	
desc. node	4627 Sep 01 11:47	24°♎39'54			4630 Mar 06 04:34	0°♍	
	4627 Sep 06 10:21	0°♏		morning set	4630 Mar 28 09:33	27°♍50'38	
evening max el	4627 Sep 29 02:49	23°♏10'13	45°55'08		4630 Mar 30 02:50	0°♎	
	4627 Oct 06 11:09	0°♐			4630 Apr 23 02:14	0°♏	
greatest brilliancy	4627 Nov 06 03:34	21°♐08'55	-4.6m				
retrograde	4627 Nov 17 04:07	23°♐20'12		superior conj	4630 May 07 06:31	17°♏40'48	-1°-9'-1
evening set	4627 Dec 02 11:08	18°♐48'35		minimum elong	4630 May 07 17:02	18°♏13'34	1°08'43
inferior conj	4627 Dec 07 22:49	15°♐34'07	-3°-50'-57	max. Earth dist.	4630 May 11 07:08	22°♏41'28	1.72215 AU
minimum elong	4627 Dec 08 06:53	15°♐21'46	3°48'40		4630 May 17 04:14	0°♐	
min. Earth dist.	4627 Dec 08 17:51	15°♐05'00	0.27252 AU	asc. node	4630 Jun 09 09:09	28°♐44'27	
morning rise	4627 Dec 14 02:01	11°♐57'37			4630 Jun 10 09:37	0°☿	
asc. node	4627 Dec 23 13:56	8°♐13'55		evening rise	4630 Jun 15 01:48	5°☿46'09	
direct	4627 Dec 28 20:15	7°♐39'41			4630 Jul 04 18:32	0°♂	
greatest brilliancy	4628 Jan 11 13:01	11°♐07'21	-4.6m		4630 Jul 29 07:13	0°♍	
	4628 Feb 06 06:21	0°♋			4630 Aug 23 00:44	0°♎	
morning max el	4628 Feb 17 13:22	10°♋58'10	46°57'55		4630 Sep 17 01:22	0°♏	
	4628 Mar 06 10:37	0°♌		desc. node	4630 Sep 28 23:47	14°♏08'15	
	4628 Apr 01 17:21	0°♍			4630 Oct 12 12:32	0°♐	
desc. node	4628 Apr 13 04:50	13°♍31'41			4630 Nov 07 16:49	0°♋	
	4628 Apr 27 00:22	0°♎			4630 Dec 05 09:35	0°♌	
	4628 May 21 21:32	0°♏		evening max el	4630 Dec 11 00:38	5°♌42'18	46°53'22
	4628 Jun 15 14:43	0°♐			4631 Jan 08 03:38	0°♍	
	4628 Jul 10 06:10	0°☿		greatest brilliancy	4631 Jan 18 16:16	5°♍49'42	-4.7m
	4628 Aug 03 19:55	0°♂		asc. node	4631 Jan 20 01:48	6°♍22'57	
asc. node	4628 Aug 04 06:44	0°♂33'07		retrograde	4631 Jan 30 10:30	8°♍24'42	
morning set	4628 Aug 19 07:07	18°♂56'50		evening set	4631 Feb 15 03:16	3°♍34'33	
	4628 Aug 28 07:08	0°♍		min. Earth dist.	4631 Feb 19 11:14	0°♍59'29	0.26773 AU
	4628 Sep 21 15:29	0°♎		inferior conj	4631 Feb 20 01:08	0°♍38'05	7°03'21
max. Earth dist.	4628 Sep 22 12:34	1°♎05'04	1.73145 AU	minimum elong	4631 Feb 19 14:27	0°♍54'33	7°01'10
					4631 Feb 21 01:55	30°☿☿	
superior conj	4628 Sep 24 17:45	3°♎49'17	1°24'39	morning rise	4631 Feb 24 01:47	28°☿12'17	
minimum elong	4628 Sep 24 15:30	3°♎42'20	1°24'38	direct	4631 Mar 12 12:17	22°☿56'53	
	4628 Oct 15 21:34	0°♏		greatest brilliancy	4631 Mar 23 15:45	25°☿15'33	-4.6m
evening rise	4628 Oct 31 15:10	19°♏29'46			4631 Apr 01 19:14	0°♍	
	4628 Nov 09 02:26	0°♐		morning max el	4631 May 01 14:15	25°♍09'38	46°38'57
desc. node	4628 Nov 23 21:36	18°♐21'14			4631 May 06 09:28	0°♎	
	4628 Dec 03 06:51	0°♋		desc. node	4631 May 11 16:37	5°♎29'14	
	4628 Dec 27 11:10	0°♌			4631 Jun 03 04:33	0°♏	
	4629 Jan 20 16:22	0°♍			4631 Jun 29 09:27	0°♐	
	4629 Feb 14 01:21	0°♎			4631 Jul 24 22:25	0°☿	
	4629 Mar 10 20:15	0°♏			4631 Aug 19 01:50	0°♂	

asc. node	4631 Sep 01 18:36	16°♌31'01			4634 Mar 04 07:03	0°♏	
	4631 Sep 12 21:18	0°♎		greatest brilliancy	4634 Mar 30 21:27	19°♏30'05	-4.6m
	4631 Oct 07 09:35	0°♎		retrograde	4634 Apr 13 05:57	22°♏47'36	
morning set	4631 Oct 27 19:50	25°♎13'53		evening set	4634 Apr 30 08:19	17°♏05'47	
	4631 Oct 31 16:05	0°♍		inferior conj	4634 May 04 05:47	14°♏42'18	7°22'11
	4631 Nov 24 18:40	0°♌		minimum elong	4634 May 04 15:40	14°♏26'55	7°20'26
max. Earth dist.	4631 Dec 01 19:28	8°♌46'48	1.71909 AU	min. Earth dist.	4634 May 04 02:26	14°♏47'32	0.27817 AU
				morning rise	4634 May 08 23:15	11°♏50'07	
superior conj	4631 Dec 04 15:32	12°♌19'22	0°41'00	direct	4634 May 25 03:26	6°♏44'27	
minimum elong	4631 Dec 05 00:15	12°♌46'35	0°40'38	greatest brilliancy	4634 Jun 05 17:10	9°♏10'41	-4.5m
	4631 Dec 18 18:51	0°♏		desc. node	4634 Jun 08 04:16	10°♏14'31	
desc. node	4631 Dec 22 09:22	4°♏30'39			4634 Jul 05 12:53	0°♐	
	4632 Jan 11 17:35	0°♏		morning max el	4634 Jul 13 08:25	7°♐17'32	45°54'42
evening rise	4632 Jan 13 14:45	2°♏21'34			4634 Aug 04 13:29	0°♑	
	4632 Feb 04 15:41	0°♏			4634 Aug 31 15:43	0°♑	
	4632 Feb 28 14:45	0°♏			4634 Sep 26 12:14	0°♑	
	4632 Mar 23 17:24	0°♏		asc. node	4634 Sep 29 06:36	3°♑16'10	
asc. node	4632 Apr 13 11:28	25°♏31'55			4634 Oct 21 14:20	0°♑	
	4632 Apr 17 03:24	0°♐			4634 Nov 15 03:48	0°♑	
	4632 May 12 01:40	0°♑			4634 Dec 09 09:03	0°♑	
	4632 Jun 06 20:33	0°♑			4635 Jan 02 09:25	0°♑	
	4632 Jul 04 08:31	0°♑		morning set	4635 Jan 07 23:11	6°♑59'04	
evening max el	4632 Jul 15 21:58	11°♑33'53	45°31'49	desc. node	4635 Jan 18 21:10	20°♑40'56	
desc. node	4632 Aug 03 02:02	27°♑32'52			4635 Jan 26 07:07	0°♒	
	4632 Aug 06 08:14	0°♒					
greatest brilliancy	4632 Aug 20 14:04	8°♒26'56	-4.5m	superior conj	4635 Feb 18 03:13	28°♒43'26	-1°-4'-50
retrograde	4632 Sep 02 15:33	11°♒27'31		minimum elong	4635 Feb 17 15:13	28°♒05'39	1°04'27
evening set	4632 Sep 20 14:22	5°♒27'02		max. Earth dist.	4635 Feb 18 16:41	29°♒25'46	1.71130 AU
inferior conj	4632 Sep 24 03:05	3°♒16'40	-8°-31'-59		4635 Feb 19 03:33	0°♒	
minimum elong	4632 Sep 24 00:13	3°♒21'10	8°31'53		4635 Mar 15 00:07	0°♒	
min. Earth dist.	4632 Sep 24 10:46	3°♒04'40	0.28995 AU	evening rise	4635 Mar 31 01:12	20°♒07'39	
morning rise	4632 Sep 27 09:54	1°♒14'41			4635 Apr 07 22:38	0°♒	
	4632 Sep 29 12:28	30°♒			4635 May 02 01:10	0°♒	
direct	4632 Oct 15 15:57	24°♒58'37		asc. node	4635 May 11 23:17	12°♒15'49	
greatest brilliancy	4632 Oct 30 03:34	28°♒39'55	-4.5m		4635 May 26 09:34	0°♑	
	4632 Nov 01 18:26	0°♒			4635 Jun 20 01:41	0°♑	
asc. node	4632 Nov 24 04:04	16°♒45'04			4635 Jul 15 04:27	0°♑	
morning max el	4632 Dec 04 11:46	26°♒34'13	46°21'23		4635 Aug 10 00:06	0°♒	
	4632 Dec 07 21:29	0°♒		desc. node	4635 Aug 31 13:56	24°♒02'13	
	4633 Jan 04 10:24	0°♒			4635 Sep 06 03:14	0°♒	
	4633 Jan 29 23:59	0°♑		evening max el	4635 Sep 26 17:24	20°♒55'15	45°53'18
	4633 Feb 23 18:16	0°♑			4635 Oct 06 14:49	0°♒	
desc. node	4633 Mar 15 18:55	24°♑36'34		greatest brilliancy	4635 Nov 03 16:37	18°♒48'53	-4.6m
	4633 Mar 20 03:42	0°♒		retrograde	4635 Nov 14 16:50	20°♒59'23	
	4633 Apr 13 09:23	0°♒		evening set	4635 Nov 30 03:07	16°♒24'11	
	4633 May 07 14:14	0°♒		inferior conj	4635 Dec 05 12:14	13°♒12'47	-4°-11'-21
	4633 May 31 20:04	0°♐		minimum elong	4635 Dec 05 20:49	12°♒59'36	4°08'57
morning set	4633 Jun 09 09:04	10°♐32'59		min. Earth dist.	4635 Dec 06 07:57	12°♒42'33	0.27314 AU
	4633 Jun 25 03:32	0°♑		morning rise	4635 Dec 11 13:56	9°♒37'50	
asc. node	4633 Jul 06 20:54	14°♑26'24		asc. node	4635 Dec 22 15:53	5°♒35'03	
				direct	4635 Dec 26 10:39	5°♒17'32	
superior conj	4633 Jul 16 20:23	26°♑43'32	0°23'37	greatest brilliancy	4636 Jan 09 03:58	8°♒45'35	-4.6m
minimum elong	4633 Jul 16 15:31	26°♑28'33	0°23'23		4636 Feb 06 09:40	0°♑	
max. Earth dist.	4633 Jul 17 11:40	27°♑30'35	1.73388 AU	morning max el	4636 Feb 15 02:59	8°♑34'14	46°57'24
	4633 Jul 19 12:14	0°♑			4636 Mar 06 04:07	0°♑	
	4633 Aug 12 21:31	0°♑			4636 Apr 01 07:44	0°♒	
evening rise	4633 Aug 22 02:44	11°♑20'03		desc. node	4636 Apr 12 06:54	12°♒57'27	
	4633 Sep 06 07:18	0°♒			4636 Apr 26 13:13	0°♒	
	4633 Sep 30 18:15	0°♒			4636 May 21 09:29	0°♒	
	4633 Oct 25 07:23	0°♒			4636 Jun 15 02:05	0°♐	
desc. node	4633 Oct 26 11:43	1°♒26'21			4636 Jul 09 17:09	0°♑	
	4633 Nov 18 23:30	0°♑		asc. node	4636 Aug 03 08:48	0°♑06'36	
	4633 Dec 13 20:03	0°♑			4636 Aug 03 06:38	0°♑	
	4634 Jan 08 01:37	0°♒		morning set	4636 Aug 17 00:46	16°♑51'14	
	4634 Feb 03 05:50	0°♒			4636 Aug 27 17:43	0°♑	
asc. node	4634 Feb 16 13:37	14°♒24'02		max. Earth dist.	4636 Sep 20 05:50	28°♑57'42	1.73173 AU
evening max el	4634 Feb 21 12:09	19°♒29'44	47°05'58		4636 Sep 21 02:01	0°♒	

superior conj	4636 Sep 22 11:39	1°♄43'48	1°24'11	morning rise	4639 Feb 21 17:53	25°♁40'21	
minimum elong	4636 Sep 22 08:43	1°♄34'47	1°24'10	direct	4639 Mar 10 00:15	20°♁29'45	
	4636 Oct 15 08:10	0°♍		greatest brilliancy	4639 Mar 21 06:50	22°♁51'29	-4.7m
evening rise	4636 Oct 29 07:02	17°♍16'59			4639 Apr 03 00:07	0°♁	
	4636 Nov 08 13:13	0°♁		morning max el	4639 Apr 29 03:10	22°♁44'59	46°40'27
desc. node	4636 Nov 22 23:32	17°♁53'25			4639 May 06 06:30	0°♁	
	4636 Dec 02 17:53	0°♄		desc. node	4639 May 10 18:34	4°♁42'42	
	4636 Dec 26 22:31	0°♁			4639 Jun 02 20:13	0°♄	
	4637 Jan 20 04:07	0°♁			4639 Jun 28 22:53	0°♁	
	4637 Feb 13 13:42	0°♁			4639 Jul 24 10:38	0°♄	
	4637 Mar 10 09:35	0°♄			4639 Aug 18 13:19	0°♁	
asc. node	4637 Mar 16 01:31	6°♄43'10		asc. node	4639 Aug 31 20:41	16°♁03'15	
	4637 Apr 05 03:54	0°♁			4639 Sep 12 08:22	0°♁	
	4637 May 03 03:00	0°♄			4639 Oct 06 20:28	0°♄	
evening max el	4637 May 04 02:55	0°♄59'27	46°13'35	morning set	4639 Oct 25 12:06	23°♄02'01	
greatest brilliancy	4637 Jun 08 00:00	28°♄32'45	-4.5m		4639 Oct 31 02:55	0°♍	
	4637 Jun 11 07:16	0°♁			4639 Nov 24 05:31	0°♁	
retrograde	4637 Jun 22 15:50	2°♁20'42		max. Earth dist.	4639 Nov 29 11:10	6°♁32'00	1.71953 AU
	4637 Jul 03 12:26	30°♁					
desc. node	4637 Jul 05 16:12	29°♄00'23		superior conj	4639 Dec 02 05:25	9°♁58'52	0°44'09
evening set	4637 Jul 07 16:48	27°♄56'51		minimum elong	4639 Dec 02 14:32	10°♁27'21	0°43'46
min. Earth dist.	4637 Jul 13 17:00	24°♄20'23	0.28721 AU		4639 Dec 18 05:46	0°♄	
inferior conj	4637 Jul 14 02:06	24°♄06'05	-2°00'-6	desc. node	4639 Dec 21 11:24	4°♄02'53	
minimum elong	4637 Jul 13 21:45	24°♄12'55	1°58'51	evening rise	4640 Jan 11 02:41	29°♄54'03	
morning rise	4637 Jul 20 03:10	20°♄27'36			4640 Jan 11 04:35	0°♁	
direct	4637 Aug 04 13:25	15°♄54'53			4640 Feb 04 02:49	0°♁	
greatest brilliancy	4637 Aug 17 09:39	18°♄48'41	-4.5m		4640 Feb 28 02:02	0°♁	
	4637 Sep 04 10:10	0°♁			4640 Mar 23 04:58	0°♄	
morning max el	4637 Sep 22 05:22	15°♁34'39	45°44'15	asc. node	4640 Apr 12 13:22	25°♄01'23	
	4637 Oct 06 14:43	0°♁			4640 Apr 16 15:23	0°♁	
asc. node	4637 Oct 26 18:21	21°♁52'22			4640 May 11 14:29	0°♄	
	4637 Nov 02 22:41	0°♄			4640 Jun 06 11:05	0°♁	
	4637 Nov 28 13:37	0°♍			4640 Jul 04 03:21	0°♁	
	4637 Dec 23 07:54	0°♁		evening max el	4640 Jul 13 13:38	9°♁22'44	45°32'24
	4638 Jan 16 15:12	0°♄		desc. node	4640 Aug 02 04:11	26°♁28'23	
	4638 Feb 09 16:47	0°♁			4640 Aug 07 02:03	0°♄	
desc. node	4638 Feb 15 09:05	7°♁06'19		greatest brilliancy	4640 Aug 18 02:12	6°♄12'52	-4.5m
	4638 Mar 05 15:38	0°♁		retrograde	4640 Aug 31 07:56	9°♄17'37	
morning set	4638 Mar 25 20:18	25°♁19'31		evening set	4640 Sep 18 04:11	3°♄19'36	
	4638 Mar 29 13:48	0°♁		inferior conj	4640 Sep 21 19:06	1°♄05'54	-8°-28'-29
	4638 Apr 22 13:06	0°♄		minimum elong	4640 Sep 21 15:30	1°♄11'32	8°28'19
				min. Earth dist.	4640 Sep 22 01:16	0°♄56'16	0.29024 AU
superior conj	4638 May 04 19:45	15°♄18'57	-1°-11'-12		4640 Sep 23 13:24	30°♁	
minimum elong	4638 May 05 06:03	15°♄51'02	1°10'56	morning rise	4640 Sep 25 02:42	29°♁02'51	
max. Earth dist.	4638 May 08 20:44	20°♄20'51	1.72157 AU	direct	4640 Oct 13 08:33	22°♁47'35	
	4638 May 16 15:01	0°♁		greatest brilliancy	4640 Oct 27 19:55	26°♁29'01	-4.5m
asc. node	4638 Jun 08 11:05	28°♁17'15			4640 Nov 03 04:36	0°♄	
	4638 Jun 09 20:22	0°♄		asc. node	4640 Nov 23 06:06	15°♄49'18	
evening rise	4638 Jun 12 17:22	3°♄32'54		morning max el	4640 Dec 02 03:59	24°♄20'54	46°19'45
	4638 Jul 04 05:21	0°♁			4640 Dec 07 17:53	0°♍	
	4638 Jul 28 18:16	0°♁			4641 Jan 04 01:46	0°♁	
	4638 Aug 22 12:15	0°♄			4641 Jan 29 13:26	0°♄	
	4638 Sep 16 13:37	0°♍			4641 Feb 23 06:43	0°♁	
desc. node	4638 Sep 28 01:48	13°♍36'42		desc. node	4641 Mar 14 20:57	24°♁05'54	
	4638 Oct 12 02:03	0°♁			4641 Mar 19 15:35	0°♁	
	4638 Nov 07 08:39	0°♄			4641 Apr 12 20:51	0°♁	
	4638 Dec 05 07:05	0°♁			4641 May 07 01:25	0°♄	
evening max el	4638 Dec 08 12:58	3°♁51'50	46°51'41		4641 May 31 07:03	0°♁	
	4639 Jan 09 13:44	0°♁		morning set	4641 Jun 07 01:04	8°♁20'25	
greatest brilliancy	4639 Jan 16 05:59	3°♁23'01	-4.7m		4641 Jun 24 14:22	0°♄	
asc. node	4639 Jan 19 03:50	4°♁28'00		asc. node	4641 Jul 05 23:00	13°♄59'36	
retrograde	4639 Jan 27 22:47	5°♁57'07					
evening set	4639 Feb 12 11:58	1°♁12'28		superior conj	4641 Jul 14 13:38	24°♄35'42	0°20'27
	4639 Feb 14 14:01	30°♁		minimum elong	4641 Jul 14 09:22	24°♄22'33	0°20'15
min. Earth dist.	4639 Feb 17 00:30	28°♁31'19	0.26750 AU	max. Earth dist.	4641 Jul 15 09:20	25°♄36'19	1.73371 AU
inferior conj	4639 Feb 17 13:43	28°♁11'03	6°47'36		4641 Jul 18 23:01	0°♁	
minimum elong	4639 Feb 17 02:52	28°♁27'41	6°45'17		4641 Aug 12 08:20	0°♁	

evening rise	4641 Aug 19 21:11	9° \cap 15'56		desc. node	4644 Apr 11 08:46	12° \times 21'53	
	4641 Sep 05 18:14	0° Δ			4644 Apr 26 02:18	0° Υ	
	4641 Sep 30 05:28	0° \cap			4644 May 20 21:41	0° \mathcal{B}	
	4641 Oct 24 19:01	0° \mathcal{A}			4644 Jun 14 13:42	0° Π	
desc. node	4641 Oct 25 13:39	0° \mathcal{A} 56'42			4644 Jul 09 04:22	0° \mathcal{E}	
	4641 Nov 18 11:47	0° \mathcal{Z}		asc. node	4644 Aug 02 10:50	29° \mathcal{E} 39'17	
	4641 Dec 13 09:16	0° \approx			4644 Aug 02 17:36	0° Ω	
	4642 Jan 07 16:21	0° \times		morning set	4644 Aug 14 18:39	14° Ω 45'33	
	4642 Feb 02 23:41	0° Υ			4644 Aug 27 04:33	0° \cap	
asc. node	4642 Feb 15 15:44	13° Υ 35'08		max. Earth dist.	4644 Sep 17 23:18	26° \cap 50'06	1.73206 AU
evening max el	4642 Feb 19 03:41	17° Υ 10'49	47°07'01				
	4642 Mar 04 11:27	0° \mathcal{B}		superior conj	4644 Sep 20 05:46	29° \cap 38'10	1°23'36
greatest brilliancy	4642 Mar 28 13:33	17° \mathcal{B} 11'55	-4.6m	minimum elong	4644 Sep 20 02:12	29° \cap 27'10	1°23'35
retrograde	4642 Apr 10 21:24	20° \mathcal{B} 28'05			4644 Sep 20 12:50	0° Δ	
evening set	4642 Apr 28 02:05	14° \mathcal{B} 41'52			4644 Oct 14 19:05	0° \cap	
inferior conj	4642 May 01 20:17	12° \mathcal{B} 23'07	7°34'41	evening rise	4644 Oct 26 23:04	15° \cap 03'52	
minimum elong	4642 May 02 05:52	12° \mathcal{B} 08'12	7°33'06		4644 Nov 08 00:20	0° \mathcal{A}	
min. Earth dist.	4642 May 01 16:07	12° \mathcal{B} 29'37	0.27783 AU	desc. node	4644 Nov 22 01:35	17° \mathcal{A} 25'00	
morning rise	4642 May 06 09:56	9° \mathcal{B} 36'36			4644 Dec 02 05:14	0° \mathcal{Z}	
direct	4642 May 22 18:06	4° \mathcal{B} 26'04			4644 Dec 26 10:10	0° \approx	
greatest brilliancy	4642 Jun 03 04:53	6° \mathcal{B} 49'59	-4.5m		4645 Jan 19 16:11	0° \times	
desc. node	4642 Jun 07 06:20	8° \mathcal{B} 40'02			4645 Feb 13 02:24	0° Υ	
	4642 Jul 05 15:02	0° Π			4645 Mar 09 23:22	0° \mathcal{B}	
morning max el	4642 Jul 10 23:53	5° Π 04'09	45°55'43	asc. node	4645 Mar 15 03:25	6° \mathcal{B} 07'14	
	4642 Aug 04 06:19	0° \mathcal{E}			4645 Apr 04 19:51	0° Π	
	4642 Aug 31 05:34	0° Ω		evening max el	4645 May 01 17:12	28° Π 41'18	46°15'42
	4642 Sep 26 00:42	0° \cap			4645 May 03 01:06	0° \mathcal{E}	
asc. node	4642 Sep 28 08:31	2° \cap 45'10		greatest brilliancy	4645 Jun 05 16:55	26° \mathcal{E} 22'06	-4.5m
	4642 Oct 21 02:05	0° Δ			4645 Jun 17 09:38	0° Ω	
	4642 Nov 14 15:11	0° \cap		retrograde	4645 Jun 20 07:51	0° Ω 09'58	
	4642 Dec 08 20:14	0° \mathcal{A}			4645 Jun 23 05:11	30° $\mathcal{R}\mathcal{E}$	
	4643 Jan 01 20:34	0° \mathcal{Z}		desc. node	4645 Jul 04 18:16	26° \mathcal{E} 06'05	
morning set	4643 Jan 05 10:59	4° \mathcal{Z} 30'42		evening set	4645 Jul 05 08:52	25° \mathcal{E} 46'22	
desc. node	4643 Jan 17 23:14	20° \mathcal{Z} 12'29		inferior conj	4645 Jul 11 18:19	21° \mathcal{E} 55'42	-1°-40'-26
	4643 Jan 25 18:16	0° \approx		minimum elong	4645 Jul 11 14:39	22° \mathcal{E} 01'28	1°39'22
				min. Earth dist.	4645 Jul 11 09:46	22° \mathcal{E} 09'07	0.28687 AU
superior conj	4643 Feb 15 13:23	26° \approx 09'21	-1°-2'-5	morning rise	4645 Jul 17 20:48	18° \mathcal{E} 15'08	
minimum elong	4643 Feb 15 01:21	25° \approx 31'31	1°01'41	direct	4645 Aug 02 04:41	13° \mathcal{E} 44'54	
max. Earth dist.	4643 Feb 15 22:22	26° \approx 37'37	1.71124 AU	greatest brilliancy	4645 Aug 15 00:52	16° \mathcal{E} 38'06	-4.5m
	4643 Feb 18 14:42	0° \times			4645 Sep 04 19:27	0° Ω	
	4643 Mar 14 11:15	0° Υ		morning max el	4645 Sep 19 20:03	13° Ω 21'26	45°43'47
evening rise	4643 Mar 28 12:00	17° Υ 36'16			4645 Oct 06 08:33	0° \cap	
	4643 Apr 07 09:46	0° \mathcal{B}		asc. node	4645 Oct 25 20:24	21° \cap 16'10	
	4643 May 01 12:22	0° Π			4645 Nov 02 12:55	0° Δ	
asc. node	4643 May 11 01:17	11° Π 47'16			4645 Nov 28 02:24	0° \cap	
	4643 May 25 20:59	0° \mathcal{E}			4645 Dec 22 20:00	0° \mathcal{A}	
	4643 Jun 19 13:29	0° Ω			4646 Jan 16 02:54	0° \mathcal{Z}	
	4643 Jul 14 17:02	0° \cap			4646 Feb 09 04:14	0° \approx	
	4643 Aug 09 14:14	0° Δ		desc. node	4646 Feb 14 11:05	6° \approx 36'50	
desc. node	4643 Aug 30 15:55	23° Δ 22'41			4646 Mar 05 02:54	0° \times	
	4643 Sep 05 20:52	0° \cap		morning set	4646 Mar 23 06:46	22° \times 46'48	
evening max el	4643 Sep 24 07:23	18° \cap 37'49	45°51'29		4646 Mar 29 00:57	0° Υ	
	4643 Oct 06 20:50	0° \mathcal{A}			4646 Apr 22 00:10	0° \mathcal{B}	
greatest brilliancy	4643 Nov 01 06:41	16° \mathcal{A} 29'23	-4.5m				
retrograde	4643 Nov 12 05:25	18° \mathcal{A} 38'27		superior conj	4646 May 02 08:50	12° \mathcal{B} 55'51	-1°-13'-16
evening set	4643 Nov 27 19:25	13° \mathcal{A} 59'26		minimum elong	4646 May 02 18:52	13° \mathcal{B} 27'05	1°13'02
inferior conj	4643 Dec 03 01:56	10° \mathcal{A} 51'24	-4°-30'-55	max. Earth dist.	4646 May 06 07:47	17° \mathcal{B} 51'32	1.72103 AU
minimum elong	4643 Dec 03 10:58	10° \mathcal{A} 37'30	4°28'29		4646 May 16 02:02	0° Π	
min. Earth dist.	4643 Dec 03 22:33	10° \mathcal{A} 19'42	0.27377 AU	asc. node	4646 Jun 07 13:13	27° Π 49'56	
morning rise	4643 Dec 09 01:53	7° \mathcal{A} 18'14			4646 Jun 09 07:21	0° \mathcal{E}	
asc. node	4643 Dec 21 17:59	3° \mathcal{A} 01'29		evening rise	4646 Jun 10 08:52	1° \mathcal{E} 18'44	
direct	4643 Dec 24 00:43	2° \mathcal{A} 55'10			4646 Jul 03 16:24	0° Ω	
greatest brilliancy	4644 Jan 06 19:38	6° \mathcal{A} 24'14	-4.6m		4646 Jul 28 05:32	0° \cap	
	4644 Feb 06 11:47	0° \mathcal{Z}			4646 Aug 21 23:56	0° Δ	
morning max el	4644 Feb 12 16:00	6° \mathcal{Z} 07'49	46°56'48		4646 Sep 16 02:03	0° \cap	
	4644 Mar 05 21:34	0° \approx		desc. node	4646 Sep 27 03:44	13° \cap 04'27	
	4644 Mar 31 22:16	0° \times			4646 Oct 11 15:48	0° \mathcal{A}	

	4646 Nov 07 00:56	0°☾			4649 Apr 12 08:19	0°☿		
	4646 Dec 05 05:41	0°♊			4649 May 06 12:35	0°♋		
evening max el	4646 Dec 06 01:59	0°♊50'35	46°49'54		4649 May 30 17:58	0°♌		
	4647 Jan 11 17:51	0°♋		morning set	4649 Jun 04 16:42	6°♌06'51		
greatest brilliancy	4647 Jan 13 18:54	0°♋54'35	-4.7m		4649 Jun 24 01:08	0°♍		
asc. node	4647 Jan 18 05:54	2°♋27'23		asc. node	4649 Jul 05 00:59	13°♍32'40		
retrograde	4647 Jan 25 11:38	3°♋28'43						
	4647 Feb 07 15:17	30°♌		superior conj	4649 Jul 12 06:37	22°♍27'14	0°17'15	
evening set	4647 Feb 09 20:45	28°♌49'05		minimum elong	4649 Jul 12 02:59	22°♍16'01	0°17'03	
min. Earth dist.	4647 Feb 14 13:25	26°♌02'30	0.26728 AU	max. Earth dist.	4649 Jul 13 07:30	23°♍43'50	1.73350 AU	
inferior conj	4647 Feb 15 02:10	25°♌42'59	6°30'59		4649 Jul 18 09:44	0°♎		
minimum elong	4647 Feb 14 15:16	25°♌59'40	6°28'31		4649 Aug 11 19:05	0°♏		
morning rise	4647 Feb 19 09:54	23°♌07'33		evening rise	4649 Aug 17 15:34	7°♏11'50		
direct	4647 Mar 07 12:32	18°♌01'41			4649 Sep 05 05:07	0°♐		
greatest brilliancy	4647 Mar 18 21:10	20°♌25'53	-4.7m		4649 Sep 29 16:35	0°♑		
	4647 Apr 03 21:28	0°♋			4649 Oct 24 06:32	0°♒		
morning max el	4647 Apr 26 16:57	20°♋22'02	46°41'54	desc. node	4649 Oct 24 15:46	0°♒28'07		
	4647 May 06 02:59	0°☿			4649 Nov 17 23:54	0°☾		
desc. node	4647 May 09 20:42	3°☿56'56			4649 Dec 12 22:20	0°♊		
	4647 Jun 02 11:46	0°♋			4650 Jan 07 07:01	0°♋		
	4647 Jun 28 12:20	0°♌			4650 Feb 02 17:46	0°☿		
	4647 Jul 23 22:55	0°♍		asc. node	4650 Feb 14 17:36	12°☿45'05		
	4647 Aug 18 00:54	0°♎		evening max el	4650 Feb 16 18:52	14°☿51'06	47°07'40	
asc. node	4647 Aug 30 22:37	15°♎34'47			4650 Mar 04 17:50	0°♋		
	4647 Sep 11 19:31	0°♏		greatest brilliancy	4650 Mar 26 06:26	14°♋54'11	-4.6m	
	4647 Oct 06 07:23	0°♐		retrograde	4650 Apr 08 12:09	18°♋07'24		
morning set	4647 Oct 23 04:48	20°♐51'31		evening set	4650 Apr 25 19:31	12°♋17'10		
	4647 Oct 30 13:46	0°♑		inferior conj	4650 Apr 29 10:29	10°♋03'03	7°46'34	
	4647 Nov 23 16:23	0°♒		minimum elong	4650 Apr 29 19:40	9°♋48'43	7°45'09	
max. Earth dist.	4647 Nov 27 03:21	4°♒18'46	1.72000 AU	min. Earth dist.	4650 Apr 29 05:44	10°♋10'29	0.27750 AU	
				morning rise	4650 May 03 20:08	7°♋22'15		
superior conj	4647 Nov 29 19:36	7°♒39'15	0°47'11	direct	4650 May 20 08:20	2°♋06'54		
minimum elong	4647 Nov 30 05:03	8°♒08'44	0°46'48	greatest brilliancy	4650 May 31 16:21	4°♋28'18	-4.6m	
	4647 Dec 17 16:44	0°☾		desc. node	4650 Jun 06 08:24	7°♋08'20		
desc. node	4647 Dec 20 13:32	3°☾35'10			4650 Jul 05 15:49	0°♌		
evening rise	4648 Jan 08 14:35	27°☾26'11		morning max el	4650 Jul 08 14:07	2°♌47'44	45°56'51	
	4648 Jan 10 15:41	0°♊			4650 Aug 03 22:41	0°♍		
	4648 Feb 03 14:04	0°♋			4650 Aug 30 19:07	0°♎		
	4648 Feb 27 13:28	0°☿			4650 Sep 25 12:55	0°♏		
	4648 Mar 22 16:39	0°♋		asc. node	4650 Sep 27 10:31	2°♏15'08		
asc. node	4648 Apr 11 15:25	24°♋30'56			4650 Oct 20 13:35	0°♐		
	4648 Apr 16 03:31	0°♌			4650 Nov 14 02:18	0°♑		
	4648 May 11 03:29	0°♍			4650 Dec 08 07:10	0°♒		
	4648 Jun 06 01:53	0°♎			4651 Jan 01 07:24	0°☾		
	4648 Jul 03 22:49	0°♏		morning set	4651 Jan 02 23:16	2°☾04'53		
evening max el	4648 Jul 11 06:03	7°♏13'14	45°33'00	desc. node	4651 Jan 17 01:13	19°☾44'46		
desc. node	4648 Aug 01 06:11	25°♏21'43			4651 Jan 25 05:05	0°♊		
	4648 Aug 08 02:23	0°♐						
greatest brilliancy	4648 Aug 15 15:33	4°♐00'18	-4.5m	superior conj	4651 Feb 12 23:53	23°♊37'28	0°-59'-14	
retrograde	4648 Aug 29 00:16	7°♐07'40		minimum elong	4651 Feb 12 11:57	22°♊59'54	0°58'49	
evening set	4648 Sep 15 17:49	1°♐12'52		max. Earth dist.	4651 Feb 13 02:48	23°♊46'37	1.71125 AU	
	4648 Sep 17 17:39	30°♑			4651 Feb 18 01:31	0°♋		
inferior conj	4648 Sep 19 11:07	28°♑55'24	-8°-24'-20		4651 Mar 13 22:05	0°☿		
minimum elong	4648 Sep 19 06:49	29°♑02'08	8°24'05	evening rise	4651 Mar 25 22:43	15°☿05'22		
min. Earth dist.	4648 Sep 19 15:42	28°♑48'14	0.29044 AU		4651 Apr 06 20:40	0°♋		
morning rise	4648 Sep 22 19:45	26°♑50'49			4651 Apr 30 23:23	0°♌		
direct	4648 Oct 11 01:19	20°♑37'08		asc. node	4651 May 10 03:23	11°♌19'37		
greatest brilliancy	4648 Oct 25 10:49	24°♑16'48	-4.5m		4651 May 25 08:12	0°♍		
	4648 Nov 04 04:36	0°♎			4651 Jun 19 01:08	0°♎		
asc. node	4648 Nov 22 08:11	14°♎55'12			4651 Jul 14 05:29	0°♏		
morning max el	4648 Nov 29 19:56	22°♎07'31	46°18'06		4651 Aug 09 04:17	0°♐		
	4648 Dec 07 13:27	0°♑		desc. node	4651 Aug 29 17:52	22°♐43'16		
	4649 Jan 03 16:47	0°♒			4651 Sep 05 14:40	0°♑		
	4649 Jan 29 02:41	0°☾		evening max el	4651 Sep 21 20:28	16°♑19'04	45°49'47	
	4649 Feb 22 19:06	0°♊			4651 Oct 07 04:52	0°♒		
desc. node	4649 Mar 13 22:53	23°♊35'00		greatest brilliancy	4651 Oct 29 20:38	14°♒10'37	-4.5m	
	4649 Mar 19 03:26	0°♋		retrograde	4651 Nov 09 17:58	16°♒18'45		

evening set	4651 Nov 25 11:44	11°♊35'26			4654 May 15 12:37	0°♊	
inferior conj	4651 Nov 30 15:38	8°♊31'10	-4°-49'-58	asc. node	4654 Jun 06 15:12	27°♊23'22	
minimum elong	4651 Dec 01 01:03	8°♊16'39	4°47'31	evening rise	4654 Jun 08 00:35	29°♊06'28	
min. Earth dist.	4651 Dec 01 13:20	7°♊57'44	0.27438 AU		4654 Jun 08 17:56	0°♊	
morning rise	4651 Dec 06 13:37	5°♊00'12			4654 Jul 03 03:06	0°♊	
asc. node	4651 Dec 20 19:58	0°♊34'28			4654 Jul 27 16:29	0°♊	
direct	4651 Dec 21 14:23	0°♊33'45			4654 Aug 21 11:21	0°♊	
greatest brilliancy	4652 Jan 04 12:02	4°♊05'08	-4.6m		4654 Sep 15 14:16	0°♊	
	4652 Feb 06 12:05	0°♊		desc. node	4654 Sep 26 05:51	12°♊33'21	
morning max el	4652 Feb 10 05:05	3°♊42'55	46°56'25		4654 Oct 11 05:24	0°♊	
	4652 Mar 05 14:09	0°♊			4654 Nov 06 17:12	0°♊	
	4652 Mar 31 12:10	0°♊		evening max el	4654 Dec 03 15:49	28°♊28'28	46°48'08
desc. node	4652 Apr 10 10:55	11°♊48'40			4654 Dec 05 04:55	0°♊	
	4652 Apr 25 14:52	0°♊		greatest brilliancy	4655 Jan 11 07:24	28°♊26'31	-4.7m
	4652 May 20 09:28	0°♊			4655 Jan 15 19:34	0°♊	
	4652 Jun 14 00:59	0°♊		asc. node	4655 Jan 17 07:51	0°♊22'22	
	4652 Jul 08 15:18	0°♊		retrograde	4655 Jan 23 00:48	1°♊00'51	
asc. node	4652 Aug 01 12:47	29°♊12'34			4655 Jan 30 00:36	30°♊	
	4652 Aug 02 04:17	0°♊		evening set	4655 Feb 07 05:41	26°♊26'05	
morning set	4652 Aug 12 12:08	12°♊39'26		min. Earth dist.	4655 Feb 12 02:06	23°♊34'22	0.26705 AU
	4652 Aug 26 15:05	0°♊		inferior conj	4655 Feb 12 14:31	23°♊15'24	6°13'34
max. Earth dist.	4652 Sep 15 18:12	24°♊47'53	1.73237 AU	minimum elong	4655 Feb 12 03:40	23°♊32'00	6°10'59
				morning rise	4655 Feb 17 01:48	20°♊35'17	
superior conj	4652 Sep 17 23:34	27°♊32'33	1°22'54	direct	4655 Mar 05 01:13	15°♊34'15	
minimum elong	4652 Sep 17 19:23	27°♊19'40	1°22'52	greatest brilliancy	4655 Mar 16 10:36	17°♊59'53	-4.7m
	4652 Sep 19 23:21	0°♊			4655 Apr 04 12:58	0°♊	
	4652 Oct 14 05:43	0°♊		morning max el	4655 Apr 24 07:18	18°♊01'27	46°43'29
evening rise	4652 Oct 24 15:03	12°♊51'39			4655 May 05 22:27	0°♊	
	4652 Nov 07 11:08	0°♊		desc. node	4655 May 08 22:43	3°♊12'32	
desc. node	4652 Nov 21 03:39	16°♊57'32			4655 Jun 02 02:41	0°♊	
	4652 Dec 01 16:17	0°♊			4655 Jun 28 01:15	0°♊	
	4652 Dec 25 21:31	0°♊			4655 Jul 23 10:45	0°♊	
	4653 Jan 19 03:55	0°♊			4655 Aug 17 12:07	0°♊	
	4653 Feb 12 14:44	0°♊		asc. node	4655 Aug 30 00:40	15°♊07'35	
	4653 Mar 09 12:45	0°♊			4655 Sep 11 06:24	0°♊	
asc. node	4653 Mar 14 05:31	5°♊33'05			4655 Oct 05 18:05	0°♊	
	4653 Apr 04 11:31	0°♊		morning set	4655 Oct 20 21:24	18°♊41'26	
evening max el	4653 Apr 29 07:21	26°♊24'10	46°17'43		4655 Oct 30 00:24	0°♊	
	4653 May 02 23:33	0°♊		max. Earth dist.	4655 Nov 23 03:03	0°♊	
greatest brilliancy	4653 Jun 03 08:35	24°♊10'41	-4.5m		4655 Nov 24 17:31	1°♊59'54	1.72044 AU
retrograde	4653 Jun 18 00:06	27°♊59'57					
evening set	4653 Jul 03 00:57	23°♊36'03		superior conj	4655 Nov 27 09:43	5°♊20'11	0°50'08
desc. node	4653 Jul 03 20:15	23°♊09'12		minimum elong	4655 Nov 27 19:26	5°♊50'27	0°49'45
inferior conj	4653 Jul 09 10:24	19°♊45'48	-1°-20'-25		4655 Dec 17 03:29	0°♊	
minimum elong	4653 Jul 09 07:26	19°♊50'27	1°19'33	desc. node	4655 Dec 19 15:26	3°♊07'26	
min. Earth dist.	4653 Jul 09 02:20	19°♊58'27	0.28660 AU	evening rise	4656 Jan 06 02:22	24°♊58'39	
morning rise	4653 Jul 15 14:15	16°♊03'27			4656 Jan 10 02:35	0°♊	
direct	4653 Jul 30 19:50	11°♊35'10			4656 Feb 03 01:08	0°♊	
greatest brilliancy	4653 Aug 12 16:47	14°♊28'55	-4.5m		4656 Feb 27 00:44	0°♊	
	4653 Sep 05 01:51	0°♊			4656 Mar 22 04:10	0°♊	
morning max el	4653 Sep 17 11:33	11°♊10'58	45°43'23	asc. node	4656 Apr 10 17:30	24°♊01'09	
	4653 Oct 06 01:42	0°♊			4656 Apr 15 15:29	0°♊	
asc. node	4653 Oct 24 22:32	20°♊41'21			4656 May 10 16:18	0°♊	
	4653 Nov 02 02:42	0°♊			4656 Jun 05 16:33	0°♊	
	4653 Nov 27 14:48	0°♊			4656 Jul 03 18:29	0°♊	
	4653 Dec 22 07:43	0°♊		evening max el	4656 Jul 08 22:36	5°♊04'54	45°33'36
	4654 Jan 15 14:14	0°♊		desc. node	4656 Jul 31 08:08	24°♊14'10	
	4654 Feb 08 15:19	0°♊			4656 Aug 09 11:54	0°♊	
desc. node	4654 Feb 13 13:02	6°♊08'20		greatest brilliancy	4656 Aug 13 05:49	1°♊49'50	-4.5m
	4654 Mar 04 13:49	0°♊		retrograde	4656 Aug 26 16:17	4°♊58'43	
morning set	4654 Mar 20 17:29	20°♊15'57			4656 Sep 11 19:35	30°♊	
	4654 Mar 28 11:43	0°♊		evening set	4656 Sep 13 07:27	29°♊07'36	
	4654 Apr 21 10:50	0°♊		inferior conj	4656 Sep 17 03:19	26°♊45'58	-8°-19'-32
				minimum elong	4656 Sep 16 22:20	26°♊53'47	8°19'11
superior conj	4654 Apr 29 22:12	10°♊34'47	-1°-15'-12	min. Earth dist.	4656 Sep 17 06:34	26°♊40'52	0.29064 AU
minimum elong	4654 Apr 30 07:51	11°♊04'56	1°14'58	morning rise	4656 Sep 20 13:10	24°♊39'21	
max. Earth dist.	4654 May 03 19:15	15°♊24'48	1.72049 AU	direct	4656 Oct 08 18:13	18°♊27'47	

greatest brilliancy	4656 Oct 23 00:58	22° \mathbb{M} 04'13	-4.5m	evening rise	4659 Mar 23 09:07	12° Υ 32'48	
	4656 Nov 04 22:01	0° \mathfrak{L}			4659 Apr 06 07:46	0° \mathfrak{B}	
asc. node	4656 Nov 21 10:08	14° \mathfrak{L} 02'03			4659 Apr 30 10:37	0° \mathbb{I}	
morning max el	4656 Nov 27 11:20	19° \mathfrak{L} 53'07	46°16'20	asc. node	4659 May 09 05:20	10° \mathbb{I} 50'54	
	4656 Dec 07 08:24	0° \mathbb{M}			4659 May 24 19:40	0° \mathfrak{S}	
	4657 Jan 03 07:32	0° \mathfrak{A}			4659 Jun 18 13:01	0° \mathcal{O}	
	4657 Jan 28 15:47	0° \mathfrak{Z}			4659 Jul 13 18:11	0° \mathbb{M}	
	4657 Feb 22 07:20	0° \approx			4659 Aug 08 18:39	0° \mathfrak{L}	
desc. node	4657 Mar 13 01:00	23° \approx 05'01		desc. node	4659 Aug 28 20:02	22° \mathfrak{L} 03'42	
	4657 Mar 18 15:09	0° \mathfrak{H}			4659 Sep 05 09:00	0° \mathbb{M}	
	4657 Apr 11 19:41	0° Υ		evening max el	4659 Sep 19 09:26	14° \mathbb{M} 00'04	45°48'16
	4657 May 05 23:39	0° \mathfrak{B}			4659 Oct 07 15:49	0° \mathfrak{A}	
	4657 May 30 04:49	0° \mathbb{I}		greatest brilliancy	4659 Oct 27 09:25	11° \mathfrak{A} 50'58	-4.5m
morning set	4657 Jun 02 08:27	3° \mathbb{I} 53'49		retrograde	4659 Nov 07 07:02	13° \mathfrak{A} 59'46	
	4657 Jun 23 11:50	0° \mathfrak{S}		evening set	4659 Nov 23 04:20	9° \mathfrak{A} 11'36	
asc. node	4657 Jul 04 02:57	13° \mathfrak{S} 06'02		inferior conj	4659 Nov 28 05:34	6° \mathfrak{A} 11'14	-5°-8'-15
				minimum elong	4659 Nov 28 15:19	5° \mathfrak{A} 56'15	5°05'47
superior conj	4657 Jul 09 23:50	20° \mathfrak{S} 19'48	0°14'02	min. Earth dist.	4659 Nov 29 04:09	5° \mathfrak{A} 36'30	0.27508 AU
minimum elong	4657 Jul 09 20:51	20° \mathfrak{S} 10'35	0°13'52	morning rise	4659 Dec 04 01:31	2° \mathfrak{A} 42'57	
behind sun begin	4657 Jul 09 09:29	19° \mathfrak{S} 35'35			4659 Dec 09 19:29	30° \mathbb{M}	
behind sun end	4657 Jul 10 08:13	20° \mathfrak{S} 45'36		direct	4659 Dec 19 04:28	28° \mathbb{M} 12'23	
max. Earth dist.	4657 Jul 11 05:37	21° \mathfrak{S} 51'30	1.73322 AU	asc. node	4659 Dec 19 21:57	28° \mathbb{M} 13'01	
	4657 Jul 17 20:20	0° \mathcal{O}			4659 Dec 28 22:47	0° \mathfrak{A}	
	4657 Aug 11 05:42	0° \mathbb{M}		greatest brilliancy	4660 Jan 02 05:28	1° \mathfrak{A} 47'13	-4.6m
evening rise	4657 Aug 15 10:12	5° \mathbb{M} 08'54			4660 Feb 06 11:40	0° \mathfrak{Z}	
	4657 Sep 04 15:53	0° \mathfrak{L}		morning max el	4660 Feb 07 19:21	1° \mathfrak{Z} 20'00	46°55'45
	4657 Sep 29 03:39	0° \mathbb{M}			4660 Mar 05 06:51	0° \approx	
desc. node	4657 Oct 23 17:47	29° \mathbb{M} 59'06			4660 Mar 31 02:22	0° \mathfrak{H}	
	4657 Oct 23 18:04	0° \mathfrak{A}		desc. node	4660 Apr 09 12:56	11° \mathfrak{H} 14'00	
	4657 Nov 17 12:08	0° \mathfrak{Z}			4660 Apr 25 03:46	0° Υ	
	4657 Dec 12 11:35	0° \approx			4660 May 19 21:35	0° \mathfrak{B}	
	4658 Jan 06 21:58	0° \mathfrak{H}			4660 Jun 13 12:35	0° \mathbb{I}	
	4658 Feb 02 12:25	0° Υ			4660 Jul 08 02:32	0° \mathfrak{S}	
asc. node	4658 Feb 13 19:43	11° Υ 54'30		asc. node	4660 Jul 31 14:52	28° \mathfrak{S} 45'19	
evening max el	4658 Feb 14 09:08	12° Υ 28'40	47°08'18		4660 Aug 01 15:15	0° \mathcal{O}	
	4658 Mar 05 02:48	0° \mathfrak{B}		morning set	4660 Aug 10 05:43	10° \mathcal{O} 32'40	
greatest brilliancy	4658 Mar 23 23:50	12° \mathfrak{B} 36'37	-4.6m		4660 Aug 26 01:54	0° \mathbb{M}	
retrograde	4658 Apr 06 02:22	15° \mathfrak{B} 46'16		max. Earth dist.	4660 Sep 13 14:46	22° \mathbb{M} 49'55	1.73262 AU
evening set	4658 Apr 23 12:53	9° \mathfrak{B} 52'11					
inferior conj	4658 Apr 27 00:40	7° \mathfrak{B} 42'40	7°57'47	superior conj	4660 Sep 15 17:40	25° \mathbb{M} 26'56	1°22'06
minimum elong	4658 Apr 27 09:24	7° \mathfrak{B} 29'01	7°56'31	minimum elong	4660 Sep 15 12:53	25° \mathbb{M} 12'12	1°22'02
min. Earth dist.	4658 Apr 26 19:38	7° \mathfrak{B} 50'32	0.27715 AU		4660 Sep 19 10:09	0° \mathfrak{L}	
morning rise	4658 May 01 06:12	5° \mathfrak{B} 07'37			4660 Oct 13 16:36	0° \mathbb{M}	
	4658 May 14 15:53	30° \mathbb{R} Υ		evening rise	4660 Oct 22 07:33	10° \mathbb{M} 40'21	
direct	4658 May 17 22:01	29° Υ 47'16			4660 Nov 06 22:12	0° \mathfrak{A}	
	4658 May 21 05:19	0° \mathfrak{B}		desc. node	4660 Nov 20 05:36	16° \mathfrak{A} 28'57	
greatest brilliancy	4658 May 29 04:27	2° \mathfrak{B} 06'49	-4.6m		4660 Dec 01 03:36	0° \mathfrak{Z}	
desc. node	4658 Jun 05 10:22	5° \mathfrak{B} 39'17			4660 Dec 25 09:11	0° \approx	
	4658 Jul 05 15:32	0° \mathbb{I}			4661 Jan 18 16:04	0° \mathfrak{H}	
morning max el	4658 Jul 06 03:47	0° \mathbb{I} 29'31	45°58'13		4661 Feb 12 03:35	0° Υ	
	4658 Aug 03 14:50	0° \mathfrak{S}			4661 Mar 09 02:47	0° \mathfrak{B}	
	4658 Aug 30 08:35	0° \mathcal{O}		asc. node	4661 Mar 13 07:33	4° \mathfrak{B} 56'59	
	4658 Sep 25 01:05	0° \mathbb{M}			4661 Apr 04 04:02	0° \mathbb{I}	
asc. node	4658 Sep 26 12:39	1° \mathbb{M} 45'32		evening max el	4661 Apr 26 22:13	24° \mathbb{I} 07'12	46°19'56
	4658 Oct 20 01:05	0° \mathfrak{L}			4661 May 02 23:41	0° \mathfrak{S}	
	4658 Nov 13 13:28	0° \mathbb{M}		greatest brilliancy	4661 May 31 23:49	21° \mathfrak{S} 57'04	-4.5m
	4658 Dec 07 18:13	0° \mathfrak{A}		retrograde	4661 Jun 15 16:38	25° \mathfrak{S} 48'08	
morning set	4658 Dec 31 11:24	29° \mathfrak{A} 37'55		evening set	4661 Jun 30 17:05	21° \mathfrak{S} 23'41	
	4658 Dec 31 18:26	0° \mathfrak{Z}		desc. node	4661 Jul 02 22:15	20° \mathfrak{S} 07'45	
desc. node	4659 Jan 16 03:15	19° \mathfrak{Z} 16'30		inferior conj	4661 Jul 07 02:19	17° \mathfrak{S} 34'01	-1°00'-6
	4659 Jan 24 16:08	0° \approx		minimum elong	4661 Jul 07 00:05	17° \mathfrak{S} 37'30	0°59'28
				min. Earth dist.	4661 Jul 06 18:27	17° \mathfrak{S} 46'19	0.28629 AU
superior conj	4659 Feb 10 10:05	21° \approx 03'51	0°-56'-14	morning rise	4661 Jul 13 07:26	13° \mathfrak{S} 50'16	
minimum elong	4659 Feb 09 22:18	20° \approx 26'49	0°55'47	direct	4661 Jul 28 11:11	9° \mathfrak{S} 23'38	
max. Earth dist.	4659 Feb 10 04:52	20° \approx 47'27	1.71128 AU	greatest brilliancy	4661 Aug 10 08:12	12° \mathfrak{S} 17'45	-4.5m
	4659 Feb 17 12:33	0° \mathfrak{H}			4661 Sep 05 06:45	0° \mathcal{O}	
	4659 Mar 13 09:08	0° Υ		morning max el	4661 Sep 15 03:56	9° \mathcal{O} 01'33	45°43'08

	4661 Oct 05 18:53	0°♎			4664 Jun 05 07:52	0°♏	
asc. node	4661 Oct 24 00:24	20°♎05'00			4664 Jul 03 15:23	0°♎	
	4661 Nov 01 16:41	0°♏		evening max el	4664 Jul 06 14:32	2°♎53'35	45°34'11
	4661 Nov 27 03:25	0°♎		desc. node	4664 Jul 30 10:16	23°♎03'30	
	4661 Dec 21 19:39	0°♏		greatest brilliancy	4664 Aug 10 20:38	29°♎38'25	-4.5m
	4662 Jan 15 01:49	0°♏			4664 Aug 11 16:39	0°♏	
	4662 Feb 08 02:42	0°♎		retrograde	4664 Aug 24 07:44	2°♏48'11	
desc. node	4662 Feb 12 15:09	5°♎39'24			4664 Sep 05 06:58	30°♎	
	4662 Mar 04 01:05	0°♏		evening set	4664 Sep 10 20:46	27°♎01'12	
morning set	4662 Mar 18 03:51	17°♏42'41		inferior conj	4664 Sep 14 19:23	24°♎35'14	-8°-13'-59
	4662 Mar 27 22:55	0°♎		minimum elong	4664 Sep 14 13:46	24°♎44'04	8°13'31
	4662 Apr 20 21:57	0°♏		min. Earth dist.	4664 Sep 14 21:43	24°♎31'35	0.29079 AU
				morning rise	4664 Sep 18 06:42	22°♎26'08	
superior conj	4662 Apr 27 10:51	8°♏09'56	-1°-17'-1	direct	4664 Oct 06 10:31	16°♎17'08	
minimum elong	4662 Apr 27 20:04	8°♏38'40	1°16'49	greatest brilliancy	4664 Oct 20 14:47	19°♎50'03	-4.5m
max. Earth dist.	4662 May 01 06:08	12°♏54'36	1.71999 AU		4664 Nov 05 11:27	0°♏	
	4662 May 14 23:40	0°♎		asc. node	4664 Nov 20 12:11	13°♏09'16	
evening rise	4662 Jun 05 15:37	26°♎50'33		morning max el	4664 Nov 25 01:41	17°♏35'20	46°14'41
asc. node	4662 Jun 05 17:09	26°♎55'18			4664 Dec 07 03:08	0°♎	
	4662 Jun 08 04:59	0°♏			4665 Jan 02 22:21	0°♏	
	4662 Jul 02 14:15	0°♏			4665 Jan 28 04:59	0°♏	
	4662 Jul 27 03:53	0°♎			4665 Feb 21 19:41	0°♎	
	4662 Aug 20 23:15	0°♏		desc. node	4665 Mar 12 03:00	22°♎34'20	
	4662 Sep 15 02:59	0°♎			4665 Mar 18 02:58	0°♏	
desc. node	4662 Sep 25 07:50	12°♎00'31			4665 Apr 11 07:07	0°♎	
	4662 Oct 10 19:31	0°♏			4665 May 05 10:49	0°♏	
	4662 Nov 06 10:07	0°♏			4665 May 29 15:48	0°♎	
evening max el	4662 Dec 01 06:38	26°♏08'16	46°46'25	morning set	4665 May 31 00:06	1°♎39'53	
	4662 Dec 05 05:30	0°♎			4665 Jun 22 22:42	0°♏	
greatest brilliancy	4663 Jan 08 20:04	25°♎58'31	-4.6m	asc. node	4665 Jul 03 05:04	12°♏39'10	
asc. node	4663 Jan 16 09:54	28°♎11'55					
retrograde	4663 Jan 20 13:59	28°♎32'36		superior conj	4665 Jul 07 16:47	18°♏10'50	0°10'45
evening set	4663 Feb 04 15:02	24°♎02'39		minimum elong	4665 Jul 07 14:28	18°♏03'42	0°10'38
min. Earth dist.	4663 Feb 09 14:54	21°♎06'00	0.26687 AU	behind sun begin	4665 Jul 06 21:07	17°♏10'16	
inferior conj	4663 Feb 10 03:00	20°♎47'31	5°55'23	behind sun end	4665 Jul 08 07:49	18°♏57'09	
minimum elong	4663 Feb 09 16:17	21°♎03'53	5°52'44	max. Earth dist.	4665 Jul 09 01:36	19°♏51'53	1.73297 AU
morning rise	4663 Feb 14 17:45	18°♎02'39			4665 Jul 17 07:10	0°♏	
direct	4663 Mar 02 14:24	13°♎06'41			4665 Aug 10 16:34	0°♎	
greatest brilliancy	4663 Mar 13 23:35	15°♎32'41	-4.7m	evening rise	4665 Aug 13 04:25	3°♎03'54	
	4663 Apr 05 00:56	0°♏			4665 Sep 04 02:53	0°♏	
morning max el	4663 Apr 21 21:21	15°♏38'57	46°44'37		4665 Sep 28 14:56	0°♎	
	4663 May 05 17:50	0°♎		desc. node	4665 Oct 22 19:42	29°♎29'13	
desc. node	4663 May 08 00:39	2°♎27'13			4665 Oct 23 05:50	0°♏	
	4663 Jun 01 17:55	0°♏			4665 Nov 17 00:36	0°♏	
	4663 Jun 27 14:36	0°♎			4665 Dec 12 01:05	0°♎	
	4663 Jul 22 23:02	0°♏			4666 Jan 06 13:14	0°♏	
	4663 Aug 16 23:45	0°♏			4666 Feb 02 07:37	0°♎	
asc. node	4663 Aug 29 02:44	14°♏39'17		evening max el	4666 Feb 11 22:39	10°♎04'08	47°08'59
	4663 Sep 10 17:38	0°♎		asc. node	4666 Feb 12 21:47	11°♎02'45	
	4663 Oct 05 05:08	0°♏			4666 Mar 05 14:52	0°♏	
morning set	4663 Oct 18 13:56	16°♏30'07		greatest brilliancy	4666 Mar 21 17:00	10°♏18'48	-4.6m
	4663 Oct 29 11:23	0°♎		retrograde	4666 Apr 03 16:29	13°♏25'37	
max. Earth dist.	4663 Nov 22 05:19	29°♎32'46	1.72086 AU	evening set	4666 Apr 21 06:13	7°♏27'44	
	4663 Nov 22 14:03	0°♏		inferior conj	4666 Apr 24 14:59	5°♏22'47	8°08'01
				minimum elong	4666 Apr 24 23:13	5°♏09'56	8°06'56
superior conj	4663 Nov 25 00:09	3°♏01'08	0°52'59	min. Earth dist.	4666 Apr 24 09:54	5°♏30'45	0.27680 AU
minimum elong	4663 Nov 25 10:02	3°♏31'58	0°52'36	morning rise	4666 Apr 28 16:25	2°♏53'33	
	4663 Dec 16 14:33	0°♏			4666 May 04 05:21	30°♎	
desc. node	4663 Dec 18 17:30	2°♏39'16		direct	4666 May 15 11:16	27°♎27'57	
evening rise	4664 Jan 03 14:31	22°♏31'27		greatest brilliancy	4666 May 26 17:31	29°♎46'44	-4.6m
	4664 Jan 09 13:45	0°♎			4666 May 27 06:48	0°♏	
	4664 Feb 02 12:26	0°♏		desc. node	4666 Jun 04 12:25	4°♏13'45	
	4664 Feb 26 12:13	0°♎		morning max el	4666 Jul 03 17:21	28°♏11'01	45°59'27
	4664 Mar 21 15:56	0°♏			4666 Jul 05 14:11	0°♎	
asc. node	4664 Apr 09 19:24	23°♏29'53			4666 Aug 03 06:43	0°♏	
	4664 Apr 15 03:46	0°♎			4666 Aug 29 22:00	0°♏	
	4664 May 10 05:34	0°♏			4666 Sep 24 13:18	0°♎	

asc. node	4666 Sep 25 14:33	1° \mathbb{M} 14'59		evening max el	4669 Apr 24 14:07	21° \mathbb{I} 53'44	46°22'12
	4666 Oct 19 12:39	0° \mathbb{A}			4669 May 03 00:35	0° \mathbb{G}	
	4666 Nov 13 00:41	0° \mathbb{M}		greatest brilliancy	4669 May 29 15:56	19° \mathbb{G} 45'47	-4.5m
	4666 Dec 07 05:17	0° \mathbb{A}		retrograde	4669 Jun 13 09:31	23° \mathbb{G} 37'27	
morning set	4666 Dec 28 23:32	27° \mathbb{A} 11'05		evening set	4669 Jun 28 09:31	19° \mathbb{G} 12'29	
	4666 Dec 31 05:27	0° \mathbb{Z}		desc. node	4669 Jul 02 00:20	17° \mathbb{G} 05'46	
desc. node	4667 Jan 15 05:19	18° \mathbb{Z} 48'30		inferior conj	4669 Jul 04 18:17	15° \mathbb{G} 23'26	0°-39'-45
	4667 Jan 24 03:08	0° \approx		minimum elong	4669 Jul 04 16:48	15° \mathbb{G} 25'45	0°39'19
				min. Earth dist.	4669 Jul 04 10:22	15° \mathbb{G} 35'48	0.28596 AU
superior conj	4667 Feb 07 20:18	18° \approx 30'27	0°-53'-7	morning rise	4669 Jul 11 00:33	11° \mathbb{G} 38'34	
minimum elong	4667 Feb 07 08:47	17° \approx 54'13	0°52'40	direct	4669 Jul 26 03:05	7° \mathbb{G} 13'32	
max. Earth dist.	4667 Feb 07 08:13	17° \approx 52'28	1.71135 AU	greatest brilliancy	4669 Aug 07 22:33	10° \mathbb{G} 06'43	-4.5m
	4667 Feb 16 23:33	0° \mathbb{H}			4669 Sep 05 09:18	0° \mathbb{Q}	
	4667 Mar 12 20:08	0° \mathbb{Y}		morning max el	4669 Sep 12 20:34	6° \mathbb{Q} 54'10	45°42'45
evening rise	4667 Mar 20 19:40	10° \mathbb{Y} 00'52			4669 Oct 05 11:19	0° \mathbb{M}	
	4667 Apr 05 18:48	0° \mathbb{B}		asc. node	4669 Oct 23 02:29	19° \mathbb{M} 30'34	
	4667 Apr 29 21:44	0° \mathbb{I}			4669 Nov 01 06:13	0° \mathbb{A}	
asc. node	4667 May 08 07:20	10° \mathbb{I} 22'41			4669 Nov 26 15:44	0° \mathbb{M}	
	4667 May 24 06:59	0° \mathbb{G}			4669 Dec 21 07:21	0° \mathbb{A}	
	4667 Jun 18 00:47	0° \mathbb{Q}			4670 Jan 14 13:10	0° \mathbb{Z}	
	4667 Jul 13 06:50	0° \mathbb{M}			4670 Feb 07 13:49	0° \approx	
	4667 Aug 08 09:07	0° \mathbb{A}		desc. node	4670 Feb 11 17:08	5° \approx 10'53	
desc. node	4667 Aug 27 21:58	21° \mathbb{A} 23'05			4670 Mar 03 12:03	0° \mathbb{H}	
	4667 Sep 05 03:51	0° \mathbb{M}		morning set	4670 Mar 15 14:06	15° \mathbb{H} 10'03	
evening max el	4667 Sep 16 22:50	11° \mathbb{M} 42'08	45°46'44		4670 Mar 27 09:46	0° \mathbb{Y}	
	4667 Oct 08 06:38	0° \mathbb{A}			4670 Apr 20 08:43	0° \mathbb{B}	
greatest brilliancy	4667 Oct 24 21:10	9° \mathbb{A} 30'06	-4.5m				
retrograde	4667 Nov 04 20:27	11° \mathbb{A} 40'36		superior conj	4670 Apr 24 23:25	5° \mathbb{B} 45'47	-1°-18'-41
evening set	4667 Nov 20 20:51	6° \mathbb{A} 47'23		minimum elong	4670 Apr 25 08:07	6° \mathbb{B} 12'55	1°18'32
inferior conj	4667 Nov 25 19:21	3° \mathbb{A} 51'01	-5°-25'-58	max. Earth dist.	4670 Apr 28 19:18	10° \mathbb{B} 32'31	1.71949 AU
minimum elong	4667 Nov 26 05:21	3° \mathbb{A} 35'39	5°23'31		4670 May 14 10:23	0° \mathbb{I}	
min. Earth dist.	4667 Nov 26 18:29	3° \mathbb{A} 15'29	0.27578 AU	evening rise	4670 Jun 03 06:41	24° \mathbb{I} 35'47	
morning rise	4667 Dec 01 13:05	0° \mathbb{A} 25'56		asc. node	4670 Jun 04 19:17	26° \mathbb{I} 28'50	
	4667 Dec 02 08:05	30° \mathbb{R} \mathbb{M}			4670 Jun 07 15:41	0° \mathbb{G}	
direct	4667 Dec 16 18:54	25° \mathbb{M} 50'53			4670 Jul 02 01:02	0° \mathbb{Q}	
asc. node	4667 Dec 19 00:01	25° \mathbb{M} 56'45			4670 Jul 26 14:55	0° \mathbb{M}	
greatest brilliancy	4667 Dec 30 22:35	29° \mathbb{M} 29'14	-4.6m		4670 Aug 20 10:45	0° \mathbb{A}	
	4667 Dec 31 23:26	0° \mathbb{A}			4670 Sep 14 15:19	0° \mathbb{M}	
morning max el	4668 Feb 05 10:17	28° \mathbb{A} 59'22	46°55'05	desc. node	4670 Sep 24 09:48	11° \mathbb{M} 28'40	
	4668 Feb 06 10:07	0° \mathbb{Z}			4670 Oct 10 09:23	0° \mathbb{A}	
	4668 Mar 04 23:04	0° \approx			4670 Nov 06 03:03	0° \mathbb{Z}	
	4668 Mar 30 16:12	0° \mathbb{H}		evening max el	4670 Nov 28 21:23	23° \mathbb{Z} 48'33	46°44'19
desc. node	4668 Apr 08 14:50	10° \mathbb{H} 39'46			4670 Dec 05 07:08	0° \approx	
	4668 Apr 24 16:23	0° \mathbb{Y}		greatest brilliancy	4671 Jan 06 09:33	23° \approx 31'36	-4.6m
	4668 May 19 09:26	0° \mathbb{B}		asc. node	4671 Jan 15 11:57	25° \approx 55'49	
	4668 Jun 12 23:54	0° \mathbb{I}		retrograde	4671 Jan 18 02:32	26° \approx 03'57	
	4668 Jul 07 13:28	0° \mathbb{G}		evening set	4671 Feb 02 00:20	21° \approx 38'56	
asc. node	4668 Jul 30 16:52	28° \mathbb{G} 18'45		min. Earth dist.	4671 Feb 07 03:50	18° \approx 36'59	0.26667 AU
	4668 Aug 01 01:56	0° \mathbb{Q}		inferior conj	4671 Feb 07 15:13	18° \approx 19'34	5°36'19
morning set	4668 Aug 07 23:26	8° \mathbb{Q} 27'10		minimum elong	4671 Feb 07 04:44	18° \approx 35'36	5°33'38
	4668 Aug 25 12:29	0° \mathbb{M}		morning rise	4671 Feb 12 09:21	15° \approx 29'51	
max. Earth dist.	4668 Sep 11 12:24	20° \mathbb{M} 55'59	1.73293 AU	direct	4671 Feb 28 03:06	10° \approx 39'10	
				greatest brilliancy	4671 Mar 11 12:34	13° \approx 05'31	-4.7m
superior conj	4668 Sep 13 11:42	23° \mathbb{M} 21'49	1°21'10		4671 Apr 05 09:31	0° \mathbb{H}	
minimum elong	4668 Sep 13 06:21	23° \mathbb{M} 05'20	1°21'06	morning max el	4671 Apr 19 10:16	13° \mathbb{H} 14'18	46°45'53
	4668 Sep 18 20:45	0° \mathbb{A}			4671 May 05 12:19	0° \mathbb{Y}	
	4668 Oct 13 03:19	0° \mathbb{M}		desc. node	4671 May 07 02:48	1° \mathbb{Y} 44'07	
evening rise	4668 Oct 19 23:54	8° \mathbb{M} 29'09			4671 Jun 01 08:32	0° \mathbb{B}	
	4668 Nov 06 09:07	0° \mathbb{A}			4671 Jun 27 03:25	0° \mathbb{I}	
desc. node	4668 Nov 19 07:39	16° \mathbb{A} 01'09			4671 Jul 22 10:50	0° \mathbb{G}	
	4668 Nov 30 14:47	0° \mathbb{Z}			4671 Aug 16 10:56	0° \mathbb{Q}	
	4668 Dec 24 20:41	0° \approx		asc. node	4671 Aug 28 04:40	14° \mathbb{Q} 11'51	
	4669 Jan 18 04:01	0° \mathbb{H}			4671 Sep 10 04:27	0° \mathbb{M}	
	4669 Feb 11 16:14	0° \mathbb{Y}			4671 Oct 04 15:45	0° \mathbb{A}	
	4669 Mar 08 16:40	0° \mathbb{B}		morning set	4671 Oct 16 06:52	14° \mathbb{A} 21'25	
asc. node	4669 Mar 12 09:27	4° \mathbb{B} 21'02			4671 Oct 28 21:57	0° \mathbb{M}	
	4669 Apr 03 20:31	0° \mathbb{I}		max. Earth dist.	4671 Nov 19 17:12	27° \mathbb{M} 07'13	1.72136 AU

	4671 Nov 22 00:39	0°♊		inferior conj	4674 Apr 22 05:03	3°♎02'11	8°17'27
				minimum elong	4674 Apr 22 12:40	2°♎50'17	8°16'32
superior conj	4671 Nov 22 14:58	0°♊44'37	0°55'43	min. Earth dist.	4674 Apr 21 23:55	3°♎10'11	0.27648 AU
minimum elong	4671 Nov 23 00:57	1°♊15'44	0°55'20	morning rise	4674 Apr 26 02:24	0°♎38'58	
	4671 Dec 16 01:17	0°♎			4674 Apr 27 05:13	30°♎♊	
desc. node	4671 Dec 17 19:36	2°♎12'14		direct	4674 May 13 00:14	25°♊07'38	
evening rise	4672 Jan 01 02:40	20°♎05'12		greatest brilliancy	4674 May 24 07:17	27°♊27'00	-4.6m
	4672 Jan 09 00:39	0°♎			4674 May 29 18:36	0°♎	
	4672 Feb 01 23:31	0°♋		desc. node	4674 Jun 03 14:28	2°♎50'47	
	4672 Feb 25 23:28	0°♊		morning max el	4674 Jul 01 07:18	25°♎53'25	46°00'56
	4672 Mar 21 03:28	0°♎			4674 Jul 05 11:52	0°♊	
asc. node	4672 Apr 08 21:28	22°♎59'52			4674 Aug 02 22:12	0°♎	
	4672 Apr 14 15:49	0°♊			4674 Aug 29 11:06	0°♎	
	4672 May 09 18:36	0°♎			4674 Sep 24 01:14	0°♎	
	4672 Jun 04 23:00	0°♎		asc. node	4674 Sep 24 16:34	0°♎45'36	
	4672 Jul 03 12:32	0°♎			4674 Oct 18 23:57	0°♎	
evening max el	4672 Jul 04 05:49	0°♎41'52	45°34'55		4674 Nov 12 11:41	0°♎	
desc. node	4672 Jul 29 12:15	21°♎52'04			4674 Dec 06 16:08	0°♊	
greatest brilliancy	4672 Aug 08 11:29	27°♎28'34	-4.5m	morning set	4674 Dec 26 12:24	24°♊47'16	
	4672 Aug 15 23:46	0°♎			4674 Dec 30 16:16	0°♎	
retrograde	4672 Aug 21 23:15	0°♎39'51		desc. node	4675 Jan 14 07:17	18°♎20'50	
	4672 Aug 27 18:53	30°♎♊			4675 Jan 23 13:55	0°♎	
evening set	4672 Sep 08 10:11	24°♎57'03		max. Earth dist.	4675 Feb 04 15:49	15°♎11'24	1.71148 AU
inferior conj	4672 Sep 12 11:45	22°♎26'41	-8°-7'-41				
minimum elong	4672 Sep 12 05:30	22°♎36'30	8°07'07	superior conj	4675 Feb 05 06:56	15°♎58'57	0°-49'-55
min. Earth dist.	4672 Sep 12 13:22	22°♎24'10	0.29091 AU	minimum elong	4675 Feb 04 19:46	15°♎23'51	0°49'28
morning rise	4672 Sep 16 00:43	20°♎14'54			4675 Feb 16 10:22	0°♋	
direct	4672 Oct 04 02:35	14°♎08'33			4675 Mar 12 06:59	0°♊	
greatest brilliancy	4672 Oct 18 05:37	17°♎39'03	-4.5m	evening rise	4675 Mar 18 06:23	7°♊29'53	
	4672 Nov 05 20:39	0°♎			4675 Apr 05 05:45	0°♎	
asc. node	4672 Nov 19 14:15	12°♎19'01			4675 Apr 29 08:49	0°♊	
morning max el	4672 Nov 22 15:45	15°♎18'23	46°13'05	asc. node	4675 May 07 09:26	9°♊54'45	
	4672 Dec 06 20:53	0°♎			4675 May 23 18:19	0°♎	
	4673 Jan 02 12:35	0°♊			4675 Jun 17 12:35	0°♎	
	4673 Jan 27 17:46	0°♎			4675 Jul 12 19:33	0°♎	
	4673 Feb 21 07:44	0°♎			4675 Aug 07 23:43	0°♎	
desc. node	4673 Mar 11 04:57	22°♎04'15		desc. node	4675 Aug 26 23:58	20°♎42'26	
	4673 Mar 17 14:33	0°♋			4675 Sep 04 23:09	0°♎	
	4673 Apr 10 18:21	0°♊		evening max el	4675 Sep 14 13:10	9°♎27'03	45°45'23
	4673 May 04 21:46	0°♎			4675 Oct 09 02:12	0°♊	
morning set	4673 May 28 15:20	29°♎25'19		greatest brilliancy	4675 Oct 22 08:27	7°♊09'47	-4.5m
	4673 May 29 02:32	0°♊		retrograde	4675 Nov 02 10:28	9°♊22'30	
	4673 Jun 22 09:18	0°♎		evening set	4675 Nov 18 13:41	4°♊24'17	
asc. node	4673 Jul 02 07:01	12°♎12'40		inferior conj	4675 Nov 23 09:20	1°♊31'46	-5°-42'-55
				minimum elong	4675 Nov 23 19:32	1°♊16'06	5°40'32
superior conj	4673 Jul 05 09:36	16°♎02'22	0°07'29	min. Earth dist.	4675 Nov 24 08:35	0°♊56'05	0.27647 AU
minimum elong	4673 Jul 05 07:59	15°♎57'24	0°07'23		4675 Nov 25 21:24	30°♎♊	
behind sun begin	4673 Jul 04 11:17	14°♎53'39		morning rise	4675 Nov 29 00:41	28°♎10'12	
behind sun end	4673 Jul 06 04:41	17°♎01'10		direct	4675 Dec 14 10:03	23°♎30'36	
max. Earth dist.	4673 Jul 06 20:31	17°♎49'55	1.73268 AU	asc. node	4675 Dec 18 02:00	23°♎46'37	
	4673 Jul 16 17:43	0°♎		greatest brilliancy	4675 Dec 28 15:13	27°♎11'27	-4.6m
	4673 Aug 10 03:09	0°♎			4676 Jan 02 18:07	0°♊	
evening rise	4673 Aug 10 22:47	1°♎00'20		morning max el	4676 Feb 03 01:53	26°♊40'59	46°54'25
	4673 Sep 03 13:37	0°♎			4676 Feb 06 07:32	0°♎	
	4673 Sep 28 01:57	0°♎			4676 Mar 04 14:53	0°♎	
desc. node	4673 Oct 21 21:51	29°♎00'53			4676 Mar 30 05:50	0°♋	
	4673 Oct 22 17:19	0°♊		desc. node	4676 Apr 07 16:59	10°♋06'48	
	4673 Nov 16 12:47	0°♎			4676 Apr 24 04:52	0°♊	
	4673 Dec 11 14:20	0°♎			4676 May 18 21:15	0°♎	
	4674 Jan 06 04:23	0°♋			4676 Jun 12 11:15	0°♊	
	4674 Feb 02 03:08	0°♊			4676 Jul 07 00:28	0°♎	
evening max el	4674 Feb 09 11:38	7°♊38'40	47°09'20	asc. node	4676 Jul 29 18:50	27°♎51'43	
asc. node	4674 Feb 11 23:39	10°♊10'02			4676 Jul 31 12:43	0°♎	
	4674 Mar 06 06:58	0°♎		morning set	4676 Aug 05 17:00	6°♎20'55	
greatest brilliancy	4674 Mar 19 08:59	7°♎59'04	-4.7m		4676 Aug 24 23:08	0°♎	
retrograde	4674 Apr 01 06:23	11°♎04'24		max. Earth dist.	4676 Sep 09 10:13	19°♎02'25	1.73315 AU
evening set	4674 Apr 18 23:05	5°♎02'38					

superior conj	4676 Sep 11 05:39	21° \mathbb{M} 16'20	1°20'07			4679 Apr 05 15:59	0° \mathbb{H}	
minimum elong	4676 Sep 10 23:47	20° \mathbb{M} 58'14	1°20'02	morning max el		4679 Apr 16 22:23	10° \mathbb{H} 46'43	46°47'11
	4676 Sep 18 07:24	0° \mathbb{L}				4679 May 05 06:36	0° \mathbb{Y}	
	4676 Oct 12 14:05	0° \mathbb{M}		desc. node		4679 May 06 04:47	1° \mathbb{Y} 00'26	
evening rise	4676 Oct 17 16:25	6° \mathbb{M} 18'21				4679 May 31 23:13	0° \mathbb{B}	
	4676 Nov 05 20:05	0° \mathbb{J}				4679 Jun 26 16:24	0° \mathbb{H}	
desc. node	4676 Nov 18 09:43	15° \mathbb{J} 33'08				4679 Jul 21 22:52	0° \mathbb{S}	
	4676 Nov 30 02:01	0° \mathbb{Z}				4679 Aug 15 22:24	0° \mathbb{Q}	
	4676 Dec 24 08:17	0° \mathbb{A}		asc. node		4679 Aug 27 06:44	13° \mathbb{Q} 43'55	
	4677 Jan 17 16:05	0° \mathbb{H}				4679 Sep 09 15:36	0° \mathbb{M}	
	4677 Feb 11 05:00	0° \mathbb{Y}				4679 Oct 04 02:44	0° \mathbb{L}	
	4677 Mar 08 06:41	0° \mathbb{B}		morning set		4679 Oct 13 23:39	12° \mathbb{L} 11'04	
asc. node	4677 Mar 11 11:35	3° \mathbb{B} 45'30				4679 Oct 28 08:52	0° \mathbb{M}	
	4677 Apr 03 13:20	0° \mathbb{H}		max. Earth dist.		4679 Nov 17 06:10	24° \mathbb{M} 44'00	1.72184 AU
evening max el	4677 Apr 22 06:28	19° \mathbb{H} 41'06	46°24'14					
	4677 May 03 02:57	0° \mathbb{S}		superior conj		4679 Nov 20 05:47	28° \mathbb{M} 27'04	0°58'20
greatest brilliancy	4677 May 27 08:56	17° \mathbb{S} 35'09	-4.5m	minimum elong		4679 Nov 20 15:49	28° \mathbb{M} 58'20	0°57'59
retrograde	4677 Jun 11 02:12	21° \mathbb{S} 25'49				4679 Nov 21 11:36	0° \mathbb{J}	
evening set	4677 Jun 26 02:05	17° \mathbb{S} 00'25				4679 Dec 15 12:20	0° \mathbb{Z}	
desc. node	4677 Jul 01 02:18	14° \mathbb{S} 01'46		desc. node		4679 Dec 16 21:30	1° \mathbb{Z} 43'38	
inferior conj	4677 Jul 02 10:11	13° \mathbb{S} 11'58	0°-19'-14	evening rise		4679 Dec 29 14:51	17° \mathbb{Z} 38'19	
minimum elong	4677 Jul 02 09:28	13° \mathbb{S} 13'05	0°19'02			4680 Jan 08 11:51	0° \mathbb{A}	
min. Earth dist.	4677 Jul 02 02:16	13° \mathbb{S} 24'21	0.28565 AU			4680 Feb 01 10:54	0° \mathbb{H}	
morning rise	4677 Jul 08 17:25	9° \mathbb{S} 26'01				4680 Feb 25 11:04	0° \mathbb{Y}	
direct	4677 Jul 23 19:17	5° \mathbb{S} 02'40				4680 Mar 20 15:23	0° \mathbb{B}	
greatest brilliancy	4677 Aug 05 12:13	7° \mathbb{S} 53'54	-4.5m	asc. node		4680 Apr 07 23:32	22° \mathbb{B} 28'40	
	4677 Sep 05 10:47	0° \mathbb{Q}				4680 Apr 14 04:16	0° \mathbb{H}	
morning max el	4677 Sep 10 12:42	4° \mathbb{Q} 44'44	45°42'25			4680 May 09 08:05	0° \mathbb{S}	
	4677 Oct 05 03:42	0° \mathbb{M}				4680 Jun 04 14:44	0° \mathbb{Q}	
asc. node	4677 Oct 22 04:35	18° \mathbb{M} 55'51		evening max el		4680 Jul 01 20:14	28° \mathbb{Q} 27'01	45°35'43
	4677 Oct 31 19:50	0° \mathbb{L}				4680 Jul 03 10:55	0° \mathbb{M}	
	4677 Nov 26 04:08	0° \mathbb{M}		desc. node		4680 Jul 28 14:13	20° \mathbb{M} 37'28	
	4677 Dec 20 19:08	0° \mathbb{J}		greatest brilliancy		4680 Aug 06 01:08	25° \mathbb{M} 16'06	-4.5m
	4678 Jan 14 00:37	0° \mathbb{Z}		retrograde		4680 Aug 19 14:52	28° \mathbb{M} 30'27	
	4678 Feb 07 01:06	0° \mathbb{A}		evening set		4680 Sep 05 23:23	22° \mathbb{M} 51'39	
desc. node	4678 Feb 10 19:06	4° \mathbb{A} 41'49		inferior conj		4680 Sep 10 04:02	20° \mathbb{M} 16'51	-8°00'-45
	4678 Mar 02 23:12	0° \mathbb{H}		minimum elong		4680 Sep 09 21:12	20° \mathbb{M} 27'36	8°00'02
morning set	4678 Mar 13 00:31	12° \mathbb{H} 37'23		min. Earth dist.		4680 Sep 10 04:59	20° \mathbb{M} 15'22	0.29106 AU
	4678 Mar 26 20:48	0° \mathbb{Y}		morning rise		4680 Sep 13 18:53	18° \mathbb{M} 02'12	
	4678 Apr 19 19:39	0° \mathbb{B}		direct		4680 Oct 01 18:25	11° \mathbb{M} 58'27	
				greatest brilliancy		4680 Oct 15 21:43	15° \mathbb{M} 28'22	-4.5m
superior conj	4678 Apr 22 12:09	3° \mathbb{B} 21'31	-1°-20'-13			4680 Nov 06 03:55	0° \mathbb{L}	
minimum elong	4678 Apr 22 20:14	3° \mathbb{B} 46'48	1°20'05	asc. node		4680 Nov 18 16:12	11° \mathbb{L} 27'56	
max. Earth dist.	4678 Apr 26 10:36	8° \mathbb{B} 16'26	1.71897 AU	morning max el		4680 Nov 20 06:12	13° \mathbb{L} 01'03	46°11'34
	4678 May 13 21:15	0° \mathbb{H}				4680 Dec 06 14:44	0° \mathbb{M}	
evening rise	4678 May 31 21:46	22° \mathbb{H} 20'27				4681 Jan 02 03:06	0° \mathbb{J}	
asc. node	4678 Jun 03 21:14	26° \mathbb{H} 01'16				4681 Jan 27 06:52	0° \mathbb{Z}	
	4678 Jun 07 02:35	0° \mathbb{S}				4681 Feb 20 20:05	0° \mathbb{A}	
	4678 Jul 01 12:04	0° \mathbb{Q}		desc. node		4681 Mar 10 07:06	21° \mathbb{A} 33'52	
	4678 Jul 26 02:15	0° \mathbb{M}				4681 Mar 17 02:25	0° \mathbb{H}	
	4678 Aug 19 22:35	0° \mathbb{L}				4681 Apr 10 05:53	0° \mathbb{Y}	
	4678 Sep 14 04:02	0° \mathbb{M}				4681 May 04 09:03	0° \mathbb{B}	
desc. node	4678 Sep 23 11:55	10° \mathbb{M} 56'15		morning set		4681 May 26 06:27	27° \mathbb{B} 09'09	
	4678 Oct 09 23:41	0° \mathbb{J}				4681 May 28 13:38	0° \mathbb{H}	
	4678 Nov 05 20:36	0° \mathbb{Z}				4681 Jun 21 20:16	0° \mathbb{S}	
evening max el	4678 Nov 26 11:18	21° \mathbb{Z} 26'16	46°42'16	asc. node		4681 Jul 01 09:01	11° \mathbb{S} 45'14	
	4678 Dec 05 10:30	0° \mathbb{A}						
greatest brilliancy	4679 Jan 03 23:53	21° \mathbb{A} 05'26	-4.6m	superior conj		4681 Jul 03 02:28	13° \mathbb{S} 52'57	0°04'10
asc. node	4679 Jan 14 13:53	23° \mathbb{A} 33'53		minimum elong		4681 Jul 03 01:34	13° \mathbb{S} 50'08	0°04'07
retrograde	4679 Jan 15 14:40	23° \mathbb{A} 35'10		behind sun begin		4681 Jul 02 03:02	12° \mathbb{S} 40'42	
evening set	4679 Jan 30 10:05	19° \mathbb{A} 14'42		behind sun end		4681 Jul 04 00:06	14° \mathbb{S} 59'34	
min. Earth dist.	4679 Feb 04 17:21	16° \mathbb{A} 07'20	0.26650 AU	max. Earth dist.		4681 Jul 04 14:39	15° \mathbb{S} 44'22	1.73237 AU
inferior conj	4679 Feb 05 03:38	15° \mathbb{A} 51'34	5°16'44			4681 Jul 16 04:36	0° \mathbb{Q}	
minimum elong	4679 Feb 04 17:27	16° \mathbb{A} 07'10	5°14'01	evening rise		4681 Aug 08 17:18	28° \mathbb{Q} 56'16	
morning rise	4679 Feb 10 01:00	12° \mathbb{A} 57'01				4681 Aug 09 14:03	0° \mathbb{M}	
direct	4679 Feb 25 15:31	8° \mathbb{A} 11'20				4681 Sep 03 00:41	0° \mathbb{L}	
greatest brilliancy	4679 Mar 09 02:44	10° \mathbb{A} 39'03	-4.7m			4681 Sep 27 13:22	0° \mathbb{M}	

desc. node	4681 Oct 20 23:50	28° \mathbb{M} 30'47		4684 Mar 29 19:38	0° \mathbb{H}	
	4681 Oct 22 05:16	0° \mathbb{Z}		desc. node	4684 Apr 06 19:00	9° \mathbb{H} 32'41
	4681 Nov 16 01:28	0° \mathbb{Z}			4684 Apr 23 17:34	0° \mathbb{Y}
	4681 Dec 11 04:09	0° \approx			4684 May 18 09:13	0° \mathbb{B}
	4682 Jan 05 20:11	0° \mathbb{H}			4684 Jun 11 22:44	0° \mathbb{II}
	4682 Feb 01 23:42	0° \mathbb{Y}			4684 Jul 06 11:36	0° \mathbb{S}
evening max el	4682 Feb 07 00:51	5° \mathbb{Y} 12'48	47°09'53	asc. node	4684 Jul 28 20:55	27° \mathbb{S} 24'38
asc. node	4682 Feb 11 01:47	9° \mathbb{Y} 15'52			4684 Jul 30 23:38	0° \mathbb{Q}
	4682 Mar 07 05:18	0° \mathbb{B}		morning set	4684 Aug 03 10:34	4° \mathbb{Q} 14'13
greatest brilliancy	4682 Mar 16 23:54	5° \mathbb{B} 36'58	-4.7m		4684 Aug 24 09:57	0° \mathbb{M}
retrograde	4682 Mar 29 20:38	8° \mathbb{B} 42'15		max. Earth dist.	4684 Sep 07 06:42	17° \mathbb{M} 04'19 1.73333 AU
evening set	4682 Apr 16 15:47	2° \mathbb{B} 36'26				
inferior conj	4682 Apr 19 19:04	0° \mathbb{B} 40'19	8°26'06	superior conj	4684 Sep 08 23:44	19° \mathbb{M} 10'47 1°18'59
minimum elong	4682 Apr 20 02:03	0° \mathbb{B} 29'26	8°25'21	minimum elong	4684 Sep 08 17:22	18° \mathbb{M} 51'10 1°18'52
min. Earth dist.	4682 Apr 19 13:30	0° \mathbb{B} 49'00	0.27618 AU		4684 Sep 17 18:13	0° \mathbb{A}
	4682 Apr 20 20:59	30° \mathbb{R} \mathbb{Y}			4684 Oct 12 00:58	0° \mathbb{M}
morning rise	4682 Apr 23 12:27	28° \mathbb{Y} 23'17		evening rise	4684 Oct 15 09:08	4° \mathbb{M} 07'49
direct	4682 May 10 13:30	22° \mathbb{Y} 46'02			4684 Nov 05 07:09	0° \mathbb{Z}
greatest brilliancy	4682 May 21 20:52	25° \mathbb{Y} 06'01	-4.6m	desc. node	4684 Nov 17 11:40	15° \mathbb{Z} 04'33
	4682 May 31 09:11	0° \mathbb{B}			4684 Nov 29 13:21	0° \mathbb{Z}
desc. node	4682 Jun 02 16:27	1° \mathbb{B} 29'25			4684 Dec 23 19:59	0° \approx
morning max el	4682 Jun 28 22:09	23° \mathbb{B} 36'58	46°02'26		4685 Jan 17 04:19	0° \mathbb{H}
	4682 Jul 05 09:10	0° \mathbb{II}			4685 Feb 10 18:00	0° \mathbb{Y}
	4682 Aug 02 13:48	0° \mathbb{S}			4685 Mar 07 21:02	0° \mathbb{B}
	4682 Aug 29 00:26	0° \mathbb{Q}		asc. node	4685 Mar 10 13:35	3° \mathbb{B} 08'47
asc. node	4682 Sep 23 18:42	0° \mathbb{M} 15'44			4685 Apr 03 06:42	0° \mathbb{II}
	4682 Sep 23 13:25	0° \mathbb{M}		evening max el	4685 Apr 19 22:30	17° \mathbb{II} 26'57 46°26'20
	4682 Oct 18 11:32	0° \mathbb{A}			4685 May 03 07:13	0° \mathbb{S}
	4682 Nov 11 22:59	0° \mathbb{M}		greatest brilliancy	4685 May 25 03:00	15° \mathbb{S} 25'12 -4.6m
	4682 Dec 06 03:20	0° \mathbb{Z}		retrograde	4685 Jun 08 18:24	19° \mathbb{S} 13'20
morning set	4682 Dec 24 01:10	22° \mathbb{Z} 22'05		evening set	4685 Jun 23 18:45	14° \mathbb{S} 47'33
	4682 Dec 30 03:26	0° \mathbb{Z}		inferior conj	4685 Jun 30 01:58	10° \mathbb{S} 59'54 0°01'26
desc. node	4683 Jan 13 09:20	17° \mathbb{Z} 52'17		minimum elong	4685 Jun 30 02:02	10° \mathbb{S} 59'49 0°01'24
	4683 Jan 23 01:05	0° \approx		transit middle	4685 Jun 30 02:02	10° \mathbb{S} 59'49 0°01'24
max. Earth dist.	4683 Feb 02 00:21	12° \approx 32'10	1.71159 AU	transit begin	4685 Jun 29 21:59	11° \mathbb{S} 06'09
				transit end	4685 Jun 30 06:04	10° \mathbb{S} 53'30
superior conj	4683 Feb 02 17:09	13° \approx 24'58	0°-46'-34	min. Earth dist.	4685 Jun 29 18:12	11° \mathbb{S} 12'04 0.28530 AU
minimum elong	4683 Feb 02 06:27	12° \approx 51'20	0°46'07	desc. node	4685 Jun 30 04:20	10° \mathbb{S} 56'12
	4683 Feb 15 21:31	0° \mathbb{H}		morning rise	4685 Jul 06 09:56	7° \mathbb{S} 12'52
	4683 Mar 11 18:10	0° \mathbb{Y}		direct	4685 Jul 21 11:11	2° \mathbb{S} 51'21
evening rise	4683 Mar 15 16:46	4° \mathbb{Y} 56'50		greatest brilliancy	4685 Aug 03 01:18	5° \mathbb{S} 39'53 -4.5m
	4683 Apr 04 16:59	0° \mathbb{B}			4685 Sep 05 11:04	0° \mathbb{Q}
	4683 Apr 28 20:12	0° \mathbb{II}		morning max el	4685 Sep 08 03:52	2° \mathbb{Q} 32'50 45°42'09
asc. node	4683 May 06 11:22	9° \mathbb{II} 25'29			4685 Oct 04 19:48	0° \mathbb{M}
	4683 May 23 05:57	0° \mathbb{S}		asc. node	4685 Oct 21 06:27	18° \mathbb{M} 20'43
	4683 Jun 17 00:43	0° \mathbb{Q}			4685 Oct 31 09:19	0° \mathbb{A}
	4683 Jul 12 08:38	0° \mathbb{M}			4685 Nov 25 16:26	0° \mathbb{M}
	4683 Aug 07 14:48	0° \mathbb{A}			4685 Dec 20 06:50	0° \mathbb{Z}
desc. node	4683 Aug 26 02:07	20° \mathbb{A} 01'04			4686 Jan 13 12:00	0° \mathbb{Z}
	4683 Sep 04 19:17	0° \mathbb{M}			4686 Feb 06 12:17	0° \approx
evening max el	4683 Sep 12 04:11	7° \mathbb{M} 13'06	45°44'05	desc. node	4686 Feb 09 21:14	4° \approx 13'32
	4683 Oct 10 05:14	0° \mathbb{Z}			4686 Mar 02 10:17	0° \mathbb{H}
greatest brilliancy	4683 Oct 19 20:06	4° \mathbb{Z} 49'44	-4.5m	morning set	4686 Mar 10 10:42	10° \mathbb{H} 04'04
retrograde	4683 Oct 31 00:31	7° \mathbb{Z} 04'00			4686 Mar 26 07:48	0° \mathbb{Y}
evening set	4683 Nov 16 06:38	2° \mathbb{Z} 01'06			4686 Apr 19 06:34	0° \mathbb{B}
	4683 Nov 19 16:15	30° \mathbb{R} \mathbb{M}				
inferior conj	4683 Nov 20 23:23	29° \mathbb{M} 12'15	-5°-59'-10	superior conj	4686 Apr 20 00:26	0° \mathbb{B} 55'52 -1°-21'-37
minimum elong	4683 Nov 21 09:40	28° \mathbb{M} 56'26	5°56'51	minimum elong	4686 Apr 20 07:50	1° \mathbb{B} 18'58 1°21'30
min. Earth dist.	4683 Nov 21 22:23	28° \mathbb{M} 36'54	0.27717 AU	max. Earth dist.	4686 Apr 24 00:16	5° \mathbb{B} 55'12 1.71844 AU
morning rise	4683 Nov 26 12:09	25° \mathbb{M} 54'17			4686 May 13 08:06	0° \mathbb{II}
direct	4683 Dec 12 01:25	21° \mathbb{M} 10'17		evening rise	4686 May 29 12:14	20° \mathbb{II} 03'07
asc. node	4683 Dec 17 04:00	21° \mathbb{M} 41'05		asc. node	4686 Jun 02 23:13	25° \mathbb{II} 33'50
greatest brilliancy	4683 Dec 26 06:51	24° \mathbb{M} 51'57	-4.6m		4686 Jun 06 13:27	0° \mathbb{S}
	4684 Jan 03 23:43	0° \mathbb{Z}			4686 Jun 30 23:03	0° \mathbb{Q}
morning max el	4684 Jan 31 17:16	24° \mathbb{Z} 21'16	46°53'25		4686 Jul 25 13:31	0° \mathbb{M}
	4684 Feb 06 04:32	0° \mathbb{Z}			4686 Aug 19 10:22	0° \mathbb{A}
	4684 Mar 04 06:46	0° \approx			4686 Sep 13 16:44	0° \mathbb{M}

desc. node	4686 Sep 22 13:53	10° \mathbb{M} 23'33		morning set	4689 May 23 21:41	24° \mathcal{B} 54'35	
	4686 Oct 09 14:01	0° \mathcal{X}			4689 May 28 00:18	0° \mathbb{I}	
	4686 Nov 05 14:24	0° \mathcal{Z}			4689 Jun 21 06:49	0° \mathcal{E}	
evening max el	4686 Nov 24 00:24	19° \mathcal{Z} 02'38	46°40'18	asc. node	4689 Jun 30 11:08	11° \mathcal{E} 19'19	
	4686 Dec 05 15:19	0° \approx					
greatest brilliancy	4687 Jan 01 14:30	18° \approx 40'32	-4.6m	superior conj	4689 Jun 30 19:18	11° \mathcal{E} 44'30	0°00'50
retrograde	4687 Jan 13 02:35	21° \approx 07'47		minimum elong	4689 Jun 30 19:07	11° \mathcal{E} 43'56	0°00'49
asc. node	4687 Jan 13 15:58	21° \approx 07'24		behind sun begin	4689 Jun 29 19:58	10° \mathcal{E} 32'36	
evening set	4687 Jan 27 20:09	16° \approx 51'12		behind sun end	4689 Jul 01 18:15	12° \mathcal{E} 55'16	
inferior conj	4687 Feb 02 16:13	13° \approx 24'56	4°56'33	max. Earth dist.	4689 Jul 02 08:58	13° \mathcal{E} 40'35	1.73210 AU
minimum elong	4687 Feb 02 06:25	13° \approx 39'57	4°53'51		4689 Jul 15 15:06	0° \mathcal{Q}	
min. Earth dist.	4687 Feb 02 07:15	13° \approx 38'40	0.26638 AU	evening rise	4689 Aug 06 11:44	26° \mathcal{Q} 53'04	
morning rise	4687 Feb 07 16:44	10° \approx 25'45			4689 Aug 09 00:36	0° \mathbb{M}	
direct	4687 Feb 23 03:38	5° \approx 44'37			4689 Sep 02 11:24	0° \mathcal{A}	
greatest brilliancy	4687 Mar 06 17:51	8° \approx 14'51	-4.7m		4689 Sep 27 00:24	0° \mathbb{M}	
	4687 Apr 05 20:04	0° \mathcal{H}		desc. node	4689 Oct 20 01:47	28° \mathbb{M} 01'46	
morning max el	4687 Apr 14 10:15	8° \mathcal{H} 19'05	46°48'19		4689 Oct 21 16:49	0° \mathcal{X}	
desc. node	4687 May 05 06:45	0° \mathcal{Y} 17'53			4689 Nov 15 13:48	0° \mathcal{Z}	
	4687 May 05 00:14	0° \mathcal{Y}			4689 Dec 10 17:39	0° \approx	
	4687 May 31 13:33	0° \mathcal{B}			4690 Jan 05 11:49	0° \mathcal{H}	
	4687 Jun 26 05:08	0° \mathbb{I}			4690 Feb 01 20:30	0° \mathcal{Y}	
	4687 Jul 21 10:41	0° \mathcal{E}		evening max el	4690 Feb 04 15:06	2° \mathcal{Y} 50'48	47°10'22
	4687 Aug 15 09:38	0° \mathcal{Q}		asc. node	4690 Feb 10 03:51	8° \mathcal{Y} 21'41	
asc. node	4687 Aug 26 08:47	13° \mathcal{Q} 16'41			4690 Mar 08 11:17	0° \mathcal{B}	
	4687 Sep 09 02:29	0° \mathbb{M}		greatest brilliancy	4690 Mar 14 14:32	3° \mathcal{B} 15'49	-4.7m
	4687 Oct 03 13:27	0° \mathcal{A}		retrograde	4690 Mar 27 11:31	6° \mathcal{B} 21'24	
morning set	4687 Oct 11 16:23	10° \mathcal{A} 01'26		evening set	4690 Apr 14 08:17	0° \mathcal{B} 11'51	
	4687 Oct 27 19:32	0° \mathbb{M}			4690 Apr 14 16:06	30° \mathcal{R} \mathcal{Y}	
max. Earth dist.	4687 Nov 14 21:13	22° \mathcal{M} 28'02	1.72233 AU	inferior conj	4690 Apr 17 09:04	28° \mathcal{Y} 19'43	8°33'51
				minimum elong	4690 Apr 17 15:23	28° \mathcal{Y} 09'54	8°33'14
superior conj	4687 Nov 17 20:45	26° \mathbb{M} 10'49	1°00'51	min. Earth dist.	4690 Apr 17 02:41	28° \mathcal{Y} 29'38	0.27583 AU
minimum elong	4687 Nov 18 06:47	26° \mathbb{M} 42'04	1°00'30	morning rise	4690 Apr 20 22:37	26° \mathcal{Y} 08'42	
	4687 Nov 20 22:19	0° \mathcal{X}		direct	4690 May 08 03:13	20° \mathcal{Y} 25'57	
	4687 Dec 14 23:09	0° \mathcal{Z}		greatest brilliancy	4690 May 19 09:23	22° \mathcal{Y} 45'27	-4.6m
desc. node	4687 Dec 15 23:35	1° \mathcal{Z} 16'20			4690 Jun 01 11:21	0° \mathcal{B}	
evening rise	4687 Dec 27 03:23	15° \mathcal{Z} 13'22		desc. node	4690 Jun 01 18:30	0° \mathcal{B} 12'24	
	4688 Jan 07 22:48	0° \approx		morning max el	4690 Jun 26 13:30	21° \mathcal{B} 23'16	46°03'52
	4688 Jan 31 21:58	0° \mathcal{H}			4690 Jul 05 05:08	0° \mathbb{I}	
	4688 Feb 24 22:20	0° \mathcal{Y}			4690 Aug 02 04:39	0° \mathcal{E}	
	4688 Mar 20 02:58	0° \mathcal{B}			4690 Aug 28 13:13	0° \mathcal{Q}	
asc. node	4688 Apr 07 01:28	21° \mathcal{B} 58'03		asc. node	4690 Sep 22 20:34	29° \mathcal{Q} 46'24	
	4688 Apr 13 16:26	0° \mathbb{I}			4690 Sep 23 01:08	0° \mathbb{M}	
	4688 May 08 21:22	0° \mathcal{E}			4690 Oct 17 22:42	0° \mathcal{A}	
	4688 Jun 04 06:25	0° \mathcal{Q}			4690 Nov 11 09:52	0° \mathbb{M}	
evening max el	4688 Jun 29 10:54	26° \mathcal{Q} 13'35	45°36'39		4690 Dec 05 14:06	0° \mathcal{X}	
	4688 Jul 03 09:56	0° \mathbb{M}		morning set	4690 Dec 21 14:05	19° \mathcal{X} 58'45	
desc. node	4688 Jul 27 16:22	19° \mathbb{M} 21'47			4690 Dec 29 14:10	0° \mathcal{Z}	
greatest brilliancy	4688 Aug 03 14:06	23° \mathbb{M} 03'38	-4.5m	desc. node	4691 Jan 12 11:23	17° \mathcal{Z} 25'00	
retrograde	4688 Aug 17 07:06	26° \mathbb{M} 22'09			4691 Jan 22 11:50	0° \approx	
evening set	4688 Sep 03 12:32	20° \mathbb{M} 47'14		max. Earth dist.	4691 Jan 30 09:16	9° \approx 55'22	1.71174 AU
inferior conj	4688 Sep 07 20:22	18° \mathbb{M} 08'00	-7°-53'-6				
minimum elong	4688 Sep 07 12:59	18° \mathbb{M} 19'34	7°52'15	superior conj	4691 Jan 31 03:24	10° \approx 52'23	0°-43'-8
min. Earth dist.	4688 Sep 07 20:26	18° \mathbb{M} 07'54	0.29117 AU	minimum elong	4691 Jan 30 17:16	10° \approx 20'30	0°42'42
morning rise	4688 Sep 11 13:18	15° \mathbb{M} 50'23			4691 Feb 15 08:18	0° \mathcal{H}	
direct	4688 Sep 29 10:24	9° \mathbb{M} 49'25			4691 Mar 11 05:00	0° \mathcal{Y}	
greatest brilliancy	4688 Oct 13 14:31	13° \mathbb{M} 19'54	-4.5m	evening rise	4691 Mar 13 03:11	2° \mathcal{Y} 24'57	
	4688 Nov 06 08:30	0° \mathcal{A}			4691 Apr 04 03:53	0° \mathcal{B}	
asc. node	4688 Nov 17 18:17	10° \mathcal{A} 39'17			4691 Apr 28 07:10	0° \mathbb{I}	
morning max el	4688 Nov 17 21:25	10° \mathcal{A} 47'00	46°10'02	asc. node	4691 May 05 13:25	8° \mathbb{I} 57'45	
	4688 Dec 06 07:47	0° \mathbb{M}			4691 May 22 17:10	0° \mathcal{E}	
	4689 Jan 01 17:05	0° \mathcal{X}			4691 Jun 16 12:25	0° \mathcal{Q}	
	4689 Jan 26 19:32	0° \mathcal{Z}			4691 Jul 11 21:21	0° \mathbb{M}	
	4689 Feb 20 08:00	0° \approx			4691 Aug 07 05:37	0° \mathcal{A}	
desc. node	4689 Mar 09 09:03	21° \approx 04'11		desc. node	4691 Aug 25 04:02	19° \mathcal{A} 19'46	
	4689 Mar 16 13:51	0° \mathcal{H}			4691 Sep 04 15:39	0° \mathbb{M}	
	4689 Apr 09 16:58	0° \mathcal{Y}		evening max el	4691 Sep 09 19:29	5° \mathbb{M} 00'57	45°42'41
	4689 May 03 19:53	0° \mathcal{B}			4691 Oct 11 18:52	0° \mathcal{X}	

greatest brilliancy	4691 Oct 17 09:03	2°♂32'27	-4.5m	superior conj	4694 Apr 17 12:37	28°♀30'02	-1°-22'-51
retrograde	4691 Oct 28 14:20	4°♂46'52		minimum elong	4694 Apr 17 19:14	28°♀50'44	1°22'47
	4691 Nov 13 09:20	30°♂			4694 Apr 18 17:24	0°♂	
evening set	4691 Nov 13 23:46	29°♂39'33		max. Earth dist.	4694 Apr 21 12:02	3°♂28'13	1.71794 AU
inferior conj	4691 Nov 18 13:36	26°♂54'25	-6°-14'-42		4694 May 12 18:55	0°♂	
minimum elong	4691 Nov 18 23:55	26°♂38'30	6°12'28	evening rise	4694 May 27 02:31	17°♂45'18	
min. Earth dist.	4691 Nov 19 12:28	26°♂19'11	0.27784 AU	asc. node	4694 Jun 02 01:21	25°♂06'54	
morning rise	4691 Nov 23 23:34	23°♂40'00			4694 Jun 06 00:18	0°♂	
direct	4691 Dec 09 16:45	18°♂51'43			4694 Jun 30 10:02	0°♂	
asc. node	4691 Dec 16 06:04	19°♂41'49			4694 Jul 25 00:46	0°♂	
greatest brilliancy	4691 Dec 23 21:45	22°♂32'49	-4.6m		4694 Aug 18 22:08	0°♂	
	4692 Jan 04 20:33	0°♂			4694 Sep 13 05:25	0°♂	
morning max el	4692 Jan 29 07:47	22°♂00'36	46°52'19	desc. node	4694 Sep 21 15:52	9°♂50'59	
	4692 Feb 06 00:25	0°♂			4694 Oct 09 04:28	0°♂	
	4692 Mar 03 22:02	0°♂			4694 Nov 05 08:37	0°♂	
	4692 Mar 29 08:59	0°♂		evening max el	4694 Nov 21 12:42	16°♂37'05	46°38'09
desc. node	4692 Apr 05 20:54	8°♂59'27			4694 Dec 05 22:23	0°♂	
	4692 Apr 23 05:52	0°♀		greatest brilliancy	4694 Dec 30 04:29	16°♂14'14	-4.6m
	4692 May 17 20:52	0°♂		retrograde	4695 Jan 10 14:27	18°♂39'44	
	4692 Jun 11 09:53	0°♂		asc. node	4695 Jan 12 18:00	18°♂34'07	
	4692 Jul 05 22:24	0°♂		evening set	4695 Jan 25 06:13	14°♂26'15	
asc. node	4692 Jul 27 22:56	26°♂58'23		inferior conj	4695 Jan 31 04:35	10°♂57'20	4°35'28
	4692 Jul 30 10:11	0°♂		minimum elong	4695 Jan 30 19:14	11°♂11'38	4°32'51
morning set	4692 Aug 01 04:24	2°♂09'24		min. Earth dist.	4695 Jan 30 21:02	11°♂08'52	0.26632 AU
	4692 Aug 23 20:25	0°♂		morning rise	4695 Feb 05 08:13	7°♂53'48	
max. Earth dist.	4692 Sep 05 02:21	15°♂04'44	1.73354 AU	direct	4695 Feb 20 15:27	3°♂16'37	
				greatest brilliancy	4695 Mar 04 09:29	5°♂50'26	-4.7m
superior conj	4692 Sep 06 18:02	17°♂06'58	1°17'44		4695 Apr 05 22:45	0°♂	
minimum elong	4692 Sep 06 11:13	16°♂45'57	1°17'36	morning max el	4695 Apr 11 22:41	5°♂52'15	46°49'32
	4692 Sep 17 04:43	0°♂		desc. node	4695 May 04 08:54	29°♂35'57	
	4692 Oct 11 11:36	0°♂			4695 May 04 17:37	0°♀	
evening rise	4692 Oct 13 01:57	1°♂58'31			4695 May 31 03:51	0°♂	
	4692 Nov 04 17:59	0°♂			4695 Jun 25 17:55	0°♂	
desc. node	4692 Nov 16 13:45	14°♂37'02			4695 Jul 20 22:35	0°♂	
	4692 Nov 29 00:29	0°♂			4695 Aug 14 20:59	0°♂	
	4692 Dec 23 07:30	0°♂		asc. node	4695 Aug 25 10:43	12°♂48'40	
	4693 Jan 16 16:21	0°♂			4695 Sep 08 13:29	0°♂	
	4693 Feb 10 06:51	0°♀			4695 Oct 03 00:15	0°♂	
	4693 Mar 07 11:19	0°♂		morning set	4695 Oct 09 09:24	7°♂52'25	
asc. node	4693 Mar 09 15:30	2°♂32'09			4695 Oct 27 06:17	0°♂	
	4693 Apr 03 00:16	0°♂		max. Earth dist.	4695 Nov 12 14:54	20°♂20'05	1.72281 AU
evening max el	4693 Apr 17 13:43	15°♂11'03	46°28'21				
	4693 May 03 13:15	0°♂		superior conj	4695 Nov 15 12:00	23°♂55'12	1°03'15
greatest brilliancy	4693 May 22 21:34	13°♂16'11	-4.6m	minimum elong	4695 Nov 15 21:57	24°♂26'11	1°02'55
retrograde	4693 Jun 06 10:12	17°♂01'16			4695 Nov 20 09:08	0°♂	
evening set	4693 Jun 21 11:33	12°♂34'54			4695 Dec 14 10:06	0°♂	
inferior conj	4693 Jun 27 17:47	8°♂48'27	0°22'10	desc. node	4695 Dec 15 01:39	0°♂48'35	
minimum elong	4693 Jun 27 18:36	8°♂47'10	0°21'54	evening rise	4695 Dec 24 16:06	12°♂48'39	
min. Earth dist.	4693 Jun 27 10:31	8°♂59'52	0.28491 AU		4696 Jan 07 09:55	0°♂	
desc. node	4693 Jun 29 06:24	7°♂51'13			4696 Jan 31 09:17	0°♂	
morning rise	4693 Jul 04 02:16	5°♂00'25			4696 Feb 24 09:52	0°♀	
direct	4693 Jul 19 02:35	0°♂40'37			4696 Mar 19 14:51	0°♂	
greatest brilliancy	4693 Jul 31 14:38	3°♂26'41	-4.5m	asc. node	4696 Apr 06 03:31	21°♂26'56	
	4693 Sep 05 09:57	0°♂			4696 Apr 13 04:56	0°♂	
morning max el	4693 Sep 05 18:15	0°♂19'47	45°42'02		4696 May 08 11:01	0°♂	
	4693 Oct 04 11:23	0°♂			4696 Jun 03 22:39	0°♂	
asc. node	4693 Oct 20 08:33	17°♂47'11		evening max el	4696 Jun 27 02:13	24°♂00'55	45°37'42
	4693 Oct 30 22:30	0°♂			4696 Jul 03 10:26	0°♂	
	4693 Nov 25 04:32	0°♂		desc. node	4696 Jul 26 18:17	18°♂02'31	
	4693 Dec 19 18:24	0°♂		greatest brilliancy	4696 Aug 01 02:49	20°♂49'57	-4.5m
	4694 Jan 12 23:16	0°♂		retrograde	4696 Aug 14 23:43	24°♂12'45	
	4694 Feb 05 23:23	0°♂		evening set	4696 Sep 01 01:32	18°♂41'49	
desc. node	4694 Feb 08 23:12	3°♂44'58		inferior conj	4696 Sep 05 12:32	15°♂58'01	-7°-44'-41
	4694 Mar 01 21:16	0°♂		minimum elong	4696 Sep 05 04:41	16°♂10'19	7°43'43
morning set	4694 Mar 07 20:40	7°♂30'15		min. Earth dist.	4696 Sep 05 11:29	15°♂59'41	0.29124 AU
	4694 Mar 25 18:42	0°♀		morning rise	4696 Sep 09 07:45	13°♂37'13	
				direct	4696 Sep 27 02:35	7°♂39'21	

greatest brilliancy	4696 Oct 11 06:48	11° \mathbb{M} 10'06	-4.5m		4699 Mar 10 16:09	0° Υ	
	4696 Nov 06 11:38	0° $\underline{\Delta}$			4699 Apr 03 15:07	0° \mathcal{B}	
morning max el	4696 Nov 15 13:28	8° $\underline{\Delta}$ 34'35	46°08'39		4699 Apr 27 18:34	0° Π	
asc. node	4696 Nov 16 20:19	9° $\underline{\Delta}$ 50'46		asc. node	4699 May 04 15:28	8° Π 28'45	
	4696 Dec 06 00:42	0° \mathbb{M}			4699 May 22 04:51	0° \mathfrak{S}	
	4697 Jan 01 07:08	0° \mathcal{A}			4699 Jun 16 00:39	0° Ω	
	4697 Jan 26 08:20	0° \mathfrak{Z}			4699 Jul 11 10:40	0° \mathbb{M}	
	4697 Feb 19 20:09	0° \approx			4699 Aug 06 21:12	0° $\underline{\Delta}$	
desc. node	4697 Mar 08 11:02	20° \approx 33'39		desc. node	4699 Aug 24 06:02	18° $\underline{\Delta}$ 36'45	
	4697 Mar 16 01:35	0° \mathcal{H}			4699 Sep 04 13:22	0° \mathbb{M}	
	4697 Apr 09 04:24	0° Υ		evening max el	4699 Sep 07 10:05	2° \mathbb{M} 45'42	45°41'20
	4697 May 03 07:05	0° \mathcal{B}			4699 Oct 14 07:42	0° \mathcal{A}	
morning set	4697 May 21 12:21	22° \mathcal{B} 36'59		greatest brilliancy	4699 Oct 14 22:39	0° \mathcal{A} 14'31	-4.5m
	4697 May 27 11:19	0° Π		retrograde	4699 Oct 26 03:29	2° \mathcal{A} 28'23	
	4697 Jun 20 17:43	0° \mathfrak{S}			4699 Nov 06 08:53	30° $\mathbb{R}\mathbb{M}$	
				evening set	4699 Nov 11 16:53	27° \mathbb{M} 16'37	
superior conj	4697 Jun 28 11:36	9° \mathfrak{S} 33'17	0°-2'-34	inferior conj	4699 Nov 16 03:47	24° \mathbb{M} 35'20	-6°-29'-33
minimum elong	4697 Jun 28 12:10	9° \mathfrak{S} 35'02	0°02'34	minimum elong	4699 Nov 16 14:04	24° \mathbb{M} 19'27	6°27'25
behind sun begin	4697 Jun 27 13:06	8° \mathfrak{S} 23'55		min. Earth dist.	4699 Nov 17 02:49	23° \mathbb{M} 59'44	0.27850 AU
behind sun end	4697 Jun 29 11:13	10° \mathfrak{S} 46'08		morning rise	4699 Nov 21 10:45	21° \mathbb{M} 24'36	
asc. node	4697 Jun 29 13:04	10° \mathfrak{S} 51'48		direct	4699 Dec 07 07:35	16° \mathbb{M} 31'48	
max. Earth dist.	4697 Jun 30 04:34	11° \mathfrak{S} 39'37	1.73181 AU	asc. node	4699 Dec 15 08:04	17° \mathbb{M} 45'37	
	4697 Jul 15 01:58	0° Ω		greatest brilliancy	4699 Dec 21 12:42	20° \mathbb{M} 12'23	-4.6m
evening rise	4697 Aug 04 05:55	24° Ω 48'00			4700 Jan 05 12:38	0° \mathcal{A}	
	4697 Aug 08 11:31	0° \mathbb{M}		morning max el	4700 Jan 26 21:30	19° \mathcal{A} 36'44	46°51'28
	4697 Sep 01 22:31	0° $\underline{\Delta}$			4700 Feb 05 20:06	0° \mathfrak{Z}	
	4697 Sep 26 11:51	0° \mathbb{M}			4700 Mar 04 13:23	0° \approx	
desc. node	4697 Oct 19 03:54	27° \mathbb{M} 32'06			4700 Mar 29 22:30	0° \mathcal{H}	
	4697 Oct 21 04:46	0° \mathcal{A}		desc. node	4700 Apr 05 23:04	8° \mathcal{H} 26'24	
	4697 Nov 15 02:30	0° \mathfrak{Z}			4700 Apr 23 18:23	0° Υ	
	4697 Dec 10 07:34	0° \approx			4700 May 18 08:45	0° \mathcal{B}	
	4698 Jan 05 03:59	0° \mathcal{H}			4700 Jun 11 21:20	0° Π	
	4698 Feb 01 18:26	0° Υ			4700 Jul 06 09:33	0° \mathfrak{S}	
evening max el	4698 Feb 02 06:04	0° Υ 29'36	47°10'34	asc. node	4700 Jul 28 00:53	26° \mathfrak{S} 30'44	
asc. node	4698 Feb 09 05:43	7° Υ 24'54		morning set	4700 Jul 30 21:53	0° Ω 02'15	
	4698 Mar 10 08:35	0° \mathcal{B}			4700 Jul 30 21:09	0° Ω	
greatest brilliancy	4698 Mar 12 05:08	0° \mathcal{B} 53'02	-4.7m		4700 Aug 24 07:17	0° \mathbb{M}	
retrograde	4698 Mar 25 02:17	3° \mathcal{B} 58'12		max. Earth dist.	4700 Sep 03 20:42	13° \mathbb{M} 00'00	1.73372 AU
	4698 Apr 08 02:31	30° $\mathbb{R}\Upsilon$					
evening set	4698 Apr 12 00:17	27° Υ 45'31		superior conj	4700 Sep 05 12:02	15° \mathbb{M} 01'09	1°16'21
inferior conj	4698 Apr 14 22:48	25° Υ 56'48	8°40'41	minimum elong	4700 Sep 05 04:48	14° \mathbb{M} 38'52	1°16'12
minimum elong	4698 Apr 15 04:23	25° Υ 48'07	8°40'13		4700 Sep 17 15:36	0° $\underline{\Delta}$	
min. Earth dist.	4698 Apr 14 15:24	26° Υ 08'18	0.27550 AU	evening rise	4700 Oct 11 18:37	29° $\underline{\Delta}$ 47'42	
morning rise	4698 Apr 18 08:39	23° Υ 51'30			4700 Oct 11 22:36	0° \mathbb{M}	
direct	4698 May 05 17:05	18° Υ 03'44			4700 Nov 05 05:12	0° \mathcal{A}	
greatest brilliancy	4698 May 16 20:55	20° Υ 21'37	-4.6m	desc. node	4700 Nov 16 15:45	14° \mathcal{A} 08'06	
desc. node	4698 May 31 20:33	28° Υ 55'58			4700 Nov 29 12:00	0° \mathfrak{Z}	
	4698 Jun 02 07:27	0° \mathcal{B}			4700 Dec 23 19:25	0° \approx	
morning max el	4698 Jun 24 04:36	19° \mathcal{B} 07'13	46°05'16		4701 Jan 17 04:47	0° \mathcal{H}	
	4698 Jul 05 01:06	0° Π			4701 Feb 10 20:03	0° Υ	
	4698 Aug 01 19:48	0° \mathfrak{S}			4701 Mar 08 01:58	0° \mathcal{B}	
	4698 Aug 28 02:21	0° Ω		asc. node	4701 Mar 09 17:38	1° \mathcal{B} 55'18	
asc. node	4698 Sep 21 22:39	29° Ω 16'28			4701 Apr 03 18:23	0° Π	
	4698 Sep 22 13:15	0° \mathbb{M}		evening max el	4701 Apr 16 04:01	12° Π 52'20	46°30'23
	4698 Oct 17 10:16	0° $\underline{\Delta}$			4701 May 04 21:53	0° \mathfrak{S}	
	4698 Nov 10 21:09	0° \mathbb{M}		greatest brilliancy	4701 May 21 15:11	11° \mathfrak{S} 05'23	-4.6m
	4698 Dec 05 01:16	0° \mathcal{A}		retrograde	4701 Jun 05 01:49	14° \mathfrak{S} 48'56	
morning set	4698 Dec 19 03:24	17° \mathcal{A} 35'37		evening set	4701 Jun 20 04:33	10° \mathfrak{S} 21'24	
	4698 Dec 29 01:16	0° \mathfrak{Z}		inferior conj	4701 Jun 26 09:42	6° \mathfrak{S} 36'35	0°42'48
desc. node	4699 Jan 11 13:21	16° \mathfrak{Z} 56'22		minimum elong	4701 Jun 26 11:17	6° \mathfrak{S} 34'05	0°42'18
	4699 Jan 21 22:54	0° \approx		min. Earth dist.	4701 Jun 26 03:10	6° \mathfrak{S} 46'51	0.28460 AU
max. Earth dist.	4699 Jan 27 17:50	7° \approx 16'32	1.71185 AU	desc. node	4701 Jun 29 08:21	4° \mathfrak{S} 46'51	
				morning rise	4701 Jul 02 18:33	2° \mathfrak{S} 47'44	
superior conj	4699 Jan 28 14:09	8° \approx 20'26	0°-39'-39		4701 Jul 08 23:19	30° $\mathbb{R}\Pi$	
minimum elong	4699 Jan 28 04:39	7° \approx 50'33	0°39'15	direct	4701 Jul 17 17:41	28° Π 29'09	
	4699 Feb 14 19:24	0° \mathcal{H}			4701 Jul 26 20:52	0° \mathfrak{S}	
evening rise	4699 Mar 10 13:52	29° \mathcal{H} 52'49		greatest brilliancy	4701 Jul 30 05:14	1° \mathfrak{S} 14'08	-4.5m




































































































































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	4701 Sep 06 08:17	0°Ω			4704 May 09 00:42	0°☿	
	4701 Oct 05 03:04	0°♊			4704 Jun 04 15:00	0°Ω	
asc. node	4701 Oct 20 10:38	17°♊12'52		evening max el	4704 Jun 25 18:35	21°Ω51'32	45°38'55
	4701 Oct 31 11:52	0°♊			4704 Jul 04 11:50	0°♊	
	4701 Nov 25 16:51	0°♋		desc. node	4704 Jul 26 20:18	16°♊42'01	
	4701 Dec 20 06:11	0°♌		greatest brilliancy	4704 Jul 30 16:13	18°♊38'20	-4.5m
	4702 Jan 13 10:45	0°♍		retrograde	4704 Aug 13 16:38	22°♊04'38	
	4702 Feb 06 10:43	0°♎		evening set	4704 Aug 30 14:50	16°♊37'53	
desc. node	4702 Feb 09 01:10	3°♎15'41		inferior conj	4704 Sep 04 04:59	13°♊49'23	-7°-35'-45
	4702 Mar 02 08:28	0°♏		minimum elong	4704 Sep 03 20:41	14°♊02'22	7°34'38
morning set	4702 Mar 06 06:38	4°♏55'45		min. Earth dist.	4704 Sep 04 02:34	13°♊53'10	0.29130 AU
	4702 Mar 26 05:47	0°♐		morning rise	4704 Sep 08 02:31	11°♊25'16	
				direct	4704 Sep 25 19:28	5°♊30'49	
superior conj	4702 Apr 16 01:00	26°♐04'24	-1°-23'-56	greatest brilliancy	4704 Oct 09 22:19	9°♊00'25	-4.5m
minimum elong	4702 Apr 16 06:50	26°♐22'38	1°23'53		4704 Nov 07 13:03	0°♊	
	4702 Apr 19 04:21	0°♑		morning max el	4704 Nov 14 06:03	6°♊24'08	46°07'01
max. Earth dist.	4702 Apr 19 21:31	0°♑53'39	1.71738 AU	asc. node	4704 Nov 16 22:16	9°♊03'14	
	4702 May 13 05:49	0°♒			4704 Dec 06 17:13	0°♋	
evening rise	4702 May 25 17:02	15°♒27'53			4705 Jan 01 21:00	0°♌	
asc. node	4702 Jun 02 03:16	24°♒39'05			4705 Jan 26 21:01	0°♍	
	4702 Jun 06 11:13	0°☿			4705 Feb 20 08:09	0°♎	
	4702 Jun 30 21:07	0°Ω		desc. node	4705 Mar 08 13:11	20°♎04'05	
	4702 Jul 25 12:09	0°♊			4705 Mar 16 13:09	0°♏	
	4702 Aug 19 10:05	0°♋			4705 Apr 09 15:39	0°♐	
	4702 Sep 13 18:23	0°♌			4705 May 03 18:07	0°♑	
desc. node	4702 Sep 21 17:59	9°♌18'04		morning set	4705 May 20 03:01	20°♑19'52	
	4702 Oct 09 19:17	0°♍			4705 May 27 22:11	0°♒	
	4702 Nov 06 03:31	0°♎			4705 Jun 21 04:26	0°☿	
evening max el	4702 Nov 20 01:10	14°♎11'44	46°36'06				
	4702 Dec 07 08:19	0°♏		superior conj	4705 Jun 27 04:03	7°☿23'03	0°-5'-55
greatest brilliancy	4702 Dec 28 17:30	13°♏46'22	-4.6m	minimum elong	4705 Jun 27 05:21	7°☿27'05	0°05'53
retrograde	4703 Jan 09 02:42	16°♏11'19		behind sun begin	4705 Jun 26 07:25	6°☿19'26	
asc. node	4703 Jan 12 19:56	15°♏54'22		behind sun end	4705 Jun 28 03:16	8°☿34'42	
evening set	4703 Jan 23 16:25	12°♏00'14		max. Earth dist.	4705 Jun 29 01:32	9°☿43'21	1.73145 AU
inferior conj	4703 Jan 29 16:52	8°♏29'04	4°13'53	asc. node	4705 Jun 29 15:05	10°☿25'07	
minimum elong	4703 Jan 29 08:02	8°♏42'33	4°11'20		4705 Jul 15 12:36	0°Ω	
min. Earth dist.	4703 Jan 29 10:35	8°♏38'39	0.26630 AU	evening rise	4705 Aug 03 00:24	22°Ω44'36	
morning rise	4703 Feb 03 23:32	5°♏21'34			4705 Aug 08 22:11	0°♊	
direct	4703 Feb 19 03:31	0°♏47'51			4705 Sep 02 09:21	0°♋	
greatest brilliancy	4703 Mar 03 01:01	3°♏25'26	-4.7m		4705 Sep 26 23:04	0°♌	
	4703 Apr 07 00:10	0°♐		desc. node	4705 Oct 19 05:54	27°♌02'47	
morning max el	4703 Apr 10 12:17	3°♐28'00	46°50'52		4705 Oct 21 16:32	0°♍	
desc. node	4703 May 04 10:51	28°♐53'51			4705 Nov 15 15:05	0°♎	
	4703 May 05 10:41	0°♑			4705 Dec 10 21:27	0°♏	
	4703 May 31 17:59	0°♒			4706 Jan 05 20:19	0°♐	
	4703 Jun 26 06:34	0°♒		evening max el	4706 Jan 31 21:20	28°♐09'32	47°10'42
	4703 Jul 21 10:22	0°☿			4706 Feb 02 17:05	0°♑	
	4703 Aug 15 08:15	0°Ω		asc. node	4706 Feb 09 07:52	6°♑28'02	
asc. node	4703 Aug 25 12:47	12°Ω21'15		greatest brilliancy	4706 Mar 10 20:42	28°♑31'52	-4.7m
	4703 Sep 09 00:27	0°♊			4706 Mar 14 14:23	0°♒	
	4703 Oct 03 11:04	0°♋		retrograde	4706 Mar 23 16:49	1°♒35'11	
morning set	4703 Oct 08 02:28	5°♋43'32			4706 Apr 01 10:24	30°♒♑	
	4703 Oct 27 17:04	0°♌		evening set	4706 Apr 10 16:01	25°♑20'08	
max. Earth dist.	4703 Nov 11 08:26	18°♌11'31	1.72328 AU	min. Earth dist.	4706 Apr 13 04:10	23°♑47'19	0.27513 AU
				inferior conj	4706 Apr 13 12:30	23°♑34'21	8°46'44
superior conj	4703 Nov 14 03:14	21°♌39'26	1°05'32	minimum elong	4706 Apr 13 17:17	23°♑26'55	8°46'24
minimum elong	4703 Nov 14 13:03	22°♌09'56	1°05'13	morning rise	4706 Apr 16 18:45	21°♑34'25	
	4703 Nov 20 19:59	0°♍		direct	4706 May 04 06:55	15°♑42'11	
	4703 Dec 14 21:05	0°♎		greatest brilliancy	4706 May 15 07:55	17°♑57'39	-4.6m
desc. node	4703 Dec 15 03:34	0°♎20'15		desc. node	4706 May 31 22:32	27°♑42'28	
evening rise	4703 Dec 23 04:45	10°♎23'44			4706 Jun 03 22:04	0°♒	
	4704 Jan 07 21:03	0°♏		morning max el	4706 Jun 22 19:08	16°♒50'28	46°06'44
	4704 Jan 31 20:35	0°♐			4706 Jul 05 20:09	0°♒	
	4704 Feb 24 21:25	0°♑			4706 Aug 02 10:25	0°☿	
	4704 Mar 20 02:46	0°♒			4706 Aug 28 15:02	0°Ω	
asc. node	4704 Apr 06 05:34	20°♒55'49		asc. node	4706 Sep 22 00:43	28°Ω47'45	

	4706 Sep 23 00:55	0°♎		evening max el	4709 Apr 13 17:54	10°♊32'49	46°32'27
	4706 Oct 17 21:25	0°♏			4709 May 05 09:28	0°♑	
	4706 Nov 11 08:04	0°♐		greatest brilliancy	4709 May 19 07:50	8°♑53'18	-4.6m
	4706 Dec 05 12:05	0°♑		retrograde	4709 Jun 02 17:26	12°♑36'35	
morning set	4706 Dec 17 16:50	15°♑13'46		evening set	4709 Jun 17 21:27	8°♑07'22	
	4706 Dec 29 12:05	0°♒		inferior conj	4709 Jun 24 01:24	4°♑24'37	1°03'32
desc. node	4707 Jan 11 15:25	16°♒28'51		minimum elong	4709 Jun 24 03:45	4°♑20'55	1°02'50
	4707 Jan 22 09:45	0°♓		min. Earth dist.	4709 Jun 23 19:36	4°♑33'42	0.28427 AU
max. Earth dist.	4707 Jan 25 22:25	4°♓26'00	1.71202 AU	desc. node	4709 Jun 28 10:24	1°♑43'30	
				morning rise	4709 Jun 30 10:28	0°♑35'22	
superior conj	4707 Jan 27 00:44	5°♓48'42	0°-36'-5		4709 Jul 01 13:09	30°♊	
minimum elong	4707 Jan 26 15:58	5°♓21'06	0°35'41	direct	4709 Jul 15 08:15	26°♊17'27	
	4707 Feb 15 06:17	0°♋		greatest brilliancy	4709 Jul 27 20:19	29°♊02'31	-4.5m
evening rise	4707 Mar 09 00:03	27°♋19'46			4709 Jul 30 00:01	0°♑	
	4707 Mar 11 03:05	0°♌		morning max el	4709 Sep 01 23:47	25°♑54'08	45°42'01
	4707 Apr 04 02:07	0°♍			4709 Sep 06 05:27	0°♎	
	4707 Apr 28 05:42	0°♎			4709 Oct 04 18:10	0°♏	
asc. node	4707 May 04 17:25	8°♎00'15		asc. node	4709 Oct 19 12:29	16°♏39'11	
	4707 May 22 16:15	0°♑			4709 Oct 31 00:47	0°♏	
	4707 Jun 16 12:38	0°♎			4709 Nov 25 04:44	0°♐	
	4707 Jul 11 23:44	0°♏			4709 Dec 19 17:32	0°♑	
	4707 Aug 07 12:36	0°♏			4710 Jan 12 21:50	0°♒	
desc. node	4707 Aug 24 08:12	17°♏54'58			4710 Feb 05 21:39	0°♓	
	4707 Sep 05 11:19	0°♐		desc. node	4710 Feb 08 03:18	2°♓48'10	
evening max el	4707 Sep 06 00:07	0°♐30'37	45°40'09		4710 Mar 01 19:20	0°♋	
greatest brilliancy	4707 Oct 13 12:24	27°♐59'00	-4.5m	morning set	4710 Mar 03 16:38	2°♋22'18	
	4707 Oct 21 08:13	0°♑			4710 Mar 25 16:35	0°♌	
retrograde	4707 Oct 24 16:48	0°♑12'47					
	4707 Oct 28 00:06	30°♊		superior conj	4710 Apr 13 12:56	23°♌37'55	-1°-24'-52
evening set	4707 Nov 10 10:15	24°♊56'25		minimum elong	4710 Apr 13 17:53	23°♌53'25	1°24'49
inferior conj	4707 Nov 14 18:22	22°♊19'03	-6°-43'-21	max. Earth dist.	4710 Apr 17 03:43	28°♌09'22	1.71693 AU
minimum elong	4707 Nov 15 04:31	22°♊03'20	6°41'23		4710 Apr 18 15:06	0°♍	
min. Earth dist.	4707 Nov 15 17:42	21°♊42'56	0.27919 AU		4710 May 12 16:33	0°♎	
morning rise	4707 Nov 19 22:15	19°♊12'12		evening rise	4710 May 23 06:52	13°♊08'51	
direct	4707 Dec 05 22:19	14°♊14'28		asc. node	4710 Jun 01 05:17	24°♊12'02	
asc. node	4707 Dec 15 10:03	15°♊56'04			4710 Jun 05 22:00	0°♑	
greatest brilliancy	4707 Dec 20 04:38	17°♊55'25	-4.6m		4710 Jun 30 08:02	0°♎	
	4708 Jan 06 23:54	0°♑			4710 Jul 24 23:22	0°♏	
morning max el	4708 Jan 25 11:04	17°♑13'42	46°50'18		4710 Aug 18 21:52	0°♏	
	4708 Feb 06 14:51	0°♒			4710 Sep 13 07:12	0°♐	
	4708 Mar 04 04:17	0°♓		desc. node	4710 Sep 20 19:57	8°♐45'18	
	4708 Mar 29 11:42	0°♋			4710 Oct 09 10:03	0°♑	
desc. node	4708 Apr 05 01:02	7°♋53'31			4710 Nov 05 22:36	0°♒	
	4708 Apr 23 06:38	0°♌		evening max el	4710 Nov 17 14:56	11°♒50'59	46°34'15
	4708 May 17 20:21	0°♍			4710 Dec 07 20:53	0°♓	
	4708 Jun 11 08:28	0°♎		greatest brilliancy	4710 Dec 26 05:51	11°♓19'44	-4.6m
	4708 Jul 05 20:21	0°♑		retrograde	4711 Jan 06 15:42	13°♓45'08	
asc. node	4708 Jul 27 02:58	26°♑04'32		asc. node	4711 Jan 11 22:01	13°♓10'59	
morning set	4708 Jul 28 15:18	27°♑55'57		evening set	4711 Jan 21 03:15	9°♓36'07	
	4708 Jul 30 07:45	0°♎		inferior conj	4711 Jan 27 05:25	6°♓02'55	3°52'00
	4708 Aug 23 17:48	0°♏		minimum elong	4711 Jan 26 21:11	6°♓15'28	3°49'33
max. Earth dist.	4708 Sep 01 14:57	10°♏56'03	1.73388 AU	min. Earth dist.	4711 Jan 27 00:03	6°♓11'07	0.26629 AU
				morning rise	4711 Feb 01 15:02	2°♓51'47	
superior conj	4708 Sep 03 06:17	12°♏57'12	1°14'54		4711 Feb 07 18:34	30°♊	
minimum elong	4708 Sep 02 22:40	12°♏33'46	1°14'43	direct	4711 Feb 16 16:31	28°♊21'25	
	4708 Sep 17 02:07	0°♏			4711 Feb 25 23:14	0°♓	
evening rise	4708 Oct 09 11:49	27°♏39'48		greatest brilliancy	4711 Feb 28 15:52	1°♓01'38	-4.7m
	4708 Oct 11 09:12	0°♐			4711 Apr 06 23:50	0°♋	
	4708 Nov 04 15:59	0°♑		morning max el	4711 Apr 08 02:49	1°♋07'18	46°51'47
desc. node	4708 Nov 15 17:44	13°♑40'27		desc. node	4711 May 03 12:51	28°♋13'14	
	4708 Nov 28 23:05	0°♒			4711 May 05 03:08	0°♌	
	4708 Dec 23 06:56	0°♓			4711 May 31 07:48	0°♍	
	4709 Jan 16 16:53	0°♋			4711 Jun 25 19:03	0°♎	
	4709 Feb 10 09:02	0°♌			4711 Jul 20 22:02	0°♑	
	4709 Mar 07 16:33	0°♍			4711 Aug 14 19:24	0°♎	
asc. node	4709 Mar 08 19:37	1°♍18'24		asc. node	4711 Aug 24 14:50	11°♎54'07	
	4709 Apr 03 12:47	0°♎			4711 Sep 08 11:17	0°♏	

	4711 Oct 02 21:44	0°♄		evening set	4714 Apr 08 07:31	22°♃55'31	
morning set	4711 Oct 05 19:26	3°♄34'54		min. Earth dist.	4714 Apr 10 17:23	21°♃26'06	0.27472 AU
	4711 Oct 27 03:42	0°♄		inferior conj	4714 Apr 11 02:19	21°♃12'11	8°51'53
max. Earth dist.	4711 Nov 09 00:48	15°♄59'56	1.72371 AU	minimum elong	4714 Apr 11 06:16	21°♃06'02	8°51'39
				morning rise	4714 Apr 14 05:12	19°♃17'07	
superior conj	4711 Nov 11 18:36	19°♄24'35	1°07'42	direct	4714 May 01 20:29	13°♃20'57	
minimum elong	4711 Nov 12 04:12	19°♄54'27	1°07'25	greatest brilliancy	4714 May 12 19:31	15°♃34'24	-4.6m
	4711 Nov 20 06:42	0°♂		desc. node	4714 May 31 00:36	26°♃31'31	
desc. node	4711 Dec 14 05:40	29°♂52'59			4714 Jun 04 08:53	0°♂	
	4711 Dec 14 07:55	0°♂		morning max el	4714 Jun 20 08:42	14°♂31'14	46°08'07
evening rise	4711 Dec 20 17:39	8°♂00'09			4714 Jul 05 14:40	0°♂	
	4712 Jan 07 08:00	0°♂			4714 Aug 02 00:55	0°♂	
	4712 Jan 31 07:41	0°♂			4714 Aug 28 03:47	0°♂	
	4712 Feb 24 08:44	0°♂		asc. node	4714 Sep 21 02:37	28°♂17'55	
asc. node	4712 Mar 19 14:29	0°♂			4714 Sep 22 12:47	0°♂	
	4712 Apr 05 07:30	20°♂24'53			4714 Oct 17 08:48	0°♂	
	4712 Apr 13 05:51	0°♂			4714 Nov 10 19:11	0°♂	
	4712 May 08 14:23	0°♂			4714 Dec 04 23:06	0°♂	
	4712 Jun 04 07:38	0°♂		morning set	4714 Dec 15 06:10	12°♂51'06	
evening max el	4712 Jun 23 11:26	19°♂43'03	45°39'57		4714 Dec 28 23:04	0°♂	
	4712 Jul 04 14:52	0°♂		desc. node	4715 Jan 10 17:28	16°♂00'44	
desc. node	4712 Jul 25 22:26	15°♂18'28			4715 Jan 21 20:45	0°♂	
greatest brilliancy	4712 Jul 28 06:50	16°♂27'33	-4.5m	max. Earth dist.	4715 Jan 23 02:03	1°♂32'02	1.71223 AU
retrograde	4712 Aug 11 09:05	19°♂55'27					
evening set	4712 Aug 28 03:56	14°♂33'15		superior conj	4715 Jan 24 11:21	3°♂16'38	0°-32'-26
inferior conj	4712 Sep 01 21:11	11°♂39'56	-7°-26'-9	minimum elong	4715 Jan 24 03:20	2°♂51'28	0°32'03
minimum elong	4712 Sep 01 12:31	11°♂53'31	7°24'53		4715 Feb 14 17:21	0°♂	
min. Earth dist.	4712 Sep 01 17:34	11°♂45'36	0.29129 AU	evening rise	4715 Mar 06 10:19	24°♂46'23	
morning rise	4712 Sep 05 21:08	9°♂12'12			4715 Mar 10 14:12	0°♂	
direct	4712 Sep 23 12:19	3°♂21'40			4715 Apr 03 13:17	0°♂	
greatest brilliancy	4712 Oct 07 12:23	6°♂48'32	-4.5m		4715 Apr 27 17:00	0°♂	
	4712 Nov 07 13:16	0°♂		asc. node	4715 May 03 19:27	7°♂31'31	
morning max el	4712 Nov 11 21:49	4°♂11'45	46°05'28		4715 May 22 03:51	0°♂	
asc. node	4712 Nov 16 00:22	8°♂16'52			4715 Jun 16 00:49	0°♂	
	4712 Dec 06 09:24	0°♂			4715 Jul 11 13:06	0°♂	
	4713 Jan 01 10:41	0°♂			4715 Aug 07 04:30	0°♂	
	4713 Jan 26 09:32	0°♂		desc. node	4715 Aug 23 10:07	17°♂11'05	
	4713 Feb 19 20:01	0°♂		evening max el	4715 Sep 03 13:26	28°♂12'49	45°38'51
desc. node	4713 Mar 07 15:07	19°♂34'11			4715 Sep 05 10:39	0°♂	
	4713 Mar 16 00:35	0°♂		greatest brilliancy	4715 Oct 11 01:24	25°♄41'18	-4.5m
	4713 Apr 09 02:47	0°♂		retrograde	4715 Oct 22 06:10	27°♄55'57	
	4713 May 03 05:02	0°♂		evening set	4715 Nov 08 03:26	22°♄34'38	
morning set	4713 May 17 17:51	18°♂03'27		inferior conj	4715 Nov 12 08:50	20°♄01'22	-6°-56'-34
	4713 May 27 08:57	0°♂		minimum elong	4715 Nov 12 18:47	19°♄45'57	6°54'44
	4713 Jun 20 15:07	0°♂		min. Earth dist.	4715 Nov 13 08:31	19°♄24'41	0.27989 AU
				morning rise	4715 Nov 17 09:33	16°♄58'49	
superior conj	4713 Jun 24 20:23	5°♄12'29	0°-9'-16	direct	4715 Dec 03 12:49	11°♄55'32	
minimum elong	4713 Jun 24 22:27	5°♄18'50	0°09'12	asc. node	4715 Dec 14 12:08	14°♄09'23	
behind sun begin	4713 Jun 24 03:05	4°♄19'05		greatest brilliancy	4715 Dec 17 21:32	15°♄38'33	-4.6m
behind sun end	4713 Jun 25 17:48	6°♄18'34			4716 Jan 07 08:43	0°♂	
max. Earth dist.	4713 Jun 26 23:02	7°♄48'43	1.73115 AU	morning max el	4716 Jan 23 00:51	14°♂50'12	46°49'17
asc. node	4713 Jun 28 17:11	9°♄58'40			4716 Feb 06 09:28	0°♂	
	4713 Jul 14 23:15	0°♂			4716 Mar 03 19:16	0°♂	
evening rise	4713 Jul 31 18:35	20°♂40'03			4716 Mar 29 01:04	0°♂	
	4713 Aug 08 08:56	0°♂		desc. node	4716 Apr 04 03:00	7°♂20'01	
	4713 Sep 01 20:19	0°♂			4716 Apr 22 19:03	0°♂	
	4713 Sep 26 10:23	0°♂			4716 May 17 08:09	0°♂	
desc. node	4713 Oct 18 07:51	26°♄33'00			4716 Jun 10 19:50	0°♂	
	4713 Oct 21 04:25	0°♂			4716 Jul 05 07:24	0°♂	
	4713 Nov 15 03:49	0°♂		morning set	4716 Jul 26 08:57	25°♄49'29	
	4713 Dec 10 11:33	0°♂		asc. node	4716 Jul 26 04:58	25°♄37'17	
	4714 Jan 05 13:00	0°♂			4716 Jul 29 18:37	0°♂	
evening max el	4714 Jan 29 12:11	25°♂48'10	47°10'45		4716 Aug 23 04:35	0°♂	
	4714 Feb 02 16:48	0°♂		max. Earth dist.	4716 Aug 30 10:56	8°♂56'37	1.73409 AU
asc. node	4714 Feb 08 09:54	5°♂29'32					
greatest brilliancy	4714 Mar 08 13:12	26°♂11'48	-4.7m	superior conj	4716 Sep 01 00:40	10°♂52'47	1°13'20
retrograde	4714 Mar 21 06:55	29°♂12'09		minimum elong	4716 Aug 31 16:42	10°♂28'17	1°13'07

	4716 Sep 16 12:56	0°♄		greatest brilliancy	4719 Feb 26 05:56	28°♄34'38	-4.7m
evening rise	4716 Oct 07 05:05	25°♄31'11			4719 Mar 01 07:03	0°♄	
	4716 Oct 10 20:11	0°♄		morning max el	4719 Apr 05 17:04	28°♄44'18	46°52'46
	4716 Nov 04 03:12	0°♄			4719 Apr 06 23:08	0°♄	
desc. node	4716 Nov 14 19:50	13°♄11'51		desc. node	4719 May 02 14:59	27°♄32'07	
	4716 Nov 28 10:38	0°♄			4719 May 04 19:44	0°♄	
	4716 Dec 22 18:54	0°♄			4719 May 30 21:50	0°♄	
	4717 Jan 16 05:26	0°♄			4719 Jun 25 07:46	0°♄	
	4717 Feb 09 22:28	0°♄			4719 Jul 20 09:58	0°♄	
	4717 Mar 07 07:40	0°♄			4719 Aug 14 06:49	0°♄	
asc. node	4717 Mar 07 21:34	0°♄40'06		asc. node	4719 Aug 23 16:46	11°♄25'44	
	4717 Apr 03 08:03	0°♄			4719 Sep 07 22:22	0°♄	
evening max el	4717 Apr 11 08:06	8°♄13'07	46°34'35		4719 Oct 02 08:38	0°♄	
	4717 May 06 01:35	0°♄		morning set	4719 Oct 03 12:51	1°♄26'56	
greatest brilliancy	4717 May 16 23:46	6°♄39'20	-4.6m		4719 Oct 26 14:35	0°♄	
retrograde	4717 May 31 09:31	10°♄23'26		max. Earth dist.	4719 Nov 06 16:31	13°♄45'39	1.72415 AU
evening set	4717 Jun 15 14:32	5°♄52'05					
inferior conj	4717 Jun 21 17:06	2°♄11'39	1°24'20	superior conj	4719 Nov 09 10:27	17°♄10'40	1°09'44
minimum elong	4717 Jun 21 20:13	2°♄06'46	1°23'22	minimum elong	4719 Nov 09 19:46	17°♄39'38	1°09'28
min. Earth dist.	4717 Jun 21 11:50	2°♄19'54	0.28395 AU		4719 Nov 19 17:39	0°♄	
	4717 Jun 25 06:23	30°♄		desc. node	4719 Dec 13 07:44	29°♄24'48	
desc. node	4717 Jun 27 12:29	28°♄41'28			4719 Dec 13 19:01	0°♄	
morning rise	4717 Jun 28 02:16	28°♄22'28		evening rise	4719 Dec 18 06:46	5°♄36'25	
direct	4717 Jul 12 23:02	24°♄04'42			4720 Jan 06 19:17	0°♄	
greatest brilliancy	4717 Jul 25 11:32	26°♄50'15	-4.5m		4720 Jan 30 19:10	0°♄	
	4717 Jul 31 20:24	0°♄			4720 Feb 23 20:30	0°♄	
morning max el	4717 Aug 30 15:41	23°♄43'40	45°42'11		4720 Mar 19 02:39	0°♄	
	4717 Sep 06 02:11	0°♄		asc. node	4720 Apr 04 09:35	19°♄53'09	
	4717 Oct 04 09:21	0°♄			4720 Apr 12 18:41	0°♄	
asc. node	4717 Oct 18 14:38	16°♄05'34			4720 May 08 04:32	0°♄	
	4717 Oct 30 13:57	0°♄			4720 Jun 04 00:54	0°♄	
	4717 Nov 24 16:58	0°♄		evening max el	4720 Jun 21 03:59	17°♄32'57	45°41'07
	4717 Dec 19 05:18	0°♄			4720 Jul 04 19:58	0°♄	
	4718 Jan 12 09:22	0°♄		desc. node	4720 Jul 25 00:22	13°♄51'25	
	4718 Feb 05 09:02	0°♄		greatest brilliancy	4720 Jul 25 22:41	14°♄17'50	-4.5m
desc. node	4718 Feb 07 05:16	2°♄18'40		retrograde	4720 Aug 09 01:20	17°♄46'03	
morning set	4718 Mar 01 02:21	29°♄46'41		evening set	4720 Aug 25 17:16	12°♄28'33	
	4718 Mar 01 06:36	0°♄		inferior conj	4720 Aug 30 13:34	9°♄30'27	-7°-15'-56
	4718 Mar 25 03:44	0°♄		minimum elong	4720 Aug 30 04:35	9°♄44'33	7°14'33
				min. Earth dist.	4720 Aug 30 09:02	9°♄37'34	0.29123 AU
superior conj	4718 Apr 11 00:38	21°♄09'30	-1°-25'-37	morning rise	4720 Sep 03 15:57	6°♄58'55	
minimum elong	4718 Apr 11 04:39	21°♄22'04	1°25'37	direct	4720 Sep 21 05:05	1°♄12'36	
max. Earth dist.	4718 Apr 14 11:49	25°♄29'50	1.71647 AU	greatest brilliancy	4720 Oct 05 01:59	4°♄35'47	-4.5m
	4718 Apr 18 02:12	0°♄			4720 Nov 07 12:32	0°♄	
	4718 May 12 03:38	0°♄		morning max el	4720 Nov 09 12:50	1°♄57'19	46°04'00
evening rise	4718 May 20 20:43	10°♄48'46		asc. node	4720 Nov 15 02:23	7°♄30'43	
asc. node	4718 May 31 07:24	23°♄44'15			4720 Dec 06 01:26	0°♄	
	4718 Jun 05 09:08	0°♄			4721 Jan 01 00:23	0°♄	
	4718 Jun 29 19:18	0°♄			4721 Jan 25 22:09	0°♄	
	4718 Jul 24 10:56	0°♄			4721 Feb 19 08:03	0°♄	
	4718 Aug 18 10:00	0°♄		desc. node	4721 Mar 06 17:07	19°♄03'49	
	4718 Sep 12 20:24	0°♄			4721 Mar 15 12:15	0°♄	
desc. node	4718 Sep 19 21:57	8°♄11'39			4721 Apr 08 14:12	0°♄	
	4718 Oct 09 01:20	0°♄			4721 May 02 16:14	0°♄	
	4718 Nov 05 18:40	0°♄		morning set	4721 May 15 08:10	15°♄44'34	
evening max el	4718 Nov 15 05:15	9°♄30'32	46°32'04		4721 May 26 19:58	0°♄	
	4718 Dec 08 14:35	0°♄			4721 Jun 20 01:59	0°♄	
greatest brilliancy	4718 Dec 23 17:52	8°♄50'59	-4.6m				
retrograde	4719 Jan 04 04:29	11°♄16'29		superior conj	4721 Jun 22 12:26	3°♄00'20	0°-12'-39
asc. node	4719 Jan 11 00:02	10°♄19'14		minimum elong	4721 Jun 22 15:13	3°♄08'58	0°12'31
evening set	4719 Jan 18 14:05	7°♄09'31		behind sun begin	4721 Jun 22 00:30	2°♄23'31	
inferior conj	4719 Jan 24 17:40	3°♄34'19	3°29'17	behind sun end	4721 Jun 23 05:57	3°♄54'24	
minimum elong	4719 Jan 24 10:06	3°♄45'49	3°27'01	max. Earth dist.	4721 Jun 24 20:01	5°♄51'49	1.73075 AU
min. Earth dist.	4719 Jan 24 13:09	3°♄41'10	0.26632 AU	asc. node	4721 Jun 27 19:08	9°♄31'09	
morning rise	4719 Jan 30 06:05	0°♄			4721 Jul 14 10:05	0°♄	
	4719 Jan 30 20:36	30°♄		evening rise	4721 Jul 29 12:39	18°♄34'40	
direct	4719 Feb 14 05:41	25°♄52'41			4721 Aug 07 19:50	0°♄	

	4721 Sep 01 07:26	0°♄			4724 Apr 22 07:09	0°♃		
	4721 Sep 25 21:51	0°♌			4724 May 16 19:41	0°♎		
desc. node	4721 Oct 17 09:59	26°♌03'27			4724 Jun 10 06:58	0°♈		
	4721 Oct 20 16:25	0°♏			4724 Jul 04 18:16	0°♎		
	4721 Nov 14 16:39	0°♎		morning set	4724 Jul 24 02:18	23°♎42'33		
	4721 Dec 10 01:47	0°♏		asc. node	4724 Jul 25 06:57	25°♎10'30		
	4722 Jan 05 06:01	0°♏			4724 Jul 29 05:18	0°♏		
evening max el	4722 Jan 27 01:56	23°♏23'48	47°10'28		4724 Aug 22 15:11	0°♏		
	4722 Feb 02 17:43	0°♃		max. Earth dist.	4724 Aug 28 07:55	7°♏00'51	1.73425 AU	
asc. node	4722 Feb 07 11:47	4°♃29'11						
greatest brilliancy	4722 Mar 06 05:34	23°♃50'45	-4.7m	superior conj	4724 Aug 29 18:42	8°♏47'59	1°11'38	
retrograde	4722 Mar 18 20:20	26°♃48'08		minimum elong	4724 Aug 29 10:27	8°♏22'34	1°11'26	
evening set	4722 Apr 05 22:23	20°♃30'36			4724 Sep 15 23:32	0°♄		
inferior conj	4722 Apr 08 15:59	18°♃49'03	8°55'57	evening rise	4724 Oct 04 22:16	23°♄23'06		
minimum elong	4722 Apr 08 19:04	18°♃44'15	8°55'49		4724 Oct 10 06:53	0°♌		
min. Earth dist.	4722 Apr 08 06:49	19°♃03'20	0.27438 AU		4724 Nov 03 14:09	0°♏		
morning rise	4722 Apr 11 15:53	16°♃58'18		desc. node	4724 Nov 13 21:50	12°♏43'50		
direct	4722 Apr 29 09:26	10°♃58'26			4724 Nov 27 21:55	0°♎		
greatest brilliancy	4722 May 10 08:24	13°♃11'23	-4.6m		4724 Dec 22 06:37	0°♏		
desc. node	4722 May 30 02:38	25°♃21'37			4725 Jan 15 17:44	0°♏		
	4722 Jun 04 17:11	0°♎			4725 Feb 09 11:40	0°♃		
morning max el	4722 Jun 17 21:38	12°♎09'30	46°09'41	asc. node	4725 Mar 06 23:43	0°♎03'11		
	4722 Jul 05 08:57	0°♈			4725 Mar 06 22:36	0°♎		
	4722 Aug 01 15:22	0°♎			4725 Apr 03 03:25	0°♈		
	4722 Aug 27 16:30	0°♏		evening max el	4725 Apr 08 23:03	5°♈56'30	46°36'42	
asc. node	4722 Sep 20 04:43	27°♏48'47			4725 May 06 22:37	0°♎		
	4722 Sep 22 00:35	0°♏		greatest brilliancy	4725 May 14 15:21	4°♎26'02	-4.6m	
	4722 Oct 16 20:07	0°♄		retrograde	4725 May 29 01:52	8°♎11'07		
	4722 Nov 10 06:16	0°♌		evening set	4725 Jun 13 07:43	3°♎37'27		
	4722 Dec 04 10:03	0°♏		inferior conj	4725 Jun 19 08:44	29°♈59'22	1°44'58	
morning set	4722 Dec 12 19:58	10°♏30'06		minimum elong	4725 Jun 19 12:35	29°♈53'20	1°43'48	
	4722 Dec 28 09:58	0°♎		min. Earth dist.	4725 Jun 19 03:39	0°♎07'18	0.28366 AU	
desc. node	4723 Jan 09 19:27	15°♎32'40			4725 Jun 19 08:19	30°♈♈		
max. Earth dist.	4723 Jan 20 08:10	28°♎46'11	1.71245 AU	morning rise	4725 Jun 25 17:52	26°♈10'38		
	4723 Jan 21 07:40	0°♏		desc. node	4725 Jun 26 14:24	25°♈43'16		
				direct	4725 Jul 10 14:24	21°♈52'41		
superior conj	4723 Jan 21 22:30	0°♏46'37	0°-28'-45	greatest brilliancy	4725 Jul 23 02:23	24°♈38'22	-4.5m	
minimum elong	4723 Jan 21 15:18	0°♏24'00	0°28'26		4725 Aug 02 02:10	0°♎		
	4723 Feb 14 04:17	0°♏		morning max el	4725 Aug 28 08:10	21°♎35'26	45°42'17	
evening rise	4723 Mar 03 21:01	22°♏14'47			4725 Sep 05 21:57	0°♏		
	4723 Mar 10 01:12	0°♃			4725 Oct 04 00:03	0°♏		
	4723 Apr 03 00:23	0°♎		asc. node	4725 Oct 17 16:41	15°♏32'45		
	4723 Apr 27 04:17	0°♈			4725 Oct 30 02:41	0°♄		
asc. node	4723 May 02 21:32	7°♈03'00			4725 Nov 24 04:47	0°♌		
	4723 May 21 15:27	0°♎			4725 Dec 18 16:38	0°♏		
	4723 Jun 15 13:03	0°♏			4726 Jan 11 20:29	0°♎		
	4723 Jul 11 02:32	0°♏			4726 Feb 04 20:01	0°♏		
	4723 Aug 06 20:36	0°♄		desc. node	4726 Feb 06 07:15	1°♏50'29		
desc. node	4723 Aug 22 12:09	16°♄27'15		morning set	4726 Feb 26 12:16	27°♏12'53		
evening max el	4723 Sep 01 02:49	25°♄55'49	45°37'54		4726 Feb 28 17:28	0°♏		
	4723 Sep 05 10:53	0°♌			4726 Mar 24 14:30	0°♃		
greatest brilliancy	4723 Oct 08 13:23	23°♌23'32	-4.5m					
retrograde	4723 Oct 19 20:11	25°♌40'31		superior conj	4726 Apr 08 12:25	18°♃42'28	-1°-26'-13	
evening set	4723 Nov 05 20:46	20°♌13'59		minimum elong	4726 Apr 08 15:28	18°♃52'00	1°26'14	
inferior conj	4723 Nov 09 23:27	17°♌44'47	-7°-8'-58	max. Earth dist.	4726 Apr 11 22:14	22°♃58'41	1.71601 AU	
minimum elong	4723 Nov 10 09:10	17°♌29'45	7°07'16		4726 Apr 17 12:53	0°♎		
min. Earth dist.	4723 Nov 10 23:09	17°♌08'09	0.28058 AU		4726 May 11 14:17	0°♈		
morning rise	4723 Nov 14 21:01	14°♌46'52		evening rise	4726 May 18 10:41	8°♈30'13		
direct	4723 Dec 01 03:46	9°♌37'44		asc. node	4726 May 30 09:20	23°♈17'13		
asc. node	4723 Dec 13 14:07	12°♌27'27			4726 Jun 04 19:51	0°♎		
greatest brilliancy	4723 Dec 15 15:12	13°♌23'50	-4.6m		4726 Jun 29 06:10	0°♏		
	4724 Jan 07 14:44	0°♏			4726 Jul 23 22:08	0°♏		
morning max el	4724 Jan 20 15:44	12°♏30'26	46°48'20		4726 Aug 17 21:50	0°♄		
	4724 Feb 06 03:21	0°♎			4726 Sep 12 09:23	0°♌		
	4724 Mar 03 09:47	0°♏		desc. node	4726 Sep 19 00:03	7°♌39'02		
	4724 Mar 28 14:02	0°♏			4726 Oct 08 16:29	0°♏		
desc. node	4724 Apr 03 05:08	6°♏48'04			4726 Nov 05 14:59	0°♎		

evening max el	4726 Nov 12 19:55	7°  12'14	46°30'00		4729 May 02 03:07	0° 	
	4726 Dec 09 13:34	0° 		morning set	4729 May 12 22:18	13°  25'56	
greatest brilliancy	4726 Dec 21 06:41	6°  24'53	-4.6m		4729 May 26 06:41	0°  II	
retrograde	4727 Jan 01 17:09	8°  49'24			4729 Jun 19 12:36	0°  ☿	
asc. node	4727 Jan 10 01:59	7°  23'28					
evening set	4727 Jan 16 01:21	4°  44'28		superior conj	4729 Jun 20 04:27	0°  ☿48'57	0°-15'-59
inferior conj	4727 Jan 22 06:01	1°  07'26	3°06'19	minimum elong	4729 Jun 20 07:59	0°  ☿59'51	0°15'51
minimum elong	4727 Jan 21 23:11	1°  17'51	3°04'14	behind sun begin	4729 Jun 20 05:21	0°  ☿51'43	
min. Earth dist.	4727 Jan 22 02:28	1°  12'51	0.26637 AU	behind sun end	4729 Jun 20 10:37	1°  ☿07'59	
	4727 Jan 24 02:28	30°  R☿		max. Earth dist.	4729 Jun 22 15:07	3°  ☿50'00	1.73032 AU
morning rise	4727 Jan 27 21:02	27°  ☿49'13		asc. node	4729 Jun 26 21:09	9°  ☿04'43	
direct	4727 Feb 11 18:57	23°  ☿25'49			4729 Jul 13 20:39	0°  Ω	
greatest brilliancy	4727 Feb 23 19:46	26°  ☿08'42	-4.7m	evening rise	4729 Jul 27 06:42	16°  Ω30'06	
	4727 Mar 03 04:21	0°  ☿			4729 Aug 07 06:28	0°  ☿	
morning max el	4727 Apr 03 06:34	26°  ☿20'36	46°53'37		4729 Aug 31 18:16	0°  ☿	
	4727 Apr 06 20:59	0°  ☿			4729 Sep 25 09:04	0°  ☿	
desc. node	4727 May 01 16:56	26°  ☿52'06		desc. node	4729 Oct 16 11:57	25°  ☿34'03	
	4727 May 04 11:36	0°  ☿			4729 Oct 20 04:14	0°  ☿	
	4727 May 30 11:20	0°  ☿			4729 Nov 14 05:24	0°  ☿	
	4727 Jun 24 19:59	0°  ☿			4729 Dec 09 16:04	0°  ☿	
	4727 Jul 19 21:25	0°  ☿			4730 Jan 04 23:17	0°  ☿	
	4727 Aug 13 17:47	0°  Ω		evening max el	4730 Jan 24 14:41	20°  ☿57'11	47°10'17
asc. node	4727 Aug 22 18:52	10°  Ω59'09			4730 Feb 02 19:52	0°  ☿	
	4727 Sep 07 09:03	0°  ☿		asc. node	4730 Feb 06 13:57	3°  ☿28'16	
morning set	4727 Oct 01 06:03	29°  ☿19'27		greatest brilliancy	4730 Mar 03 21:28	21°  ☿29'12	-4.7m
	4727 Oct 01 19:13	0°  ☿		retrograde	4730 Mar 16 09:36	24°  ☿24'27	
	4727 Oct 26 01:09	0°  ☿		evening set	4730 Apr 03 12:39	18°  ☿06'30	
max. Earth dist.	4727 Nov 04 06:04	11°  ☿25'44	1.72460 AU	inferior conj	4730 Apr 06 05:33	16°  ☿26'08	8°59'05
				minimum elong	4730 Apr 06 07:42	16°  ☿22'47	8°59'01
superior conj	4727 Nov 07 02:12	14°  ☿57'27	1°11'39	min. Earth dist.	4730 Apr 05 20:09	16°  ☿40'46	0.27401 AU
minimum elong	4727 Nov 07 11:10	15°  ☿25'20	1°11'25	morning rise	4730 Apr 09 02:52	14°  ☿39'18	
	4727 Nov 19 04:18	0°  ☿		direct	4730 Apr 26 21:57	8°  ☿35'58	
desc. node	4727 Dec 12 09:39	28°  ☿57'11		greatest brilliancy	4730 May 07 21:54	10°  ☿49'28	-4.6m
	4727 Dec 13 05:47	0°  ☿		desc. node	4730 May 29 04:37	24°  ☿14'07	
evening rise	4727 Dec 15 19:40	3°  ☿13'11			4730 Jun 04 22:52	0°  ☿	
	4728 Jan 06 06:11	0°  ☿		morning max el	4730 Jun 15 10:42	9°  ☿48'30	46°11'17
	4728 Jan 30 06:18	0°  ☿			4730 Jul 05 02:34	0°  ☿	
	4728 Feb 23 07:55	0°  ☿			4730 Aug 01 05:27	0°  ☿	
	4728 Mar 18 14:29	0°  ☿			4730 Aug 27 04:58	0°  Ω	
asc. node	4728 Apr 03 11:36	19°  ☿22'15		asc. node	4730 Sep 19 06:46	27°  Ω20'03	
	4728 Apr 12 07:13	0°  ☿			4730 Sep 21 12:11	0°  ☿	
	4728 May 07 18:27	0°  ☿			4730 Oct 16 07:14	0°  ☿	
	4728 Jun 03 18:07	0°  Ω			4730 Nov 09 17:09	0°  ☿	
evening max el	4728 Jun 18 19:39	15°  Ω21'50	45°42'20		4730 Dec 03 20:52	0°  ☿	
	4728 Jul 05 02:37	0°  ☿		morning set	4730 Dec 10 09:46	8°  ☿09'26	
greatest brilliancy	4728 Jul 23 14:32	12°  ☿09'15	-4.5m		4730 Dec 27 20:48	0°  ☿	
desc. node	4728 Jul 24 02:23	12°  ☿22'47		desc. node	4731 Jan 08 21:30	15°  ☿04'59	
retrograde	4728 Aug 06 17:13	15°  ☿37'58		max. Earth dist.	4731 Jan 17 15:55	26°  ☿05'36	1.71273 AU
evening set	4728 Aug 23 06:39	10°  ☿25'05					
inferior conj	4728 Aug 28 05:59	7°  ☿22'22	-7°-5'-6	superior conj	4731 Jan 19 09:18	28°  ☿15'34	0°-25'00
minimum elong	4728 Aug 27 20:43	7°  ☿36'57	7°03'36	minimum elong	4731 Jan 19 02:59	27°  ☿55'42	0°24'42
min. Earth dist.	4728 Aug 28 00:51	7°  ☿30'26	0.29118 AU		4731 Jan 20 18:33	0°  ☿	
morning rise	4728 Sep 01 10:50	4°  ☿46'54			4731 Feb 13 15:14	0°  ☿	
	4728 Sep 12 01:21	30°  ☿RΩ		evening rise	4731 Mar 01 07:17	19°  ☿41'51	
direct	4728 Sep 18 21:25	29°  ☿04'48			4731 Mar 09 12:12	0°  ☿	
	4728 Sep 25 22:29	0°  ☿			4731 Apr 02 11:27	0°  ☿	
greatest brilliancy	4728 Oct 02 16:07	2°  ☿24'48	-4.5m		4731 Apr 26 15:30	0°  ☿	
morning max el	4728 Nov 07 02:59	29°  ☿41'38	46°02'28	asc. node	4731 May 01 23:27	6°  ☿34'09	
	4728 Nov 07 10:30	0°  ☿			4731 May 21 03:02	0°  ☿	
asc. node	4728 Nov 14 04:21	6°  ☿45'53			4731 Jun 15 01:18	0°  Ω	
	4728 Dec 05 16:57	0°  ☿			4731 Jul 10 16:04	0°  ☿	
	4728 Dec 31 13:43	0°  ☿			4731 Aug 06 12:57	0°  ☿	
	4729 Jan 25 10:27	0°  ☿		desc. node	4731 Aug 21 14:17	15°  ☿43'11	
	4729 Feb 18 19:45	0°  ☿		evening max el	4731 Aug 29 16:59	23°  ☿40'57	45°37'04
desc. node	4729 Mar 05 19:15	18°  ☿34'51			4731 Sep 05 12:18	0°  ☿	
	4729 Mar 14 23:34	0°  ☿		greatest brilliancy	4731 Oct 06 00:38	21°  ☿05'32	-4.5m
	4729 Apr 08 01:15	0°  ☿		retrograde	4731 Oct 17 10:49	23°  ☿25'35	

evening set	4731 Nov 03 14:04	17° \mathbb{M} 53'59		minimum elong	4734 Apr 06 02:01	16° Υ 20'08	1°26'40
inferior conj	4731 Nov 07 14:07	15° \mathbb{M} 28'36	-7°-20'-26	max. Earth dist.	4734 Apr 09 09:47	20° Υ 30'02	1.71560 AU
minimum elong	4731 Nov 07 23:31	15° \mathbb{M} 14'03	7°18'54		4734 Apr 16 23:53	0° \mathcal{B}	
min. Earth dist.	4731 Nov 08 13:19	14° \mathbb{M} 52'45	0.28128 AU		4734 May 11 01:17	0° \mathbb{I}	
morning rise	4731 Nov 12 08:30	12° \mathbb{M} 35'28		evening rise	4734 May 16 00:07	6° \mathbb{I} 08'58	
direct	4731 Nov 28 19:13	7° \mathbb{M} 20'31		asc. node	4734 May 29 11:20	22° \mathbb{I} 49'25	
asc. node	4731 Dec 12 16:07	10° \mathbb{M} 49'32			4734 Jun 04 06:53	0° \mathcal{B}	
greatest brilliancy	4731 Dec 13 08:18	11° \mathbb{M} 08'57	-4.6m		4734 Jun 28 17:21	0° \mathcal{Q}	
	4732 Jan 07 18:46	0° \mathcal{A}			4734 Jul 23 09:40	0° \mathbb{M}	
morning max el	4732 Jan 18 07:20	10° \mathcal{A} 12'39	46°47'06		4734 Aug 17 10:02	0° \mathcal{A}	
	4732 Feb 05 20:54	0° \mathcal{B}			4734 Sep 11 22:47	0° \mathbb{M}	
	4732 Mar 03 00:16	0° \approx		desc. node	4734 Sep 18 02:00	7° \mathbb{M} 04'53	
	4732 Mar 28 03:06	0° \mathcal{H}			4734 Oct 08 08:13	0° \mathcal{A}	
desc. node	4732 Apr 02 07:04	6° \mathcal{H} 15'04			4734 Nov 05 12:22	0° \mathcal{B}	
	4732 Apr 21 19:21	0° Υ		evening max el	4734 Nov 10 10:18	4° \mathcal{B} 52'29	46°27'51
	4732 May 16 07:18	0° \mathcal{B}			4734 Dec 10 21:53	0° \approx	
	4732 Jun 09 18:10	0° \mathbb{I}		greatest brilliancy	4734 Dec 18 20:37	3° \approx 59'36	-4.6m
	4732 Jul 04 05:11	0° \mathcal{B}		retrograde	4734 Dec 30 05:28	6° \approx 21'55	
morning set	4732 Jul 21 19:33	21° \mathcal{B} 35'07		asc. node	4735 Jan 09 04:05	4° \approx 21'44	
asc. node	4732 Jul 24 09:01	24° \mathcal{B} 43'45		evening set	4735 Jan 13 13:00	2° \approx 18'50	
	4732 Jul 28 16:03	0° \mathcal{Q}			4735 Jan 17 14:08	30° \mathcal{R} \mathcal{B}	
	4732 Aug 22 01:52	0° \mathbb{M}		inferior conj	4735 Jan 19 18:32	28° \mathcal{B} 40'24	2°43'11
max. Earth dist.	4732 Aug 26 05:51	5° \mathbb{M} 07'43	1.73439 AU	minimum elong	4735 Jan 19 12:28	28° \mathcal{B} 49'39	2°41'17
				min. Earth dist.	4735 Jan 19 16:15	28° \mathcal{B} 43'53	0.26641 AU
superior conj	4732 Aug 27 12:46	6° \mathbb{M} 42'54	1°09'52	morning rise	4735 Jan 25 11:54	25° \mathcal{B} 18'41	
minimum elong	4732 Aug 27 04:16	6° \mathbb{M} 16'44	1°09'37	direct	4735 Feb 09 07:49	20° \mathcal{B} 58'45	
	4732 Sep 15 10:15	0° \mathcal{A}		greatest brilliancy	4735 Feb 21 09:53	23° \mathcal{B} 42'37	-4.7m
evening rise	4732 Oct 02 15:41	21° \mathcal{A} 15'22			4735 Mar 04 11:26	0° \approx	
	4732 Oct 09 17:43	0° \mathbb{M}		morning max el	4735 Mar 31 19:07	23° \approx 53'42	46°54'22
	4732 Nov 03 01:12	0° \mathcal{A}			4735 Apr 06 18:18	0° \mathcal{H}	
desc. node	4732 Nov 12 23:48	12° \mathcal{A} 15'25		desc. node	4735 Apr 30 18:56	26° \mathcal{H} 11'51	
	4732 Nov 27 09:19	0° \mathcal{B}			4735 May 04 03:31	0° Υ	
	4732 Dec 21 18:29	0° \approx			4735 May 30 01:03	0° \mathcal{B}	
	4733 Jan 15 06:13	0° \mathcal{H}			4735 Jun 24 08:32	0° \mathbb{I}	
	4733 Feb 09 01:09	0° Υ			4735 Jul 19 09:13	0° \mathcal{B}	
asc. node	4733 Mar 06 01:40	29° Υ 24'36			4735 Aug 13 05:05	0° \mathcal{Q}	
	4733 Mar 06 14:01	0° \mathcal{B}		asc. node	4735 Aug 21 20:53	10° \mathcal{Q} 31'12	
	4733 Apr 02 23:46	0° \mathbb{I}			4735 Sep 06 20:03	0° \mathbb{M}	
evening max el	4733 Apr 06 14:48	3° \mathbb{I} 40'50	46°38'49	morning set	4735 Sep 28 23:12	27° \mathbb{M} 10'50	
	4733 May 08 04:37	0° \mathcal{B}			4735 Oct 01 06:05	0° \mathcal{A}	
greatest brilliancy	4733 May 12 08:02	2° \mathcal{B} 12'59	-4.6m		4735 Oct 25 12:03	0° \mathbb{M}	
retrograde	4733 May 26 18:19	5° \mathcal{B} 57'17		max. Earth dist.	4735 Nov 01 20:06	9° \mathbb{M} 06'26	1.72508 AU
evening set	4733 Jun 11 00:59	1° \mathcal{B} 21'26					
	4733 Jun 13 09:04	30° \mathcal{R} \mathbb{I}		superior conj	4735 Nov 04 18:07	12° \mathbb{M} 43'54	1°13'27
inferior conj	4733 Jun 17 00:12	27° \mathbb{I} 45'39	2°05'34	minimum elong	4735 Nov 05 02:43	13° \mathbb{M} 10'35	1°13'15
minimum elong	4733 Jun 17 04:47	27° \mathbb{I} 38'30	2°04'12		4735 Nov 18 15:17	0° \mathcal{A}	
min. Earth dist.	4733 Jun 16 19:02	27° \mathbb{I} 53'44	0.28333 AU	desc. node	4735 Dec 11 11:45	28° \mathcal{A} 29'06	
morning rise	4733 Jun 23 09:07	23° \mathbb{I} 57'41			4735 Dec 12 16:54	0° \mathcal{B}	
desc. node	4733 Jun 25 16:28	22° \mathbb{I} 46'45		evening rise	4735 Dec 13 08:52	0° \mathcal{B} 49'50	
direct	4733 Jul 08 06:00	19° \mathbb{I} 39'35			4736 Jan 05 17:28	0° \approx	
greatest brilliancy	4733 Jul 20 15:58	22° \mathbb{I} 24'01	-4.5m		4736 Jan 29 17:45	0° \mathcal{H}	
	4733 Aug 03 00:06	0° \mathcal{B}			4736 Feb 22 19:38	0° Υ	
morning max el	4733 Aug 26 00:27	19° \mathcal{B} 26'05	45°42'23		4736 Mar 18 02:37	0° \mathcal{B}	
	4733 Sep 05 17:22	0° \mathcal{Q}		asc. node	4736 Apr 02 13:33	18° \mathcal{B} 50'13	
	4733 Oct 03 14:47	0° \mathbb{M}			4736 Apr 11 20:05	0° \mathbb{I}	
asc. node	4733 Oct 16 18:33	14° \mathbb{M} 58'55			4736 May 07 08:48	0° \mathcal{B}	
	4733 Oct 29 15:34	0° \mathcal{A}			4736 Jun 03 12:06	0° \mathcal{Q}	
	4733 Nov 23 16:46	0° \mathbb{M}		evening max el	4736 Jun 16 10:40	13° \mathcal{Q} 07'53	45°43'32
	4733 Dec 18 04:11	0° \mathcal{A}			4736 Jul 05 12:30	0° \mathbb{M}	
	4734 Jan 11 07:47	0° \mathcal{B}		greatest brilliancy	4736 Jul 21 05:53	9° \mathbb{M} 58'44	-4.5m
	4734 Feb 04 07:11	0° \approx		desc. node	4736 Jul 23 04:30	10° \mathbb{M} 49'54	
desc. node	4734 Feb 05 09:22	1° \approx 22'06		retrograde	4736 Aug 04 09:05	13° \mathbb{M} 28'56	
morning set	4734 Feb 23 22:23	24° \approx 39'04		evening set	4736 Aug 20 20:06	8° \mathbb{M} 20'19	
	4734 Feb 28 04:33	0° \mathcal{H}		inferior conj	4736 Aug 25 22:29	5° \mathbb{M} 13'19	-6°-53'-42
	4734 Mar 24 01:32	0° Υ		minimum elong	4736 Aug 25 12:58	5° \mathbb{M} 28'16	6°52'03
				min. Earth dist.	4736 Aug 25 16:59	5° \mathbb{M} 21'57	0.29111 AU
superior conj	4734 Apr 05 23:59	16° Υ 13'45	-1°-26'-39	morning rise	4736 Aug 30 05:52	2° \mathbb{M} 33'55	

	4736 Sep 04 00:03	30° $\mathbb{R}\mathbb{Q}$			4739 Apr 01 22:45	0° \mathbb{B}	
direct	4736 Sep 16 13:20	26° $\mathbb{Q}55'54$			4739 Apr 26 02:58	0° \mathbb{II}	
	4736 Sep 29 18:36	0° \mathbb{M}		asc. node	4739 May 01 01:32	6° $\mathbb{II}05'07$	
greatest brilliancy	4736 Sep 30 07:22	0° $\mathbb{M}14'13$	-4.5m		4739 May 20 14:50	0° \mathbb{S}	
morning max el	4736 Nov 04 17:05	27° $\mathbb{M}24'55$	46°01'03		4739 Jun 14 13:45	0° \mathbb{Q}	
	4736 Nov 07 08:01	0° \mathbb{A}			4739 Jul 10 05:50	0° \mathbb{M}	
asc. node	4736 Nov 13 06:26	6° $\mathbb{A}01'05$			4739 Aug 06 05:45	0° \mathbb{A}	
	4736 Dec 05 08:34	0° \mathbb{M}		desc. node	4739 Aug 20 16:11	14° $\mathbb{A}57'24$	
	4736 Dec 31 03:15	0° \mathbb{X}		evening max el	4739 Aug 27 08:09	21° $\mathbb{A}28'14$	45°36'10
	4737 Jan 24 23:00	0° \mathbb{S}			4739 Sep 05 15:22	0° \mathbb{M}	
	4737 Feb 18 07:44	0° \mathbb{A}		greatest brilliancy	4739 Oct 03 12:06	18° $\mathbb{M}47'37$	-4.5m
desc. node	4737 Mar 04 21:10	18° $\mathbb{A}04'12$		retrograde	4739 Oct 15 01:43	21° $\mathbb{M}10'21$	
	4737 Mar 14 11:11	0° \mathbb{X}		evening set	4739 Nov 01 07:26	15° $\mathbb{M}34'04$	
	4737 Apr 07 12:36	0° \mathbb{Y}		inferior conj	4739 Nov 05 04:53	13° $\mathbb{M}12'15$	-7°-31'-12
	4737 May 01 14:14	0° \mathbb{B}		minimum elong	4739 Nov 05 13:55	12° $\mathbb{M}58'17$	7°29'50
morning set	4737 May 10 12:35	11° $\mathbb{B}06'49$		min. Earth dist.	4739 Nov 06 03:19	12° $\mathbb{M}37'35$	0.28196 AU
	4737 May 25 17:38	0° \mathbb{II}		morning rise	4739 Nov 09 20:01	10° $\mathbb{M}23'53$	
				direct	4739 Nov 26 11:08	5° $\mathbb{M}03'23$	
superior conj	4737 Jun 17 20:37	28° $\mathbb{II}37'09$	0°-19'-19	greatest brilliancy	4739 Dec 11 00:33	8° $\mathbb{M}52'48$	-4.6m
minimum elong	4737 Jun 18 00:52	28° $\mathbb{II}50'17$	0°19'08	asc. node	4739 Dec 11 18:11	9° $\mathbb{M}14'49$	
	4737 Jun 18 23:27	0° \mathbb{S}			4740 Jan 07 21:20	0° \mathbb{X}	
max. Earth dist.	4737 Jun 20 08:56	1° $\mathbb{S}43'19$	1.72993 AU	morning max el	4740 Jan 15 23:11	7° $\mathbb{X}55'15$	46°45'48
asc. node	4737 Jun 25 23:15	8° $\mathbb{S}37'42$			4740 Feb 05 14:13	0° \mathbb{S}	
	4737 Jul 13 07:30	0° \mathbb{Q}			4740 Mar 02 14:43	0° \mathbb{A}	
evening rise	4737 Jul 25 00:48	14° $\mathbb{Q}24'45$			4740 Mar 27 16:10	0° \mathbb{X}	
	4737 Aug 06 17:25	0° \mathbb{M}		desc. node	4740 Apr 01 09:04	5° $\mathbb{X}42'07$	
	4737 Aug 31 05:27	0° \mathbb{A}			4740 Apr 21 07:36	0° \mathbb{Y}	
	4737 Sep 24 20:38	0° \mathbb{M}			4740 May 15 18:59	0° \mathbb{B}	
desc. node	4737 Oct 15 13:56	25° $\mathbb{M}03'41$			4740 Jun 09 05:27	0° \mathbb{II}	
	4737 Oct 19 16:24	0° \mathbb{X}			4740 Jul 03 16:11	0° \mathbb{S}	
	4737 Nov 13 18:32	0° \mathbb{S}		morning set	4740 Jul 19 13:06	19° $\mathbb{S}28'23$	
	4737 Dec 09 06:49	0° \mathbb{A}		asc. node	4740 Jul 23 11:01	24° $\mathbb{S}16'39$	
	4738 Jan 04 17:16	0° \mathbb{X}			4740 Jul 28 02:52	0° \mathbb{Q}	
evening max el	4738 Jan 22 03:26	18° $\mathbb{X}29'41$	47°10'01		4740 Aug 21 12:35	0° \mathbb{M}	
	4738 Feb 03 00:00	0° \mathbb{Y}		max. Earth dist.	4740 Aug 24 04:43	3° $\mathbb{M}17'23$	1.73449 AU
asc. node	4738 Feb 05 15:56	2° $\mathbb{Y}24'26$					
greatest brilliancy	4738 Mar 01 12:36	19° $\mathbb{Y}05'38$	-4.7m	superior conj	4740 Aug 25 07:06	4° $\mathbb{M}38'33$	1°08'00
retrograde	4738 Mar 13 23:14	21° $\mathbb{Y}59'57$		minimum elong	4740 Aug 24 22:23	4° $\mathbb{M}11'46$	1°07'44
evening set	4738 Apr 01 02:26	15° $\mathbb{Y}42'02$			4740 Sep 14 20:59	0° \mathbb{A}	
inferior conj	4738 Apr 03 19:06	14° $\mathbb{Y}02'16$	9°01'17	evening rise	4740 Sep 30 09:21	19° $\mathbb{A}08'22$	
minimum elong	4738 Apr 03 20:19	14° $\mathbb{Y}00'22$	9°01'15		4740 Oct 09 04:37	0° \mathbb{M}	
min. Earth dist.	4738 Apr 03 09:21	14° $\mathbb{Y}17'26$	0.27363 AU		4740 Nov 02 12:22	0° \mathbb{X}	
morning rise	4738 Apr 06 14:19	12° $\mathbb{Y}18'47$		desc. node	4740 Nov 12 01:55	11° $\mathbb{X}47'13$	
direct	4738 Apr 24 10:33	6° $\mathbb{Y}12'26$			4740 Nov 26 20:50	0° \mathbb{S}	
greatest brilliancy	4738 May 05 11:28	8° $\mathbb{Y}26'56$	-4.6m		4740 Dec 21 06:27	0° \mathbb{A}	
desc. node	4738 May 28 06:41	23° $\mathbb{Y}07'57$			4741 Jan 14 18:49	0° \mathbb{X}	
	4738 Jun 05 02:52	0° \mathbb{B}			4741 Feb 08 14:46	0° \mathbb{Y}	
morning max el	4738 Jun 13 00:30	7° $\mathbb{B}28'40$	46°13'03	asc. node	4741 Mar 05 03:37	28° $\mathbb{Y}45'33$	
	4738 Jul 04 19:58	0° \mathbb{II}			4741 Mar 06 05:42	0° \mathbb{B}	
	4738 Jul 31 19:35	0° \mathbb{S}			4741 Apr 02 20:52	0° \mathbb{II}	
	4738 Aug 26 17:35	0° \mathbb{Q}		evening max el	4741 Apr 04 06:42	1° $\mathbb{II}25'18$	46°40'45
asc. node	4738 Sep 18 08:39	26° $\mathbb{Q}50'11$		greatest brilliancy	4741 May 10 01:46	0° $\mathbb{S}00'58$	-4.6m
	4738 Sep 20 23:59	0° \mathbb{M}			4741 May 10 00:58	0° \mathbb{S}	
	4738 Oct 15 18:37	0° \mathbb{A}		retrograde	4741 May 24 10:33	3° $\mathbb{S}42'49$	
	4738 Nov 09 04:18	0° \mathbb{M}			4741 Jun 07 01:34	30° $\mathbb{R}II$	
	4738 Dec 03 07:54	0° \mathbb{X}		evening set	4741 Jun 08 18:20	29° $\mathbb{II}04'57$	
morning set	4738 Dec 07 23:49	5° $\mathbb{X}49'03$		inferior conj	4741 Jun 14 15:36	25° $\mathbb{II}31'33$	2°26'12
	4738 Dec 27 07:50	0° \mathbb{S}		minimum elong	4741 Jun 14 20:53	25° $\mathbb{II}23'18$	2°24'38
desc. node	4739 Jan 07 23:33	14° $\mathbb{S}36'45$		min. Earth dist.	4741 Jun 14 10:27	25° $\mathbb{II}39'36$	0.28298 AU
max. Earth dist.	4739 Jan 15 03:14	23° $\mathbb{S}35'36$	1.71303 AU	morning rise	4741 Jun 21 00:02	21° $\mathbb{II}44'23$	
				desc. node	4741 Jun 24 18:33	19° $\mathbb{II}53'31$	
superior conj	4739 Jan 16 20:14	25° $\mathbb{S}44'20$	0°-21'-12	direct	4741 Jul 05 21:31	17° $\mathbb{II}26'16$	
minimum elong	4739 Jan 16 14:49	25° $\mathbb{S}27'22$	0°20'57	greatest brilliancy	4741 Jul 18 04:39	20° $\mathbb{II}08'18$	-4.5m
	4739 Jan 20 05:38	0° \mathbb{A}			4741 Aug 03 16:21	0° \mathbb{S}	
	4739 Feb 13 02:23	0° \mathbb{X}		morning max el	4741 Aug 23 16:03	17° $\mathbb{S}15'10$	45°42'38
evening rise	4739 Feb 26 17:44	17° $\mathbb{X}08'48$			4741 Sep 05 12:08	0° \mathbb{Q}	
	4739 Mar 08 23:25	0° \mathbb{Y}			4741 Oct 03 05:12	0° \mathbb{M}	

asc. node	4741 Oct 15 20:42	14° \cap 26'25		4744 May 06 23:08	0° \ominus	
	4741 Oct 29 04:15	0° Ω		4744 Jun 03 06:21	0° Ω	
	4741 Nov 23 04:38	0° \cap	evening max el	4744 Jun 14 01:06	10° Ω 53'01	45°44'55
	4741 Dec 17 15:39	0° \mathcal{X}		4744 Jul 06 01:34	0° \cap	
	4742 Jan 10 19:03	0° \mathcal{Z}	greatest brilliancy	4744 Jul 18 20:03	7° \cap 47'06	-4.5m
	4742 Feb 03 18:20	0° \approx	desc. node	4744 Jul 22 06:25	9° \cap 13'56	
desc. node	4742 Feb 04 11:20	0° \approx 53'20	retrograde	4744 Aug 02 01:10	11° \cap 20'21	
morning set	4742 Feb 21 08:14	22° \approx 04'33	evening set	4744 Aug 18 09:26	6° \cap 15'34	
	4742 Feb 27 15:35	0° \mathcal{H}	inferior conj	4744 Aug 23 14:49	3° \cap 04'32	-6°-41'-37
	4742 Mar 23 12:29	0° Υ	minimum elong	4744 Aug 23 05:08	3° \cap 19'44	6°39'51
			min. Earth dist.	4744 Aug 23 08:59	3° \cap 13'41	0.29102 AU
superior conj	4742 Apr 03 11:13	13° Υ 44'15	morning rise	4744 Aug 28 00:49	0° \cap 21'19	
minimum elong	4742 Apr 03 12:12	13° Υ 47'19		4744 Aug 28 15:23	30° \mathcal{R} Ω	
max. Earth dist.	4742 Apr 06 21:31	18° Υ 02'13	direct	4744 Sep 14 04:57	24° Ω 47'06	
	4742 Apr 16 10:48	0° \mathcal{B}	greatest brilliancy	4744 Sep 27 23:22	28° Ω 05'11	-4.5m
	4742 May 10 12:12	0° \cap		4744 Oct 01 19:19	0° \cap	
evening rise	4742 May 13 13:14	3° \cap 46'49	morning max el	4744 Nov 02 07:59	25° \cap 11'09	45°59'55
asc. node	4742 May 28 13:27	22° \cap 22'06		4744 Nov 07 04:28	0° Ω	
	4742 Jun 03 17:52	0° \ominus	asc. node	4744 Nov 12 08:27	5° Ω 17'33	
	4742 Jun 28 04:29	0° Ω		4744 Dec 04 23:36	0° \cap	
	4742 Jul 22 21:08	0° \cap		4744 Dec 30 16:19	0° \mathcal{X}	
	4742 Aug 16 22:10	0° Ω		4745 Jan 24 11:08	0° \mathcal{Z}	
	4742 Sep 11 12:08	0° \cap		4745 Feb 17 19:21	0° \approx	
desc. node	4742 Sep 17 04:02	6° \cap 31'22	desc. node	4745 Mar 03 23:12	17° \approx 35'01	
	4742 Oct 07 23:58	0° \mathcal{X}		4745 Mar 13 22:29	0° \mathcal{H}	
	4742 Nov 05 10:17	0° \mathcal{Z}		4745 Apr 06 23:41	0° Υ	
evening max el	4742 Nov 07 23:39	2° \mathcal{Z} 30'52		4745 May 01 01:08	0° \mathcal{B}	
	4742 Dec 12 21:16	0° \approx	morning set	4745 May 08 02:14	8° \mathcal{B} 46'20	
greatest brilliancy	4742 Dec 16 11:01	1° \approx 35'15		4745 May 25 04:22	0° \cap	
retrograde	4742 Dec 27 17:14	3° \approx 54'50				
asc. node	4743 Jan 08 06:04	1° \approx 15'01	superior conj	4745 Jun 15 12:15	26° \cap 24'24	0°-22'-40
	4743 Jan 10 19:31	30° \mathcal{R} \mathcal{Z}	minimum elong	4745 Jun 15 17:13	26° \cap 39'44	0°22'26
evening set	4743 Jan 11 00:48	29° \mathcal{Z} 53'02	max. Earth dist.	4745 Jun 18 01:14	29° \cap 32'42	1.72952 AU
inferior conj	4743 Jan 17 07:00	26° \mathcal{Z} 13'47		4745 Jun 18 10:04	0° \ominus	
minimum elong	4743 Jan 17 01:46	26° \mathcal{Z} 21'47	asc. node	4745 Jun 25 01:10	8° \ominus 10'54	
min. Earth dist.	4743 Jan 17 06:26	26° \mathcal{Z} 14'40		4745 Jul 12 18:06	0° Ω	
morning rise	4743 Jan 23 02:34	22° \mathcal{Z} 48'39	evening rise	4745 Jul 22 18:35	12° Ω 19'17	
direct	4743 Feb 06 20:12	18° \mathcal{Z} 31'41		4745 Aug 06 04:08	0° \cap	
greatest brilliancy	4743 Feb 19 01:06	21° \mathcal{Z} 17'54		4745 Aug 30 16:23	0° Ω	
	4743 Mar 05 09:51	0° \approx		4745 Sep 24 07:57	0° \cap	
morning max el	4743 Mar 29 07:08	21° \approx 25'30	desc. node	4745 Oct 14 16:04	24° \cap 34'36	
	4743 Apr 06 14:49	0° \mathcal{H}		4745 Oct 19 04:20	0° \mathcal{X}	
desc. node	4743 Apr 29 21:05	25° \mathcal{H} 32'42		4745 Nov 13 07:24	0° \mathcal{Z}	
	4743 May 03 19:03	0° Υ		4745 Dec 08 21:19	0° \approx	
	4743 May 29 14:29	0° \mathcal{B}		4746 Jan 04 11:10	0° \mathcal{H}	
	4743 Jun 23 20:49	0° \cap	evening max el	4746 Jan 19 16:57	16° \mathcal{H} 05'41	47°09'44
	4743 Jul 18 20:47	0° \ominus		4746 Feb 03 05:25	0° Υ	
	4743 Aug 12 16:11	0° Ω	asc. node	4746 Feb 04 17:52	1° Υ 20'14	
asc. node	4743 Aug 20 22:49	10° Ω 03'38	greatest brilliancy	4746 Feb 27 02:30	16° Υ 41'47	-4.7m
	4743 Sep 06 06:52	0° \cap	retrograde	4746 Mar 11 13:18	19° Υ 36'31	
morning set	4743 Sep 26 16:34	25° \cap 03'31	evening set	4746 Mar 29 15:34	13° Υ 19'09	
	4743 Sep 30 16:45	0° Ω	inferior conj	4746 Apr 01 08:35	11° Υ 39'06	9°02'23
	4743 Oct 24 22:41	0° \cap	minimum elong	4746 Apr 01 08:53	11° Υ 38'38	9°02'22
max. Earth dist.	4743 Oct 30 12:13	6° \cap 54'25	min. Earth dist.	4746 Mar 31 22:08	11° Υ 55'19	0.27332 AU
			morning rise	4746 Apr 04 02:19	9° Υ 58'09	
superior conj	4743 Nov 02 10:27	10° \cap 32'29	direct	4746 Apr 21 23:35	3° Υ 49'37	
minimum elong	4743 Nov 02 18:38	10° \cap 57'53	greatest brilliancy	4746 May 03 00:27	6° Υ 04'32	-4.6m
	4743 Nov 18 01:59	0° \mathcal{X}	desc. node	4746 May 27 08:44	22° Υ 04'05	
evening rise	4743 Dec 10 22:29	28° \mathcal{X} 28'49		4746 Jun 05 04:59	0° \mathcal{B}	
desc. node	4743 Dec 10 13:48	28° \mathcal{X} 01'44	morning max el	4746 Jun 10 15:16	5° \mathcal{B} 11'45	46°14'38
	4743 Dec 12 03:44	0° \mathcal{Z}		4746 Jul 04 12:47	0° \cap	
	4744 Jan 05 04:29	0° \approx		4746 Jul 31 09:20	0° \ominus	
	4744 Jan 29 05:01	0° \mathcal{H}		4746 Aug 26 05:52	0° Ω	
	4744 Feb 22 07:12	0° Υ	asc. node	4746 Sep 17 10:46	26° Ω 21'53	
	4744 Mar 17 14:37	0° \mathcal{B}		4746 Sep 20 11:29	0° \cap	
asc. node	4744 Apr 01 15:38	18° \mathcal{B} 18'59		4746 Oct 15 05:40	0° Ω	
	4744 Apr 11 08:52	0° \cap		4746 Nov 08 15:08	0° \cap	

	4746 Dec 02 18:39	0°♊		evening set	4749 Jun 06 12:02	26°♊49'43	
morning set	4746 Dec 05 14:06	3°♊30'19		inferior conj	4749 Jun 12 07:12	23°♊18'56	2°46'28
	4746 Dec 26 18:33	0°♋		minimum elong	4749 Jun 12 13:09	23°♊09'37	2°44'42
desc. node	4747 Jan 07 01:30	14°♋09'13		min. Earth dist.	4749 Jun 12 02:19	23°♊26'35	0.28265 AU
max. Earth dist.	4747 Jan 12 15:00	21°♋08'05	1.71326 AU	morning rise	4749 Jun 18 14:55	19°♊32'32	
				desc. node	4749 Jun 23 20:29	17°♊06'05	
superior conj	4747 Jan 14 07:31	23°♋15'18	0°-17'-24	direct	4749 Jul 03 13:00	15°♊14'21	
minimum elong	4747 Jan 14 03:03	23°♋01'17	0°17'11	greatest brilliancy	4749 Jul 15 17:34	17°♊53'43	-4.5m
	4747 Jan 19 16:22	0°♌			4749 Aug 04 04:05	0°♌	
	4747 Feb 12 13:10	0°♌		morning max el	4749 Aug 21 07:03	15°♌03'13	45°42'45
evening rise	4747 Feb 24 04:34	14°♌38'11			4749 Sep 05 06:16	0°♍	
	4747 Mar 08 10:15	0°♍			4749 Oct 02 19:22	0°♍	
	4747 Apr 01 09:41	0°♎		asc. node	4749 Oct 14 22:43	13°♍53'53	
	4747 Apr 25 14:07	0°♏			4749 Oct 28 16:47	0°♏	
asc. node	4747 Apr 30 03:34	5°♏36'57			4749 Nov 22 16:23	0°♏	
	4747 May 20 02:23	0°♐			4749 Dec 17 03:01	0°♐	
	4747 Jun 14 02:00	0°♑			4750 Jan 10 06:13	0°♑	
	4747 Jul 09 19:30	0°♒			4750 Feb 03 05:22	0°♒	
	4747 Aug 05 22:39	0°♓		desc. node	4750 Feb 03 13:20	0°♒24'59	
desc. node	4747 Aug 19 18:15	14°♓11'58		morning set	4750 Feb 18 18:00	19°♒30'00	
evening max el	4747 Aug 24 23:45	19°♓17'11	45°35'21		4750 Feb 27 02:32	0°♈	
	4747 Sep 05 19:54	0°♔			4750 Mar 22 23:21	0°♈	
greatest brilliancy	4747 Oct 01 00:15	16°♔31'12	-4.5m				
retrograde	4747 Oct 12 16:12	18°♔55'33		superior conj	4750 Mar 31 22:36	11°♈15'26	-1°-27'00
evening set	4747 Oct 30 00:40	13°♔15'00		minimum elong	4750 Mar 31 22:31	11°♈15'07	1°27'01
inferior conj	4747 Nov 02 19:35	10°♔56'32	-7°-41'-19	max. Earth dist.	4750 Apr 04 06:28	15°♈25'48	1.71469 AU
minimum elong	4747 Nov 03 04:11	10°♔43'13	7°40'06		4750 Apr 15 21:37	0°♉	
min. Earth dist.	4747 Nov 03 17:11	10°♔23'06	0.28260 AU		4750 May 09 23:00	0°♉	
morning rise	4747 Nov 07 07:23	8°♔12'50		evening rise	4750 May 11 02:29	1°♉25'26	
direct	4747 Nov 24 03:01	2°♔47'01		asc. node	4750 May 27 15:23	21°♉54'46	
greatest brilliancy	4747 Dec 08 15:35	6°♔35'38	-4.6m		4750 Jun 03 04:41	0°♊	
asc. node	4747 Dec 10 20:10	7°♔43'43			4750 Jun 27 15:29	0°♊	
	4748 Jan 07 22:16	0°♋			4750 Jul 22 08:32	0°♋	
morning max el	4748 Jan 13 14:38	5°♋37'38	46°44'34		4750 Aug 16 10:17	0°♋	
	4748 Feb 05 06:54	0°♌			4750 Sep 11 01:34	0°♌	
	4748 Mar 02 04:41	0°♌		desc. node	4750 Sep 16 06:08	5°♌57'45	
	4748 Mar 27 04:47	0°♍			4750 Oct 07 16:01	0°♌	
desc. node	4748 Mar 31 11:12	5°♍10'47			4750 Nov 05 09:11	0°♍	
	4748 Apr 20 19:25	0°♎		evening max el	4750 Nov 05 12:18	0°♍07'37	46°23'21
	4748 May 15 06:17	0°♎		greatest brilliancy	4750 Dec 14 01:10	29°♍10'38	-4.6m
	4748 Jun 08 16:25	0°♏			4750 Dec 16 08:33	0°♎	
	4748 Jul 03 02:55	0°♐		retrograde	4750 Dec 25 04:54	1°♎28'09	
morning set	4748 Jul 17 06:28	17°♐21'49			4751 Jan 02 17:53	30°♎♋	
asc. node	4748 Jul 22 13:00	23°♐50'11		asc. node	4751 Jan 07 08:02	28°♋03'44	
	4748 Jul 27 13:27	0°♑		evening set	4751 Jan 08 12:52	27°♋26'49	
	4748 Aug 20 23:06	0°♒		inferior conj	4751 Jan 14 19:33	23°♋47'19	1°55'45
max. Earth dist.	4748 Aug 22 01:58	1°♒22'41	1.73457 AU	minimum elong	4751 Jan 14 15:10	23°♋54'01	1°54'22
				min. Earth dist.	4751 Jan 14 20:49	23°♋45'23	0.26670 AU
superior conj	4748 Aug 23 01:07	2°♒33'55	1°06'02	morning rise	4751 Jan 20 17:07	20°♋19'09	
minimum elong	4748 Aug 22 16:16	2°♒06'39	1°05'45	direct	4751 Feb 04 08:25	16°♋04'27	
	4748 Sep 14 07:32	0°♓		greatest brilliancy	4751 Feb 16 17:17	18°♋54'23	-4.7m
evening rise	4748 Sep 28 02:44	17°♓01'04			4751 Mar 06 02:33	0°♒	
	4748 Oct 08 15:19	0°♔		morning max el	4751 Mar 26 19:39	18°♒58'15	46°55'57
	4748 Nov 01 23:20	0°♕			4751 Apr 06 10:45	0°♈	
desc. node	4748 Nov 11 03:53	11°♕19'08		desc. node	4751 Apr 28 23:00	24°♈53'11	
	4748 Nov 26 08:11	0°♖			4751 May 03 10:25	0°♈	
	4748 Dec 20 18:17	0°♗			4751 May 29 03:50	0°♉	
	4749 Jan 14 07:17	0°♘			4751 Jun 23 09:02	0°♊	
	4749 Feb 08 04:18	0°♙			4751 Jul 18 08:17	0°♋	
asc. node	4749 Mar 04 05:47	28°♙07'35			4751 Aug 12 03:14	0°♌	
	4749 Mar 05 21:19	0°♚		asc. node	4751 Aug 20 00:57	9°♌36'44	
evening max el	4749 Apr 01 22:17	29°♚09'50	46°42'44		4751 Sep 05 17:40	0°♍	
	4749 Apr 02 18:20	0°♛		morning set	4751 Sep 24 10:01	22°♍56'20	
greatest brilliancy	4749 May 07 20:02	27°♛50'50	-4.6m		4751 Sep 30 03:29	0°♎	
	4749 May 13 04:06	0°♜			4751 Oct 24 09:27	0°♏	
retrograde	4749 May 22 02:25	1°♜29'41		max. Earth dist.	4751 Oct 28 05:36	4°♏45'56	1.72602 AU
	4749 May 30 16:05	30°♜♊					

superior conj	4751 Oct 31 02:46	8° \mathbb{M} 20'38	1°16'40	direct	4754 Apr 19 12:49	1° Υ 24'57	
minimum elong	4751 Oct 31 10:28	8° \mathbb{M} 44'32	1°16'29	greatest brilliancy	4754 Apr 30 12:16	3° Υ 39'07	-4.6m
	4751 Nov 17 12:50	0° \mathcal{A}		desc. node	4754 May 26 10:43	21° Υ 00'27	
evening rise	4751 Dec 08 12:01	26° \mathcal{A} 07'10			4754 Jun 05 06:14	0° \mathcal{B}	
desc. node	4751 Dec 09 15:44	27° \mathcal{A} 33'34		morning max el	4754 Jun 08 06:15	2° \mathcal{B} 54'11	46°16'16
	4751 Dec 11 14:43	0° \mathcal{C}			4754 Jul 04 05:39	0° \mathbb{I}	
	4752 Jan 04 15:39	0° \approx			4754 Jul 30 23:18	0° \mathcal{D}	
	4752 Jan 28 16:26	0° \mathcal{H}			4754 Aug 25 18:24	0° \mathbb{O}	
	4752 Feb 21 18:57	0° Υ		asc. node	4754 Sep 16 12:48	25° \mathbb{O} 52'31	
	4752 Mar 17 02:51	0° \mathcal{B}			4754 Sep 19 23:14	0° \mathbb{O}	
asc. node	4752 Mar 31 17:38	17° \mathcal{B} 46'52			4754 Oct 14 16:59	0° \mathcal{D}	
	4752 Apr 10 21:54	0° \mathbb{I}			4754 Nov 08 02:13	0° \mathbb{M}	
	4752 May 06 13:48	0° \mathcal{D}			4754 Dec 02 05:40	0° \mathcal{A}	
	4752 Jun 03 01:11	0° \mathbb{O}		morning set	4754 Dec 03 04:41	1° \mathcal{A} 11'44	
evening max el	4752 Jun 11 16:15	8° \mathbb{O} 39'44	45°46'32		4754 Dec 26 05:37	0° \mathcal{C}	
	4752 Jul 06 19:09	0° \mathbb{O}		desc. node	4755 Jan 06 03:37	13° \mathcal{C} 41'01	
greatest brilliancy	4752 Jul 16 09:33	5° \mathbb{O} 34'51	-4.5m	max. Earth dist.	4755 Jan 10 00:19	18° \mathcal{C} 31'48	1.71357 AU
desc. node	4752 Jul 21 08:29	7° \mathbb{O} 34'56					
retrograde	4752 Jul 30 17:57	9° \mathbb{O} 12'18		superior conj	4755 Jan 11 18:48	20° \mathcal{C} 45'06	0°-13'-33
evening set	4752 Aug 15 23:06	4° \mathbb{O} 11'02		minimum elong	4755 Jan 11 15:19	20° \mathcal{C} 34'11	0°13'24
inferior conj	4752 Aug 21 07:22	0° \mathbb{O} 56'09	-6°-28'-59	behind sun begin	4755 Jan 11 00:30	19° \mathcal{C} 47'41	
minimum elong	4752 Aug 20 21:34	1° \mathbb{O} 11'31	6°27'08	behind sun end	4755 Jan 12 06:08	21° \mathcal{C} 20'41	
min. Earth dist.	4752 Aug 21 00:55	1° \mathbb{O} 06'16	0.29093 AU		4755 Jan 19 03:31	0° \approx	
	4752 Aug 22 19:15	30° \mathbb{R} \mathbb{O}			4755 Feb 12 00:23	0° \mathcal{H}	
morning rise	4752 Aug 25 20:02	28° \mathbb{O} 09'15		evening rise	4755 Feb 21 14:58	12° \mathcal{H} 04'44	
direct	4752 Sep 11 21:02	22° \mathbb{O} 38'45			4755 Mar 07 21:32	0° Υ	
greatest brilliancy	4752 Sep 25 15:43	25° \mathbb{O} 56'57	-4.5m		4755 Mar 31 21:05	0° \mathcal{B}	
	4752 Oct 03 03:35	0° \mathbb{O}			4755 Apr 25 01:43	0° \mathbb{I}	
morning max el	4752 Oct 30 23:56	22° \mathbb{O} 59'47	45°58'33	asc. node	4755 Apr 29 05:30	5° \mathbb{I} 07'07	
	4752 Nov 07 00:25	0° \mathcal{D}			4755 May 19 14:23	0° \mathcal{D}	
asc. node	4752 Nov 11 10:25	4° \mathcal{D} 33'59			4755 Jun 13 14:45	0° \mathbb{O}	
	4752 Dec 04 14:40	0° \mathbb{M}			4755 Jul 09 09:42	0° \mathbb{O}	
	4752 Dec 30 05:35	0° \mathcal{A}			4755 Aug 05 16:19	0° \mathcal{D}	
	4753 Jan 23 23:30	0° \mathcal{C}		desc. node	4755 Aug 18 20:22	13° \mathcal{D} 24'58	
	4753 Feb 17 07:13	0° \approx		evening max el	4755 Aug 22 15:25	17° \mathcal{D} 05'25	45°34'40
desc. node	4753 Mar 03 01:21	17° \approx 05'21			4755 Sep 06 02:51	0° \mathbb{M}	
	4753 Mar 13 10:02	0° \mathcal{H}		greatest brilliancy	4755 Sep 28 13:42	14° \mathbb{M} 16'10	-4.5m
	4753 Apr 06 11:00	0° Υ		retrograde	4755 Oct 10 06:34	16° \mathbb{M} 41'10	
	4753 Apr 30 12:15	0° \mathcal{B}		evening set	4755 Oct 27 18:10	10° \mathbb{M} 56'46	
morning set	4753 May 05 15:43	6° \mathcal{B} 24'25		inferior conj	4755 Oct 31 10:42	8° \mathbb{M} 41'29	-7°-50'-27
	4753 May 24 15:20	0° \mathbb{I}		minimum elong	4755 Oct 31 18:49	8° \mathbb{M} 28'53	7°49'24
				min. Earth dist.	4755 Nov 01 07:36	8° \mathbb{M} 09'02	0.28320 AU
superior conj	4753 Jun 13 03:53	24° \mathbb{I} 10'43	0°-25'-58	morning rise	4755 Nov 04 19:11	6° \mathbb{M} 02'14	
minimum elong	4753 Jun 13 09:33	24° \mathbb{I} 28'13	0°25'44	direct	4755 Nov 21 18:59	0° \mathbb{M} 31'25	
max. Earth dist.	4753 Jun 15 17:47	27° \mathbb{I} 22'00	1.72908 AU	greatest brilliancy	4755 Dec 06 06:03	4° \mathbb{M} 17'52	-4.6m
	4753 Jun 17 20:57	0° \mathcal{D}		asc. node	4755 Dec 09 22:11	6° \mathbb{M} 15'41	
asc. node	4753 Jun 24 03:13	7° \mathcal{D} 43'44			4756 Jan 07 22:13	0° \mathcal{A}	
	4753 Jul 12 04:58	0° \mathbb{O}		morning max el	4756 Jan 11 05:16	3° \mathcal{A} 17'28	46°43'01
evening rise	4753 Jul 20 12:33	10° \mathbb{O} 13'40			4756 Feb 04 23:36	0° \mathcal{C}	
	4753 Aug 05 15:04	0° \mathbb{O}			4756 Mar 01 18:55	0° \approx	
	4753 Aug 30 03:32	0° \mathcal{D}			4756 Mar 26 17:48	0° \mathcal{H}	
	4753 Sep 23 19:30	0° \mathbb{M}		desc. node	4756 Mar 30 13:08	4° \mathcal{H} 37'31	
desc. node	4753 Oct 13 18:01	24° \mathbb{M} 04'12			4756 Apr 20 07:41	0° Υ	
	4753 Oct 18 16:33	0° \mathcal{A}			4756 May 14 18:02	0° \mathcal{B}	
	4753 Nov 12 20:42	0° \mathcal{C}			4756 Jun 08 03:48	0° \mathbb{I}	
	4753 Dec 08 12:25	0° \approx			4756 Jul 02 14:03	0° \mathcal{D}	
	4754 Jan 04 06:03	0° \mathcal{H}		morning set	4756 Jul 14 23:38	15° \mathcal{D} 13'27	
evening max el	4754 Jan 17 07:30	13° \mathcal{H} 42'53	47°09'18	asc. node	4756 Jul 21 15:06	23° \mathcal{D} 22'57	
asc. node	4754 Feb 03 20:01	0° Υ 13'12			4756 Jul 27 00:24	0° \mathbb{O}	
	4754 Feb 03 13:51	0° Υ		max. Earth dist.	4756 Aug 19 21:49	29° \mathbb{O} 22'34	1.73461 AU
greatest brilliancy	4754 Feb 24 16:10	14° Υ 15'57	-4.7m		4756 Aug 20 09:59	0° \mathbb{O}	
retrograde	4754 Mar 09 03:36	17° Υ 10'54					
evening set	4754 Mar 27 03:56	10° Υ 55'06		superior conj	4756 Aug 20 19:11	0° \mathbb{O} 28'19	1°03'58
inferior conj	4754 Mar 29 21:50	9° Υ 13'51	9°02'27	minimum elong	4756 Aug 20 10:14	0° \mathbb{O} 00'47	1°03'40
minimum elong	4754 Mar 29 21:12	9° Υ 14'50	9°02'28		4756 Sep 13 18:26	0° \mathcal{D}	
min. Earth dist.	4754 Mar 29 10:26	9° Υ 31'30	0.27295 AU	evening rise	4756 Sep 25 20:21	14° \mathcal{D} 53'33	
morning rise	4754 Apr 01 14:34	7° Υ 34'35			4756 Oct 08 02:21	0° \mathbb{M}	

	4756 Nov 01 10:37	0°♊			4759 Jun 22 21:19	0°♈	
desc. node	4756 Nov 10 05:52	10°♊50'14			4759 Jul 17 19:55	0°♉	
	4756 Nov 25 19:48	0°♊			4759 Aug 11 14:25	0°♊	
	4756 Dec 20 06:22	0°♋		asc. node	4759 Aug 19 02:56	9°♊08'59	
	4757 Jan 13 20:05	0°♋			4759 Sep 05 04:36	0°♋	
	4757 Feb 07 18:17	0°♌		morning set	4759 Sep 22 03:07	20°♋47'54	
asc. node	4757 Mar 03 07:43	27°♌27'14			4759 Sep 29 14:17	0°♌	
	4757 Mar 05 13:40	0°♌			4759 Oct 23 20:15	0°♌	
evening max el	4757 Mar 30 12:54	26°♌50'03	46°44'27	max. Earth dist.	4759 Oct 26 00:22	2°♌41'40	1.72647 AU
	4757 Apr 02 17:21	0°♌					
greatest brilliancy	4757 May 05 14:14	25°♌38'11	-4.6m	superior conj	4759 Oct 28 18:54	6°♌08'08	1°18'05
retrograde	4757 May 19 17:31	29°♌13'53		minimum elong	4759 Oct 29 02:05	6°♌30'26	1°17'57
evening set	4757 Jun 04 05:29	24°♌31'35			4759 Nov 16 23:43	0°♌	
inferior conj	4757 Jun 09 22:28	21°♌03'50	3°06'38	evening rise	4759 Dec 06 01:37	23°♌45'44	
minimum elong	4757 Jun 10 05:04	20°♌53'30	3°04'44	desc. node	4759 Dec 08 17:49	27°♌05'46	
min. Earth dist.	4757 Jun 09 18:12	21°♌10'31	0.28231 AU		4759 Dec 11 01:44	0°♌	
morning rise	4757 Jun 16 05:12	17°♌18'24			4760 Jan 04 02:51	0°♌	
desc. node	4757 Jun 22 22:33	14°♌20'05			4760 Jan 28 03:50	0°♌	
direct	4757 Jul 01 03:36	12°♌59'51			4760 Feb 21 06:38	0°♌	
greatest brilliancy	4757 Jul 13 06:49	15°♌37'24	-4.5m		4760 Mar 16 14:58	0°♌	
	4757 Aug 04 13:25	0°♌		asc. node	4760 Mar 30 19:36	17°♌14'53	
morning max el	4757 Aug 18 21:15	12°♌48'01	45°43'08		4760 Apr 10 10:51	0°♌	
	4757 Sep 05 00:21	0°♌			4760 May 06 04:32	0°♌	
	4757 Oct 02 09:40	0°♌			4760 Jun 02 20:32	0°♌	
asc. node	4757 Oct 14 00:37	13°♌20'23		evening max el	4760 Jun 09 08:10	6°♌28'18	45°47'58
	4757 Oct 28 05:30	0°♌			4760 Jul 07 19:22	0°♌	
	4757 Nov 22 04:19	0°♌		greatest brilliancy	4760 Jul 13 23:20	3°♌22'25	-4.5m
	4757 Dec 16 14:32	0°♌		desc. node	4760 Jul 20 10:34	5°♌51'42	
	4758 Jan 09 17:30	0°♌		retrograde	4760 Jul 28 10:48	7°♌03'17	
desc. node	4758 Feb 02 15:27	29°♌56'38		evening set	4760 Aug 13 12:36	2°♌05'34	
	4758 Feb 02 16:31	0°♌			4760 Aug 17 00:43	30°♌	
morning set	4758 Feb 16 04:12	16°♌56'17		inferior conj	4760 Aug 18 23:39	28°♌46'50	-6°-15'-41
	4758 Feb 26 13:36	0°♌		minimum elong	4760 Aug 18 13:47	29°♌02'16	6°13'43
	4758 Mar 22 10:24	0°♌		min. Earth dist.	4760 Aug 18 16:22	28°♌58'14	0.29083 AU
				morning rise	4760 Aug 23 15:01	25°♌56'16	
superior conj	4758 Mar 29 10:01	8°♌46'02	-1°-26'-54	direct	4760 Sep 09 13:20	20°♌29'36	
minimum elong	4758 Mar 29 08:51	8°♌42'24	1°26'56	greatest brilliancy	4760 Sep 23 07:27	23°♌47'34	-4.5m
max. Earth dist.	4758 Apr 01 12:40	12°♌40'10	1.71433 AU		4760 Oct 04 02:50	0°♌	
	4758 Apr 15 08:40	0°♌		morning max el	4760 Oct 28 16:15	20°♌49'31	45°57'16
evening rise	4758 May 08 15:17	29°♌01'42			4760 Nov 06 19:46	0°♌	
	4758 May 09 10:03	0°♌		asc. node	4760 Nov 10 12:32	3°♌51'25	
asc. node	4758 May 26 17:25	21°♌26'47			4760 Dec 04 05:27	0°♌	
	4758 Jun 02 15:49	0°♌			4760 Dec 29 18:37	0°♌	
	4758 Jun 27 02:48	0°♌			4761 Jan 23 11:40	0°♌	
	4758 Jul 21 20:14	0°♌			4761 Feb 16 18:53	0°♌	
	4758 Aug 15 22:44	0°♌		desc. node	4761 Mar 02 03:13	16°♌35'26	
	4758 Sep 10 15:22	0°♌			4761 Mar 12 21:22	0°♌	
desc. node	4758 Sep 15 08:03	5°♌22'45			4761 Apr 05 22:05	0°♌	
	4758 Oct 07 08:35	0°♌			4761 Apr 29 23:07	0°♌	
evening max el	4758 Nov 03 00:56	27°♌44'07	46°21'19	morning set	4761 May 03 05:28	4°♌04'02	
	4758 Nov 05 09:16	0°♌			4761 May 24 02:03	0°♌	
greatest brilliancy	4758 Dec 11 14:33	26°♌45'16	-4.6m				
retrograde	4758 Dec 22 17:06	29°♌02'02		superior conj	4761 Jun 10 19:35	21°♌57'54	0°-29'-14
evening set	4759 Jan 06 01:16	25°♌00'30		minimum elong	4761 Jun 11 01:55	22°♌17'30	0°28'58
asc. node	4759 Jan 06 10:09	24°♌48'42		max. Earth dist.	4761 Jun 13 12:36	25°♌18'56	1.72870 AU
inferior conj	4759 Jan 12 08:12	21°♌21'10	1°31'51		4761 Jun 17 07:35	0°♌	
minimum elong	4759 Jan 12 04:41	21°♌26'32	1°30'44	asc. node	4761 Jun 23 05:18	7°♌17'22	
min. Earth dist.	4759 Jan 12 11:06	21°♌16'45	0.26688 AU		4761 Jul 11 15:37	0°♌	
morning rise	4759 Jan 18 07:39	17°♌50'33		evening rise	4761 Jul 18 06:28	8°♌08'26	
direct	4759 Feb 01 20:53	13°♌37'31			4761 Aug 05 01:50	0°♌	
greatest brilliancy	4759 Feb 14 09:38	16°♌31'36	-4.7m		4761 Aug 29 14:33	0°♌	
	4759 Mar 06 14:54	0°♌			4761 Sep 23 06:56	0°♌	
morning max el	4759 Mar 24 09:04	16°♌33'34	46°56'40	desc. node	4761 Oct 12 20:00	23°♌34'14	
	4759 Apr 06 06:02	0°♌			4761 Oct 18 04:39	0°♌	
desc. node	4759 Apr 28 01:02	24°♌14'22			4761 Nov 12 09:54	0°♌	
	4759 May 03 01:33	0°♌			4761 Dec 08 03:31	0°♌	
	4759 May 28 17:09	0°♌			4762 Jan 04 01:11	0°♌	

evening max el	4762 Jan 14 22:40	11° ✕ 22'26	47°08'46		4764 May 14 05:21	0° 8	
asc. node	4762 Feb 02 21:59	29° ✕ 04'39			4764 Jun 07 14:46	0° II	
	4762 Feb 04 00:49	0° Y			4764 Jul 02 00:44	0° ☿	
greatest brilliancy	4762 Feb 22 06:26	11° Y 51'34	-4.7m	morning set	4764 Jul 12 16:59	13° ☿ 06'52	
retrograde	4762 Mar 06 17:44	14° Y 45'44		asc. node	4764 Jul 20 17:03	22° ☿ 56'37	
evening set	4762 Mar 24 15:48	8° Y 32'37			4764 Jul 26 10:54	0° Ω	
inferior conj	4762 Mar 27 11:02	6° Y 49'19	9°01'40	max. Earth dist.	4764 Aug 17 17:10	27° Ω 22'22	1.73466 AU
minimum elong	4762 Mar 27 09:27	6° Y 51'46	9°01'38				
min. Earth dist.	4762 Mar 26 22:42	7° Y 08'24	0.27254 AU	superior conj	4764 Aug 18 13:29	28° Ω 24'53	1°01'50
morning rise	4762 Mar 30 03:14	5° Y 10'56		minimum elong	4764 Aug 18 04:29	27° Ω 57'11	1°01'31
	4762 Apr 10 04:42	30° R ✕			4764 Aug 19 20:24	0° ☿	
direct	4762 Apr 17 02:16	29° ✕ 01'17			4764 Sep 13 04:55	0° ♊	
	4762 Apr 24 05:17	0° Y		evening rise	4764 Sep 23 14:12	12° ♊ 48'06	
greatest brilliancy	4762 Apr 27 23:28	1° Y 13'51	-4.6m		4764 Oct 07 13:01	0° ♋	
desc. node	4762 May 25 12:46	19° Y 59'37			4764 Oct 31 21:35	0° ♌	
	4762 Jun 05 05:48	0° 8		desc. node	4764 Nov 09 07:59	10° ♌ 22'39	
morning max el	4762 Jun 05 20:38	0° 8 36'14	46°17'55		4764 Nov 25 07:10	0° ♍	
	4762 Jul 03 21:45	0° II			4764 Dec 19 18:14	0° ≈	
	4762 Jul 30 12:44	0° ☿			4765 Jan 13 08:40	0° ✕	
	4762 Aug 25 06:33	0° Ω			4765 Feb 07 08:05	0° Y	
asc. node	4762 Sep 15 14:42	25° Ω 23'41		asc. node	4765 Mar 02 09:41	26° Y 47'40	
	4762 Sep 19 10:40	0° ☿			4765 Mar 05 05:56	0° 8	
	4762 Oct 14 04:01	0° ♊		evening max el	4765 Mar 28 02:33	24° 8 28'55	46°46'18
	4762 Nov 07 13:03	0° ♋			4765 Apr 02 16:53	0° II	
morning set	4762 Nov 30 19:07	28° ♋ 53'32		greatest brilliancy	4765 May 03 07:42	23° II 25'42	-4.6m
	4762 Dec 01 16:26	0° ♌		retrograde	4765 May 17 08:38	26° II 59'34	
	4762 Dec 25 16:23	0° ♍		evening set	4765 Jun 01 23:05	22° II 14'24	
desc. node	4763 Jan 05 05:37	13° ♍ 13'31		inferior conj	4765 Jun 07 13:49	18° II 50'04	3°26'36
max. Earth dist.	4763 Jan 07 07:29	15° ♍ 49'54	1.71387 AU	minimum elong	4765 Jun 07 21:00	18° II 38'47	3°24'33
				min. Earth dist.	4765 Jun 07 10:18	18° II 55'34	0.28197 AU
superior conj	4763 Jan 09 06:02	18° ♍ 15'55	0°-9'-42	morning rise	4765 Jun 13 19:23	15° II 05'57	
minimum elong	4763 Jan 09 03:33	18° ♍ 08'07	0°09'35	desc. node	4765 Jun 22 00:36	11° II 40'16	
behind sun begin	4763 Jan 08 06:33	17° ♍ 02'14		direct	4765 Jun 28 17:53	10° II 46'28	
behind sun end	4763 Jan 10 00:33	19° ♍ 14'00		greatest brilliancy	4765 Jul 10 21:08	13° II 23'34	-4.5m
	4763 Jan 18 14:21	0° ≈			4765 Aug 04 19:34	0° ☿	
	4763 Feb 11 11:16	0° ✕		morning max el	4765 Aug 16 11:45	10° ☿ 34'43	45°43'41
evening rise	4763 Feb 19 01:21	9° ✕ 32'11			4765 Sep 04 17:30	0° Ω	
	4763 Mar 07 08:29	0° Y			4765 Oct 01 23:21	0° ☿	
	4763 Mar 31 08:08	0° 8		asc. node	4765 Oct 13 02:45	12° ☿ 49'02	
	4763 Apr 24 12:59	0° II			4765 Oct 27 17:43	0° ♊	
asc. node	4763 Apr 28 07:35	4° II 38'46			4765 Nov 21 15:51	0° ♋	
	4763 May 19 02:01	0° ☿			4765 Dec 16 01:45	0° ♌	
	4763 Jun 13 03:06	0° Ω			4766 Jan 09 04:33	0° ♍	
	4763 Jul 08 23:34	0° ☿		desc. node	4766 Feb 01 17:23	29° ♍ 28'24	
	4763 Aug 05 09:53	0° ♊			4766 Feb 02 03:27	0° ≈	
desc. node	4763 Aug 17 22:15	12° ♊ 37'47		morning set	4766 Feb 13 13:58	14° ≈ 21'54	
evening max el	4763 Aug 20 06:09	14° ♊ 52'28	45°33'48		4766 Feb 26 00:28	0° ✕	
	4763 Sep 06 11:54	0° ♋			4766 Mar 21 21:12	0° Y	
greatest brilliancy	4763 Sep 26 03:21	12° ♋ 02'06	-4.5m				
retrograde	4763 Oct 07 20:24	14° ♋ 27'30		superior conj	4766 Mar 26 20:59	6° Y 16'05	-1°-26'-38
evening set	4763 Oct 25 11:20	8° ♋ 39'28		minimum elong	4766 Mar 26 18:45	6° Y 09'03	1°26'38
inferior conj	4763 Oct 29 01:44	6° ♋ 27'09	-7°-58'-46	max. Earth dist.	4766 Mar 29 17:08	9° Y 49'54	1.71394 AU
minimum elong	4763 Oct 29 09:17	6° ♋ 15'24	7°57'53		4766 Apr 14 19:25	0° 8	
min. Earth dist.	4763 Oct 29 22:14	5° ♋ 55'14	0.28383 AU	evening rise	4766 May 06 03:53	26° 8 38'16	
morning rise	4763 Nov 02 06:55	3° ♋ 52'20			4766 May 08 20:48	0° II	
	4763 Nov 10 03:42	30° R ♊		asc. node	4766 May 25 19:30	20° II 59'55	
direct	4763 Nov 19 10:25	28° ♊ 16'20			4766 Jun 02 02:38	0° ☿	
	4763 Nov 29 01:02	0° ♋			4766 Jun 26 13:49	0° Ω	
greatest brilliancy	4763 Dec 03 21:19	2° ♋ 01'42	-4.6m		4766 Jul 21 07:39	0° ☿	
asc. node	4763 Dec 09 00:15	4° ♋ 51'05			4766 Aug 15 10:53	0° ♊	
	4764 Jan 07 20:52	0° ♌			4766 Sep 10 04:54	0° ♋	
morning max el	4764 Jan 08 18:56	0° ♌ 55'33	46°41'37	desc. node	4766 Sep 14 10:07	4° ♋ 49'05	
	4764 Feb 04 15:41	0° ♍			4766 Oct 07 01:01	0° ♌	
	4764 Mar 01 08:39	0° ≈		evening max el	4766 Oct 31 13:56	25° ♌ 22'55	46°19'11
	4764 Mar 26 06:19	0° ✕			4766 Nov 05 10:06	0° ♍	
desc. node	4764 Mar 29 15:09	4° ✕ 05'53		greatest brilliancy	4766 Dec 09 02:40	24° ♍ 19'23	-4.6m
	4764 Apr 19 19:29	0° Y		retrograde	4766 Dec 20 05:38	26° ♍ 36'33	

evening set	4767 Jan 03 13:49	22°☾34'18		minimum elong	4769 Jun 08 17:41	20°♊04'29	0°32'12
asc. node	4767 Jan 05 12:06	21°☾30'50		max. Earth dist.	4769 Jun 11 08:14	23°♊17'58	1.72825 AU
inferior conj	4767 Jan 09 20:43	18°☾55'16	1°07'43		4769 Jun 16 18:20	0°☾	
minimum elong	4767 Jan 09 18:07	18°☾59'14	1°06'52	asc. node	4769 Jun 22 07:13	6°☾50'12	
min. Earth dist.	4767 Jan 10 00:59	18°☾48'47	0.26717 AU		4769 Jul 11 02:21	0°♊	
morning rise	4767 Jan 15 21:57	15°☾22'33		evening rise	4769 Jul 16 00:01	6°♊01'49	
direct	4767 Jan 30 09:58	11°☾10'42			4769 Aug 04 12:41	0°♊	
greatest brilliancy	4767 Feb 12 01:51	14°☾08'50	-4.7m		4769 Aug 29 01:38	0°♊	
	4767 Mar 07 00:03	0°☾			4769 Sep 22 18:27	0°♊	
morning max el	4767 Mar 21 23:23	14°☾11'11	46°57'18	desc. node	4769 Oct 11 22:07	23°♊04'26	
	4767 Apr 06 00:45	0°☾			4769 Oct 17 16:52	0°☾	
desc. node	4767 Apr 27 03:09	23°☾36'23			4769 Nov 11 23:13	0°☾	
	4767 May 02 16:25	0°☾			4769 Dec 07 18:47	0°☾	
	4767 May 28 06:13	0°☾			4770 Jan 03 20:48	0°☾	
	4767 Jun 22 09:20	0°♊		evening max el	4770 Jan 12 13:35	9°☾01'27	47°08'01
	4767 Jul 17 07:16	0°☾		asc. node	4770 Feb 01 23:55	27°☾54'14	
	4767 Aug 11 01:22	0°♊			4770 Feb 04 15:27	0°☾	
asc. node	4767 Aug 18 04:52	8°♊41'50		greatest brilliancy	4770 Feb 19 21:18	9°☾27'59	-4.7m
	4767 Sep 04 15:18	0°☾		retrograde	4770 Mar 04 07:23	12°☾20'17	
morning set	4767 Sep 19 20:41	18°☾41'35		evening set	4770 Mar 22 03:11	6°☾10'50	
	4767 Sep 29 00:53	0°♊		min. Earth dist.	4770 Mar 24 11:17	4°☾44'44	0.27217 AU
	4767 Oct 23 06:49	0°♊		inferior conj	4770 Mar 25 00:17	4°☾24'35	8°59'52
max. Earth dist.	4767 Oct 23 19:48	0°♊40'14	1.72687 AU	minimum elong	4770 Mar 24 21:46	4°☾28'29	8°59'46
				morning rise	4770 Mar 27 16:30	2°☾46'06	
superior conj	4767 Oct 26 11:36	3°♊58'08	1°19'22		4770 Apr 01 15:54	30°☾	
minimum elong	4767 Oct 26 18:14	4°♊18'44	1°19'16	direct	4770 Apr 14 15:41	26°☾37'24	
	4767 Nov 16 10:23	0°☾		greatest brilliancy	4770 Apr 25 11:15	28°☾48'30	-4.6m
evening rise	4767 Dec 03 15:45	21°☾26'40			4770 Apr 28 06:31	0°☾	
desc. node	4767 Dec 07 19:51	26°☾38'28		desc. node	4770 May 24 14:48	18°☾59'29	
	4767 Dec 10 12:33	0°☾		morning max el	4770 Jun 03 10:10	28°☾15'15	46°19'25
	4768 Jan 03 13:54	0°☾			4770 Jun 05 04:40	0°☾	
	4768 Jan 27 15:10	0°☾			4770 Jul 03 13:53	0°♊	
	4768 Feb 20 18:19	0°☾			4770 Jul 30 02:20	0°☾	
	4768 Mar 16 03:09	0°☾			4770 Aug 24 18:50	0°♊	
asc. node	4768 Mar 29 21:41	16°☾43'07		asc. node	4770 Sep 14 16:51	24°♊55'10	
	4768 Apr 09 23:55	0°♊			4770 Sep 18 22:13	0°☾	
	4768 May 05 19:27	0°☾			4770 Oct 13 15:10	0°♊	
	4768 Jun 02 16:26	0°♊			4770 Nov 07 00:01	0°♊	
evening max el	4768 Jun 07 00:40	4°♊18'30	45°49'39	morning set	4770 Nov 28 09:51	26°♊35'52	
	4768 Jul 09 05:15	0°☾			4770 Dec 01 03:21	0°☾	
greatest brilliancy	4768 Jul 11 14:28	1°☾12'14	-4.5m		4770 Dec 25 03:20	0°☾	
desc. node	4768 Jul 19 12:28	4°☾05'09		desc. node	4771 Jan 04 07:35	12°☾45'24	
retrograde	4768 Jul 26 03:47	4°☾54'45		max. Earth dist.	4771 Jan 04 13:31	13°☾04'00	1.71417 AU
evening set	4768 Aug 11 02:27	0°☾00'37					
	4768 Aug 11 02:53	30°☾		superior conj	4771 Jan 06 17:53	15°☾48'14	0°-5'-53
inferior conj	4768 Aug 16 16:02	26°♊38'03	-6°-1'-59	minimum elong	4771 Jan 06 16:23	15°☾43'30	0°05'48
minimum elong	4768 Aug 16 06:11	26°♊53'29	5°59'56	behind sun begin	4771 Jan 05 16:15	14°☾27'49	
min. Earth dist.	4768 Aug 16 07:48	26°♊50'57	0.29066 AU	behind sun end	4771 Jan 07 16:31	16°☾59'12	
morning rise	4768 Aug 21 10:04	23°♊43'49			4771 Jan 18 01:19	0°☾	
direct	4768 Sep 07 06:09	18°♊21'13			4771 Feb 10 22:17	0°☾	
greatest brilliancy	4768 Sep 20 22:09	21°♊37'29	-4.5m	evening rise	4771 Feb 16 12:12	7°☾00'47	
	4768 Oct 04 19:42	0°☾			4771 Mar 06 19:34	0°☾	
morning max el	4768 Oct 26 08:39	18°☾40'01	45°56'03		4771 Mar 30 19:22	0°☾	
	4768 Nov 06 14:23	0°♊			4771 Apr 24 00:28	0°♊	
asc. node	4768 Nov 09 14:31	3°♊09'29		asc. node	4771 Apr 27 09:36	4°♊09'33	
	4768 Dec 03 19:54	0°♊			4771 May 18 13:57	0°☾	
	4768 Dec 29 07:26	0°☾			4771 Jun 12 15:51	0°♊	
	4769 Jan 22 23:41	0°☾			4771 Jul 08 13:57	0°☾	
	4769 Feb 16 06:29	0°☾			4771 Aug 05 04:17	0°♊	
desc. node	4769 Mar 01 05:17	16°☾06'18		desc. node	4771 Aug 17 00:21	11°♊49'26	
	4769 Mar 12 08:42	0°☾		evening max el	4771 Aug 17 20:02	12°♊36'38	45°33'12
	4769 Apr 05 09:13	0°☾			4771 Sep 07 00:38	0°♊	
	4769 Apr 29 10:05	0°☾		greatest brilliancy	4771 Sep 23 16:48	9°♊47'17	-4.5m
morning set	4769 Apr 30 18:40	1°☾41'29		retrograde	4771 Oct 05 10:29	12°♊13'51	
	4769 May 23 12:53	0°♊		evening set	4771 Oct 23 04:30	6°♊22'06	
				inferior conj	4771 Oct 26 16:56	4°♊12'42	-8°-6'-21
superior conj	4769 Jun 08 10:42	19°♊42'53	0°-32'-31	minimum elong	4771 Oct 26 23:53	4°♊01'53	8°05'37

min. Earth dist.	4771 Oct 27 13:07	3° \mathbb{M} 41'16	0.28443 AU	evening rise	4774 May 03 16:32	24° \mathcal{B} 13'54	
morning rise	4771 Oct 30 18:57	1° \mathbb{M} 42'20			4774 May 08 07:53	0° \mathbb{I}	
	4771 Nov 02 19:35	30° \mathbb{R} $\underline{\mathbb{A}}$		asc. node	4774 May 24 21:25	20° \mathbb{I} 31'32	
direct	4771 Nov 17 01:35	26° $\underline{\mathbb{A}}$ 00'59			4774 Jun 01 13:46	0° \mathcal{S}	
greatest brilliancy	4771 Dec 01 13:39	29° $\underline{\mathbb{A}}$ 46'40	-4.6m		4774 Jun 26 01:10	0° \mathcal{Q}	
	4771 Dec 02 00:29	0° \mathbb{M}			4774 Jul 20 19:27	0° \mathbb{M}	
asc. node	4771 Dec 08 02:14	3° \mathbb{M} 28'34			4774 Aug 14 23:30	0° $\underline{\mathbb{A}}$	
morning max el	4772 Jan 06 08:45	28° \mathbb{M} 33'24	46°40'17		4774 Sep 09 19:01	0° \mathbb{M}	
	4772 Jan 07 18:54	0° \mathcal{X}		desc. node	4774 Sep 13 12:11	4° \mathbb{M} 13'54	
	4772 Feb 04 07:45	0° \mathcal{Z}			4774 Oct 06 18:16	0° \mathcal{X}	
	4772 Feb 29 22:29	0° \approx		evening max el	4774 Oct 29 03:56	23° \mathcal{X} 03'06	46°17'11
	4772 Mar 25 19:00	0° \mathcal{H}			4774 Nov 05 12:50	0° \mathcal{Z}	
desc. node	4772 Mar 28 17:16	3° \mathcal{H} 34'01		greatest brilliancy	4774 Dec 06 14:30	21° \mathcal{Z} 52'30	-4.6m
	4772 Apr 19 07:28	0° \mathcal{Y}		retrograde	4774 Dec 17 18:33	24° \mathcal{Z} 10'14	
	4772 May 13 16:53	0° \mathcal{B}		evening set	4775 Jan 01 02:43	20° \mathcal{Z} 07'16	
	4772 Jun 07 01:59	0° \mathbb{I}		asc. node	4775 Jan 04 14:05	18° \mathcal{Z} 09'47	
	4772 Jul 01 11:44	0° \mathcal{S}		inferior conj	4775 Jan 07 09:17	16° \mathcal{Z} 28'33	0°43'28
morning set	4772 Jul 10 10:07	10° \mathcal{S} 58'31		minimum elong	4775 Jan 07 07:36	16° \mathcal{Z} 31'06	0°42'56
asc. node	4772 Jul 19 19:04	22° \mathcal{S} 29'24		min. Earth dist.	4775 Jan 07 14:33	16° \mathcal{Z} 20'32	0.26744 AU
	4772 Jul 25 21:46	0° \mathcal{Q}		morning rise	4775 Jan 13 12:05	12° \mathcal{Z} 54'04	
max. Earth dist.	4772 Aug 15 11:34	25° \mathcal{Q} 18'06	1.73471 AU	direct	4775 Jan 27 23:34	8° \mathcal{Z} 43'26	
				greatest brilliancy	4775 Feb 09 17:07	11° \mathcal{Z} 44'15	-4.7m
superior conj	4772 Aug 16 07:34	26° \mathcal{Q} 19'37	0°59'35		4775 Mar 07 07:00	0° \approx	
minimum elong	4772 Aug 15 22:33	25° \mathcal{Q} 51'53	0°59'16	morning max el	4775 Mar 19 14:00	11° \approx 48'51	46°57'44
	4772 Aug 19 07:12	0° \mathbb{M}			4775 Apr 05 19:19	0° \mathcal{H}	
	4772 Sep 12 15:46	0° $\underline{\mathbb{A}}$		desc. node	4775 Apr 26 05:05	22° \mathcal{H} 57'23	
evening rise	4772 Sep 21 07:58	10° $\underline{\mathbb{A}}$ 41'20			4775 May 02 07:23	0° \mathcal{Y}	
	4772 Oct 07 00:03	0° \mathbb{M}			4775 May 27 19:28	0° \mathcal{B}	
	4772 Oct 31 08:53	0° \mathcal{X}			4775 Jun 21 21:35	0° \mathbb{I}	
desc. node	4772 Nov 08 09:56	9° \mathcal{X} 53'35			4775 Jul 16 18:53	0° \mathcal{S}	
	4772 Nov 24 18:51	0° \mathcal{Z}			4775 Aug 10 12:34	0° \mathcal{Q}	
	4772 Dec 19 06:27	0° \approx		asc. node	4775 Aug 17 07:00	8° \mathcal{Q} 14'26	
	4773 Jan 12 21:39	0° \mathcal{H}			4775 Sep 04 02:17	0° \mathbb{M}	
	4773 Feb 06 22:19	0° \mathcal{Y}		morning set	4775 Sep 17 14:14	16° \mathbb{M} 34'21	
asc. node	4773 Mar 01 11:51	26° \mathcal{Y} 07'23			4775 Sep 28 11:47	0° $\underline{\mathbb{A}}$	
	4773 Mar 04 22:47	0° \mathcal{B}		max. Earth dist.	4775 Oct 21 13:32	28° $\underline{\mathbb{A}}$ 32'31	1.72730 AU
evening max el	4773 Mar 25 16:08	22° \mathcal{B} 06'49	46°48'13		4775 Oct 22 17:45	0° \mathbb{M}	
	4773 Apr 02 17:53	0° \mathbb{I}		superior conj	4775 Oct 24 04:12	1° \mathbb{M} 46'51	1°20'33
greatest brilliancy	4773 May 01 00:04	21° \mathbb{I} 11'04	-4.6m	minimum elong	4775 Oct 24 10:15	2° \mathbb{M} 05'35	1°20'27
retrograde	4773 May 15 00:03	24° \mathbb{I} 44'45			4775 Nov 15 21:24	0° \mathcal{X}	
evening set	4773 May 30 16:49	19° \mathbb{I} 56'10		evening rise	4775 Dec 01 05:38	19° \mathcal{X} 05'48	
inferior conj	4773 Jun 05 05:13	16° \mathbb{I} 35'32	3°46'13	desc. node	4775 Dec 06 21:48	26° \mathcal{X} 09'48	
minimum elong	4773 Jun 05 12:59	16° \mathbb{I} 23'24	3°44'02		4775 Dec 09 23:43	0° \mathcal{Z}	
min. Earth dist.	4773 Jun 05 02:15	16° \mathbb{I} 40'11	0.28169 AU		4776 Jan 03 01:16	0° \approx	
morning rise	4773 Jun 11 09:30	12° \mathbb{I} 53'14			4776 Jan 27 02:47	0° \mathcal{H}	
desc. node	4773 Jun 21 02:32	9° \mathbb{I} 04'54			4776 Feb 20 06:16	0° \mathcal{Y}	
direct	4773 Jun 26 08:17	8° \mathbb{I} 32'07			4776 Mar 15 15:37	0° \mathcal{B}	
greatest brilliancy	4773 Jul 08 12:17	11° \mathbb{I} 09'50	-4.5m	asc. node	4776 Mar 28 23:39	16° \mathcal{B} 10'03	
	4773 Aug 05 00:10	0° \mathcal{S}			4776 Apr 09 13:21	0° \mathbb{I}	
morning max el	4773 Aug 14 03:02	8° \mathcal{S} 22'08	45°44'11		4776 May 05 10:52	0° \mathcal{S}	
	4773 Sep 04 10:44	0° \mathcal{Q}			4776 Jun 02 13:19	0° \mathcal{Q}	
	4773 Oct 01 13:21	0° \mathbb{M}		evening max el	4776 Jun 04 17:24	2° \mathcal{Q} 08'18	45°51'18
asc. node	4773 Oct 12 04:45	12° \mathbb{M} 16'10		greatest brilliancy	4776 Jul 09 06:44	29° \mathcal{Q} 02'42	-4.5m
	4773 Oct 27 06:19	0° $\underline{\mathbb{A}}$			4776 Jul 11 09:57	0° \mathbb{M}	
	4773 Nov 21 03:45	0° \mathbb{M}		desc. node	4776 Jul 18 14:34	2° \mathbb{M} 14'05	
	4773 Dec 15 13:17	0° \mathcal{X}		retrograde	4776 Jul 23 20:29	2° \mathbb{M} 45'17	
desc. node	4774 Jan 08 15:53	0° \mathcal{Z}			4776 Aug 04 15:20	30° \mathbb{R} \mathcal{Q}	
	4774 Jan 31 19:25	28° \mathcal{Z} 59'33		evening set	4776 Aug 08 16:25	27° \mathcal{Q} 54'58	
	4774 Feb 01 14:41	0° \approx		inferior conj	4776 Aug 14 08:23	24° \mathcal{Q} 28'38	-5°-47'-40
morning set	4774 Feb 10 23:53	11° \approx 47'00		minimum elong	4776 Aug 13 22:37	24° \mathcal{Q} 43'57	5°45'34
	4774 Feb 25 11:38	0° \mathcal{H}		min. Earth dist.	4776 Aug 13 23:24	24° \mathcal{Q} 42'43	0.29047 AU
	4774 Mar 21 08:20	0° \mathcal{Y}		morning rise	4776 Aug 19 05:02	21° \mathcal{Q} 30'36	
superior conj	4774 Mar 24 07:58	3° \mathcal{Y} 44'58	-1°-26'-11	direct	4776 Sep 04 23:00	16° \mathcal{Q} 12'24	
minimum elong	4774 Mar 24 04:38	3° \mathcal{Y} 34'31	1°26'11	greatest brilliancy	4776 Sep 18 11:49	19° \mathcal{Q} 25'30	-4.5m
max. Earth dist.	4774 Mar 26 21:51	6° \mathcal{Y} 59'14	1.71359 AU		4776 Oct 05 08:32	0° \mathbb{M}	
	4774 Apr 14 06:31	0° \mathcal{B}		morning max el	4776 Oct 24 00:04	16° \mathbb{M} 27'33	45°54'42

	4776 Nov 06 08:49	0°♄		4779 Apr 23 11:59	0°♄	
asc. node	4776 Nov 08 16:29	2°♄27'19		4779 Apr 26 11:33	3°♄40'02	
	4776 Dec 03 10:29	0°♄		4779 May 18 01:53	0°♄	
	4776 Dec 28 20:28	0°♄		4779 Jun 12 04:36	0°♄	
	4777 Jan 22 11:57	0°♄		4779 Jul 08 04:26	0°♄	
	4777 Feb 15 18:18	0°♄		4779 Aug 04 23:06	0°♄	
desc. node	4777 Feb 28 07:25	15°♄36'43		4779 Aug 15 09:39	10°♄20'26	45°32'44
	4777 Mar 11 20:13	0°♄		4779 Aug 16 02:27	11°♄00'29	
	4777 Apr 04 20:29	0°♄		4779 Sep 07 17:29	0°♄	
morning set	4777 Apr 28 07:41	29°♄17'57		4779 Sep 21 05:26	7°♄32'06	-4.5m
	4777 Apr 28 21:11	0°♄		4779 Oct 03 01:03	10°♄01'07	
	4777 May 22 23:51	0°♄		4779 Oct 20 21:30	4°♄05'45	
				4779 Oct 24 08:13	1°♄59'02	-8°-13'-2
superior conj	4777 Jun 06 01:47	17°♄27'11	0°-35'-44	4779 Oct 24 14:32	1°♄49'11	8°12'26
minimum elong	4777 Jun 06 09:21	17°♄50'38	0°35'25	4779 Oct 25 03:57	1°♄28'18	0.28501 AU
max. Earth dist.	4777 Jun 09 04:16	21°♄17'41	1.72779 AU	4779 Oct 27 13:19	30°♄	
	4777 Jun 16 05:14	0°♄		4779 Oct 28 07:15	29°♄33'06	
asc. node	4777 Jun 21 09:17	6°♄22'58		4779 Nov 14 16:47	23°♄46'23	
	4777 Jul 10 13:16	0°♄		4779 Nov 29 06:39	27°♄33'30	-4.6m
evening rise	4777 Jul 13 17:32	3°♄54'34		4779 Dec 03 18:31	0°♄	
	4777 Aug 03 23:40	0°♄		4779 Dec 07 04:14	2°♄09'25	
	4777 Aug 28 12:51	0°♄		4780 Jan 03 23:10	26°♄13'33	46°38'53
	4777 Sep 22 06:07	0°♄		4780 Jan 07 15:54	0°♄	
desc. node	4777 Oct 11 00:05	22°♄33'43		4780 Feb 03 23:24	0°♄	
	4777 Oct 17 05:17	0°♄		4780 Feb 29 12:05	0°♄	
	4777 Nov 11 12:50	0°♄		4780 Mar 25 07:32	0°♄	
	4777 Dec 07 10:31	0°♄		4780 Mar 27 19:11	3°♄01'51	
	4778 Jan 03 17:21	0°♄		4780 Apr 18 19:20	0°♄	
evening max el	4778 Jan 10 03:33	6°♄37'13	47°07'09	4780 May 13 04:18	0°♄	
asc. node	4778 Feb 01 02:05	26°♄41'23		4780 Jun 06 13:03	0°♄	
	4778 Feb 05 11:33	0°♄		4780 Jun 30 22:33	0°♄	
greatest brilliancy	4778 Feb 17 13:06	7°♄04'29	-4.7m	4780 Jul 08 03:02	8°♄50'01	
retrograde	4778 Mar 01 20:32	9°♄53'48		4780 Jul 18 21:09	22°♄03'01	
evening set	4778 Mar 19 13:57	3°♄49'03		4780 Jul 25 08:25	0°♄	
min. Earth dist.	4778 Mar 22 00:08	2°♄19'44	0.27176 AU	4780 Aug 13 07:16	23°♄18'26	1.73476 AU
inferior conj	4778 Mar 22 13:26	1°♄59'07	8°56'58			
minimum elong	4778 Mar 22 10:00	2°♄04'26	8°56'48	4780 Aug 14 01:34	24°♄14'44	0°57'15
morning rise	4778 Mar 25 06:12	0°♄19'42		4780 Aug 13 16:35	23°♄47'05	0°56'56
	4778 Mar 25 19:21	30°♄		4780 Aug 18 17:48	0°♄	
direct	4778 Apr 12 04:23	24°♄12'45		4780 Sep 12 02:26	0°♄	
greatest brilliancy	4778 Apr 22 23:43	26°♄23'16	-4.6m	4780 Sep 19 01:54	8°♄35'47	
	4778 Apr 30 10:07	0°♄		4780 Oct 06 10:53	0°♄	
desc. node	4778 May 23 16:49	18°♄00'30		4780 Oct 30 19:59	0°♄	
morning max el	4778 May 31 22:36	25°♄51'08	46°20'59	4780 Nov 07 11:57	9°♄25'23	
	4778 Jun 05 02:41	0°♄		4780 Nov 24 06:18	0°♄	
	4778 Jul 03 05:46	0°♄		4780 Dec 18 18:25	0°♄	
	4778 Jul 29 15:49	0°♄		4781 Jan 12 10:25	0°♄	
	4778 Aug 24 07:05	0°♄		4781 Feb 06 12:27	0°♄	
asc. node	4778 Sep 13 18:49	24°♄26'11		4781 Feb 28 13:45	25°♄26'37	
	4778 Sep 18 09:46	0°♄		4781 Mar 04 15:46	0°♄	
	4778 Oct 13 02:19	0°♄		4781 Mar 23 06:15	19°♄46'29	46°49'59
	4778 Nov 06 10:58	0°♄		4781 Apr 02 20:06	0°♄	
morning set	4778 Nov 26 00:46	24°♄18'51		4781 Apr 28 15:58	18°♄55'48	-4.6m
	4778 Nov 30 14:15	0°♄		4781 May 12 15:48	22°♄29'43	
	4778 Dec 24 14:16	0°♄		4781 May 28 10:29	17°♄37'25	
max. Earth dist.	4779 Jan 01 21:15	10°♄23'27	1.71456 AU	4781 Jun 02 20:24	14°♄20'39	4°05'35
desc. node	4779 Jan 03 09:42	12°♄17'40		4781 Jun 03 04:41	14°♄07'42	4°03'18
				4781 Jun 02 17:38	14°♄24'58	0.28139 AU
superior conj	4779 Jan 04 05:43	13°♄20'28	0°-2'-1	4781 Jun 08 23:13	10°♄40'42	
minimum elong	4779 Jan 04 05:11	13°♄18'48	0°02'00	4781 Jun 20 04:38	6°♄34'24	
behind sun begin	4779 Jan 03 03:50	11°♄59'18		4781 Jun 23 22:47	6°♄17'31	
behind sun end	4779 Jan 05 06:33	14°♄38'18		4781 Jul 06 02:50	8°♄55'41	-4.5m
	4779 Jan 17 12:20	0°♄		4781 Aug 05 02:46	0°♄	
	4779 Feb 10 09:21	0°♄		4781 Aug 11 18:54	6°♄11'45	45°44'46
evening rise	4779 Feb 13 22:44	4°♄28'12		4781 Sep 04 03:18	0°♄	
	4779 Mar 06 06:43	0°♄		4781 Oct 01 02:54	0°♄	
	4779 Mar 30 06:39	0°♄		4781 Oct 11 06:40	11°♄44'12	

	4781 Oct 26 18:31	0°♊		greatest brilliancy	4784 Jul 06 23:42	26°♊55'02	-4.5m
	4781 Nov 20 15:17	0°♋			4784 Jul 15 19:27	0°♋	
	4781 Dec 15 00:27	0°♌		desc. node	4784 Jul 17 16:38	0°♋20'04	
	4782 Jan 08 02:51	0°♍		retrograde	4784 Jul 21 12:49	0°♋36'54	
desc. node	4782 Jan 30 21:31	28°♍32'06			4784 Jul 27 02:19	30°♋♊	
	4782 Feb 01 01:32	0°♎		evening set	4784 Aug 06 06:35	25°♊50'19	
morning set	4782 Feb 08 10:17	9°♎14'52		min. Earth dist.	4784 Aug 11 15:27	22°♊35'10	0.29027 AU
	4782 Feb 24 22:26	0°♏		inferior conj	4784 Aug 12 00:49	22°♊20'28	-5°-32'-50
	4782 Mar 20 19:06	0°♐		minimum elong	4784 Aug 11 15:10	22°♊35'38	5°30'42
				morning rise	4784 Aug 17 00:00	19°♊18'32	
superior conj	4782 Mar 21 18:59	1°♐15'00	-1°-25'-33	direct	4784 Sep 02 15:29	14°♊04'49	
minimum elong	4782 Mar 21 14:36	1°♐01'15	1°25'33	greatest brilliancy	4784 Sep 16 01:32	17°♊14'35	-4.5m
max. Earth dist.	4782 Mar 24 05:34	4°♐19'00	1.71332 AU		4784 Oct 05 17:32	0°♋	
	4782 Apr 13 17:16	0°♑		morning max el	4784 Oct 21 14:44	14°♋14'19	45°53'28
evening rise	4782 May 01 05:00	21°♑49'53			4784 Nov 06 02:24	0°♊	
	4782 May 07 18:39	0°♒		asc. node	4784 Nov 07 18:37	1°♊47'08	
asc. node	4782 May 23 23:29	20°♒04'29			4784 Dec 03 00:30	0°♋	
	4782 Jun 01 00:37	0°♓			4784 Dec 28 09:02	0°♌	
	4782 Jun 25 12:14	0°♈			4785 Jan 21 23:49	0°♍	
	4782 Jul 20 06:58	0°♉			4785 Feb 15 05:44	0°♎	
	4782 Aug 14 11:49	0°♊		desc. node	4785 Feb 27 09:17	15°♎07'25	
	4782 Sep 09 08:54	0°♋			4785 Mar 11 07:23	0°♏	
desc. node	4782 Sep 12 14:07	3°♋39'12			4785 Apr 04 07:25	0°♐	
	4782 Oct 06 11:28	0°♌		morning set	4785 Apr 25 20:54	26°♐56'02	
evening max el	4782 Oct 26 18:38	20°♌46'19	46°15'07		4785 Apr 28 07:54	0°♑	
	4782 Nov 05 16:41	0°♍			4785 May 22 10:26	0°♒	
greatest brilliancy	4782 Dec 04 03:06	19°♍28'03	-4.6m				
retrograde	4782 Dec 15 07:34	21°♍45'20		superior conj	4785 Jun 03 17:08	15°♒13'30	0°-38'-52
evening set	4782 Dec 29 16:01	17°♍41'45		minimum elong	4785 Jun 04 01:16	15°♒38'41	0°38'33
asc. node	4783 Jan 03 16:12	14°♍48'40		max. Earth dist.	4785 Jun 07 00:01	19°♒17'37	1.72730 AU
inferior conj	4783 Jan 04 21:57	14°♍03'27	0°19'15		4785 Jun 15 15:46	0°♓	
minimum elong	4783 Jan 04 21:12	14°♍04'35	0°19'02	asc. node	4785 Jun 20 11:22	5°♓56'57	
min. Earth dist.	4783 Jan 05 04:12	13°♍53'56	0.26770 AU		4785 Jul 09 23:49	0°♈	
morning rise	4783 Jan 11 02:03	10°♍27'19		evening rise	4785 Jul 11 11:10	1°♈48'43	
direct	4783 Jan 25 13:16	6°♍18'00			4785 Aug 03 10:21	0°♉	
greatest brilliancy	4783 Feb 07 07:24	9°♍19'56	-4.7m		4785 Aug 27 23:48	0°♊	
	4783 Mar 07 11:15	0°♎			4785 Sep 21 17:31	0°♋	
morning max el	4783 Mar 17 04:14	9°♎27'03	46°58'09	desc. node	4785 Oct 10 02:04	22°♋03'52	
	4783 Apr 05 12:53	0°♏			4785 Oct 16 17:27	0°♌	
desc. node	4783 Apr 25 07:08	22°♏20'31			4785 Nov 11 02:15	0°♍	
	4783 May 01 21:41	0°♐			4785 Dec 07 02:10	0°♎	
	4783 May 27 08:12	0°♑			4786 Jan 03 14:15	0°♏	
	4783 Jun 21 09:24	0°♒		evening max el	4786 Jan 07 16:31	4°♏11'18	47°06'11
	4783 Jul 16 06:06	0°♓		asc. node	4786 Jan 31 04:02	25°♏26'42	
	4783 Aug 09 23:25	0°♈			4786 Feb 06 14:30	0°♐	
asc. node	4783 Aug 16 08:59	7°♈47'42		greatest brilliancy	4786 Feb 15 04:51	4°♐41'22	-4.7m
	4783 Sep 03 12:54	0°♉		retrograde	4786 Feb 27 09:20	7°♐27'56	
morning set	4783 Sep 15 07:45	14°♉28'14		evening set	4786 Mar 17 00:10	1°♐28'26	
	4783 Sep 27 22:18	0°♊			4786 Mar 19 09:54	30°♐♑	
max. Earth dist.	4783 Oct 19 06:10	26°♊22'43	1.72770 AU	min. Earth dist.	4786 Mar 19 13:15	29°♑54'49	0.27136 AU
				inferior conj	4786 Mar 20 02:32	29°♑34'12	8°53'01
superior conj	4783 Oct 21 20:55	29°♊37'12	1°21'35	minimum elong	4786 Mar 19 22:11	29°♑40'58	8°52'46
minimum elong	4783 Oct 22 02:19	29°♊53'57	1°21'31	morning rise	4786 Mar 22 20:19	27°♑53'11	
	4783 Oct 22 04:16	0°♋		direct	4786 Apr 09 16:34	21°♑48'19	
	4783 Nov 15 08:02	0°♌		greatest brilliancy	4786 Apr 20 13:11	23°♑59'35	-4.6m
evening rise	4783 Nov 28 19:40	16°♌46'36			4786 May 01 19:57	0°♐	
desc. node	4783 Dec 05 23:55	25°♌42'49		desc. node	4786 May 22 18:52	17°♐03'43	
	4783 Dec 09 10:32	0°♍		morning max el	4786 May 29 10:53	23°♐27'14	46°22'49
	4784 Jan 02 12:17	0°♎			4786 Jun 04 23:36	0°♑	
	4784 Jan 26 14:03	0°♏			4786 Jul 02 21:06	0°♒	
	4784 Feb 19 17:51	0°♐			4786 Jul 29 04:55	0°♓	
	4784 Mar 15 03:43	0°♑			4786 Aug 23 19:01	0°♈	
asc. node	4784 Mar 28 01:39	15°♑38'20		asc. node	4786 Sep 12 20:46	23°♈57'52	
	4784 Apr 09 02:24	0°♒			4786 Sep 17 21:03	0°♉	
	4784 May 05 02:01	0°♓			4786 Oct 12 13:15	0°♊	
	4784 Jun 02 10:26	0°♈			4786 Nov 05 21:45	0°♋	
evening max el	4784 Jun 02 09:42	29°♈58'12	45°52'46	morning set	4786 Nov 23 15:43	22°♋02'25	

	4786 Nov 30 01:00	0°♊		retrograde	4789 May 10 07:45	20°♊13'23	
	4786 Dec 24 01:03	0°♋		evening set	4789 May 26 04:07	15°♊17'19	
max. Earth dist.	4786 Dec 30 08:09	7°♋53'21	1.71495 AU	inferior conj	4789 May 31 11:22	12°♊04'23	4°24'43
				minimum elong	4789 May 31 20:08	11°♊50'43	4°22'22
superior conj	4787 Jan 01 17:32	10°♋53'13	0°01'51	min. Earth dist.	4789 May 31 08:32	12°♊08'48	0.28110 AU
minimum elong	4787 Jan 01 17:59	10°♋54'39	0°01'50	morning rise	4789 Jun 06 12:32	8°♊27'09	
behind sun begin	4786 Dec 31 16:41	9°♋35'18		desc. node	4789 Jun 19 06:41	4°♊07'55	
behind sun end	4787 Jan 02 19:18	12°♋13'59		direct	4789 Jun 21 13:38	4°♊01'39	
desc. node	4787 Jan 02 11:42	11°♋50'11		greatest brilliancy	4789 Jul 03 16:20	6°♊39'15	-4.5m
	4787 Jan 16 23:10	0°♌			4789 Aug 05 04:15	0°♌	
	4787 Feb 09 20:16	0°♍		morning max el	4789 Aug 09 11:08	4°♌01'30	45°45'29
evening rise	4787 Feb 11 09:22	1°♍56'31			4789 Sep 03 19:45	0°♍	
	4787 Mar 05 17:45	0°♎			4789 Sep 30 16:29	0°♎	
	4787 Mar 29 17:51	0°♏		asc. node	4789 Oct 10 08:49	11°♎12'38	
	4787 Apr 22 23:26	0°♐			4789 Oct 26 06:50	0°♏	
asc. node	4787 Apr 25 13:38	3°♐11'13			4789 Nov 20 02:58	0°♐	
	4787 May 17 13:45	0°♑			4789 Dec 14 11:50	0°♑	
	4787 Jun 11 17:18	0°♒			4790 Jan 07 14:05	0°♋	
	4787 Jul 07 18:55	0°♓		desc. node	4790 Jan 29 23:27	28°♋03'06	
	4787 Aug 04 18:13	0°♈			4790 Jan 31 12:42	0°♌	
evening max el	4787 Aug 12 23:52	8°♈06'18	45°32'20	morning set	4790 Feb 05 20:28	6°♌41'06	
desc. node	4787 Aug 15 04:20	10°♈10'44			4790 Feb 24 09:33	0°♍	
	4787 Sep 08 15:58	0°♎					
greatest brilliancy	4787 Sep 18 16:52	5°♎16'12	-4.5m	superior conj	4790 Mar 19 05:33	28°♍42'40	-1°-24'-45
retrograde	4787 Sep 30 16:09	7°♎49'01		minimum elong	4790 Mar 19 00:10	28°♍25'45	1°24'42
evening set	4787 Oct 18 14:19	1°♎50'12			4790 Mar 20 06:10	0°♎	
inferior conj	4787 Oct 21 23:34	29°♎45'46	-8°-18'-50	max. Earth dist.	4790 Mar 21 14:46	1°♎42'23	1.71302 AU
minimum elong	4787 Oct 22 05:13	29°♎36'59	8°18'23		4790 Apr 13 04:19	0°♏	
	4787 Oct 21 14:24	30°♏♈		evening rise	4790 Apr 28 17:08	19°♏23'48	
min. Earth dist.	4787 Oct 22 18:32	29°♎16'17	0.28562 AU		4790 May 07 05:43	0°♐	
morning rise	4787 Oct 25 19:50	27°♎24'07		asc. node	4790 May 23 01:33	19°♐36'26	
direct	4787 Nov 12 08:30	21°♎32'11			4790 May 31 11:48	0°♑	
greatest brilliancy	4787 Nov 27 00:08	25°♎21'23	-4.6m		4790 Jun 24 23:40	0°♒	
	4787 Dec 04 23:17	0°♓			4790 Jul 19 18:51	0°♓	
asc. node	4787 Dec 06 06:19	0°♓52'56			4790 Aug 14 00:33	0°♈	
morning max el	4788 Jan 01 14:41	23°♓56'37	46°37'27		4790 Sep 08 23:13	0°♎	
	4788 Jan 07 12:12	0°♊		desc. node	4790 Sep 11 16:12	3°♓03'50	
	4788 Feb 03 14:48	0°♋			4790 Oct 06 05:20	0°♊	
	4788 Feb 29 01:33	0°♌		evening max el	4790 Oct 24 09:13	18°♊28'39	46°13'01
	4788 Mar 24 19:59	0°♍			4790 Nov 05 22:46	0°♋	
desc. node	4788 Mar 26 21:15	2°♍30'21		greatest brilliancy	4790 Dec 01 16:21	17°♋03'52	-4.6m
	4788 Apr 18 07:10	0°♎		retrograde	4790 Dec 12 20:07	19°♋19'39	
	4788 May 12 15:43	0°♏		evening set	4790 Dec 27 05:34	15°♋15'19	
	4788 Jun 06 00:10	0°♐		inferior conj	4791 Jan 02 10:41	11°♋37'42	0°-4'-49
	4788 Jun 30 09:25	0°♑		minimum elong	4791 Jan 02 10:52	11°♋37'25	0°04'46
morning set	4788 Jul 05 20:03	6°♑41'31		transit middle	4791 Jan 02 10:52	11°♋37'25	0°04'46
asc. node	4788 Jul 17 23:06	21°♑36'04		transit begin	4791 Jan 02 06:58	11°♋43'22	
	4788 Jul 24 19:06	0°♒		transit end	4791 Jan 02 14:46	11°♋31'27	
max. Earth dist.	4788 Aug 11 04:59	21°♒24'52	1.73476 AU	asc. node	4791 Jan 02 18:09	11°♋26'18	
				min. Earth dist.	4791 Jan 02 18:10	11°♋26'16	0.26804 AU
superior conj	4788 Aug 11 19:42	22°♒10'07	0°54'52	morning rise	4791 Jan 08 15:48	7°♋59'50	
minimum elong	4788 Aug 11 10:48	21°♒42'44	0°54'31	direct	4791 Jan 23 02:50	3°♋51'46	
	4788 Aug 18 04:26	0°♓		greatest brilliancy	4791 Feb 04 21:49	6°♋54'31	-4.7m
	4788 Sep 11 13:08	0°♈			4791 Mar 07 14:25	0°♌	
evening rise	4788 Sep 16 20:07	6°♈31'01		morning max el	4791 Mar 14 17:40	7°♌01'37	46°58'21
	4788 Oct 05 21:46	0°♎			4791 Apr 05 06:37	0°♍	
	4788 Oct 30 07:11	0°♏		desc. node	4791 Apr 24 09:14	21°♍42'39	
desc. node	4788 Nov 06 14:04	8°♏57'04			4791 May 01 12:18	0°♎	
	4788 Nov 23 17:55	0°♋			4791 May 26 21:17	0°♏	
	4788 Dec 18 06:37	0°♌			4791 Jun 20 21:35	0°♐	
	4789 Jan 11 23:27	0°♍			4791 Jul 15 17:42	0°♑	
	4789 Feb 06 02:55	0°♎			4791 Aug 09 10:39	0°♒	
asc. node	4789 Feb 27 15:46	24°♎45'08		asc. node	4791 Aug 15 10:56	7°♒19'37	
	4789 Mar 04 09:19	0°♏			4791 Sep 02 23:54	0°♓	
evening max el	4789 Mar 20 21:04	17°♏27'17	46°51'47	morning set	4791 Sep 13 01:15	12°♓20'51	
	4789 Apr 03 00:12	0°♐			4791 Sep 27 09:12	0°♈	
greatest brilliancy	4789 Apr 26 07:47	16°♐39'36	-4.6m	max. Earth dist.	4791 Oct 16 21:41	24°♈08'25	1.72807 AU

superior conj	4791 Oct 19 13:54	27°♄27'19	1°22'29	direct	4794 Apr 07 04:43	19°♋22'59	
minimum elong	4791 Oct 19 18:40	27°♄42'05	1°22'27	greatest brilliancy	4794 Apr 18 03:11	21°♋35'46	-4.6m
	4791 Oct 21 15:10	0°♌			4794 May 02 20:33	0°♍	
	4791 Nov 14 19:00	0°♎		desc. node	4794 May 21 20:53	16°♍07'04	
evening rise	4791 Nov 26 10:02	14°♎27'29		morning max el	4794 May 27 00:05	21°♍04'21	46°24'27
desc. node	4791 Dec 05 01:54	25°♎14'21			4794 Jun 04 20:14	0°♏	
	4791 Dec 08 21:40	0°♏			4794 Jul 02 12:38	0°♐	
	4792 Jan 01 23:40	0°♑			4794 Jul 28 18:19	0°♑	
	4792 Jan 26 01:44	0°♋			4794 Aug 23 07:17	0°♒	
	4792 Feb 19 05:53	0°♍		asc. node	4794 Sep 11 22:54	23°♒29'06	
	4792 Mar 14 16:20	0°♏			4794 Sep 17 08:39	0°♓	
asc. node	4792 Mar 27 03:44	15°♏05'10			4794 Oct 12 00:29	0°♑	
	4792 Apr 08 16:06	0°♐			4794 Nov 05 08:50	0°♌	
	4792 May 04 17:59	0°♑		morning set	4794 Nov 21 06:40	19°♌45'10	
evening max el	4792 May 31 00:54	27°♑43'38	45°54'24		4794 Nov 29 12:03	0°♎	
	4792 Jun 02 09:04	0°♒			4794 Dec 23 12:07	0°♏	
greatest brilliancy	4792 Jul 04 16:06	24°♒44'49	-4.5m	max. Earth dist.	4794 Dec 27 20:24	5°♏26'38	1.71530 AU
desc. node	4792 Jul 16 18:32	28°♒19'57					
retrograde	4792 Jul 19 04:40	28°♒26'42		superior conj	4794 Dec 30 05:31	8°♏25'39	0°05'40
evening set	4792 Aug 03 20:41	23°♒43'28		minimum elong	4794 Dec 30 06:57	8°♏30'07	0°05'37
inferior conj	4792 Aug 09 17:07	20°♒10'31	-5°-17'-34	behind sun begin	4794 Dec 29 06:55	7°♏14'46	
minimum elong	4792 Aug 09 07:37	20°♒25'26	5°15'22	behind sun end	4794 Dec 31 06:59	9°♏45'29	
min. Earth dist.	4792 Aug 09 07:45	20°♒25'15	0.29004 AU	desc. node	4795 Jan 01 13:39	11°♏21'35	
morning rise	4792 Aug 14 18:47	17°♒04'41			4795 Jan 16 10:15	0°♑	
direct	4792 Aug 31 07:15	11°♒55'14		evening rise	4795 Feb 08 20:22	29°♑25'22	
greatest brilliancy	4792 Sep 13 15:45	15°♒02'31	-4.5m		4795 Feb 09 07:24	0°♋	
	4792 Oct 06 00:41	0°♓			4795 Mar 05 04:58	0°♍	
morning max el	4792 Oct 19 04:57	11°♓58'37	45°52'27		4795 Mar 29 05:13	0°♏	
	4792 Nov 05 20:03	0°♑			4795 Apr 22 11:03	0°♐	
asc. node	4792 Nov 06 20:35	1°♑05'46		asc. node	4795 Apr 24 15:39	2°♐41'35	
	4792 Dec 02 14:46	0°♌			4795 May 17 01:50	0°♑	
	4792 Dec 27 21:53	0°♎			4795 Jun 11 06:19	0°♒	
	4793 Jan 21 11:57	0°♏			4795 Jul 07 09:53	0°♓	
	4793 Feb 14 17:29	0°♑			4795 Aug 04 14:20	0°♑	
desc. node	4793 Feb 26 11:21	14°♑37'46		evening max el	4795 Aug 10 14:58	5°♑53'30	45°32'03
	4793 Mar 10 18:52	0°♋		desc. node	4795 Aug 14 06:27	9°♑19'41	
	4793 Apr 03 18:43	0°♍			4795 Sep 10 00:01	0°♌	
morning set	4793 Apr 23 09:32	24°♍30'51		greatest brilliancy	4795 Sep 16 03:59	2°♌59'12	-4.5m
	4793 Apr 27 19:03	0°♏		retrograde	4795 Sep 28 07:33	5°♌35'58	
	4793 May 21 21:29	0°♐			4795 Oct 15 13:24	30°♌♌	
				evening set	4795 Oct 16 06:51	29°♌34'11	
superior conj	4793 Jun 01 07:55	12°♐56'32	0°-42'-1	inferior conj	4795 Oct 19 14:50	27°♌31'36	-8°-23'-57
minimum elong	4793 Jun 01 16:34	13°♐23'21	0°41'39	minimum elong	4795 Oct 19 19:46	27°♌23'55	8°23'36
max. Earth dist.	4793 Jun 04 16:47	17°♐06'59	1.72680 AU	min. Earth dist.	4795 Oct 20 08:38	27°♌03'56	0.28620 AU
	4793 Jun 15 02:45	0°♑		morning rise	4795 Oct 23 08:28	25°♌14'00	
asc. node	4793 Jun 19 13:16	5°♑28'56		direct	4795 Nov 10 00:32	19°♌17'20	
evening rise	4793 Jul 09 04:13	29°♑39'44		greatest brilliancy	4795 Nov 24 16:42	23°♌07'32	-4.6m
	4793 Jul 09 10:48	0°♒		asc. node	4795 Dec 05 08:17	29°♌37'54	
	4793 Aug 02 21:27	0°♓			4795 Dec 05 20:30	0°♌	
	4793 Aug 27 11:11	0°♑		morning max el	4795 Dec 30 06:53	21°♌41'03	46°35'59
	4793 Sep 21 05:25	0°♌			4796 Jan 07 08:06	0°♎	
desc. node	4793 Oct 09 04:10	21°♌32'58			4796 Feb 03 06:09	0°♏	
	4793 Oct 16 06:08	0°♎			4796 Feb 28 15:02	0°♑	
	4793 Nov 10 16:12	0°♏			4796 Mar 24 08:27	0°♋	
	4793 Dec 06 18:25	0°♑		desc. node	4796 Mar 25 23:19	1°♋58'47	
	4794 Jan 03 12:11	0°♋			4796 Apr 17 19:00	0°♍	
evening max el	4794 Jan 05 05:04	1°♋43'42	47°05'19		4796 May 12 03:08	0°♏	
asc. node	4794 Jan 30 06:00	24°♋09'13			4796 Jun 05 11:15	0°♐	
	4794 Feb 08 05:17	0°♍			4796 Jun 29 20:17	0°♑	
greatest brilliancy	4794 Feb 12 19:37	2°♍16'27	-4.7m	morning set	4796 Jul 03 13:05	4°♑32'58	
retrograde	4794 Feb 24 22:16	5°♍01'42		asc. node	4796 Jul 17 01:08	21°♑09'09	
	4794 Mar 12 22:16	30°♌♌			4796 Jul 24 05:51	0°♒	
evening set	4794 Mar 14 10:02	29°♋07'33		max. Earth dist.	4796 Aug 09 03:27	19°♒33'19	1.73478 AU
min. Earth dist.	4794 Mar 17 02:20	27°♋29'20	0.27102 AU				
inferior conj	4794 Mar 17 15:41	27°♋08'40	8°48'06	superior conj	4796 Aug 09 13:37	20°♒04'34	0°52'22
minimum elong	4794 Mar 17 10:27	27°♋16'46	8°47'41	minimum elong	4796 Aug 09 04:51	19°♒37'36	0°52'01
morning rise	4794 Mar 20 10:58	25°♋25'29			4796 Aug 17 15:09	0°♓	

	4796 Sep 10 23:56	0°♄		desc. node	4799 Apr 23 11:09	21°♂05'25	
evening rise	4796 Sep 14 14:05	4°♄25'17			4799 May 01 02:29	0°♃	
	4796 Oct 05 08:45	0°♄			4799 May 26 10:00	0°♂	
	4796 Oct 29 18:27	0°♂			4799 Jun 20 09:23	0°♄	
desc. node	4796 Nov 05 16:00	8°♂28'02			4799 Jul 15 04:55	0°♄	
	4796 Nov 23 05:37	0°♄			4799 Aug 08 21:29	0°♄	
	4796 Dec 17 18:55	0°♂		asc. node	4799 Aug 14 13:04	6°♄53'20	
	4797 Jan 11 12:38	0°♂			4799 Sep 02 10:32	0°♄	
	4797 Feb 05 17:34	0°♃		morning set	4799 Sep 10 18:58	10°♄15'19	
asc. node	4797 Feb 26 17:54	24°♃03'40			4799 Sep 26 19:45	0°♄	
	4797 Mar 04 03:12	0°♂		max. Earth dist.	4799 Oct 14 13:40	21°♄56'37	1.72852 AU
evening max el	4797 Mar 18 12:57	15°♂10'58	46°53'38				
	4797 Apr 03 06:02	0°♄		superior conj	4799 Oct 17 07:05	25°♄19'07	1°23'17
greatest brilliancy	4797 Apr 24 00:31	14°♄25'18	-4.6m	minimum elong	4799 Oct 17 11:11	25°♄31'50	1°23'14
retrograde	4797 May 07 23:54	17°♄57'47			4799 Oct 21 01:45	0°♄	
evening set	4797 May 23 22:03	12°♄58'12			4799 Nov 14 05:43	0°♂	
inferior conj	4797 May 29 02:30	9°♄49'03	4°43'25	evening rise	4799 Nov 24 00:27	12°♂09'31	
minimum elong	4797 May 29 11:41	9°♄34'43	4°41'00	desc. node	4799 Dec 04 03:53	24°♂46'40	
min. Earth dist.	4797 May 28 23:23	9°♄53'54	0.28077 AU		4799 Dec 08 08:34	0°♄	
morning rise	4797 Jun 04 01:48	6°♄14'42			4800 Jan 01 10:48	0°♂	
desc. node	4797 Jun 18 08:35	1°♄47'53			4800 Jan 25 13:07	0°♂	
direct	4797 Jun 19 04:53	1°♄47'02			4800 Feb 18 17:39	0°♃	
greatest brilliancy	4797 Jul 01 04:47	4°♄22'29	-4.5m		4800 Mar 14 04:43	0°♂	
	4797 Aug 05 04:13	0°♄		asc. node	4800 Mar 26 05:41	14°♂32'31	
morning max el	4797 Aug 07 03:12	1°♄51'23	45°45'59		4800 Apr 08 05:35	0°♄	
	4797 Sep 03 11:47	0°♄			4800 May 04 09:51	0°♄	
	4797 Sep 30 05:53	0°♄		evening max el	4800 May 28 15:45	25°♄29'17	45°56'13
asc. node	4797 Oct 09 10:46	10°♄40'50			4800 Jun 02 08:11	0°♄	
	4797 Oct 25 19:01	0°♄		greatest brilliancy	4800 Jul 02 07:50	22°♄35'14	-4.5m
	4797 Nov 19 14:33	0°♄		desc. node	4800 Jul 15 20:39	26°♄17'28	
	4797 Dec 13 23:05	0°♂		retrograde	4800 Jul 16 20:49	26°♄18'39	
	4798 Jan 07 01:10	0°♄		evening set	4800 Aug 01 11:09	21°♄38'13	
desc. node	4798 Jan 29 01:30	27°♄34'57		inferior conj	4800 Aug 07 09:39	18°♄02'41	-5°-1'-51
	4798 Jan 30 23:43	0°♂		minimum elong	4800 Aug 07 00:23	18°♄17'14	4°59'39
morning set	4798 Feb 03 06:39	4°♂07'47		min. Earth dist.	4800 Aug 07 00:24	18°♄17'12	0.28979 AU
	4798 Feb 23 20:31	0°♂		morning rise	4800 Aug 12 13:45	14°♄53'11	
				direct	4800 Aug 28 22:56	9°♄47'41	
superior conj	4798 Mar 16 16:06	26°♂10'36	-1°-23'-46	greatest brilliancy	4800 Sep 11 06:57	12°♄53'40	-4.5m
minimum elong	4798 Mar 16 09:44	25°♂50'34	1°23'42		4800 Oct 06 04:53	0°♄	
max. Earth dist.	4798 Mar 18 23:18	29°♂04'02	1.71271 AU	morning max el	4800 Oct 16 19:33	9°♄45'33	45°51'23
	4798 Mar 19 17:07	0°♃		asc. node	4800 Nov 05 22:34	0°♄26'23	
	4798 Apr 12 15:12	0°♂			4800 Nov 05 12:47	0°♄	
evening rise	4798 Apr 26 05:12	16°♂57'57			4800 Dec 02 04:28	0°♄	
	4798 May 06 16:35	0°♄			4800 Dec 27 10:19	0°♂	
asc. node	4798 May 22 03:28	19°♄08'40			4801 Jan 20 23:45	0°♄	
	4798 May 30 22:44	0°♄			4801 Feb 14 04:55	0°♂	
	4798 Jun 24 10:49	0°♄		desc. node	4801 Feb 25 13:28	14°♂09'12	
	4798 Jul 19 06:29	0°♄			4801 Mar 10 06:01	0°♂	
	4798 Aug 13 13:04	0°♄			4801 Apr 03 05:39	0°♃	
	4798 Sep 08 13:27	0°♄		morning set	4801 Apr 20 21:52	22°♃05'43	
desc. node	4798 Sep 10 18:14	2°♄28'47			4801 Apr 27 05:51	0°♂	
	4798 Oct 05 23:26	0°♂			4801 May 21 08:10	0°♄	
evening max el	4798 Oct 21 23:18	16°♂10'21	46°10'49				
	4798 Nov 06 06:59	0°♄		superior conj	4801 May 29 22:37	10°♄40'25	0°-45'-5
greatest brilliancy	4798 Nov 29 06:22	14°♄41'12	-4.6m	minimum elong	4801 May 30 07:45	11°♄08'42	0°44'43
retrograde	4798 Dec 10 08:04	16°♄54'46		max. Earth dist.	4801 Jun 02 07:24	14°♄50'41	1.72629 AU
evening set	4798 Dec 24 19:21	12°♄49'23			4801 Jun 14 13:23	0°♄	
inferior conj	4798 Dec 30 23:28	9°♄12'56	0°-28'-47	asc. node	4801 Jun 18 15:21	5°♄02'35	
minimum elong	4798 Dec 31 00:35	9°♄11'14	0°28'27	evening rise	4801 Jul 06 21:21	27°♄32'09	
min. Earth dist.	4798 Dec 31 08:31	8°♄59'06	0.26840 AU		4801 Jul 08 21:26	0°♄	
asc. node	4799 Jan 01 20:08	8°♄04'51			4801 Aug 02 08:10	0°♄	
morning rise	4799 Jan 06 05:21	5°♄33'30			4801 Aug 26 22:09	0°♄	
direct	4799 Jan 20 15:57	1°♄26'21			4801 Sep 20 16:52	0°♄	
greatest brilliancy	4799 Feb 02 12:58	4°♄30'45	-4.7m	desc. node	4801 Oct 08 06:08	21°♄03'00	
	4799 Mar 07 15:48	0°♂			4801 Oct 15 18:24	0°♂	
morning max el	4799 Mar 12 06:16	4°♂34'44	46°58'31		4801 Nov 10 05:50	0°♄	
	4799 Apr 04 23:41	0°♂			4801 Dec 06 10:35	0°♂	

evening max el	4802 Jan 02 18:06	29° \approx 18'11	47°04'14			4804 Apr 17 06:41	0° Υ	
	4802 Jan 03 10:43	0° H				4804 May 11 14:24	0° B	
asc. node	4802 Jan 29 08:09	22° H 50'01				4804 Jun 04 22:13	0° II	
greatest brilliancy	4802 Feb 10 09:24	29° H 50'26	-4.7m			4804 Jun 29 07:00	0° S	
	4802 Feb 10 18:24	0° Υ		morning set		4804 Jul 01 05:45	2° S 23'44	
retrograde	4802 Feb 22 11:29	2° Υ 35'29		asc. node		4804 Jul 16 03:11	20° S 42'50	
	4802 Mar 05 17:33	30° R H				4804 Jul 23 16:26	0° Ω	
evening set	4802 Mar 11 19:16	26° H 46'57						
min. Earth dist.	4802 Mar 14 15:01	25° H 03'53	0.27068 AU	superior conj		4804 Aug 07 07:19	17° Ω 58'51	0°49'47
inferior conj	4802 Mar 15 04:34	24° H 42'57	8°42'00	minimum elong		4804 Aug 06 22:44	17° Ω 32'28	0°49'26
minimum elong	4802 Mar 14 22:30	24° H 52'20	8°41'27	max. Earth dist.		4804 Aug 07 02:08	17° Ω 42'55	1.73474 AU
morning rise	4802 Mar 18 01:51	22° H 57'02				4804 Aug 17 01:42	0° M	
direct	4802 Apr 04 16:59	16° H 57'31				4804 Sep 10 10:34	0° $\underline{\Omega}$	
greatest brilliancy	4802 Apr 15 16:43	19° H 11'48	-4.6m	evening rise		4804 Sep 12 08:08	2° $\underline{\Omega}$ 20'15	
	4802 May 03 14:26	0° Υ				4804 Oct 04 19:34	0° M	
desc. node	4802 May 20 22:54	15° Υ 12'29				4804 Oct 29 05:32	0° J	
morning max el	4802 May 24 14:00	18° Υ 44'02	46°26'11	desc. node		4804 Nov 04 18:01	7° J 59'54	
	4802 Jun 04 15:53	0° B				4804 Nov 22 17:07	0° S	
	4802 Jul 02 03:36	0° II				4804 Dec 17 06:59	0° \approx	
	4802 Jul 28 07:15	0° S				4805 Jan 11 01:37	0° H	
	4802 Aug 22 19:06	0° Ω				4805 Feb 05 08:09	0° Υ	
asc. node	4802 Sep 11 00:51	23° Ω 01'02		asc. node		4805 Feb 25 19:48	23° Υ 21'32	
	4802 Sep 16 19:50	0° M				4805 Mar 03 21:21	0° B	
	4802 Oct 11 11:18	0° $\underline{\Omega}$		evening max el		4805 Mar 16 04:39	12° B 54'15	46°55'02
	4802 Nov 04 19:29	0° M				4805 Apr 03 14:16	0° II	
morning set	4802 Nov 18 22:15	17° M 31'15		greatest brilliancy		4805 Apr 21 18:03	12° II 11'22	-4.6m
	4802 Nov 28 22:41	0° J		retrograde		4805 May 05 15:22	15° II 40'53	
	4802 Dec 22 22:48	0° S		evening set		4805 May 21 15:51	10° II 37'52	
max. Earth dist.	4802 Dec 25 10:04	3° S 05'35	1.71572 AU	inferior conj		4805 May 26 17:22	7° II 32'39	5°01'51
				minimum elong		4805 May 27 02:55	7° II 17'43	4°59'24
superior conj	4802 Dec 27 17:52	6° S 00'23	0°09'26	min. Earth dist.		4805 May 26 14:13	7° II 37'34	0.28045 AU
minimum elong	4802 Dec 27 20:14	6° S 07'48	0°09'20	morning rise		4805 Jun 01 14:29	4° II 01'12	
behind sun begin	4802 Dec 26 23:17	5° S 02'09				4805 Jun 11 22:44	30° R B	
behind sun end	4802 Dec 28 17:11	7° S 13'26		direct		4805 Jun 16 19:46	29° B 31'23	
desc. node	4802 Dec 31 15:47	10° S 54'38		desc. node		4805 Jun 17 10:43	29° B 31'51	
	4803 Jan 15 21:02	0° \approx				4805 Jun 21 19:39	0° II	
evening rise	4803 Feb 06 07:20	26° \approx 54'55		greatest brilliancy		4805 Jun 28 16:44	2° II 04'07	-4.5m
	4803 Feb 08 18:17	0° H		morning max el		4805 Aug 04 18:15	29° II 38'30	45°46'37
	4803 Mar 04 15:58	0° Υ				4805 Aug 05 03:15	0° S	
	4803 Mar 28 16:22	0° B				4805 Sep 03 03:33	0° Ω	
	4803 Apr 21 22:28	0° II				4805 Sep 29 19:08	0° M	
asc. node	4803 Apr 23 17:35	2° II 12'22		asc. node		4805 Oct 08 12:43	10° M 09'16	
	4803 May 16 13:45	0° S				4805 Oct 25 07:07	0° $\underline{\Omega}$	
	4803 Jun 10 19:11	0° Ω				4805 Nov 19 02:03	0° M	
	4803 Jul 07 00:47	0° M				4805 Dec 13 10:15	0° J	
	4803 Aug 04 10:45	0° $\underline{\Omega}$				4806 Jan 06 12:10	0° S	
evening max el	4803 Aug 08 06:59	3° $\underline{\Omega}$ 43'52	45°31'54	desc. node		4806 Jan 28 03:35	27° S 07'13	
desc. node	4803 Aug 13 08:31	8° $\underline{\Omega}$ 28'36				4806 Jan 30 10:37	0° \approx	
	4803 Sep 11 22:33	0° M		morning set		4806 Jan 31 17:26	1° \approx 36'45	
greatest brilliancy	4803 Sep 13 16:07	0° M 44'53	-4.5m			4806 Feb 23 07:23	0° H	
retrograde	4803 Sep 25 23:07	3° M 24'33						
	4803 Oct 09 04:10	30° R $\underline{\Omega}$		superior conj		4806 Mar 14 03:00	23° H 39'57	-1°-22'-37
evening set	4803 Oct 13 23:24	27° $\underline{\Omega}$ 20'31		minimum elong		4806 Mar 13 19:43	23° H 17'02	1°22'31
inferior conj	4803 Oct 17 06:20	25° $\underline{\Omega}$ 19'19	-8°-28'-19	max. Earth dist.		4806 Mar 16 07:29	26° H 24'53	1.71246 AU
minimum elong	4803 Oct 17 10:34	25° $\underline{\Omega}$ 12'44	8°28'04			4806 Mar 19 03:57	0° Υ	
min. Earth dist.	4803 Oct 17 22:46	24° $\underline{\Omega}$ 53'45	0.28669 AU			4806 Apr 12 02:03	0° B	
morning rise	4803 Oct 20 21:32	23° $\underline{\Omega}$ 05'20		evening rise		4806 Apr 23 17:08	14° B 31'35	
direct	4803 Nov 07 17:03	17° $\underline{\Omega}$ 04'39				4806 May 06 03:29	0° II	
greatest brilliancy	4803 Nov 22 07:59	20° $\underline{\Omega}$ 53'51	-4.6m	asc. node		4806 May 21 05:32	18° II 41'05	
asc. node	4803 Dec 04 10:18	28° $\underline{\Omega}$ 26'43				4806 May 30 09:46	0° S	
	4803 Dec 06 11:27	0° M				4806 Jun 23 22:08	0° Ω	
morning max el	4803 Dec 27 22:55	19° M 26'36	46°34'22			4806 Jul 18 18:18	0° M	
	4804 Jan 07 02:56	0° J				4806 Aug 13 01:48	0° $\underline{\Omega}$	
	4804 Feb 02 20:56	0° S				4806 Sep 08 04:00	0° M	
	4804 Feb 28 04:08	0° \approx		desc. node		4806 Sep 09 20:11	1° M 52'52	
	4804 Mar 23 20:40	0° H				4806 Oct 05 18:08	0° J	
desc. node	4804 Mar 25 01:14	1° H 27'22		evening max el		4806 Oct 19 12:25	13° J 49'30	46°08'43

	4806 Nov 06 18:14	0°☿			4809 May 20 19:04	0°♄	
greatest brilliancy	4806 Nov 26 20:37	12°☿18'48	-4.6m				
retrograde	4806 Dec 07 19:54	14°☿30'23		superior conj	4809 May 27 13:31	8°♄24'10	0°-48'-4
evening set	4806 Dec 22 09:24	10°☿23'19		minimum elong	4809 May 27 23:04	8°♄53'47	0°47'42
inferior conj	4806 Dec 28 12:23	6°☿48'32	0°-52'-42	max. Earth dist.	4809 May 30 22:19	12°♄34'36	1.72580 AU
minimum elong	4806 Dec 28 14:24	6°☿45'27	0°52'02		4809 Jun 14 00:13	0°☿	
min. Earth dist.	4806 Dec 28 23:12	6°☿31'58	0.26875 AU	asc. node	4809 Jun 17 17:24	4°☿35'27	
asc. node	4806 Dec 31 22:15	4°☿44'41		evening rise	4809 Jul 04 14:39	25°☿24'18	
morning rise	4807 Jan 03 18:49	3°☿07'54			4809 Jul 08 08:18	0°♁	
	4807 Jan 11 06:27	30°☿☿			4809 Aug 01 19:12	0°♁	
direct	4807 Jan 18 04:48	29°☿01'03			4809 Aug 26 09:31	0°♁	
	4807 Jan 25 07:57	0°☿			4809 Sep 20 04:46	0°♁	
greatest brilliancy	4807 Jan 31 05:04	2°☿08'24	-4.7m	desc. node	4809 Oct 07 08:08	20°♁31'54	
	4807 Mar 07 15:55	0°♁			4809 Oct 15 07:10	0°☿	
morning max el	4807 Mar 09 18:48	2°♁07'46	46°58'51		4809 Nov 09 20:00	0°☿	
	4807 Apr 04 16:22	0°☿			4809 Dec 06 03:26	0°♁	
desc. node	4807 Apr 22 13:13	20°☿29'01		evening max el	4809 Dec 31 08:00	26°♁54'03	47°03'13
	4807 Apr 30 16:30	0°☿			4810 Jan 03 10:39	0°☿	
	4807 May 25 22:40	0°☿		asc. node	4810 Jan 28 10:03	21°☿26'49	
	4807 Jun 19 21:16	0°♄		greatest brilliancy	4810 Feb 07 22:18	27°☿22'28	-4.7m
	4807 Jul 14 16:18	0°☿			4810 Feb 17 10:57	0°☿	
	4807 Aug 08 08:32	0°♁		retrograde	4810 Feb 20 01:06	0°☿08'09	
asc. node	4807 Aug 13 15:00	6°♁25'43			4810 Feb 22 14:31	30°☿☿	
	4807 Sep 01 21:22	0°♁		evening set	4810 Mar 09 04:13	24°☿25'31	
morning set	4807 Sep 08 12:19	8°♁07'58		min. Earth dist.	4810 Mar 12 03:20	22°☿37'42	0.27032 AU
	4807 Sep 26 06:30	0°♁		inferior conj	4810 Mar 12 17:25	22°☿16'01	8°34'52
max. Earth dist.	4807 Oct 12 07:03	19°♁48'31	1.72894 AU	minimum elong	4810 Mar 12 10:33	22°☿26'35	8°34'10
				morning rise	4810 Mar 15 17:02	20°☿26'53	
superior conj	4807 Oct 15 00:03	23°♁09'43	1°23'56	direct	4810 Apr 02 05:47	14°☿30'59	
minimum elong	4807 Oct 15 03:27	23°♁20'16	1°23'55	greatest brilliancy	4810 Apr 13 05:31	16°☿45'57	-4.6m
	4807 Oct 20 12:31	0°♁			4810 May 04 04:11	0°☿	
	4807 Nov 13 16:37	0°☿		desc. node	4810 May 20 00:58	14°☿18'19	
evening rise	4807 Nov 21 14:55	9°☿51'14		morning max el	4810 May 22 04:34	16°☿24'28	46°27'57
desc. node	4807 Dec 03 05:59	24°☿18'47			4810 Jun 04 11:16	0°☿	
	4807 Dec 07 19:40	0°☿			4810 Jul 01 18:37	0°♄	
	4807 Dec 31 22:08	0°♁			4810 Jul 27 20:20	0°☿	
	4808 Jan 25 00:43	0°☿			4810 Aug 22 07:11	0°♁	
	4808 Feb 18 05:36	0°☿		asc. node	4810 Sep 10 02:49	22°♁31'59	
	4808 Mar 13 17:15	0°☿			4810 Sep 16 07:19	0°♁	
asc. node	4808 Mar 25 07:42	13°☿59'35			4810 Oct 10 22:30	0°♁	
	4808 Apr 07 19:16	0°♄			4810 Nov 04 06:34	0°♁	
	4808 May 04 02:06	0°☿		morning set	4810 Nov 16 13:39	15°♁15'34	
evening max el	4808 May 26 06:22	23°☿13'52	45°57'54		4810 Nov 28 09:44	0°☿	
	4808 Jun 02 08:38	0°♁			4810 Dec 22 09:52	0°☿	
greatest brilliancy	4808 Jun 29 22:27	20°♁23'07	-4.5m	max. Earth dist.	4810 Dec 22 22:02	0°☿38'03	1.71608 AU
retrograde	4808 Jul 14 13:05	24°♁09'19					
desc. node	4808 Jul 14 22:41	24°♁09'08		superior conj	4810 Dec 25 06:05	3°☿33'33	0°13'13
evening set	4808 Jul 30 01:32	19°♁31'10		minimum elong	4810 Dec 25 09:21	3°☿43'48	0°13'03
min. Earth dist.	4808 Aug 04 16:45	16°♁07'44	0.28960 AU	behind sun begin	4810 Dec 24 18:11	2°☿56'17	
inferior conj	4808 Aug 05 01:59	15°♁53'16	-4°-45'-27	behind sun end	4810 Dec 26 00:31	4°☿31'18	
minimum elong	4808 Aug 04 17:00	16°♁07'22	4°43'16	desc. node	4810 Dec 30 17:47	10°☿26'07	
morning rise	4808 Aug 10 08:34	12°♁40'21			4811 Jan 15 08:09	0°♁	
direct	4808 Aug 26 14:31	7°♁38'20		evening rise	4811 Feb 03 18:11	24°♁23'02	
greatest brilliancy	4808 Sep 08 23:08	10°♁44'36	-4.5m		4811 Feb 08 05:30	0°☿	
	4808 Oct 06 07:57	0°♁			4811 Mar 04 03:19	0°☿	
morning max el	4808 Oct 14 10:54	7°♁33'10	45°50'27		4811 Mar 28 03:54	0°☿	
asc. node	4808 Nov 05 00:40	29°♁46'39			4811 Apr 21 10:16	0°♄	
	4808 Nov 05 05:36	0°♁		asc. node	4811 Apr 22 19:41	1°♄42'32	
	4808 Dec 01 18:22	0°♁			4811 May 16 02:02	0°☿	
	4808 Dec 26 22:59	0°☿			4811 Jun 10 08:27	0°♁	
	4809 Jan 20 11:47	0°☿			4811 Jul 06 16:12	0°♁	
	4809 Feb 13 16:35	0°♁			4811 Aug 04 08:15	0°♁	
desc. node	4809 Feb 24 15:20	13°♁33'04		evening max el	4811 Aug 05 23:02	1°♁33'26	45°31'38
	4809 Mar 09 17:25	0°☿		desc. node	4811 Aug 12 10:25	7°♁35'17	
	4809 Apr 02 16:50	0°☿		greatest brilliancy	4811 Sep 11 05:02	28°♁30'30	-4.5m
morning set	4809 Apr 18 10:21	19°☿40'11			4811 Sep 15 11:24	0°♁	
	4809 Apr 26 16:51	0°☿		retrograde	4811 Sep 23 14:12	1°♁11'57	

	4811 Oct 01 09:12	30° $\text{R}\Omega$		superior conj	4814 Mar 11 13:25	21° $\text{H}\Omega$ 06'54	-1°-21'-16
evening set	4811 Oct 11 15:37	25° Ω 06'21		minimum elong	4814 Mar 11 05:17	20° $\text{H}\Omega$ 41'19	1°21'09
inferior conj	4811 Oct 14 21:49	23° Ω 05'56	-8°-31'-47	max. Earth dist.	4814 Mar 13 11:27	23° $\text{H}\Omega$ 31'34	1.71218 AU
minimum elong	4811 Oct 15 01:18	23° Ω 00'31	8°31'38		4814 Mar 18 15:05	0° Υ	
min. Earth dist.	4811 Oct 15 13:00	22° Ω 42'17	0.28720 AU		4814 Apr 11 13:08	0° B	
morning rise	4811 Oct 18 10:50	20° Ω 55'03		evening rise	4814 Apr 21 04:38	12° B 03'08	
direct	4811 Nov 05 09:38	14° Ω 50'55			4814 May 05 14:35	0° Π	
greatest brilliancy	4811 Nov 19 22:45	18° Ω 38'02	-4.6m	asc. node	4814 May 20 07:35	18° Π 12'55	
asc. node	4811 Dec 03 12:22	27° Ω 16'09			4814 May 29 21:00	0° S	
	4811 Dec 06 23:17	0° M			4814 Jun 23 09:38	0° Ω	
morning max el	4811 Dec 25 14:06	17° M 08'36	46°32'44		4814 Jul 18 06:18	0° M	
	4812 Jan 06 21:50	0° J			4814 Aug 12 14:44	0° Ω	
	4812 Feb 02 11:59	0° Z			4814 Sep 07 18:46	0° M	
	4812 Feb 27 17:32	0° \approx		desc. node	4814 Sep 08 22:17	1° M 16'57	
	4812 Mar 23 09:11	0° H			4814 Oct 05 13:21	0° J	
desc. node	4812 Mar 24 03:20	0° H 55'37		evening max el	4814 Oct 17 00:55	11° J 27'26	46°06'41
	4812 Apr 16 18:38	0° Υ			4814 Nov 07 09:12	0° Z	
	4812 May 11 01:57	0° B		greatest brilliancy	4814 Nov 24 09:59	9° Z 55'48	-4.6m
	4812 Jun 04 09:27	0° Π		retrograde	4814 Dec 05 08:03	12° Z 06'39	
morning set	4812 Jun 28 22:39	0° S 14'17		evening set	4814 Dec 19 23:42	7° Z 57'07	
	4812 Jun 28 18:01	0° S		inferior conj	4814 Dec 26 01:26	4° Z 24'22	-1°-16'-12
asc. node	4812 Jul 15 05:09	20° S 15'19		minimum elong	4814 Dec 26 04:20	4° Z 19'55	1°15'17
	4812 Jul 23 03:18	0° Ω		min. Earth dist.	4814 Dec 26 13:54	4° Z 05'17	0.26923 AU
				asc. node	4814 Dec 31 00:10	1° Z 27'12	
superior conj	4812 Aug 05 01:20	15° Ω 53'18	0°47'09	morning rise	4815 Jan 01 08:14	0° Z 43'03	
minimum elong	4812 Aug 04 16:59	15° Ω 27'40	0°46'49		4815 Jan 02 17:28	30° RJ	
max. Earth dist.	4812 Aug 05 00:12	15° Ω 49'50	1.73465 AU	direct	4815 Jan 15 17:51	26° J 35'41	
	4812 Aug 16 12:32	0° M		greatest brilliancy	4815 Jan 28 22:17	29° J 47'23	-4.7m
	4812 Sep 09 21:29	0° Ω			4815 Jan 29 09:11	0° Z	
evening rise	4812 Sep 10 02:29	0° Ω 15'23		morning max el	4815 Mar 07 08:05	29° Z 41'58	46°58'58
	4812 Oct 04 06:40	0° M			4815 Mar 07 15:13	0° \approx	
	4812 Oct 28 16:58	0° J			4815 Apr 04 09:00	0° H	
desc. node	4812 Nov 03 20:09	7° J 31'00		desc. node	4815 Apr 21 15:18	19° H 52'15	
	4812 Nov 22 05:01	0° Z			4815 Apr 30 06:35	0° Υ	
	4812 Dec 16 19:32	0° \approx			4815 May 25 11:24	0° B	
	4813 Jan 10 15:07	0° H			4815 Jun 19 09:11	0° Π	
	4813 Feb 04 23:20	0° Υ			4815 Jul 14 03:41	0° S	
asc. node	4813 Feb 24 21:50	22° Υ 38'15			4815 Aug 07 19:34	0° Ω	
	4813 Mar 03 16:22	0° B		asc. node	4815 Aug 12 17:00	5° Ω 58'18	
evening max el	4813 Mar 13 19:29	10° B 34'09	46°56'34		4815 Sep 01 08:12	0° M	
	4813 Apr 04 01:53	0° Π		morning set	4815 Sep 06 05:55	6° M 01'23	
greatest brilliancy	4813 Apr 19 12:09	9° Π 57'16	-4.6m		4815 Sep 25 17:14	0° Ω	
retrograde	4813 May 03 06:20	13° Π 23'19		max. Earth dist.	4815 Oct 10 02:28	17° Ω 46'49	1.72932 AU
evening set	4813 May 19 09:49	8° Π 16'50					
inferior conj	4813 May 24 08:20	5° Π 15'44	5°19'45	superior conj	4815 Oct 12 17:26	21° Ω 01'44	1°24'28
minimum elong	4813 May 24 18:11	5° Π 00'19	5°17'18	minimum elong	4815 Oct 12 20:09	21° Ω 10'08	1°24'28
min. Earth dist.	4813 May 24 05:23	5° Π 20'20	0.28011 AU		4815 Oct 19 23:16	0° M	
morning rise	4813 May 30 03:02	1° Π 47'20			4815 Nov 13 03:27	0° J	
	4813 Jun 02 15:44	30° RB		evening rise	4815 Nov 19 05:57	7° J 34'59	
direct	4813 Jun 14 10:23	27° B 15'10		desc. node	4815 Dec 02 07:58	23° J 50'48	
desc. node	4813 Jun 16 12:45	27° B 20'18			4815 Dec 07 06:42	0° Z	
greatest brilliancy	4813 Jun 26 05:25	29° B 45'47	-4.5m		4815 Dec 31 09:24	0° \approx	
	4813 Jun 26 19:14	0° Π			4816 Jan 24 12:17	0° H	
morning max el	4813 Aug 02 08:37	27° Π 23'11	45°47'24		4816 Feb 17 17:36	0° Υ	
	4813 Aug 05 01:33	0° S			4816 Mar 13 05:56	0° B	
	4813 Sep 02 19:16	0° Ω		asc. node	4816 Mar 24 09:47	13° B 26'29	
	4813 Sep 29 08:28	0° M			4816 Apr 07 09:12	0° Π	
asc. node	4813 Oct 07 14:52	9° M 37'59			4816 May 03 18:45	0° S	
	4813 Oct 24 19:19	0° Ω		evening max el	4816 May 23 21:29	20° S 59'30	45°59'53
	4813 Nov 18 13:41	0° M			4816 Jun 02 10:26	0° Ω	
	4813 Dec 12 21:37	0° J		greatest brilliancy	4816 Jun 27 13:02	18° Ω 11'00	-4.5m
	4814 Jan 05 23:25	0° Z		retrograde	4816 Jul 12 05:55	22° Ω 00'06	
desc. node	4814 Jan 27 05:32	26° Z 38'10		desc. node	4816 Jul 14 00:35	21° Ω 56'20	
morning set	4814 Jan 29 03:50	29° Z 03'32		evening set	4816 Jul 27 16:06	17° Ω 23'59	
	4814 Jan 29 21:49	0° \approx		inferior conj	4816 Aug 02 18:17	13° Ω 43'54	-4°-28'-45
	4814 Feb 22 18:33	0° H		minimum elong	4816 Aug 02 09:37	13° Ω 57'29	4°26'34
				min. Earth dist.	4816 Aug 02 08:45	13° Ω 58'49	0.28936 AU

morning rise	4816 Aug 08 03:18	10°02'52			4819 Mar 27 15:02	0°08	
direct	4816 Aug 24 06:24	5°02'10			4819 Apr 20 21:41	0°02	
greatest brilliancy	4816 Sep 06 15:08	8°03'546	-4.5m	asc. node	4819 Apr 21 21:42	1°02'13'39	
	4816 Oct 06 09:20	0°07			4819 May 15 14:00	0°05	
morning max el	4816 Oct 12 03:06	5°07'23'30	45°49'36		4819 Jun 09 21:29	0°02	
asc. node	4816 Nov 04 02:38	29°07'31			4819 Jul 06 07:32	0°07	
	4816 Nov 04 21:53	0°01		evening max el	4819 Aug 03 14:35	29°07'22'33	45°31'27
	4816 Dec 01 07:57	0°03			4819 Aug 04 06:15	0°01	
	4816 Dec 26 11:22	0°08		desc. node	4819 Aug 11 12:33	6°01'42'19	
	4817 Jan 19 23:34	0°03		greatest brilliancy	4819 Sep 08 19:13	26°01'18'40	-4.5m
	4817 Feb 13 04:00	0°00		retrograde	4819 Sep 21 05:03	29°01'00'47	
desc. node	4817 Feb 23 17:27	13°00'10'26		evening set	4819 Oct 09 07:40	22°01'54'17	
	4817 Mar 09 04:35	0°08		inferior conj	4819 Oct 12 13:27	20°01'54'13	-8°-34'-33
	4817 Apr 02 03:51	0°09		minimum elong	4819 Oct 12 16:09	20°01'50'01	8°34'28
morning set	4817 Apr 15 22:25	17°09'13'41		min. Earth dist.	4819 Oct 13 03:35	20°01'32'09	0.28764 AU
	4817 Apr 26 03:46	0°08		morning rise	4819 Oct 16 00:29	18°01'46'00	
	4817 May 20 05:53	0°02		direct	4819 Nov 03 01:48	12°01'38'55	
				greatest brilliancy	4819 Nov 17 13:15	16°01'23'26	-4.6m
superior conj	4817 May 25 03:51	6°02'06'17	0°-51'00	asc. node	4819 Dec 02 14:21	26°01'08'47	
minimum elong	4817 May 25 13:47	6°02'37'06	0°50'38		4819 Dec 07 07:22	0°03	
max. Earth dist.	4817 May 28 13:10	10°02'18'31	1.72531 AU	morning max el	4819 Dec 23 04:23	14°01'49'45	46°31'03
	4817 Jun 13 10:58	0°05			4820 Jan 06 15:44	0°08	
asc. node	4817 Jun 16 19:19	4°05'08'13			4820 Feb 02 02:23	0°03	
evening rise	4817 Jul 02 07:29	23°05'15'24			4820 Feb 27 06:24	0°00	
	4817 Jul 07 19:03	0°02			4820 Mar 22 21:12	0°08	
	4817 Aug 01 06:04	0°07		desc. node	4820 Mar 23 05:22	0°08'25'03	
	4817 Aug 25 20:41	0°01			4820 Apr 16 06:06	0°09	
	4817 Sep 19 16:29	0°03			4820 May 10 13:01	0°08	
desc. node	4817 Oct 06 10:14	20°01'01'42			4820 Jun 03 20:14	0°02	
	4817 Oct 14 19:45	0°08		morning set	4820 Jun 26 15:30	28°02'05'48	
	4817 Nov 09 10:01	0°03			4820 Jun 28 04:36	0°05	
	4817 Dec 05 20:15	0°00		asc. node	4820 Jul 14 07:11	19°05'49'11	
evening max el	4817 Dec 28 22:48	24°00'33'28	47°02'10		4820 Jul 22 13:47	0°02	
	4818 Jan 03 11:13	0°08					
asc. node	4818 Jan 27 12:04	20°08'02'27		superior conj	4820 Aug 02 19:10	13°01'48'18	0°44'27
greatest brilliancy	4818 Feb 05 11:20	24°08'56'16	-4.7m	minimum elong	4820 Aug 02 11:07	13°01'23'34	0°44'06
retrograde	4818 Feb 17 14:57	27°08'42'13		max. Earth dist.	4820 Aug 02 20:02	13°01'51'00	1.73458 AU
evening set	4818 Mar 06 13:09	22°08'05'53			4820 Aug 15 23:01	0°07	
min. Earth dist.	4818 Mar 09 15:35	20°08'13'16	0.26998 AU	evening rise	4820 Sep 07 20:34	28°07'10'49	
inferior conj	4818 Mar 10 06:22	19°08'50'31	8°26'49		4820 Sep 09 08:03	0°01	
minimum elong	4818 Mar 09 22:47	20°08'02'12	8°25'56		4820 Oct 03 17:25	0°03	
morning rise	4818 Mar 13 08:35	17°08'57'43			4820 Oct 28 04:02	0°08	
direct	4818 Mar 30 19:08	12°08'06'06		desc. node	4820 Nov 02 22:03	7°08'02'39	
greatest brilliancy	4818 Apr 10 17:41	14°08'20'34	-4.6m		4820 Nov 21 16:33	0°03	
	4818 May 04 13:59	0°09			4820 Dec 16 07:45	0°00	
desc. node	4818 May 19 02:59	13°09'25'57			4821 Jan 10 04:20	0°08	
morning max el	4818 May 19 19:02	14°09'05'28	46°29'25		4821 Feb 04 14:18	0°09	
	4818 Jun 04 05:51	0°08		asc. node	4821 Feb 23 23:58	21°09'55'55	
	4818 Jul 01 09:14	0°02			4821 Mar 03 11:27	0°08	
	4818 Jul 27 09:08	0°05		evening max el	4821 Mar 11 09:23	8°08'12'42	46°58'02
	4818 Aug 21 18:57	0°02			4821 Apr 04 16:46	0°02	
asc. node	4818 Sep 09 04:58	22°02'04'23		greatest brilliancy	4821 Apr 17 05:59	7°02'43'51	-4.6m
	4818 Sep 15 18:30	0°07		retrograde	4821 Apr 30 21:01	11°02'06'57	
	4818 Oct 10 09:22	0°01		evening set	4821 May 17 03:46	5°02'56'45	
	4818 Nov 03 17:18	0°03		inferior conj	4821 May 21 23:16	3°02'00'02	5°37'09
morning set	4818 Nov 14 05:11	13°03'01'29		minimum elong	4821 May 22 09:21	2°02'44'15	5°34'43
	4818 Nov 27 20:26	0°08		min. Earth dist.	4821 May 21 20:42	3°02'04'04	0.27978 AU
max. Earth dist.	4818 Dec 20 07:42	28°08'04'32	1.71645 AU		4821 May 26 21:40	30°08'08	
	4818 Dec 21 20:36	0°03		morning rise	4821 May 27 15:21	29°08'35'00	
				direct	4821 Jun 12 00:30	25°08'00'00	
superior conj	4818 Dec 22 18:40	1°03'09'04	0°16'54	desc. node	4821 Jun 15 14:39	25°08'14'50	
minimum elong	4818 Dec 22 22:48	1°03'22'00	0°16'43	greatest brilliancy	4821 Jun 23 18:55	27°08'29'36	-4.5m
desc. node	4818 Dec 29 19:44	9°03'58'31			4821 Jun 29 02:14	0°02	
	4819 Jan 14 18:56	0°00		morning max el	4821 Jul 30 22:33	25°02'07'52	45°48'11
evening rise	4819 Feb 01 05:21	21°00'53'16			4821 Aug 04 22:33	0°05	
	4819 Feb 07 16:22	0°08			4821 Sep 02 10:22	0°02	
	4819 Mar 03 14:17	0°09			4821 Sep 28 21:22	0°07	

asc. node	4821 Oct 06 16:48	9° \cap 07'03		4824 May 03 11:37	0° \ominus	
	4821 Oct 24 07:10	0° Ω	evening max el	4824 May 21 13:29	18° \ominus 47'29	46°01'52
	4821 Nov 18 00:59	0° \cap		4824 Jun 02 13:40	0° Ω	
	4821 Dec 12 08:38	0° \nearrow	greatest brilliancy	4824 Jun 25 04:22	16° Ω 00'05	-4.5m
	4822 Jan 05 10:17	0° \ominus	retrograde	4824 Jul 09 22:57	19° Ω 50'51	
desc. node	4822 Jan 26 07:34	26° \ominus 10'33	desc. node	4824 Jul 13 02:44	19° Ω 38'52	
morning set	4822 Jan 26 14:16	26° \ominus 31'35	evening set	4824 Jul 25 06:49	15° Ω 16'46	
	4822 Jan 29 08:39	0° \approx	inferior conj	4824 Jul 31 10:30	11° Ω 34'34	-4°-11'-34
	4822 Feb 22 05:22	0° \nmid	minimum elong	4824 Jul 31 02:13	11° Ω 47'31	4°09'26
			min. Earth dist.	4824 Jul 31 00:28	11° Ω 50'16	0.28909 AU
superior conj	4822 Mar 08 23:50	18° \nmid 34'51	morning rise	4824 Aug 05 21:54	8° Ω 15'32	
minimum elong	4822 Mar 08 14:54	18° \nmid 06'45	direct	4824 Aug 21 22:44	3° Ω 20'15	
max. Earth dist.	4822 Mar 10 13:08	20° \nmid 32'08	greatest brilliancy	4824 Sep 04 06:09	6° Ω 26'06	-4.5m
	4822 Mar 18 01:51	0° ∇		4824 Oct 06 09:20	0° \cap	
	4822 Apr 10 23:54	0° ∇	morning max el	4824 Oct 09 19:26	3° \cap 14'34	45°48'41
evening rise	4822 Apr 18 16:07	9° ∇ 35'35	asc. node	4824 Nov 03 04:38	28° \cap 29'01	
	4822 May 05 01:22	0° \cap		4824 Nov 04 13:50	0° Ω	
asc. node	4822 May 19 09:31	17° \cap 45'24		4824 Nov 30 21:25	0° \cap	
	4822 May 29 07:54	0° \ominus		4824 Dec 25 23:45	0° \nearrow	
	4822 Jun 22 20:48	0° Ω		4825 Jan 19 11:24	0° \ominus	
	4822 Jul 17 17:59	0° \cap		4825 Feb 12 15:28	0° \approx	
	4822 Aug 12 03:25	0° Ω	desc. node	4825 Feb 22 19:31	12° \approx 41'22	
	4822 Sep 07 09:29	0° \cap		4825 Mar 08 15:49	0° \nmid	
desc. node	4822 Sep 08 00:18	0° \cap 41'18		4825 Apr 01 14:54	0° ∇	
	4822 Oct 05 08:56	0° \nearrow	morning set	4825 Apr 13 10:14	14° ∇ 46'16	
evening max el	4822 Oct 14 13:43	9° \nearrow 06'52		4825 Apr 25 14:41	0° ∇	
	4822 Nov 08 04:59	0° \ominus		4825 May 19 16:43	0° \cap	
greatest brilliancy	4822 Nov 21 22:29	7° \ominus 32'28				
retrograde	4822 Dec 02 20:43	9° \ominus 43'38	superior conj	4825 May 22 17:59	3° \cap 47'35	0°-53'-53
evening set	4822 Dec 17 14:09	5° \ominus 31'13	minimum elong	4825 May 23 04:14	4° \cap 19'23	0°53'31
inferior conj	4822 Dec 23 14:23	2° \ominus 00'43	max. Earth dist.	4825 May 26 05:58	8° \cap 08'14	1.72483 AU
minimum elong	4822 Dec 23 18:10	1° \ominus 54'57		4825 Jun 12 21:45	0° \ominus	
min. Earth dist.	4822 Dec 24 04:11	1° \ominus 39'39	asc. node	4825 Jun 15 21:24	3° \ominus 41'19	
	4822 Dec 26 22:15	30° ∇ \nearrow	evening rise	4825 Jun 30 00:14	21° \ominus 06'00	
morning rise	4822 Dec 29 21:25	28° \nearrow 19'16		4825 Jul 07 05:51	0° Ω	
asc. node	4822 Dec 30 02:12	28° \nearrow 12'53		4825 Jul 31 17:01	0° \cap	
direct	4823 Jan 13 07:11	24° \nearrow 10'54		4825 Aug 25 07:57	0° Ω	
greatest brilliancy	4823 Jan 26 15:13	27° \nearrow 26'56		4825 Sep 19 04:17	0° \cap	
	4823 Jan 31 11:52	0° \ominus	desc. node	4825 Oct 05 12:10	19° \cap 30'47	
morning max el	4823 Mar 04 22:13	27° \ominus 19'12		4825 Oct 14 08:28	0° \nearrow	
	4823 Mar 07 13:15	0° \approx		4825 Nov 09 00:18	0° \ominus	
	4823 Apr 04 01:02	0° \nmid		4825 Dec 05 13:37	0° \approx	
desc. node	4823 Apr 20 17:13	19° \nmid 16'00	evening max el	4825 Dec 26 13:33	22° \approx 11'55	47°00'45
	4823 Apr 29 20:17	0° ∇		4826 Jan 03 13:30	0° \nmid	
	4823 May 24 23:51	0° ∇	asc. node	4826 Jan 26 14:12	18° \nmid 33'48	
	4823 Jun 18 20:51	0° \cap	greatest brilliancy	4826 Feb 03 01:14	22° \nmid 29'32	-4.7m
	4823 Jul 13 14:51	0° \ominus	retrograde	4826 Feb 15 04:13	25° \nmid 14'03	
	4823 Aug 07 06:23	0° Ω	evening set	4826 Mar 03 21:40	19° \nmid 44'38	
asc. node	4823 Aug 11 19:07	5° Ω 31'53	min. Earth dist.	4826 Mar 07 03:48	17° \nmid 46'26	0.26961 AU
	4823 Aug 31 18:49	0° \cap	inferior conj	4826 Mar 07 18:58	17° \nmid 23'05	8°17'43
morning set	4823 Sep 03 23:36	3° \cap 55'40	minimum elong	4826 Mar 07 10:44	17° \nmid 35'47	8°16'38
	4823 Sep 25 03:47	0° Ω	morning rise	4826 Mar 11 00:00	15° \nmid 26'08	
max. Earth dist.	4823 Oct 07 23:09	15° Ω 49'34	direct	4826 Mar 28 08:08	9° \nmid 39'30	
			greatest brilliancy	4826 Apr 08 05:26	11° \nmid 53'04	-4.6m
superior conj	4823 Oct 10 10:46	18° Ω 53'58		4826 May 04 21:33	0° ∇	
minimum elong	4823 Oct 10 12:47	19° Ω 00'13	morning max el	4826 May 17 08:15	11° ∇ 42'24	46°30'57
	4823 Oct 19 09:52	0° \cap	desc. node	4826 May 18 04:59	12° ∇ 33'45	
	4823 Nov 12 14:13	0° \nearrow		4826 Jun 04 00:12	0° ∇	
evening rise	4823 Nov 16 20:49	5° \nearrow 18'34		4826 Jun 30 23:51	0° \cap	
desc. node	4823 Dec 01 09:57	23° \nearrow 23'00		4826 Jul 26 22:01	0° \ominus	
	4823 Dec 06 17:40	0° \ominus		4826 Aug 21 06:52	0° Ω	
	4823 Dec 30 20:36	0° \approx	asc. node	4826 Sep 08 06:53	21° Ω 35'30	
	4824 Jan 23 23:47	0° \nmid		4826 Sep 15 05:52	0° \cap	
	4824 Feb 17 05:32	0° ∇		4826 Oct 09 20:25	0° Ω	
	4824 Mar 12 18:34	0° ∇		4826 Nov 03 04:13	0° \cap	
asc. node	4824 Mar 23 11:44	12° ∇ 53'13	morning set	4826 Nov 11 21:00	10° \cap 47'42	
	4824 Apr 06 23:08	0° \cap		4826 Nov 27 07:20	0° \nearrow	

max. Earth dist.	4826 Dec 17 17:06	25° ♁ 29'36	1.71688 AU		4829 May 20 17:03	30° R ♁	
				morning rise	4829 May 25 03:19	27° ♁ 21'00	
superior conj	4826 Dec 20 07:31	28° ♁ 44'51	0°20'33	direct	4829 Jun 09 14:08	22° ♁ 42'30	
minimum elong	4826 Dec 20 12:28	29° ♁ 00'19	0°20'19	desc. node	4829 Jun 14 16:47	23° ♁ 12'11	
	4826 Dec 21 07:32	0° ♁		greatest brilliancy	4829 Jun 21 09:09	25° ♁ 12'18	-4.5m
desc. node	4826 Dec 28 21:51	9° ♁ 30'44			4829 Jun 30 14:55	0° II	
	4827 Jan 14 05:59	0° \approx		morning max el	4829 Jul 28 12:52	22° II 51'52	45°49'10
evening rise	4827 Jan 29 16:22	19° \approx 22'11			4829 Aug 04 19:24	0° ☿	
	4827 Feb 07 03:32	0° ✕			4829 Sep 02 01:41	0° ♁	
	4827 Mar 03 01:36	0° Y			4829 Sep 28 10:34	0° ♁	
	4827 Mar 27 02:31	0° ♁		asc. node	4829 Oct 05 18:47	8° ♁ 35'16	
	4827 Apr 20 09:27	0° II			4829 Oct 23 19:20	0° ♁	
asc. node	4827 Apr 20 23:38	0° II 43'25			4829 Nov 17 12:37	0° ML	
	4827 May 15 02:20	0° ☿			4829 Dec 11 19:59	0° ♁	
	4827 Jun 09 10:56	0° ♁			4830 Jan 04 21:31	0° ♁	
	4827 Jul 05 23:28	0° ♁		morning set	4830 Jan 24 01:17	24° ♁ 00'26	
evening max el	4827 Aug 01 05:14	27° ♁ 08'34	45°31'21	desc. node	4830 Jan 25 09:38	25° ♁ 42'00	
	4827 Aug 04 05:36	0° ♁			4830 Jan 28 19:48	0° \approx	
desc. node	4827 Aug 10 14:34	5° ♁ 47'01			4830 Feb 21 16:28	0° ✕	
greatest brilliancy	4827 Sep 06 09:25	24° ♁ 05'57	-4.5m				
retrograde	4827 Sep 18 19:47	26° ♁ 49'02		superior conj	4830 Mar 06 10:34	16° ✕ 02'50	-1°-18'-6
evening set	4827 Oct 06 23:25	20° ♁ 42'03		minimum elong	4830 Mar 06 00:53	15° ✕ 32'25	1°17'54
inferior conj	4827 Oct 10 05:09	18° ♁ 41'57	-8°-36'-34	max. Earth dist.	4830 Mar 07 17:09	17° ✕ 39'01	1.71182 AU
minimum elong	4827 Oct 10 07:03	18° ♁ 38'59	8°36'31		4830 Mar 17 12:56	0° Y	
min. Earth dist.	4827 Oct 10 18:33	18° ♁ 20'59	0.28806 AU		4830 Apr 10 10:59	0° ♁	
morning rise	4827 Oct 13 14:31	16° ♁ 36'00		evening rise	4830 Apr 16 03:46	7° ♁ 07'27	
direct	4827 Oct 31 17:26	10° ♁ 26'12			4830 May 04 12:32	0° II	
greatest brilliancy	4827 Nov 15 04:22	14° ♁ 08'59	-4.6m	asc. node	4830 May 18 11:36	17° II 17'12	
asc. node	4827 Dec 01 16:22	25° ♁ 02'31			4830 May 28 19:12	0° ☿	
	4827 Dec 07 13:26	0° ML			4830 Jun 22 08:23	0° ♁	
morning max el	4827 Dec 20 18:04	12° ML 28'43	46°29'31		4830 Jul 17 06:07	0° ♁	
	4828 Jan 06 09:31	0° ♁			4830 Aug 11 16:36	0° ♁	
	4828 Feb 01 16:55	0° ♁		desc. node	4830 Sep 07 02:15	0° ML 04'03	
	4828 Feb 26 19:31	0° \approx			4830 Sep 07 00:47	0° ML	
desc. node	4828 Mar 22 07:17	29° \approx 53'03			4830 Oct 05 05:32	0° ♁	
	4828 Mar 22 09:33	0° ✕		evening max el	4830 Oct 12 03:19	6° ♁ 47'32	46°02'50
	4828 Apr 15 17:57	0° Y			4830 Nov 09 08:34	0° ♁	
	4828 May 10 00:30	0° ♁		greatest brilliancy	4830 Nov 19 10:24	5° ♁ 07'59	-4.6m
	4828 Jun 03 07:25	0° II		retrograde	4830 Nov 30 09:53	7° ♁ 19'59	
morning set	4828 Jun 24 07:57	25° II 54'53		evening set	4830 Dec 15 04:52	3° ♁ 04'33	
	4828 Jun 27 15:34	0° ☿			4830 Dec 20 11:51	30° R ♁	
asc. node	4828 Jul 13 09:15	19° ☿ 22'00		inferior conj	4830 Dec 21 03:24	29° ♁ 36'17	-2°-2'-39
	4828 Jul 22 00:39	0° ♁		minimum elong	4830 Dec 21 08:00	29° ♁ 29'16	2°01'13
				min. Earth dist.	4830 Dec 21 18:11	29° ♁ 13'44	0.27021 AU
superior conj	4828 Jul 31 12:49	11° ♁ 41'43	0°41'40	morning rise	4830 Dec 27 10:25	25° ♁ 55'06	
minimum elong	4828 Jul 31 05:06	11° ♁ 17'58	0°41'19	asc. node	4830 Dec 29 04:18	25° ♁ 01'19	
max. Earth dist.	4828 Jul 31 14:49	11° ♁ 47'52	1.73448 AU	direct	4831 Jan 10 21:06	21° ♁ 45'29	
	4828 Aug 15 09:52	0° ♁		greatest brilliancy	4831 Jan 24 07:22	25° ♁ 04'46	-4.7m
evening rise	4828 Sep 05 14:43	26° ♁ 05'24			4831 Feb 01 21:56	0° ♁	
	4828 Sep 08 18:59	0° ♁		morning max el	4831 Mar 02 13:14	24° ♁ 58'00	46°59'10
	4828 Oct 03 04:33	0° ML			4831 Mar 07 10:46	0° \approx	
	4828 Oct 27 15:29	0° ♁			4831 Apr 03 17:03	0° ✕	
desc. node	4828 Nov 02 00:05	6° ♁ 33'30		desc. node	4831 Apr 19 19:18	18° ✕ 39'50	
	4828 Nov 21 04:28	0° ♁			4831 Apr 29 10:03	0° Y	
	4828 Dec 15 20:20	0° \approx			4831 May 24 12:27	0° ♁	
	4829 Jan 09 17:57	0° ✕			4831 Jun 18 08:45	0° II	
	4829 Feb 04 05:48	0° Y			4831 Jul 13 02:17	0° ☿	
asc. node	4829 Feb 23 01:50	21° Y 11'11			4831 Aug 06 17:30	0° ♁	
	4829 Mar 03 07:32	0° ♁		asc. node	4831 Aug 10 21:03	5° ♁ 04'00	
evening max el	4829 Mar 08 22:25	5° ♁ 47'46	46°59'17		4831 Aug 31 05:43	0° ♁	
	4829 Apr 05 13:49	0° II		morning set	4831 Sep 01 17:11	1° ♁ 48'51	
greatest brilliancy	4829 Apr 14 22:58	5° II 27'22	-4.6m		4831 Sep 24 14:36	0° ♁	
retrograde	4829 Apr 28 11:40	8° II 48'38		max. Earth dist.	4831 Oct 05 19:40	13° ♁ 51'04	1.73008 AU
evening set	4829 May 14 21:36	3° II 34'12					
inferior conj	4829 May 19 14:03	0° II 42'13	5°54'10	superior conj	4831 Oct 08 04:02	16° ♁ 45'21	1°25'10
minimum elong	4829 May 20 00:18	0° II 26'09	5°51'46	minimum elong	4831 Oct 08 05:19	16° ♁ 49'21	1°25'09
min. Earth dist.	4829 May 19 11:54	0° II 45'35	0.27949 AU		4831 Oct 18 20:44	0° ML	

	4831 Nov 12 01:14	0°♊			4834 Jun 03 18:04	0°♋		
evening rise	4831 Nov 14 11:46	3°♊01'44			4834 Jun 30 14:12	0°♌		
desc. node	4831 Nov 30 12:02	22°♊54'50			4834 Jul 26 10:42	0°♍		
	4831 Dec 06 04:54	0°♎			4834 Aug 20 18:37	0°♎		
	4831 Dec 30 08:05	0°♏		asc. node	4834 Sep 07 08:52	21°♏07'13		
	4832 Jan 23 11:34	0°♐			4834 Sep 14 17:06	0°♑		
	4832 Feb 16 17:44	0°♑			4834 Oct 09 07:23	0°♒		
	4832 Mar 12 07:28	0°♓			4834 Nov 02 15:04	0°♓		
asc. node	4832 Mar 22 13:44	12°♓19'30		morning set	4834 Nov 09 12:50	8°♓34'11		
	4832 Apr 06 13:21	0°♈			4834 Nov 26 18:09	0°♊		
	4832 May 03 04:57	0°♉		max. Earth dist.	4834 Dec 15 02:48	22°♊55'53	1.71731 AU	
evening max el	4832 May 19 06:05	16°♉36'38	46°03'46					
	4832 Jun 02 18:49	0°♊		superior conj	4834 Dec 17 20:30	26°♊21'21	0°24'09	
greatest brilliancy	4832 Jun 22 20:46	13°♊50'14	-4.5m	minimum elong	4834 Dec 18 02:13	26°♊39'12	0°23'52	
retrograde	4832 Jul 07 15:57	17°♊41'06			4834 Dec 20 18:24	0°♋		
desc. node	4832 Jul 12 04:43	17°♊16'20		desc. node	4834 Dec 27 23:50	9°♋02'50		
evening set	4832 Jul 22 21:50	13°♊09'09			4835 Jan 13 16:56	0°♌		
min. Earth dist.	4832 Jul 28 16:17	9°♊41'17	0.28881 AU	evening rise	4835 Jan 27 03:29	16°♌51'50		
inferior conj	4832 Jul 29 02:48	9°♊24'49	-3°-53'-56		4835 Feb 06 14:36	0°♍		
minimum elong	4832 Jul 28 18:58	9°♊37'06	3°51'53		4835 Mar 02 12:49	0°♎		
morning rise	4832 Aug 03 16:29	6°♊02'47			4835 Mar 26 13:55	0°♏		
direct	4832 Aug 19 15:23	1°♊11'08			4835 Apr 19 21:10	0°♐		
greatest brilliancy	4832 Sep 01 20:21	4°♊14'56	-4.5m	asc. node	4835 Apr 20 01:44	0°♐13'57		
	4832 Oct 06 08:30	0°♑			4835 May 14 14:37	0°♑		
morning max el	4832 Oct 07 11:35	1°♑04'44	45°47'43		4835 Jun 09 00:22	0°♒		
asc. node	4832 Nov 02 06:44	27°♑50'40			4835 Jul 05 15:26	0°♓		
	4832 Nov 04 05:42	0°♒		evening max el	4835 Jul 29 19:26	24°♓54'14	45°31'25	
	4832 Nov 30 10:54	0°♓			4835 Aug 04 05:43	0°♈		
	4832 Dec 25 12:12	0°♊		desc. node	4835 Aug 09 16:29	4°♈51'08		
	4833 Jan 18 23:17	0°♋		greatest brilliancy	4835 Sep 03 22:32	21°♈52'59	-4.5m	
	4833 Feb 12 03:01	0°♌		retrograde	4835 Sep 16 10:46	24°♈38'44		
desc. node	4833 Feb 21 21:23	12°♌11'23		evening set	4835 Oct 04 14:58	18°♈31'28		
	4833 Mar 08 03:08	0°♍		inferior conj	4835 Oct 07 21:02	16°♈30'56	-8°-37'-41	
	4833 Apr 01 02:03	0°♎		minimum elong	4835 Oct 07 22:08	16°♈29'12	8°37'41	
morning set	4833 Apr 10 22:09	12°♎18'47		min. Earth dist.	4835 Oct 08 09:45	16°♈11'01	0.28849 AU	
	4833 Apr 25 01:41	0°♏		morning rise	4835 Oct 11 05:08	14°♈26'47		
	4833 May 19 03:35	0°♐		direct	4835 Oct 29 09:01	8°♈14'30		
				greatest brilliancy	4835 Nov 12 20:47	11°♈57'12	-4.6m	
superior conj	4833 May 20 08:16	1°♐29'06	0°-56'-40	asc. node	4835 Nov 30 18:25	23°♈58'36		
minimum elong	4833 May 20 18:44	2°♐01'38	0°56'17		4835 Dec 07 17:17	0°♉		
max. Earth dist.	4833 May 24 00:27	6°♐02'57	1.72429 AU	morning max el	4835 Dec 18 08:25	10°♉09'57	46°27'55	
	4833 Jun 12 08:33	0°♑			4836 Jan 06 02:44	0°♊		
asc. node	4833 Jun 14 23:27	3°♑14'15			4836 Feb 01 07:08	0°♋		
evening rise	4833 Jun 27 17:05	18°♑56'48			4836 Feb 26 08:23	0°♌		
	4833 Jul 06 16:41	0°♒		desc. node	4836 Mar 21 09:24	29°♌22'22		
	4833 Jul 31 04:02	0°♑			4836 Mar 21 21:39	0°♍		
	4833 Aug 24 19:18	0°♒			4836 Apr 15 05:33	0°♎		
	4833 Sep 18 16:13	0°♓			4836 May 09 11:44	0°♏		
desc. node	4833 Oct 04 14:12	18°♓59'47			4836 Jun 02 18:23	0°♐		
	4833 Oct 13 21:20	0°♊		morning set	4836 Jun 22 00:18	23°♐44'11		
	4833 Nov 08 14:47	0°♋			4836 Jun 27 02:20	0°♑		
	4833 Dec 05 07:23	0°♌		asc. node	4836 Jul 12 11:11	18°♑55'07		
evening max el	4833 Dec 24 03:45	19°♌49'00	46°59'15		4836 Jul 21 11:16	0°♒		
	4834 Jan 03 17:21	0°♍						
asc. node	4834 Jan 25 16:05	17°♍01'38		superior conj	4836 Jul 29 06:33	9°♒36'04	0°38'49	
greatest brilliancy	4834 Jan 31 15:59	20°♍03'53	-4.7m	minimum elong	4836 Jul 28 23:12	9°♒13'27	0°38'30	
retrograde	4834 Feb 12 17:02	22°♍45'51		max. Earth dist.	4836 Jul 29 09:20	9°♒44'36	1.73435 AU	
evening set	4834 Mar 01 06:09	17°♍23'39			4836 Aug 14 20:27	0°♑		
min. Earth dist.	4834 Mar 04 16:31	15°♍19'06	0.26925 AU	evening rise	4836 Sep 03 09:08	24°♑01'44		
inferior conj	4834 Mar 05 07:37	14°♍55'49	8°07'34		4836 Sep 08 05:38	0°♒		
minimum elong	4834 Mar 04 22:47	15°♍09'26	8°06'18		4836 Oct 02 15:25	0°♓		
morning rise	4834 Mar 08 15:39	12°♍54'17			4836 Oct 27 02:42	0°♊		
direct	4834 Mar 25 20:39	7°♍12'56		desc. node	4836 Nov 01 02:12	6°♊05'27		
greatest brilliancy	4834 Apr 05 18:02	9°♍26'16	-4.6m		4836 Nov 20 16:11	0°♋		
	4834 May 05 02:54	0°♎			4836 Dec 15 08:46	0°♌		
morning max el	4834 May 14 20:44	9°♎17'20	46°32'38		4837 Jan 09 07:28	0°♍		
desc. node	4834 May 17 07:03	11°♎42'40			4837 Feb 03 21:18	0°♎		

asc. node	4837 Feb 22 03:54	20° Υ 27'01			4839 Aug 06 04:17	0° Ω	
	4837 Mar 03 04:00	0° \mathcal{B}		asc. node	4839 Aug 09 23:02	4° Ω 37'13	
evening max el	4837 Mar 06 11:41	3° \mathcal{B} 24'09	47°00'41	morning set	4839 Aug 30 10:42	29° Ω 42'46	
	4837 Apr 06 18:16	0° Π			4839 Aug 30 16:19	0° \mathfrak{M}	
greatest brilliancy	4837 Apr 12 14:47	3° Π 10'01	-4.6m		4839 Sep 24 01:08	0° $\underline{\Omega}$	
retrograde	4837 Apr 26 02:37	6° Π 30'59		max. Earth dist.	4839 Oct 03 14:22	11° $\underline{\Omega}$ 47'52	1.73038 AU
evening set	4837 May 12 15:23	1° Π 11'55					
	4837 May 14 15:24	30° $\mathcal{R}\mathcal{B}$		superior conj	4839 Oct 05 21:28	14° $\underline{\Omega}$ 38'10	1°25'19
inferior conj	4837 May 17 04:43	28° \mathcal{B} 24'49	6°10'33	minimum elong	4839 Oct 05 22:02	14° $\underline{\Omega}$ 39'57	1°25'19
minimum elong	4837 May 17 15:06	28° \mathcal{B} 08'36	6°08'13		4839 Oct 18 07:19	0° \mathfrak{M}	
min. Earth dist.	4837 May 17 02:43	28° \mathcal{B} 27'57	0.27922 AU		4839 Nov 11 11:56	0° \mathcal{A}	
morning rise	4837 May 22 15:05	25° \mathcal{B} 07'55		evening rise	4839 Nov 12 03:00	0° \mathcal{A} 46'47	
direct	4837 Jun 07 03:52	20° \mathcal{B} 25'18		desc. node	4839 Nov 29 14:01	22° \mathcal{A} 27'23	
desc. node	4837 Jun 13 18:48	21° \mathcal{B} 14'41			4839 Dec 05 15:46	0° \mathcal{B}	
greatest brilliancy	4837 Jun 18 23:22	22° \mathcal{B} 55'41	-4.5m		4839 Dec 29 19:11	0° \approx	
	4837 Jul 01 16:27	0° Π			4840 Jan 22 23:00	0° \mathcal{H}	
morning max el	4837 Jul 26 04:06	20° Π 38'50	45°50'13		4840 Feb 16 05:40	0° Υ	
	4837 Aug 04 15:14	0° \mathfrak{S}			4840 Mar 11 20:11	0° \mathcal{B}	
	4837 Sep 01 16:28	0° Ω		asc. node	4840 Mar 21 15:48	11° \mathcal{B} 46'27	
	4837 Sep 27 23:19	0° \mathfrak{M}			4840 Apr 06 03:30	0° Π	
asc. node	4837 Oct 04 20:53	8° \mathfrak{M} 05'00			4840 May 02 22:29	0° \mathfrak{S}	
	4837 Oct 23 07:05	0° $\underline{\Omega}$		evening max el	4840 May 16 22:30	14° \mathfrak{S} 25'34	46°05'41
	4837 Nov 16 23:51	0° \mathfrak{M}			4840 Jun 03 02:01	0° Ω	
	4837 Dec 11 06:59	0° \mathcal{A}		greatest brilliancy	4840 Jun 20 13:59	11° Ω 41'35	-4.5m
	4838 Jan 04 08:25	0° \mathcal{B}		retrograde	4840 Jul 05 08:28	15° Ω 31'12	
morning set	4838 Jan 21 12:14	21° \mathcal{B} 30'02		desc. node	4840 Jul 11 06:39	14° Ω 48'55	
desc. node	4838 Jan 24 11:35	25° \mathcal{B} 13'55		evening set	4840 Jul 20 12:52	11° Ω 01'27	
	4838 Jan 28 06:41	0° \approx		inferior conj	4840 Jul 26 18:56	7° Ω 15'13	-3°-35'-55
	4838 Feb 21 03:19	0° \mathcal{H}		minimum elong	4840 Jul 26 11:34	7° Ω 26'45	3°33'57
				min. Earth dist.	4840 Jul 26 08:16	7° Ω 31'57	0.28851 AU
superior conj	4838 Mar 03 20:47	13° \mathcal{H} 29'54	-1°-16'-14	morning rise	4840 Aug 01 10:45	3° Ω 50'04	
minimum elong	4838 Mar 03 10:28	12° \mathcal{H} 57'27	1°16'00		4840 Aug 10 08:03	30° $\mathcal{R}\mathfrak{S}$	
max. Earth dist.	4838 Mar 04 22:38	14° \mathcal{H} 51'14	1.71169 AU	direct	4840 Aug 17 07:41	29° \mathfrak{S} 02'11	
	4838 Mar 16 23:45	0° Υ			4840 Aug 24 12:53	0° Ω	
	4838 Apr 09 21:48	0° \mathcal{B}		greatest brilliancy	4840 Aug 30 09:32	2° Ω 02'46	-4.5m
evening rise	4838 Apr 13 14:56	4° \mathcal{B} 38'37		morning max el	4840 Oct 05 02:52	28° Ω 53'23	45°46'51
	4838 May 03 23:24	0° Π			4840 Oct 06 06:30	0° \mathfrak{M}	
asc. node	4838 May 17 13:36	16° Π 49'40		asc. node	4840 Nov 01 08:41	27° \mathfrak{M} 12'52	
	4838 May 28 06:14	0° \mathfrak{S}			4840 Nov 03 21:05	0° $\underline{\Omega}$	
	4838 Jun 21 19:43	0° Ω			4840 Nov 30 00:03	0° \mathfrak{M}	
	4838 Jul 16 18:00	0° \mathfrak{M}			4840 Dec 25 00:18	0° \mathcal{A}	
	4838 Aug 11 05:34	0° $\underline{\Omega}$			4841 Jan 18 10:50	0° \mathcal{B}	
desc. node	4838 Sep 06 04:21	29° $\underline{\Omega}$ 27'56		desc. node	4841 Feb 11 14:14	0° \approx	
	4838 Sep 06 15:58	0° \mathfrak{M}			4841 Feb 20 23:32	11° \approx 43'17	
	4838 Oct 05 02:24	0° \mathcal{A}			4841 Mar 07 14:09	0° \mathcal{H}	
evening max el	4838 Oct 09 17:54	4° \mathcal{A} 31'58	46°01'05		4841 Mar 31 12:56	0° Υ	
	4838 Nov 10 22:41	0° \mathcal{B}		morning set	4841 Apr 08 09:53	9° Υ 51'28	
greatest brilliancy	4838 Nov 16 22:15	2° \mathcal{B} 45'18	-4.6m		4841 Apr 24 12:28	0° \mathcal{B}	
retrograde	4838 Nov 27 23:13	4° \mathcal{B} 57'59					
evening set	4838 Dec 12 19:55	0° \mathcal{B} 39'38		superior conj	4841 May 17 22:10	29° \mathcal{B} 09'55	0°-59'-22
	4838 Dec 14 00:37	30° $\mathcal{R}\mathcal{A}$		minimum elong	4841 May 18 08:48	29° \mathcal{B} 42'59	0°59'01
inferior conj	4838 Dec 18 16:32	27° \mathcal{A} 13'35	-2°-25'-19		4841 May 18 14:17	0° Π	
minimum elong	4838 Dec 18 21:56	27° \mathcal{A} 05'20	2°23'39	max. Earth dist.	4841 May 21 17:53	3° Π 54'51	1.72378 AU
min. Earth dist.	4838 Dec 19 08:03	26° \mathcal{A} 49'54	0.27074 AU		4841 Jun 11 19:12	0° \mathfrak{S}	
morning rise	4838 Dec 24 23:18	23° \mathcal{A} 32'50		asc. node	4841 Jun 14 01:22	2° \mathfrak{S} 47'16	
asc. node	4838 Dec 28 06:11	21° \mathcal{A} 55'54		evening rise	4841 Jun 25 09:22	16° \mathfrak{S} 46'14	
direct	4839 Jan 08 11:30	19° \mathcal{A} 22'00			4841 Jul 06 03:23	0° Ω	
greatest brilliancy	4839 Jan 21 22:37	22° \mathcal{A} 42'56	-4.7m		4841 Jul 30 14:54	0° \mathfrak{M}	
	4839 Feb 02 21:37	0° \mathcal{B}			4841 Aug 24 06:32	0° $\underline{\Omega}$	
morning max el	4839 Feb 28 04:17	22° \mathcal{B} 37'49	46°58'54		4841 Sep 18 04:03	0° \mathfrak{M}	
	4839 Mar 07 07:12	0° \approx		desc. node	4841 Oct 03 16:17	18° \mathfrak{M} 29'16	
	4839 Apr 03 08:33	0° \mathcal{H}			4841 Oct 13 10:08	0° \mathcal{A}	
desc. node	4839 Apr 18 21:21	18° \mathcal{H} 04'28			4841 Nov 08 05:17	0° \mathcal{B}	
	4839 Apr 28 23:29	0° Υ			4841 Dec 05 01:21	0° \approx	
	4839 May 24 00:45	0° \mathcal{B}		evening max el	4841 Dec 21 17:15	17° \approx 25'07	46°57'53
	4839 Jun 17 20:20	0° Π			4842 Jan 03 22:39	0° \mathcal{H}	
	4839 Jul 12 13:23	0° \mathfrak{S}		asc. node	4842 Jan 24 18:08	15° \mathcal{H} 27'27	

greatest brilliancy	4842 Jan 29 07:18	17° ✕ 40'04	-4.7m	minimum elong	4844 Jul 26 17:23	7° Ω 09'00	0°35'36
retrograde	4842 Feb 10 05:39	20° ✕ 19'16		max. Earth dist.	4844 Jul 27 05:17	7° Ω 45'38	1.73429 AU
evening set	4842 Feb 26 14:49	15° ✕ 04'11			4844 Aug 14 07:08	0° ⊙	
min. Earth dist.	4842 Mar 02 05:48	12° ✕ 52'58	0.26889 AU	evening rise	4844 Sep 01 03:34	21° ⊙ 57'48	
inferior conj	4842 Mar 02 20:31	12° ✕ 30'15	7°56'34		4844 Sep 07 16:25	0° ♊	
minimum elong	4842 Mar 02 11:08	12° ✕ 44'43	7°55'07		4844 Oct 02 02:24	0° ♋	
morning rise	4842 Mar 06 07:39	10° ✕ 23'59			4844 Oct 26 14:03	0° ♌	
direct	4842 Mar 23 08:51	4° ✕ 47'49		desc. node	4844 Oct 31 04:07	5° ♍ 36'18	
greatest brilliancy	4842 Apr 03 07:42	7° ✕ 01'58	-4.6m		4844 Nov 20 04:05	0° ♎	
	4842 May 05 06:00	0° ♏			4844 Dec 14 21:25	0° ♐	
morning max el	4842 May 12 08:54	6° ♑ 52'08	46°34'06		4845 Jan 08 21:16	0° ♒	
desc. node	4842 May 16 09:04	10° ♑ 53'09			4845 Feb 03 13:12	0° ♓	
	4842 Jun 03 11:18	0° ♈		asc. node	4845 Feb 21 06:01	19° ♑ 41'56	
	4842 Jun 30 04:17	0° ♉			4845 Mar 03 01:19	0° ♈	
	4842 Jul 25 23:14	0° ♊		evening max el	4845 Mar 04 02:14	1° ♈ 03'22	47°02'09
	4842 Aug 20 06:17	0° ♋			4845 Apr 08 11:39	0° ♉	
asc. node	4842 Sep 06 11:01	20° ♌ 39'36		greatest brilliancy	4845 Apr 10 06:15	0° ♊ 52'08	-4.6m
	4842 Sep 14 04:15	0° ♍		retrograde	4845 Apr 23 18:12	4° ♊ 13'23	
	4842 Oct 08 18:16	0° ♎			4845 May 08 07:31	30° ♋	
	4842 Nov 02 01:50	0° ♏		evening set	4845 May 10 09:21	28° ♌ 49'37	
morning set	4842 Nov 07 04:31	6° ♍ 20'26		inferior conj	4845 May 14 19:30	26° ♌ 07'23	6°26'19
	4842 Nov 26 04:55	0° ♍		minimum elong	4845 May 15 05:56	25° ♌ 51'07	6°24'04
max. Earth dist.	4842 Dec 12 13:58	20° ♍ 27'00	1.71776 AU	min. Earth dist.	4845 May 14 17:14	26° ♌ 10'55	0.27890 AU
				morning rise	4845 May 20 02:48	22° ♌ 55'13	
superior conj	4842 Dec 15 09:31	23° ♍ 58'11	0°27'41	direct	4845 Jun 04 18:12	18° ♌ 08'16	
minimum elong	4842 Dec 15 15:57	24° ♍ 18'18	0°27'23	desc. node	4845 Jun 12 20:44	19° ♌ 21'46	
	4842 Dec 20 05:13	0° ♎		greatest brilliancy	4845 Jun 16 12:41	20° ♌ 38'16	-4.5m
desc. node	4842 Dec 27 01:49	8° ♎ 35'04			4845 Jul 02 11:07	0° ♉	
	4843 Jan 13 03:50	0° ♏		morning max el	4845 Jul 23 20:11	18° ♊ 27'53	45°51'12
evening rise	4843 Jan 24 14:49	14° ♏ 22'29			4845 Aug 04 10:31	0° ♊	
	4843 Feb 06 01:35	0° ♈			4845 Sep 01 07:10	0° ♋	
	4843 Mar 01 23:54	0° ♑			4845 Sep 27 12:10	0° ♌	
	4843 Mar 26 01:10	0° ♒		asc. node	4845 Oct 03 22:50	7° ♍ 33'46	
asc. node	4843 Apr 19 03:43	29° ♌ 44'35			4845 Oct 22 19:01	0° ♎	
	4843 Apr 19 08:45	0° ♉			4845 Nov 16 11:19	0° ♏	
	4843 May 14 02:50	0° ♊			4845 Dec 10 18:13	0° ♐	
	4843 Jun 08 13:50	0° ♋			4846 Jan 03 19:33	0° ♑	
	4843 Jul 05 07:43	0° ♌		morning set	4846 Jan 18 23:16	18° ♌ 59'18	
evening max el	4843 Jul 27 09:45	22° ♍ 40'04	45°31'32	desc. node	4846 Jan 23 13:40	24° ♌ 45'40	
	4843 Aug 04 07:11	0° ♎			4846 Jan 27 17:47	0° ♏	
desc. node	4843 Aug 08 18:39	3° ♎ 54'11			4846 Feb 20 14:23	0° ♈	
greatest brilliancy	4843 Sep 01 10:33	19° ♎ 38'27	-4.5m				
retrograde	4843 Sep 14 02:07	22° ♎ 28'11		superior conj	4846 Mar 01 06:54	10° ♈ 55'54	-1°-14'-13
evening set	4843 Oct 02 06:00	16° ♎ 20'58		minimum elong	4846 Feb 28 20:03	10° ♈ 21'47	1°13'57
inferior conj	4843 Oct 05 12:49	14° ♎ 19'29	-8°-37'-57	max. Earth dist.	4846 Mar 02 06:55	12° ♈ 11'27	1.71158 AU
minimum elong	4843 Oct 05 13:07	14° ♎ 19'01	8°37'58		4846 Mar 16 10:49	0° ♑	
min. Earth dist.	4843 Oct 06 00:39	14° ♎ 00'58	0.28892 AU		4846 Apr 09 08:52	0° ♒	
morning rise	4843 Oct 08 20:02	12° ♎ 16'46		evening rise	4846 Apr 11 02:07	2° ♌ 08'58	
direct	4843 Oct 27 00:41	6° ♎ 02'22			4846 May 03 10:32	0° ♉	
greatest brilliancy	4843 Nov 10 13:40	9° ♎ 45'59	-4.6m	asc. node	4846 May 16 15:33	16° ♊ 21'14	
asc. node	4843 Nov 29 20:24	22° ♎ 55'52			4846 May 27 17:29	0° ♊	
	4843 Dec 07 19:36	0° ♏			4846 Jun 21 07:14	0° ♋	
morning max el	4843 Dec 15 23:34	7° ♏ 53'11	46°26'21		4846 Jul 16 06:06	0° ♌	
	4844 Jan 05 19:40	0° ♍			4846 Aug 10 18:49	0° ♍	
	4844 Jan 31 21:16	0° ♎		desc. node	4846 Sep 05 06:22	28° ♎ 50'31	
	4844 Feb 25 21:12	0° ♏			4846 Sep 06 07:37	0° ♏	
desc. node	4844 Mar 20 11:25	28° ♏ 51'26			4846 Oct 05 00:26	0° ♐	
	4844 Mar 21 09:43	0° ♈		evening max el	4846 Oct 07 09:04	2° ♍ 16'58	45°59'06
	4844 Apr 14 17:06	0° ♑			4846 Nov 13 11:44	0° ♎	
	4844 May 08 22:54	0° ♒		greatest brilliancy	4846 Nov 14 10:57	0° ♌ 22'49	-4.6m
	4844 Jun 02 05:16	0° ♉		retrograde	4846 Nov 25 12:14	2° ♌ 35'02	
morning set	4844 Jun 19 16:52	21° ♊ 34'08			4846 Dec 06 21:37	30° ♋	
	4844 Jun 26 13:04	0° ♊		evening set	4846 Dec 10 11:14	28° ♍ 13'53	
asc. node	4844 Jul 11 13:15	18° ♊ 28'37		inferior conj	4846 Dec 16 05:45	24° ♍ 50'11	-2°-47'-31
	4844 Jul 20 21:56	0° ♋		minimum elong	4846 Dec 16 11:54	24° ♍ 40'46	2°45'40
				min. Earth dist.	4846 Dec 16 22:04	24° ♍ 25'13	0.27127 AU
superior conj	4844 Jul 27 00:20	7° ♌ 30'22	0°35'56	morning rise	4846 Dec 22 11:58	21° ♍ 09'55	

asc. node	4846 Dec 27 08:16	18°♄53'57		evening rise	4849 Jun 23 01:36	14°♄34'21	
direct	4847 Jan 06 01:52	16°♄57'55			4849 Jul 05 14:26	0°♄	
greatest brilliancy	4847 Jan 19 13:19	20°♄19'24	-4.6m		4849 Jul 30 02:06	0°♄	
	4847 Feb 03 15:34	0°♄			4849 Aug 23 18:03	0°♄	
morning max el	4847 Feb 25 18:34	20°♄14'47	46°58'34		4849 Sep 17 16:09	0°♄	
	4847 Mar 07 03:21	0°♄		desc. node	4849 Oct 02 18:14	17°♄57'36	
	4847 Apr 03 00:08	0°♄			4849 Oct 12 23:15	0°♄	
desc. node	4847 Apr 17 23:18	17°♄28'08			4849 Nov 07 20:12	0°♄	
	4847 Apr 28 13:07	0°♄			4849 Dec 04 20:07	0°♄	
	4847 May 23 13:18	0°♄		evening max el	4849 Dec 19 05:53	14°♄58'04	46°56'10
	4847 Jun 17 08:12	0°♄			4850 Jan 04 06:48	0°♄	
	4847 Jul 12 00:45	0°♄		asc. node	4850 Jan 23 20:14	13°♄47'55	
	4847 Aug 05 15:19	0°♄		greatest brilliancy	4850 Jan 26 21:55	15°♄13'26	-4.7m
asc. node	4847 Aug 09 01:10	4°♄10'07		retrograde	4850 Feb 07 17:50	17°♄50'37	
morning set	4847 Aug 28 04:41	27°♄37'22		evening set	4850 Feb 23 23:08	12°♄42'17	
	4847 Aug 30 03:09	0°♄		inferior conj	4850 Feb 28 09:08	10°♄02'28	7°44'27
	4847 Sep 23 11:55	0°♄		minimum elong	4850 Feb 27 23:17	10°♄17'40	7°42'46
max. Earth dist.	4847 Oct 01 08:25	9°♄41'53	1.73073 AU	min. Earth dist.	4850 Feb 27 19:03	10°♄24'11	0.26860 AU
				morning rise	4850 Mar 03 23:34	7°♄51'21	
superior conj	4847 Oct 03 15:18	12°♄31'28	1°25'21	direct	4850 Mar 20 20:39	2°♄20'08	
minimum elong	4847 Oct 03 15:10	12°♄31'05	1°25'22	greatest brilliancy	4850 Mar 31 22:19	4°♄36'41	-4.6m
	4847 Oct 17 18:11	0°♄			4850 May 05 08:14	0°♄	
evening rise	4847 Nov 09 18:25	28°♄31'25		morning max el	4850 May 09 21:13	4°♄25'40	46°35'46
	4847 Nov 10 22:58	0°♄		desc. node	4850 May 15 11:05	10°♄03'05	
desc. node	4847 Nov 28 16:01	21°♄58'54			4850 Jun 03 04:36	0°♄	
	4847 Dec 05 03:02	0°♄			4850 Jun 29 18:32	0°♄	
	4847 Dec 29 06:43	0°♄			4850 Jul 25 11:59	0°♄	
	4848 Jan 22 10:53	0°♄			4850 Aug 19 18:10	0°♄	
	4848 Feb 15 18:02	0°♄		asc. node	4850 Sep 05 12:55	20°♄10'32	
	4848 Mar 11 09:21	0°♄			4850 Sep 13 15:38	0°♄	
asc. node	4848 Mar 20 17:45	11°♄11'46			4850 Oct 08 05:21	0°♄	
	4848 Apr 05 18:12	0°♄			4850 Nov 01 12:47	0°♄	
	4848 May 02 16:50	0°♄		morning set	4850 Nov 04 20:46	4°♄07'59	
evening max el	4848 May 14 14:25	12°♄12'05	46°07'36		4850 Nov 25 15:50	0°♄	
	4848 Jun 03 12:27	0°♄		max. Earth dist.	4850 Dec 10 04:54	18°♄09'25	1.71823 AU
greatest brilliancy	4848 Jun 18 07:42	9°♄32'33	-4.5m				
retrograde	4848 Jul 03 00:36	13°♄20'40		superior conj	4850 Dec 12 23:02	21°♄36'06	0°31'07
desc. node	4848 Jul 10 08:49	12°♄15'58		minimum elong	4850 Dec 13 06:08	21°♄58'17	0°30'48
evening set	4848 Jul 18 04:12	8°♄52'54			4850 Dec 19 16:12	0°♄	
inferior conj	4848 Jul 24 11:13	5°♄05'12	-3°-17'-41	desc. node	4850 Dec 26 03:56	8°♄07'15	
minimum elong	4848 Jul 24 04:23	5°♄15'56	3°15'48		4851 Jan 12 14:56	0°♄	
min. Earth dist.	4848 Jul 24 00:46	5°♄21'38	0.28816 AU	evening rise	4851 Jan 22 02:25	11°♄53'18	
morning rise	4848 Jul 30 05:01	1°♄36'58			4851 Feb 05 12:50	0°♄	
	4848 Aug 02 07:32	30°♄			4851 Mar 01 11:18	0°♄	
direct	4848 Aug 14 23:38	26°♄52'50			4851 Mar 25 12:47	0°♄	
greatest brilliancy	4848 Aug 27 22:59	29°♄50'19	-4.5m	asc. node	4851 Apr 18 05:40	29°♄14'01	
	4848 Aug 28 07:53	0°♄			4851 Apr 18 20:43	0°♄	
morning max el	4848 Oct 02 17:25	26°♄39'42	45°46'05		4851 May 13 15:27	0°♄	
	4848 Oct 06 03:54	0°♄			4851 Jun 08 03:45	0°♄	
asc. node	4848 Oct 31 10:42	26°♄34'56			4851 Jul 05 00:35	0°♄	
	4848 Nov 03 12:29	0°♄		evening max el	4851 Jul 25 00:47	20°♄27'02	45°31'51
	4848 Nov 29 13:23	0°♄			4851 Aug 04 10:25	0°♄	
	4848 Dec 24 12:43	0°♄		desc. node	4851 Aug 07 20:38	2°♄54'59	
	4849 Jan 17 22:45	0°♄		greatest brilliancy	4851 Aug 29 22:11	17°♄23'11	-4.5m
	4849 Feb 11 01:51	0°♄		retrograde	4851 Sep 11 18:05	20°♄17'32	
desc. node	4849 Feb 20 01:35	11°♄13'36		evening set	4851 Sep 29 20:53	14°♄10'49	
	4849 Mar 07 01:34	0°♄		inferior conj	4851 Oct 03 04:42	12°♄07'56	-8°-37'-36
	4849 Mar 31 00:11	0°♄		minimum elong	4851 Oct 03 04:11	12°♄08'43	8°37'37
morning set	4849 Apr 05 21:11	7°♄21'35		min. Earth dist.	4851 Oct 03 15:19	11°♄51'21	0.28927 AU
	4849 Apr 23 23:36	0°♄		morning rise	4851 Oct 06 11:20	10°♄06'18	
				direct	4851 Oct 24 16:53	3°♄50'22	
superior conj	4849 May 15 11:55	26°♄49'09	-1°-1'-59	greatest brilliancy	4851 Nov 08 06:21	7°♄34'47	-4.5m
minimum elong	4849 May 15 22:39	27°♄22'31	1°01'38	asc. node	4851 Nov 28 22:26	21°♄54'45	
	4849 May 18 01:19	0°♄			4851 Dec 07 20:32	0°♄	
max. Earth dist.	4849 May 19 09:53	1°♄41'12	1.72323 AU	morning max el	4851 Dec 13 15:32	5°♄38'47	46°24'51
	4849 Jun 11 06:12	0°♄			4852 Jan 05 12:15	0°♄	
asc. node	4849 Jun 13 03:28	2°♄19'48			4852 Jan 31 11:15	0°♄	

	4852 Feb 25 10:00	0°♊			4854 Sep 05 23:27	0°♍	
desc. node	4852 Mar 19 13:20	28°♊19'54			4854 Oct 04 23:12	0°♌	
	4852 Mar 20 21:51	0°♋		evening max el	4854 Oct 04 23:30	0°♌00'42	45°57'14
	4852 Apr 14 04:48	0°♌		greatest brilliancy	4854 Nov 12 00:32	28°♌02'02	-4.6m
	4852 May 08 10:16	0°♍			4854 Nov 19 16:16	0°♎	
	4852 Jun 01 16:23	0°♎		retrograde	4854 Nov 23 00:42	0°♎12'52	
morning set	4852 Jun 17 08:56	19°♎21'50			4854 Nov 26 07:46	30°♎♌	
	4852 Jun 25 23:59	0°♏		evening set	4854 Dec 08 02:42	25°♌48'48	
asc. node	4852 Jul 10 15:17	18°♏01'36		inferior conj	4854 Dec 13 19:00	22°♌27'43	-3°-9'-25
	4852 Jul 20 08:44	0°♐		minimum elong	4854 Dec 14 01:51	22°♌17'14	3°07'23
				min. Earth dist.	4854 Dec 14 12:22	22°♌01'06	0.27179 AU
superior conj	4852 Jul 24 17:39	5°♐22'50	0°32'57	morning rise	4854 Dec 20 00:22	18°♌48'03	
minimum elong	4852 Jul 24 11:09	5°♐02'50	0°32'38	asc. node	4854 Dec 26 10:20	15°♌57'36	
max. Earth dist.	4852 Jul 25 02:39	5°♐50'30	1.73416 AU	direct	4855 Jan 03 15:52	14°♌34'41	
	4852 Aug 13 17:55	0°♑		greatest brilliancy	4855 Jan 17 04:16	17°♌56'53	-4.6m
evening rise	4852 Aug 29 21:52	19°♑53'10			4855 Feb 04 04:38	0°♏	
	4852 Sep 07 03:18	0°♒		morning max el	4855 Feb 23 07:54	17°♏50'08	46°58'22
	4852 Oct 01 13:30	0°♓			4855 Mar 06 22:32	0°♑	
	4852 Oct 26 01:29	0°♌			4855 Apr 02 15:08	0°♋	
desc. node	4852 Oct 30 06:10	5°♌07'26		desc. node	4855 Apr 17 01:21	16°♋53'25	
	4852 Nov 19 16:01	0°♍			4855 Apr 28 02:16	0°♌	
	4852 Dec 14 10:05	0°♎			4855 May 23 01:26	0°♍	
	4853 Jan 08 11:05	0°♋			4855 Jun 16 19:42	0°♎	
	4853 Feb 03 05:16	0°♌			4855 Jul 11 11:50	0°♏	
asc. node	4853 Feb 20 07:54	18°♌55'42			4855 Aug 05 02:06	0°♐	
evening max el	4853 Mar 01 17:25	28°♌44'13	47°03'13	asc. node	4855 Aug 08 03:05	3°♐43'00	
	4853 Mar 02 23:26	0°♍		morning set	4855 Aug 25 22:12	25°♐31'12	
greatest brilliancy	4853 Apr 07 21:37	28°♍33'25	-4.6m		4855 Aug 29 13:47	0°♑	
	4853 Apr 11 09:02	0°♎			4855 Sep 22 22:30	0°♒	
retrograde	4853 Apr 21 09:38	1°♎54'16		max. Earth dist.	4855 Sep 29 00:42	7°♒31'19	1.73105 AU
	4853 May 01 00:13	30°♒♍					
evening set	4853 May 08 03:03	26°♒25'52		superior conj	4855 Oct 01 08:47	10°♒24'33	1°25'16
inferior conj	4853 May 12 09:56	23°♒48'26	6°41'39	minimum elong	4855 Oct 01 07:57	10°♒21'59	1°25'16
minimum elong	4853 May 12 20:21	23°♒32'13	6°39'30		4855 Oct 17 04:49	0°♓	
min. Earth dist.	4853 May 12 07:13	23°♒52'41	0.27864 AU	evening rise	4855 Nov 07 09:38	26°♓16'25	
morning rise	4853 May 17 13:57	20°♒41'15			4855 Nov 10 09:44	0°♌	
direct	4853 Jun 02 08:40	15°♒49'51		desc. node	4855 Nov 27 18:06	21°♌31'30	
desc. node	4853 Jun 11 22:51	17°♒31'59			4855 Dec 04 14:00	0°♍	
greatest brilliancy	4853 Jun 14 01:05	18°♒18'31	-4.5m		4855 Dec 28 17:58	0°♎	
	4853 Jul 03 01:26	0°♎			4856 Jan 21 22:28	0°♋	
morning max el	4853 Jul 21 12:06	16°♎15'52	45°52'13		4856 Feb 15 06:06	0°♌	
	4853 Aug 04 05:27	0°♏			4856 Mar 10 22:13	0°♍	
	4853 Aug 31 21:46	0°♐		asc. node	4856 Mar 19 19:47	10°♍38'19	
	4853 Sep 27 00:56	0°♑			4856 Apr 05 08:36	0°♎	
asc. node	4853 Oct 03 00:50	7°♑02'51			4856 May 02 11:07	0°♏	
	4853 Oct 22 06:51	0°♒		evening max el	4856 May 12 05:17	9°♏57'11	46°09'29
	4853 Nov 15 22:40	0°♓			4856 Jun 04 01:45	0°♐	
	4853 Dec 10 05:20	0°♌		greatest brilliancy	4856 Jun 16 00:32	7°♐23'25	-4.5m
	4854 Jan 03 06:33	0°♍		retrograde	4856 Jun 30 16:22	11°♐11'11	
morning set	4854 Jan 16 10:48	16°♍30'40		desc. node	4856 Jul 09 10:44	9°♐39'17	
desc. node	4854 Jan 22 15:41	24°♍17'44		evening set	4856 Jul 15 19:35	6°♐44'50	
	4854 Jan 27 04:42	0°♎		min. Earth dist.	4856 Jul 21 17:28	3°♐11'47	0.28788 AU
	4854 Feb 20 01:16	0°♋		inferior conj	4856 Jul 22 03:27	2°♐56'05	-2°-58'-59
				minimum elong	4856 Jul 21 21:11	3°♐05'57	2°57'14
superior conj	4854 Feb 26 17:27	8°♋23'52	-1°-12'-4		4856 Jul 26 22:32	30°♒♏	
minimum elong	4854 Feb 26 06:10	7°♋48'22	1°11'45	morning rise	4856 Jul 27 23:09	29°♏24'54	
max. Earth dist.	4854 Feb 27 16:36	9°♋36'43	1.71146 AU	direct	4856 Aug 12 15:11	24°♏44'07	
	4854 Mar 15 21:40	0°♌		greatest brilliancy	4856 Aug 25 13:42	27°♏40'02	-4.5m
evening rise	4854 Apr 08 13:28	29°♌40'21			4856 Aug 30 08:18	0°♐	
	4854 Apr 08 19:45	0°♍		morning max el	4856 Sep 30 07:49	24°♐26'21	45°45'23
	4854 May 02 21:30	0°♎			4856 Oct 06 00:16	0°♑	
asc. node	4854 May 15 17:39	15°♎53'40		asc. node	4856 Oct 30 12:47	25°♑58'17	
	4854 May 27 04:37	0°♏			4856 Nov 03 03:24	0°♒	
	4854 Jun 20 18:42	0°♐			4856 Nov 29 00:19	0°♓	
	4854 Jul 15 18:12	0°♑			4856 Dec 24 00:43	0°♌	
	4854 Aug 10 08:07	0°♒			4857 Jan 17 10:15	0°♍	
desc. node	4854 Sep 04 08:19	28°♒12'51			4857 Feb 10 13:03	0°♎	

desc. node	4857 Feb 19 03:26	10° ≈ 44'36		greatest brilliancy	4859 Aug 27 10:07	15° Δ 09'47	-4.5m
	4857 Mar 06 12:34	0° ✕		retrograde	4859 Sep 09 10:16	18° Δ 08'10	
	4857 Mar 30 11:03	0° Υ		evening set	4859 Sep 27 11:30	12° Δ 02'33	
morning set	4857 Apr 03 08:27	4° Υ 52'37		inferior conj	4859 Sep 30 20:37	9° Δ 57'36	-8°-36'-27
	4857 Apr 23 10:19	0° ♄		minimum elong	4859 Sep 30 19:21	9° Δ 59'35	8°36'26
				min. Earth dist.	4859 Oct 01 05:40	9° Δ 43'30	0.28965 AU
superior conj	4857 May 13 01:49	24° ♄ 30'07	-1°-4'-29	morning rise	4859 Oct 04 03:05	7° Δ 56'22	
minimum elong	4857 May 13 12:34	25° ♄ 03'32	1°04'09	direct	4859 Oct 22 09:37	1° Δ 39'44	
max. Earth dist.	4857 May 17 00:05	29° ♄ 23'15	1.72265 AU	greatest brilliancy	4859 Nov 05 22:28	5° Δ 23'55	-4.5m
	4857 May 17 11:55	0° ♁		asc. node	4859 Nov 28 00:29	20° Δ 55'42	
	4857 Jun 10 16:45	0° ☿			4859 Dec 07 20:02	0° ♁	
asc. node	4857 Jun 12 05:30	1° ☿ 53'30		morning max el	4859 Dec 11 07:51	3° ♁ 25'59	46°23'07
evening rise	4857 Jun 20 17:56	12° ☿ 24'11			4860 Jan 05 04:24	0° ♄	
	4857 Jul 05 01:02	0° ♁			4860 Jan 31 00:58	0° ☿	
	4857 Jul 29 12:55	0° ♁			4860 Feb 24 22:34	0° ≈	
	4857 Aug 23 05:15	0° Δ		desc. node	4860 Mar 18 15:29	27° ≈ 49'50	
	4857 Sep 17 03:59	0° ♁			4860 Mar 20 09:44	0° ✕	
desc. node	4857 Oct 01 20:15	17° ♁ 26'54			4860 Apr 13 16:12	0° Υ	
	4857 Oct 12 12:08	0° ♄			4860 May 07 21:20	0° ♄	
	4857 Nov 07 10:59	0° ☿			4860 Jun 01 03:13	0° ♁	
	4857 Dec 04 15:01	0° ≈		morning set	4860 Jun 15 01:04	17° ♁ 10'27	
evening max el	4857 Dec 16 18:23	12° ≈ 31'56	46°54'39		4860 Jun 25 10:38	0° ☿	
	4858 Jan 04 17:16	0° ✕		asc. node	4860 Jul 09 17:13	17° ☿ 35'00	
asc. node	4858 Jan 22 22:07	12° ✕ 05'24			4860 Jul 19 19:18	0° ♁	
greatest brilliancy	4858 Jan 24 11:24	12° ✕ 46'37	-4.7m				
retrograde	4858 Feb 05 06:17	15° ✕ 23'17		superior conj	4860 Jul 22 11:07	3° ♁ 16'24	0°29'55
evening set	4858 Feb 21 07:27	10° ✕ 21'04		minimum elong	4860 Jul 22 05:06	2° ♁ 57'54	0°29'38
inferior conj	4858 Feb 25 21:42	7° ✕ 35'39	7°31'21	max. Earth dist.	4860 Jul 23 01:06	3° ♁ 59'26	1.73398 AU
minimum elong	4858 Feb 25 11:27	7° ✕ 51'24	7°29'29		4860 Aug 13 04:26	0° ♁	
min. Earth dist.	4858 Feb 25 08:02	7° ✕ 56'39	0.26833 AU	evening rise	4860 Aug 27 16:24	17° ♁ 50'06	
morning rise	4858 Mar 01 15:34	5° ✕ 19'43			4860 Sep 06 13:54	0° Δ	
	4858 Mar 16 00:21	30° ♁			4860 Oct 01 00:21	0° ♁	
direct	4858 Mar 18 08:37	29° ≈ 53'17			4860 Oct 25 12:45	0° ♄	
	4858 Mar 20 17:35	0° ✕		desc. node	4860 Oct 29 08:15	4° ♄ 39'16	
greatest brilliancy	4858 Mar 29 12:56	2° ✕ 12'35	-4.6m		4860 Nov 19 03:51	0° ☿	
	4858 May 05 08:38	0° Υ			4860 Dec 13 22:44	0° ≈	
morning max el	4858 May 07 10:31	2° Υ 02'48	46°37'29		4861 Jan 08 00:59	0° ✕	
desc. node	4858 May 14 13:08	9° Υ 15'10			4861 Feb 02 21:36	0° Υ	
	4858 Jun 02 21:06	0° ♄		asc. node	4861 Feb 19 09:58	18° Υ 09'18	
	4858 Jun 29 08:11	0° ♁		evening max el	4861 Feb 27 08:55	26° Υ 25'51	47°04'21
	4858 Jul 25 00:12	0° ☿			4861 Mar 02 22:27	0° ♄	
	4858 Aug 19 05:35	0° ♁		greatest brilliancy	4861 Apr 05 13:56	26° ♄ 16'01	-4.6m
asc. node	4858 Sep 04 14:56	19° ♁ 43'09		retrograde	4861 Apr 19 00:50	29° ♄ 35'00	
	4858 Sep 13 02:35	0° ♁		evening set	4861 May 05 20:47	24° ♄ 02'15	
	4858 Oct 07 16:05	0° Δ		inferior conj	4861 May 10 00:19	21° ♄ 29'35	6°56'24
	4858 Oct 31 23:26	0° ♁		minimum elong	4861 May 10 10:39	21° ♄ 13'29	6°54'22
morning set	4858 Nov 02 12:50	1° ♁ 55'56		min. Earth dist.	4861 May 09 21:04	21° ♄ 34'39	0.27831 AU
	4858 Nov 25 02:29	0° ♄		morning rise	4861 May 15 00:51	18° ♄ 27'27	
max. Earth dist.	4858 Dec 07 19:47	15° ♄ 52'29	1.71868 AU	direct	4861 May 30 23:14	13° ♄ 31'46	
				desc. node	4861 Jun 11 00:51	15° ♄ 46'26	
superior conj	4858 Dec 10 12:18	19° ♄ 14'05	0°34'32	greatest brilliancy	4861 Jun 11 12:44	15° ♄ 58'05	-4.5m
minimum elong	4858 Dec 10 20:00	19° ♄ 38'09	0°34'11		4861 Jul 03 11:55	0° ♁	
	4858 Dec 19 02:55	0° ☿		morning max el	4861 Jul 19 03:18	14° ♁ 02'28	45°53'17
desc. node	4858 Dec 25 05:54	7° ☿ 39'48			4861 Aug 03 23:42	0° ☿	
	4859 Jan 12 01:45	0° ≈			4861 Aug 31 12:01	0° ♁	
evening rise	4859 Jan 19 13:48	9° ≈ 24'29			4861 Sep 26 13:26	0° ♁	
	4859 Feb 04 23:47	0° ✕		asc. node	4861 Oct 02 02:56	6° ♁ 32'51	
	4859 Feb 28 22:23	0° Υ			4861 Oct 21 18:29	0° Δ	
	4859 Mar 25 00:05	0° ♄			4861 Nov 15 09:52	0° ♁	
asc. node	4859 Apr 17 07:46	28° ♄ 44'48			4861 Dec 09 16:21	0° ♄	
	4859 Apr 18 08:22	0° ♁			4862 Jan 02 17:31	0° ☿	
	4859 May 13 03:47	0° ☿		morning set	4862 Jan 13 22:15	14° ☿ 01'46	
	4859 Jun 07 17:24	0° ♁		desc. node	4862 Jan 21 17:38	23° ☿ 49'30	
	4859 Jul 04 17:21	0° ♁			4862 Jan 26 15:39	0° ≈	
evening max el	4859 Jul 22 16:39	18° ♁ 17'21	45°32'17		4862 Feb 19 12:12	0° ✕	
	4859 Aug 04 14:47	0° Δ					
desc. node	4859 Aug 06 22:34	1° Δ 55'37		superior conj	4862 Feb 24 03:34	5° ✕ 50'17	-1°-9'-44

minimum elong	4862 Feb 23 15:57	5° K 13'44	1°09'24	greatest brilliancy	4864 Aug 23 05:16	25° S 29'48	-4.5m
max. Earth dist.	4862 Feb 24 22:00	6° K 48'15	1.71137 AU		4864 Aug 31 17:06	0° Q	
	4862 Mar 15 08:37	0° Y		morning max el	4864 Sep 27 22:38	22° Q 13'17	45°44'50
evening rise	4862 Apr 06 00:11	27° Y 09'24			4864 Oct 05 20:18	0° M	
	4862 Apr 08 06:43	0° X		asc. node	4864 Oct 29 14:44	25° M 20'52	
	4862 May 02 08:31	0° II			4864 Nov 02 18:21	0° L	
asc. node	4862 May 14 19:38	15° II 25'37			4864 Nov 28 15:24	0° M	
	4862 May 26 15:48	0° S			4864 Dec 23 12:53	0° X	
	4862 Jun 20 06:13	0° Q			4865 Jan 16 21:55	0° S	
	4862 Jul 15 06:21	0° M			4865 Feb 10 00:27	0° \approx	
	4862 Aug 09 21:31	0° L		desc. node	4865 Feb 18 05:35	10° \approx 15'53	
desc. node	4862 Sep 03 10:26	27° L 35'23			4865 Mar 05 23:49	0° K	
	4862 Sep 05 15:30	0° M			4865 Mar 29 22:10	0° Y	
evening max el	4862 Oct 02 13:11	27° M 43'02	45°55'27	morning set	4865 Mar 31 19:35	2° Y 22'18	
	4862 Oct 04 22:52	0° X			4865 Apr 22 21:21	0° X	
greatest brilliancy	4862 Nov 09 14:32	25° X 42'37	-4.6m				
retrograde	4862 Nov 20 13:04	27° X 52'03		superior conj	4865 May 10 15:21	22° X 08'42	-1°-6'-53
evening set	4862 Dec 05 18:32	23° X 24'36		minimum elong	4865 May 11 02:02	22° X 41'58	1°06'35
inferior conj	4862 Dec 11 08:35	20° X 06'29	-3°-30'-37	max. Earth dist.	4865 May 14 11:42	26° X 56'01	1.72213 AU
minimum elong	4862 Dec 11 16:03	19° X 55'01	3°28'26		4865 May 16 22:53	0° II	
min. Earth dist.	4862 Dec 12 03:08	19° X 37'59	0.27238 AU		4865 Jun 10 03:42	0° S	
morning rise	4862 Dec 17 12:52	16° X 27'40		asc. node	4865 Jun 11 07:24	1° S 25'35	
asc. node	4862 Dec 25 12:13	13° X 07'46		evening rise	4865 Jun 18 09:44	10° S 11'09	
direct	4863 Jan 01 05:45	12° X 12'25			4865 Jul 04 12:03	0° Q	
greatest brilliancy	4863 Jan 14 20:21	15° X 36'23	-4.6m		4865 Jul 29 00:07	0° M	
	4863 Feb 04 14:19	0° S			4865 Aug 22 16:49	0° L	
morning max el	4863 Feb 20 20:42	15° S 23'44	46°57'52		4865 Sep 16 16:13	0° M	
	4863 Mar 06 17:23	0° \approx		desc. node	4865 Sep 30 22:19	16° M 55'11	
	4863 Apr 02 06:10	0° K			4865 Oct 12 01:28	0° X	
desc. node	4863 Apr 16 03:24	16° K 18'07			4865 Nov 07 02:20	0° S	
	4863 Apr 27 15:35	0° Y			4865 Dec 04 10:48	0° \approx	
	4863 May 22 13:46	0° X		evening max el	4865 Dec 14 07:45	10° \approx 07'24	46°53'11
	4863 Jun 16 07:23	0° II			4866 Jan 05 07:39	0° K	
	4863 Jul 10 23:04	0° S		greatest brilliancy	4866 Jan 22 00:11	10° K 18'36	-4.7m
	4863 Aug 04 13:01	0° Q		asc. node	4866 Jan 22 00:12	10° K 18'37	
asc. node	4863 Aug 07 05:06	3° Q 15'52		retrograde	4866 Feb 02 19:28	12° K 55'44	
morning set	4863 Aug 23 15:45	23° Q 24'41		evening set	4866 Feb 18 16:00	7° K 59'18	
	4863 Aug 29 00:32	0° M		inferior conj	4866 Feb 23 10:21	5° K 08'25	7°17'18
	4863 Sep 22 09:13	0° L		minimum elong	4866 Feb 22 23:49	5° K 24'35	7°15'16
max. Earth dist.	4863 Sep 26 17:50	5° L 22'54	1.73137 AU	min. Earth dist.	4866 Feb 22 20:47	5° K 29'13	0.26806 AU
				morning rise	4866 Feb 27 07:46	2° K 47'43	
superior conj	4863 Sep 29 02:36	8° L 18'13	1°25'03		4866 Mar 04 16:30	30° R \approx	
minimum elong	4863 Sep 29 01:04	8° L 13'28	1°25'03	direct	4866 Mar 15 21:13	27° \approx 26'09	
	4863 Oct 16 15:36	0° M		greatest brilliancy	4866 Mar 27 02:52	29° \approx 47'20	-4.6m
evening rise	4863 Nov 05 01:24	24° M 02'46			4866 Mar 27 15:22	0° K	
	4863 Nov 09 20:39	0° X		morning max el	4866 May 05 00:37	29° K 41'07	46°38'57
desc. node	4863 Nov 26 20:03	21° X 03'19			4866 May 05 08:13	0° Y	
	4863 Dec 04 01:07	0° S		desc. node	4866 May 13 15:08	8° Y 27'01	
	4863 Dec 28 05:21	0° \approx			4866 Jun 02 13:39	0° X	
	4864 Jan 21 10:15	0° K			4866 Jun 28 22:08	0° II	
	4864 Feb 14 18:27	0° Y			4866 Jul 24 12:49	0° S	
	4864 Mar 10 11:27	0° X			4866 Aug 18 17:25	0° Q	
asc. node	4864 Mar 18 21:51	10° X 03'46		asc. node	4866 Sep 03 17:03	19° Q 14'49	
	4864 Apr 04 23:33	0° II			4866 Sep 12 13:56	0° M	
	4864 May 02 06:22	0° S			4866 Oct 07 03:10	0° L	
evening max el	4864 May 09 19:30	7° S 39'21	46°11'30	morning set	4866 Oct 31 05:00	29° L 43'19	
	4864 Jun 04 20:29	0° Q			4866 Oct 31 10:23	0° M	
greatest brilliancy	4864 Jun 13 16:41	5° Q 11'58	-4.5m		4866 Nov 24 13:27	0° X	
retrograde	4864 Jun 28 08:21	9° Q 00'33		max. Earth dist.	4866 Dec 05 10:24	13° X 33'52	1.71911 AU
desc. node	4864 Jul 08 12:42	6° Q 56'45					
evening set	4864 Jul 13 11:02	4° Q 35'04		superior conj	4866 Dec 08 01:51	16° X 52'00	0°37'51
inferior conj	4864 Jul 19 19:37	0° Q 45'43	-2°-39'-56	minimum elong	4866 Dec 08 10:05	17° X 17'43	0°37'29
minimum elong	4864 Jul 19 13:56	0° Q 54'39	2°38'21		4866 Dec 18 13:58	0° S	
min. Earth dist.	4864 Jul 19 10:06	1° Q 00'40	0.28756 AU	desc. node	4866 Dec 24 07:53	7° S 11'22	
	4864 Jul 21 00:48	30° R S			4867 Jan 11 12:55	0° \approx	
morning rise	4864 Jul 25 17:09	27° S 11'56		evening rise	4867 Jan 17 01:30	6° \approx 55'40	
direct	4864 Aug 10 06:25	22° S 34'02			4867 Feb 04 11:02	0° K	

	4867 Feb 28 09:46	0°♄			4869 Sep 26 02:07	0°♍		
	4867 Mar 24 11:40	0°♌		asc. node	4869 Oct 01 04:51	6°♍01'37		
asc. node	4867 Apr 16 09:44	28°♌14'15			4869 Oct 21 06:21	0°♎		
	4867 Apr 17 20:21	0°♍			4869 Nov 14 21:19	0°♏		
	4867 May 12 16:30	0°♎			4869 Dec 09 03:35	0°♐		
	4867 Jun 07 07:34	0°♏			4870 Jan 02 04:39	0°♑		
	4867 Jul 04 10:57	0°♐		morning set	4870 Jan 11 09:46	11°♑32'35		
evening max el	4867 Jul 20 09:01	16°♐07'26	45°32'37	desc. node	4870 Jan 20 19:45	23°♑21'19		
	4867 Aug 04 21:59	0°♑			4870 Jan 26 02:44	0°♒		
desc. node	4867 Aug 06 00:43	0°♑53'43			4870 Feb 18 23:17	0°♓		
greatest brilliancy	4867 Aug 24 23:33	12°♑56'39	-4.5m					
retrograde	4867 Sep 07 02:17	15°♑57'11		superior conj	4870 Feb 21 13:47	3°♓16'36	-1°-7'-15	
evening set	4867 Sep 25 01:49	9°♑53'34		minimum elong	4870 Feb 21 01:57	2°♓39'21	1°06'54	
inferior conj	4867 Sep 28 12:31	7°♑46'00	-8°-34'-31	max. Earth dist.	4870 Feb 22 01:05	3°♓52'06	1.71132 AU	
minimum elong	4867 Sep 28 10:29	7°♑49'11	8°34'29		4870 Mar 14 19:42	0°♈		
min. Earth dist.	4867 Sep 28 19:58	7°♑34'22	0.28994 AU	evening rise	4870 Apr 03 10:55	24°♈37'54		
morning rise	4867 Oct 01 19:05	5°♑44'33			4870 Apr 07 17:51	0°♉		
	4867 Oct 14 22:55	30°♒♍			4870 May 01 19:43	0°♊		
direct	4867 Oct 20 02:24	29°♒28'08		asc. node	4870 May 13 21:35	14°♊56'56		
	4867 Oct 25 08:47	0°♋			4870 May 26 03:08	0°♌		
greatest brilliancy	4867 Nov 03 13:14	3°♋10'16	-4.5m		4870 Jun 19 17:52	0°♍		
asc. node	4867 Nov 27 02:26	19°♋56'47			4870 Jul 14 18:41	0°♎		
	4867 Dec 07 18:56	0°♏			4870 Aug 09 11:11	0°♏		
morning max el	4867 Dec 08 23:31	1°♏10'49	46°21'22	desc. node	4870 Sep 02 12:25	26°♏56'43		
	4868 Jan 04 20:34	0°♐			4870 Sep 05 08:02	0°♏		
	4868 Jan 30 14:52	0°♑		evening max el	4870 Sep 30 02:00	25°♏22'38	45°53'34	
	4868 Feb 24 11:22	0°♒			4870 Oct 05 00:02	0°♐		
desc. node	4868 Mar 17 17:27	27°♒18'25		greatest brilliancy	4870 Nov 07 04:15	23°♐21'59	-4.6m	
	4868 Mar 19 21:51	0°♓		retrograde	4870 Nov 18 01:29	25°♐30'35		
	4868 Apr 13 03:52	0°♈		evening set	4870 Dec 03 10:21	20°♐59'12		
	4868 May 07 08:40	0°♉		inferior conj	4870 Dec 08 22:03	17°♐44'28	-3°-51'-21	
	4868 May 31 14:18	0°♊		minimum elong	4870 Dec 09 06:07	17°♐32'05	3°49'04	
morning set	4868 Jun 12 17:17	14°♊58'34		min. Earth dist.	4870 Dec 09 17:53	17°♐13'59	0.27298 AU	
	4868 Jun 24 21:34	0°♋		morning rise	4870 Dec 15 01:05	14°♐07'01		
asc. node	4868 Jul 08 19:17	17°♋07'57		asc. node	4870 Dec 24 14:18	10°♐22'17		
	4868 Jul 19 06:09	0°♌		direct	4870 Dec 29 19:10	9°♐49'11		
				greatest brilliancy	4871 Jan 12 13:09	13°♐16'18	-4.6m	
superior conj	4868 Jul 20 04:30	1°♌08'46	0°26'51		4871 Feb 04 21:34	0°♑		
minimum elong	4868 Jul 19 23:01	0°♌51'56	0°26'35	morning max el	4871 Feb 18 09:45	12°♑57'38	46°57'31	
max. Earth dist.	4868 Jul 20 23:37	2°♌07'37	1.73383 AU		4871 Mar 06 11:49	0°♒		
	4868 Aug 12 15:18	0°♍			4871 Apr 01 21:03	0°♓		
evening rise	4868 Aug 25 10:45	15°♍45'23		desc. node	4871 Apr 15 05:21	15°♓42'45		
	4868 Sep 06 00:52	0°♎			4871 Apr 27 04:50	0°♈		
	4868 Sep 30 11:33	0°♏			4871 May 22 02:04	0°♉		
	4868 Oct 25 00:21	0°♐			4871 Jun 15 19:03	0°♊		
desc. node	4868 Oct 28 10:09	4°♐09'28			4871 Jul 10 10:16	0°♋		
	4868 Nov 18 16:02	0°♑			4871 Aug 03 23:56	0°♌		
	4868 Dec 13 11:43	0°♒		asc. node	4871 Aug 06 07:12	2°♌49'01		
	4869 Jan 07 15:17	0°♓		morning set	4871 Aug 21 09:26	21°♌18'36		
	4869 Feb 02 14:29	0°♈			4871 Aug 28 11:17	0°♍		
asc. node	4869 Feb 18 12:03	17°♈21'29			4871 Sep 21 19:56	0°♎		
evening max el	4869 Feb 25 00:02	24°♈05'34	47°05'18	max. Earth dist.	4871 Sep 24 13:21	3°♎21'54	1.73172 AU	
	4869 Mar 02 22:49	0°♉						
greatest brilliancy	4869 Apr 03 07:23	23°♉59'17	-4.6m	superior conj	4871 Sep 26 20:30	6°♎12'11	1°24'42	
retrograde	4869 Apr 16 15:39	27°♉15'01		minimum elong	4871 Sep 26 18:17	6°♎05'20	1°24'43	
evening set	4869 May 03 14:35	21°♉38'12			4871 Oct 16 02:23	0°♏		
inferior conj	4869 May 07 14:47	19°♉10'16	7°10'22	evening rise	4871 Nov 02 17:13	21°♏49'18		
minimum elong	4869 May 08 00:55	18°♉54'26	7°08'29		4871 Nov 09 07:36	0°♐		
min. Earth dist.	4869 May 07 11:10	19°♉15'54	0.27796 AU	desc. node	4871 Nov 25 22:05	20°♐35'12		
morning rise	4869 May 12 11:36	16°♉13'15			4871 Dec 03 12:17	0°♑		
direct	4869 May 28 13:36	11°♉13'19			4871 Dec 27 16:49	0°♒		
greatest brilliancy	4869 Jun 09 00:26	13°♉37'06	-4.5m		4872 Jan 20 22:06	0°♓		
desc. node	4869 Jun 10 02:47	14°♉04'16			4872 Feb 14 06:50	0°♈		
	4869 Jul 03 19:46	0°♊			4872 Mar 10 00:43	0°♉		
morning max el	4869 Jul 16 17:32	11°♊46'06	45°54'19	asc. node	4872 Mar 17 23:46	9°♉28'49		
	4869 Aug 03 17:41	0°♋			4872 Apr 04 14:37	0°♊		
	4869 Aug 31 02:19	0°♌			4872 May 02 02:05	0°♋		

evening max el	4872 May 07 09:54	5° $\overline{5}$ 22'10	46°13'35	morning set	4874 Oct 28 21:33	27° $\overline{5}$ 32'52	
	4872 Jun 05 21:56	0° Ω			4874 Oct 30 21:03	0° \overline{M}	
greatest brilliancy	4872 Jun 11 08:08	2° Ω 59'44	-4.5m		4874 Nov 24 00:06	0° \overline{J}	
retrograde	4872 Jun 26 00:47	6° Ω 50'06		max. Earth dist.	4874 Dec 03 00:10	11° \overline{J} 13'40	1.71954 AU
desc. node	4872 Jul 07 14:52	4° Ω 09'52					
evening set	4872 Jul 11 02:36	2° Ω 25'03		superior conj	4874 Dec 05 15:50	14° \overline{J} 32'22	0°41'03
	4872 Jul 15 05:24	30° \overline{R} $\overline{5}$		minimum elong	4874 Dec 06 00:31	14° \overline{J} 59'29	0°40'41
inferior conj	4872 Jul 17 11:43	28° $\overline{5}$ 35'22	-2°-20'-36		4874 Dec 18 00:42	0° \overline{Z}	
minimum elong	4872 Jul 17 06:39	28° $\overline{5}$ 43'18	2°19'09	desc. node	4874 Dec 23 10:01	6° \overline{Z} 44'24	
min. Earth dist.	4872 Jul 17 02:26	28° $\overline{5}$ 49'54	0.28725 AU		4875 Jan 10 23:46	0° \approx	
morning rise	4872 Jul 23 11:00	24° $\overline{5}$ 59'22		evening rise	4875 Jan 14 13:21	4° \approx 28'12	
direct	4872 Aug 07 21:43	20° $\overline{5}$ 23'56			4875 Feb 03 22:02	0° \overline{H}	
greatest brilliancy	4872 Aug 20 21:12	23° $\overline{5}$ 20'21	-4.5m		4875 Feb 27 20:56	0° \overline{Y}	
	4872 Sep 01 16:22	0° Ω			4875 Mar 23 23:03	0° \overline{B}	
morning max el	4872 Sep 25 14:15	20° Ω 02'38	45°44'23	asc. node	4875 Apr 15 11:43	27° \overline{B} 44'20	
	4872 Oct 05 15:32	0° \overline{M}			4875 Apr 17 08:08	0° \overline{II}	
asc. node	4872 Oct 28 16:45	24° \overline{M} 44'25			4875 May 12 05:01	0° $\overline{5}$	
	4872 Nov 02 08:58	0° \overline{A}			4875 Jun 06 21:35	0° Ω	
	4872 Nov 28 04:16	0° \overline{M}			4875 Jul 04 04:35	0° \overline{M}	
	4872 Dec 23 00:55	0° \overline{J}		evening max el	4875 Jul 18 01:11	13° \overline{M} 57'58	45°33'00
	4873 Jan 16 09:31	0° \overline{Z}		desc. node	4875 Aug 05 02:41	29° \overline{M} 51'02	
	4873 Feb 09 11:48	0° \approx			4875 Aug 05 07:18	0° \overline{A}	
desc. node	4873 Feb 17 07:37	9° \approx 47'01		greatest brilliancy	4875 Aug 22 13:58	10° \overline{A} 45'50	-4.5m
	4873 Mar 05 10:58	0° \overline{H}		retrograde	4875 Sep 04 17:57	13° \overline{A} 47'25	
morning set	4873 Mar 29 06:20	29° \overline{H} 51'06		evening set	4875 Sep 22 15:58	7° \overline{A} 46'30	
	4873 Mar 29 09:10	0° \overline{Y}		inferior conj	4875 Sep 26 04:32	5° \overline{A} 35'50	-8°-31'-55
	4873 Apr 22 08:13	0° \overline{B}		minimum elong	4875 Sep 26 01:43	5° \overline{A} 40'14	8°31'50
				min. Earth dist.	4875 Sep 26 10:41	5° \overline{A} 26'12	0.29018 AU
superior conj	4873 May 08 04:36	19° \overline{B} 46'54	-1°-9'-12	morning rise	4875 Sep 29 11:25	3° \overline{A} 33'40	
minimum elong	4873 May 08 15:11	20° \overline{B} 19'50	1°08'55		4875 Oct 06 02:16	30° \overline{R} \overline{M}	
max. Earth dist.	4873 May 11 23:47	24° \overline{B} 30'44	1.72161 AU	direct	4875 Oct 17 19:03	27° \overline{M} 18'01	
	4873 May 16 09:40	0° \overline{II}			4875 Oct 30 00:22	0° \overline{A}	
	4873 Jun 09 14:28	0° $\overline{5}$		greatest brilliancy	4875 Nov 01 03:18	0° \overline{A} 56'58	-4.5m
asc. node	4873 Jun 10 09:31	0° $\overline{5}$ 58'50		asc. node	4875 Nov 26 04:30	19° \overline{A} 00'33	
evening rise	4873 Jun 16 01:30	7° $\overline{5}$ 58'32		morning max el	4875 Dec 06 14:24	28° \overline{A} 54'55	46°19'45
	4873 Jul 03 22:53	0° Ω			4875 Dec 07 16:29	0° \overline{M}	
	4873 Jul 28 11:09	0° \overline{M}			4876 Jan 04 12:04	0° \overline{J}	
	4873 Aug 22 04:14	0° \overline{A}			4876 Jan 30 04:15	0° \overline{Z}	
	4873 Sep 16 04:16	0° \overline{M}			4876 Feb 23 23:43	0° \approx	
desc. node	4873 Sep 30 00:16	16° \overline{M} 23'43		desc. node	4876 Mar 16 19:25	26° \approx 48'07	
	4873 Oct 11 14:39	0° \overline{J}			4876 Mar 19 09:36	0° \overline{H}	
	4873 Nov 06 17:39	0° \overline{Z}			4876 Apr 12 15:12	0° \overline{Y}	
	4873 Dec 04 06:59	0° \approx			4876 May 06 19:42	0° \overline{B}	
evening max el	4873 Dec 11 21:50	7° \approx 45'22	46°51'27		4876 May 31 01:06	0° \overline{II}	
	4874 Jan 06 02:44	0° \overline{H}		morning set	4876 Jun 10 09:11	12° \overline{II} 46'26	
greatest brilliancy	4874 Jan 19 12:34	7° \overline{H} 50'08	-4.7m		4876 Jun 24 08:12	0° $\overline{5}$	
asc. node	4874 Jan 21 02:16	8° \overline{H} 27'25		asc. node	4876 Jul 07 21:20	16° $\overline{5}$ 41'46	
retrograde	4874 Jan 31 08:42	10° \overline{H} 27'35					
evening set	4874 Feb 16 00:24	5° \overline{H} 36'59		superior conj	4876 Jul 17 21:40	29° $\overline{5}$ 01'31	0°23'44
inferior conj	4874 Feb 20 22:44	2° \overline{H} 40'36	7°02'18	minimum elong	4876 Jul 17 16:46	28° $\overline{5}$ 46'26	0°23'29
minimum elong	4874 Feb 20 11:58	2° \overline{H} 57'04	7°00'06		4876 Jul 18 16:40	0° Ω	
min. Earth dist.	4874 Feb 20 09:07	3° \overline{H} 01'25	0.26780 AU	max. Earth dist.	4876 Jul 18 21:03	0° Ω 13'29	1.73360 AU
morning rise	4874 Feb 24 23:42	0° \overline{H} 15'04			4876 Aug 12 01:48	0° \overline{M}	
	4874 Feb 25 10:13	30° \overline{R} \approx		evening rise	4876 Aug 23 05:04	13° \overline{M} 41'37	
direct	4874 Mar 13 10:02	24° \approx 58'40			4876 Sep 05 11:31	0° \overline{A}	
greatest brilliancy	4874 Mar 24 15:50	27° \approx 20'43	-4.6m		4876 Sep 29 22:28	0° \overline{M}	
	4874 Mar 30 05:36	0° \overline{H}			4876 Oct 24 11:40	0° \overline{J}	
morning max el	4874 May 02 14:43	27° \overline{H} 19'49	46°40'27	desc. node	4876 Oct 27 12:14	3° \overline{J} 41'10	
	4874 May 05 06:39	0° \overline{Y}			4876 Nov 18 03:53	0° \overline{Z}	
desc. node	4874 May 12 17:10	7° \overline{Y} 40'14			4876 Dec 13 00:23	0° \approx	
	4874 Jun 02 05:40	0° \overline{B}			4877 Jan 07 05:18	0° \overline{H}	
	4874 Jun 28 11:39	0° \overline{II}			4877 Feb 02 07:14	0° \overline{Y}	
	4874 Jul 24 01:03	0° $\overline{5}$		asc. node	4877 Feb 17 13:57	16° \overline{Y} 33'45	
	4874 Aug 18 04:54	0° Ω		evening max el	4877 Feb 22 14:03	21° \overline{Y} 43'38	47°06'04
asc. node	4874 Sep 02 18:56	18° Ω 46'48			4877 Mar 02 23:53	0° \overline{B}	
	4874 Sep 12 00:59	0° \overline{M}		greatest brilliancy	4877 Apr 01 01:04	21° \overline{B} 43'39	-4.6m
	4874 Oct 06 13:57	0° \overline{A}		retrograde	4877 Apr 14 05:59	24° \overline{B} 55'48	

evening set	4877 May 01 08:20	19°♄14'54			4879 Oct 15 12:59	0°♍	
inferior conj	4877 May 05 05:13	16°♄51'45	7°23'44	evening rise	4879 Oct 31 09:09	19°♍36'52	
minimum elong	4877 May 05 15:06	16°♄36'18	7°21'59		4879 Nov 08 18:22	0°♁	
min. Earth dist.	4877 May 05 01:33	16°♄57'29	0.27765 AU	desc. node	4879 Nov 25 00:09	20°♁07'45	
morning rise	4877 May 09 22:11	14°♄00'00			4879 Dec 02 23:18	0°♂	
direct	4877 May 26 03:27	8°♄55'27			4879 Dec 27 04:09	0°≈	
greatest brilliancy	4877 Jun 06 13:11	11°♄17'47	-4.5m		4880 Jan 20 09:51	0°♋	
desc. node	4877 Jun 09 04:57	12°♄26'43			4880 Feb 13 19:08	0°♐	
	4877 Jul 04 01:01	0°♈			4880 Mar 09 13:56	0°♄	
morning max el	4877 Jul 14 07:08	9°♈28'43	45°55'29	asc. node	4880 Mar 17 01:51	8°♄54'34	
	4877 Aug 03 10:57	0°♄			4880 Apr 04 05:41	0°♈	
	4877 Aug 30 16:08	0°♊			4880 May 01 22:10	0°♄	
	4877 Sep 25 14:23	0°♎		evening max el	4880 May 05 01:09	3°♄07'51	46°15'45
asc. node	4877 Sep 30 06:53	5°♎31'54			4880 Jun 07 09:29	0°♊	
	4877 Oct 20 17:50	0°♎		greatest brilliancy	4880 Jun 08 23:29	0°♊48'16	-4.5m
	4877 Nov 14 08:24	0°♍		retrograde	4880 Jun 23 17:43	4°♊40'28	
	4877 Dec 08 14:30	0°♁		desc. node	4880 Jul 06 16:47	1°♊20'23	
	4878 Jan 01 15:29	0°♂		evening set	4880 Jul 08 18:29	0°♊15'37	
morning set	4878 Jan 08 21:38	9°♂05'27			4880 Jul 09 05:46	30°♎♄	
desc. node	4878 Jan 19 21:45	22°♂53'48		inferior conj	4880 Jul 15 03:54	26°♄25'40	-2°-1'-4
	4878 Jan 25 13:30	0°≈		minimum elong	4880 Jul 14 23:30	26°♄32'33	1°59'48
	4878 Feb 18 10:01	0°♋		min. Earth dist.	4880 Jul 14 18:35	26°♄40'14	0.28696 AU
				morning rise	4880 Jul 21 04:53	22°♄47'45	
superior conj	4878 Feb 19 00:23	0°♋45'11	-1°-4'-40	direct	4880 Aug 05 13:34	18°♄14'31	
minimum elong	4878 Feb 18 12:24	0°♋07'31	1°04'16	greatest brilliancy	4880 Aug 18 12:44	21°♄11'02	-4.5m
max. Earth dist.	4878 Feb 19 03:20	0°♋54'30	1.71127 AU		4880 Sep 02 09:18	0°♊	
	4878 Mar 14 06:27	0°♐		morning max el	4880 Sep 23 06:51	17°♊54'44	45°43'53
evening rise	4878 Mar 31 21:55	22°♐08'23			4880 Oct 05 10:11	0°♎	
	4878 Apr 07 04:37	0°♄		asc. node	4880 Oct 27 18:50	24°♎08'38	
	4878 May 01 06:34	0°♈			4880 Nov 01 23:22	0°♎	
asc. node	4878 May 12 23:42	14°♈29'42			4880 Nov 27 16:59	0°♍	
	4878 May 25 14:10	0°♄			4880 Dec 22 12:50	0°♁	
	4878 Jun 19 05:17	0°♊			4881 Jan 15 21:01	0°♂	
	4878 Jul 14 06:49	0°♎			4881 Feb 08 23:04	0°≈	
	4878 Aug 09 00:42	0°♎		desc. node	4881 Feb 16 09:30	9°≈17'50	
desc. node	4878 Sep 01 14:24	26°♎18'31			4881 Mar 04 22:05	0°♋	
	4878 Sep 05 00:35	0°♍		morning set	4881 Mar 26 17:03	27°♋19'45	
evening max el	4878 Sep 27 14:43	23°♍03'12	45°51'55		4881 Mar 28 20:10	0°♐	
	4878 Oct 05 02:09	0°♁			4881 Apr 21 19:05	0°♄	
greatest brilliancy	4878 Nov 04 17:03	21°♁01'47	-4.5m				
retrograde	4878 Nov 15 14:27	23°♁10'48		superior conj	4881 May 05 17:54	17°♄25'03	-1°-11'-23
evening set	4878 Dec 01 02:23	18°♁34'58		minimum elong	4881 May 06 04:16	17°♄57'22	1°11'06
inferior conj	4878 Dec 06 11:40	15°♁23'47	-4°-11'-30	max. Earth dist.	4881 May 09 13:02	22°♄09'00	1.72107 AU
minimum elong	4878 Dec 06 20:15	15°♁10'37	4°09'08		4881 May 15 20:26	0°♈	
min. Earth dist.	4878 Dec 07 08:34	14°♁51'41	0.27363 AU	asc. node	4881 Jun 09 11:32	0°♄31'54	
morning rise	4878 Dec 12 13:16	11°♁48'13			4881 Jun 09 01:13	0°♄	
asc. node	4878 Dec 23 16:23	7°♁43'48		evening rise	4881 Jun 13 17:25	5°♄46'27	
direct	4878 Dec 27 08:58	7°♁27'06			4881 Jul 03 09:43	0°♊	
greatest brilliancy	4879 Jan 10 06:33	10°♁58'12	-4.6m		4881 Jul 27 22:11	0°♎	
	4879 Feb 05 02:19	0°♂			4881 Aug 21 15:40	0°♎	
morning max el	4879 Feb 16 00:03	10°♂35'35	46°57'13		4881 Sep 15 16:24	0°♍	
	4879 Mar 06 05:31	0°≈		desc. node	4881 Sep 29 02:19	15°♍52'15	
	4879 Apr 01 11:27	0°♋			4881 Oct 11 04:01	0°♁	
desc. node	4879 Apr 14 07:26	15°♋08'53			4881 Nov 06 09:16	0°♂	
	4879 Apr 26 17:40	0°♐			4881 Dec 04 03:55	0°≈	
	4879 May 21 14:00	0°♄		evening max el	4881 Dec 09 12:36	5°≈25'02	46°49'44
	4879 Jun 15 06:24	0°♈			4882 Jan 07 04:41	0°♋	
	4879 Jul 09 21:14	0°♄		greatest brilliancy	4882 Jan 17 01:35	5°♋22'34	-4.7m
	4879 Aug 03 10:38	0°♊		asc. node	4882 Jan 20 04:10	6°♋31'37	
asc. node	4879 Aug 05 09:06	2°♊22'10		retrograde	4882 Jan 28 21:50	7°♋59'18	
morning set	4879 Aug 19 03:06	19°♊12'59		evening set	4882 Feb 13 09:08	3°♋14'33	
	4879 Aug 27 21:51	0°♎		inferior conj	4882 Feb 18 11:10	0°♋12'45	6°46'31
	4879 Sep 21 06:28	0°♎		minimum elong	4882 Feb 18 00:18	0°♋29'23	6°44'09
max. Earth dist.	4879 Sep 22 10:13	1°♎25'37	1.73202 AU	min. Earth dist.	4882 Feb 17 21:41	0°♋33'24	0.26756 AU
					4882 Feb 18 19:30	30°♎≈	
superior conj	4879 Sep 24 14:21	4°♎06'34	1°24'16	morning rise	4882 Feb 22 15:42	27°≈42'12	
minimum elong	4879 Sep 24 11:29	3°♎57'42	1°24'15	direct	4882 Mar 10 23:04	22°≈31'17	

greatest brilliancy	4882 Mar 22 04:21	24° \approx 53'12	-4.7m		4884 Sep 29 09:41	0° \mathbb{M}	
	4882 Mar 31 20:54	0° \mathbb{H}			4884 Oct 23 23:18	0° \mathbb{J}	
morning max el	4882 Apr 30 04:32	24° \mathbb{H} 57'16	46°41'51	desc. node	4884 Oct 26 14:19	3° \mathbb{J} 11'52	
	4882 May 05 04:23	0° \mathbb{Y}			4884 Nov 17 16:08	0° \mathbb{Z}	
desc. node	4882 May 11 19:14	6° \mathbb{Y} 53'47			4884 Dec 12 13:32	0° \approx	
	4882 Jun 01 21:34	0° \mathbb{B}			4885 Jan 06 19:56	0° \mathbb{H}	
	4882 Jun 28 01:12	0° \mathbb{II}			4885 Feb 02 00:53	0° \mathbb{Y}	
	4882 Jul 23 13:21	0° \mathbb{S}		asc. node	4885 Feb 16 16:02	15° \mathbb{Y} 44'11	
	4882 Aug 17 16:28	0° \mathbb{Q}		evening max el	4885 Feb 20 03:13	19° \mathbb{Y} 17'52	47°06'50
asc. node	4882 Sep 01 21:00	18° \mathbb{Q} 18'59			4885 Mar 03 03:04	0° \mathbb{B}	
	4882 Sep 11 12:07	0° \mathbb{M}		greatest brilliancy	4885 Mar 29 18:03	19° \mathbb{B} 25'08	-4.6m
	4882 Oct 06 00:51	0° \mathbb{A}		retrograde	4885 Apr 11 20:01	22° \mathbb{B} 34'38	
morning set	4882 Oct 26 14:08	25° \mathbb{A} 22'01		evening set	4885 Apr 29 01:50	16° \mathbb{B} 49'26	
	4882 Oct 30 07:53	0° \mathbb{M}		inferior conj	4885 May 02 19:28	14° \mathbb{B} 31'14	7°36'22
	4882 Nov 23 10:59	0° \mathbb{J}		minimum elong	4885 May 03 05:02	14° \mathbb{B} 16'16	7°34'47
max. Earth dist.	4882 Nov 30 11:19	8° \mathbb{J} 44'43	1.71998 AU	min. Earth dist.	4885 May 02 15:54	14° \mathbb{B} 36'48	0.27734 AU
				morning rise	4885 May 07 08:29	11° \mathbb{B} 45'02	
superior conj	4882 Dec 03 05:52	12° \mathbb{J} 12'21	0°44'11	direct	4885 May 23 16:37	6° \mathbb{B} 35'21	
minimum elong	4882 Dec 03 14:57	12° \mathbb{J} 40'41	0°43'48	greatest brilliancy	4885 Jun 04 02:33	8° \mathbb{B} 57'22	-4.6m
	4882 Dec 17 11:40	0° \mathbb{Z}		desc. node	4885 Jun 08 06:54	10° \mathbb{B} 50'47	
desc. node	4882 Dec 22 11:58	6° \mathbb{Z} 16'11			4885 Jul 04 05:02	0° \mathbb{II}	
	4883 Jan 10 10:51	0° \approx		morning max el	4885 Jul 11 20:47	7° \mathbb{II} 09'49	45°56'47
evening rise	4883 Jan 12 01:02	1° \approx 59'40			4885 Aug 03 04:20	0° \mathbb{S}	
	4883 Feb 03 09:14	0° \mathbb{H}			4885 Aug 30 06:15	0° \mathbb{Q}	
	4883 Feb 27 08:18	0° \mathbb{Y}			4885 Sep 25 02:59	0° \mathbb{M}	
	4883 Mar 23 10:43	0° \mathbb{B}		asc. node	4885 Sep 29 08:58	5° \mathbb{M} 01'17	
asc. node	4883 Apr 14 13:49	27° \mathbb{B} 13'53			4885 Oct 20 05:39	0° \mathbb{A}	
	4883 Apr 16 20:15	0° \mathbb{II}			4885 Nov 13 19:49	0° \mathbb{M}	
	4883 May 11 17:55	0° \mathbb{S}			4885 Dec 08 01:44	0° \mathbb{J}	
	4883 Jun 06 12:02	0° \mathbb{Q}			4886 Jan 01 02:39	0° \mathbb{Z}	
	4883 Jul 03 22:56	0° \mathbb{M}		morning set	4886 Jan 06 09:36	6° \mathbb{Z} 37'33	
evening max el	4883 Jul 15 16:49	11° \mathbb{M} 46'29	45°33'32	desc. node	4886 Jan 18 23:43	22° \mathbb{Z} 24'57	
desc. node	4883 Aug 04 04:40	28° \mathbb{M} 46'17			4886 Jan 25 00:40	0° \approx	
	4883 Aug 05 20:13	0° \mathbb{A}					
greatest brilliancy	4883 Aug 20 04:40	8° \mathbb{A} 34'58	-4.5m	superior conj	4886 Feb 16 10:37	28° \approx 11'14	-1°-1'-54
retrograde	4883 Sep 02 09:23	11° \mathbb{A} 37'39		minimum elong	4886 Feb 15 22:35	27° \approx 33'25	1°01'29
evening set	4883 Sep 20 06:02	5° \mathbb{A} 39'47		max. Earth dist.	4886 Feb 16 06:42	27° \approx 58'56	1.71133 AU
inferior conj	4883 Sep 23 20:43	3° \mathbb{A} 25'44	-8°-28'-40		4886 Feb 17 21:11	0° \mathbb{H}	
minimum elong	4883 Sep 23 17:10	3° \mathbb{A} 31'18	8°28'29		4886 Mar 13 17:39	0° \mathbb{Y}	
min. Earth dist.	4883 Sep 24 01:54	3° \mathbb{A} 17'36	0.29041 AU	evening rise	4886 Mar 29 08:25	19° \mathbb{Y} 35'48	
morning rise	4883 Sep 27 04:15	1° \mathbb{A} 22'20			4886 Apr 06 15:51	0° \mathbb{B}	
	4883 Sep 29 12:18	30° \mathbb{R} \mathbb{M}			4886 Apr 30 17:53	0° \mathbb{II}	
direct	4883 Oct 15 11:18	25° \mathbb{M} 07'52		asc. node	4886 May 12 01:40	14° \mathbb{II} 00'38	
greatest brilliancy	4883 Oct 29 17:38	28° \mathbb{M} 43'39	-4.5m		4886 May 25 01:40	0° \mathbb{S}	
	4883 Nov 01 06:07	0° \mathbb{A}			4886 Jun 18 17:11	0° \mathbb{Q}	
asc. node	4883 Nov 25 06:32	18° \mathbb{A} 04'45			4886 Jul 13 19:28	0° \mathbb{M}	
morning max el	4883 Dec 04 04:41	26° \mathbb{A} 36'49	46°18'00		4886 Aug 08 14:49	0° \mathbb{A}	
	4883 Dec 07 13:34	0° \mathbb{M}		desc. node	4886 Aug 31 16:30	25° \mathbb{A} 39'02	
	4884 Jan 04 03:42	0° \mathbb{J}			4886 Sep 04 17:56	0° \mathbb{M}	
	4884 Jan 29 17:54	0° \mathbb{Z}		evening max el	4886 Sep 25 04:23	20° \mathbb{M} 45'13	45°50'29
	4884 Feb 23 12:21	0° \approx			4886 Oct 05 06:19	0° \mathbb{J}	
desc. node	4884 Mar 15 21:33	26° \approx 17'28		greatest brilliancy	4886 Nov 02 04:52	18° \mathbb{J} 40'09	-4.5m
	4884 Mar 18 21:37	0° \mathbb{H}		retrograde	4886 Nov 13 04:01	20° \mathbb{J} 50'47	
	4884 Apr 12 02:48	0° \mathbb{Y}		evening set	4886 Nov 28 18:41	16° \mathbb{J} 10'21	
	4884 May 06 07:01	0° \mathbb{B}		inferior conj	4886 Dec 04 01:25	13° \mathbb{J} 02'47	-4°-31'-3
	4884 May 30 12:13	0° \mathbb{II}		minimum elong	4886 Dec 04 10:27	12° \mathbb{J} 48'55	4°28'37
morning set	4884 Jun 08 00:52	10° \mathbb{II} 32'33		min. Earth dist.	4886 Dec 04 22:57	12° \mathbb{J} 29'46	0.27428 AU
	4884 Jun 23 19:10	0° \mathbb{S}		morning rise	4886 Dec 10 01:26	9° \mathbb{J} 29'34	
asc. node	4884 Jul 06 23:16	16° \mathbb{S} 14'09		asc. node	4886 Dec 22 18:15	5° \mathbb{J} 10'56	
				direct	4886 Dec 24 23:29	5° \mathbb{J} 04'54	
superior conj	4884 Jul 15 14:49	26° \mathbb{S} 53'08	0°20'33	greatest brilliancy	4887 Jan 07 23:31	8° \mathbb{J} 39'21	-4.6m
minimum elong	4884 Jul 15 10:31	26° \mathbb{S} 39'54	0°20'20		4887 Feb 05 05:37	0° \mathbb{Z}	
max. Earth dist.	4884 Jul 16 16:19	28° \mathbb{S} 11'37	1.73334 AU	morning max el	4887 Feb 13 15:16	8° \mathbb{Z} 15'09	46°56'35
	4884 Jul 18 03:32	0° \mathbb{Q}			4887 Mar 05 23:12	0° \approx	
	4884 Aug 11 12:40	0° \mathbb{M}			4887 Apr 01 02:07	0° \mathbb{H}	
evening rise	4884 Aug 20 23:29	11° \mathbb{M} 37'08		desc. node	4887 Apr 13 09:27	14° \mathbb{H} 33'45	
	4884 Sep 04 22:29	0° \mathbb{A}			4887 Apr 26 06:53	0° \mathbb{Y}	

	4887 May 21 02:21	0°♄		evening max el	4889 Dec 07 03:18	3°♁04'20	46°47'59
	4887 Jun 14 18:09	0°♂			4890 Jan 08 17:16	0°♁	
	4887 Jul 09 08:33	0°♁		greatest brilliancy	4890 Jan 14 15:43	2°♁56'29	-4.7m
	4887 Aug 02 21:41	0°♂		asc. node	4890 Jan 19 06:16	4°♁31'27	
asc. node	4887 Aug 04 11:10	1°♂54'41		retrograde	4890 Jan 26 10:43	5°♁31'09	
morning set	4887 Aug 16 20:30	17°♂05'32		evening set	4890 Feb 10 18:10	0°♁52'21	
	4887 Aug 27 08:46	0°♄			4890 Feb 12 06:41	30°♁	
max. Earth dist.	4887 Sep 20 07:29	29°♄29'32	1.73229 AU	inferior conj	4890 Feb 15 23:42	27°♁45'26	6°29'54
	4887 Sep 20 17:22	0°♂		minimum elong	4890 Feb 15 12:49	28°♁02'08	6°27'26
				min. Earth dist.	4890 Feb 15 10:44	28°♁05'20	0.26728 AU
superior conj	4887 Sep 22 08:05	1°♂59'31	1°23'41	morning rise	4890 Feb 20 07:42	25°♁09'47	
minimum elong	4887 Sep 22 04:33	1°♂48'37	1°23'39	direct	4890 Mar 08 11:48	20°♁04'33	
	4887 Oct 14 23:56	0°♂		greatest brilliancy	4890 Mar 19 17:10	22°♁26'27	-4.7m
evening rise	4887 Oct 29 01:11	17°♂23'50			4890 Apr 02 00:06	0°♁	
	4887 Nov 08 05:26	0°♄		morning max el	4890 Apr 27 17:21	22°♁32'33	46°43'07
desc. node	4887 Nov 24 02:06	19°♄39'00			4890 May 05 01:10	0°♄	
	4887 Dec 02 10:35	0°♄		desc. node	4890 May 10 21:13	6°♄08'20	
	4887 Dec 26 15:44	0°♁			4890 Jun 01 13:07	0°♄	
	4888 Jan 19 21:51	0°♁			4890 Jun 27 14:36	0°♂	
	4888 Feb 13 07:44	0°♄			4890 Jul 23 01:36	0°♁	
	4888 Mar 09 03:32	0°♄			4890 Aug 17 04:02	0°♂	
asc. node	4888 Mar 16 03:52	8°♄19'03		asc. node	4890 Aug 31 23:06	17°♂51'17	
	4888 Apr 03 21:21	0°♂			4890 Sep 10 23:14	0°♄	
	4888 May 01 19:27	0°♁			4890 Oct 05 11:44	0°♂	
evening max el	4888 May 02 17:13	0°♁54'08	46°17'50	morning set	4890 Oct 24 06:27	23°♂10'31	
greatest brilliancy	4888 Jun 06 15:35	28°♁36'02	-4.5m		4890 Oct 29 18:40	0°♂	
	4888 Jun 09 18:51	0°♂			4890 Nov 22 21:48	0°♄	
retrograde	4888 Jun 21 10:30	2°♂28'33		max. Earth dist.	4890 Nov 27 22:03	6°♄14'45	1.72046 AU
	4888 Jul 02 12:41	30°♁					
desc. node	4888 Jul 05 18:45	28°♁25'01		superior conj	4890 Nov 30 19:54	9°♄52'35	0°47'14
evening set	4888 Jul 06 10:16	28°♁04'01		minimum elong	4890 Dec 01 05:18	10°♄21'55	0°46'51
inferior conj	4888 Jul 12 19:45	24°♁13'52	-1°-41'-4		4890 Dec 16 22:35	0°♄	
minimum elong	4888 Jul 12 16:03	24°♁19'40	1°40'00	desc. node	4890 Dec 21 13:57	5°♄48'14	
min. Earth dist.	4888 Jul 12 10:19	24°♁28'37	0.28663 AU	evening rise	4891 Jan 09 12:48	29°♄31'36	
morning rise	4888 Jul 18 22:18	20°♁34'10			4891 Jan 09 21:52	0°♁	
direct	4888 Aug 03 05:31	16°♁03'15			4891 Feb 02 20:22	0°♁	
greatest brilliancy	4888 Aug 16 02:49	18°♁58'30	-4.5m		4891 Feb 26 19:34	0°♄	
	4888 Sep 02 22:28	0°♂			4891 Mar 22 22:12	0°♄	
morning max el	4888 Sep 20 23:12	15°♂45'24	45°43'23	asc. node	4891 Apr 13 15:46	26°♄43'41	
	4888 Oct 05 04:40	0°♄			4891 Apr 16 08:10	0°♂	
asc. node	4888 Oct 26 20:47	23°♄32'01			4891 May 11 06:37	0°♁	
	4888 Nov 01 13:51	0°♂			4891 Jun 06 02:24	0°♂	
	4888 Nov 27 05:51	0°♂			4891 Jul 03 17:33	0°♄	
	4888 Dec 22 00:53	0°♄		evening max el	4891 Jul 13 07:43	9°♄33'32	45°33'58
	4889 Jan 15 08:38	0°♄		desc. node	4891 Aug 03 06:48	27°♄40'29	
	4889 Feb 08 10:25	0°♁			4891 Aug 06 13:23	0°♂	
desc. node	4889 Feb 15 11:40	8°♁49'19		greatest brilliancy	4891 Aug 17 18:49	6°♂23'33	-4.5m
	4889 Mar 04 09:16	0°♁		retrograde	4891 Aug 31 00:41	9°♂28'14	
morning set	4889 Mar 24 03:57	24°♁48'44		evening set	4891 Sep 17 19:46	3°♂33'42	
	4889 Mar 28 07:13	0°♄		inferior conj	4891 Sep 21 12:53	1°♂16'00	-8°-24'-31
	4889 Apr 21 06:03	0°♄		minimum elong	4891 Sep 21 08:38	1°♂22'41	8°24'16
				min. Earth dist.	4891 Sep 21 17:24	1°♂08'55	0.29063 AU
superior conj	4889 May 03 06:58	15°♄01'59	-1°-13'-27		4891 Sep 23 13:27	30°♁	
minimum elong	4889 May 03 17:01	15°♄33'21	1°13'12	morning rise	4891 Sep 24 21:24	29°♄10'56	
max. Earth dist.	4889 May 07 03:36	19°♄50'45	1.72060 AU	direct	4891 Oct 13 03:06	22°♄57'54	
	4889 May 15 07:21	0°♂		greatest brilliancy	4891 Oct 27 08:49	26°♄31'51	-4.5m
asc. node	4889 Jun 08 13:27	0°♁04'05			4891 Nov 02 16:49	0°♂	
	4889 Jun 08 12:08	0°♁		asc. node	4891 Nov 24 08:31	17°♂10'27	
evening rise	4889 Jun 11 08:49	3°♁32'07		morning max el	4891 Dec 01 18:45	24°♂18'42	46°16'21
	4889 Jul 02 20:43	0°♂			4891 Dec 07 09:47	0°♂	
	4889 Jul 27 09:23	0°♄			4892 Jan 03 18:54	0°♄	
	4889 Aug 21 03:17	0°♂			4892 Jan 29 07:12	0°♄	
	4889 Sep 15 04:45	0°♂			4892 Feb 23 00:41	0°♁	
desc. node	4889 Sep 28 04:21	15°♂20'10		desc. node	4892 Mar 14 23:30	25°♁47'04	
	4889 Oct 10 17:38	0°♄			4892 Mar 18 09:21	0°♁	
	4889 Nov 06 01:17	0°♄			4892 Apr 11 14:07	0°♄	
	4889 Dec 04 01:44	0°♁			4892 May 05 18:01	0°♄	

	4892 May 29 23:00	0°♊		minimum elong	4894 Dec 02 00:35	10°♊28'19	4°47'32
morning set	4892 Jun 05 16:50	8°♊20'31		min. Earth dist.	4894 Dec 02 12:59	10°♊09'19	0.27497 AU
	4892 Jun 23 05:47	0°♊		morning rise	4894 Dec 07 13:22	7°♊12'12	
asc. node	4892 Jul 06 01:21	15°♊48'07		asc. node	4894 Dec 21 20:22	2°♊44'37	
				direct	4894 Dec 22 14:27	2°♊43'56	
superior conj	4892 Jul 13 08:12	24°♊46'31	0°17'22	greatest brilliancy	4895 Jan 05 15:44	6°♊20'34	-4.6m
minimum elong	4892 Jul 13 04:32	24°♊35'12	0°17'11		4895 Feb 05 07:03	0°♊	
max. Earth dist.	4892 Jul 14 11:10	26°♊09'30	1.73313 AU	morning max el	4895 Feb 11 06:51	5°♊56'44	46°55'54
	4892 Jul 17 14:04	0°♊			4895 Mar 05 16:08	0°♊	
	4892 Aug 10 23:13	0°♊			4895 Mar 31 16:15	0°♊	
evening rise	4892 Aug 18 18:00	9°♊34'00		desc. node	4895 Apr 12 11:24	13°♊59'51	
	4892 Sep 04 09:11	0°♊			4895 Apr 25 19:37	0°♊	
	4892 Sep 28 20:40	0°♊			4895 May 20 14:14	0°♊	
	4892 Oct 23 10:42	0°♊			4895 Jun 14 05:27	0°♊	
desc. node	4892 Oct 25 16:13	2°♊42'47			4895 Jul 08 19:27	0°♊	
	4892 Nov 17 04:09	0°♊			4895 Aug 02 08:18	0°♊	
	4892 Dec 12 02:28	0°♊		asc. node	4895 Aug 03 13:14	1°♊28'33	
	4893 Jan 06 10:26	0°♊		morning set	4895 Aug 14 14:19	15°♊00'42	
	4893 Feb 01 18:36	0°♊			4895 Aug 26 19:14	0°♊	
asc. node	4893 Feb 15 18:06	14°♊54'42		max. Earth dist.	4895 Sep 18 05:16	27°♊36'27	1.73254 AU
evening max el	4893 Feb 17 16:17	16°♊52'47	47°07'35				
	4893 Mar 03 07:34	0°♊		superior conj	4895 Sep 20 02:12	29°♊55'03	1°23'00
greatest brilliancy	4893 Mar 27 10:13	17°♊06'25	-4.6m	minimum elong	4895 Sep 19 22:02	29°♊42'14	1°22'58
retrograde	4893 Apr 09 10:19	20°♊14'40			4895 Sep 20 03:48	0°♊	
evening set	4893 Apr 26 19:16	14°♊24'58			4895 Oct 14 10:27	0°♊	
inferior conj	4893 Apr 30 09:43	12°♊11'48	7°48'11	evening rise	4895 Oct 26 17:34	15°♊13'03	
minimum elong	4893 Apr 30 18:54	11°♊57'28	7°46'46		4895 Nov 07 16:09	0°♊	
min. Earth dist.	4893 Apr 30 06:10	12°♊17'22	0.27700 AU	desc. node	4895 Nov 23 04:09	19°♊11'39	
morning rise	4893 May 04 18:44	9°♊31'30			4895 Dec 01 21:34	0°♊	
direct	4893 May 21 05:40	4°♊16'14			4895 Dec 26 03:04	0°♊	
greatest brilliancy	4893 Jun 01 16:10	6°♊38'36	-4.6m		4896 Jan 19 09:36	0°♊	
desc. node	4893 Jun 07 08:52	9°♊19'39			4896 Feb 12 20:06	0°♊	
	4893 Jul 04 06:48	0°♊			4896 Mar 08 16:56	0°♊	
morning max el	4893 Jul 09 11:15	4°♊54'23	45°58'13	asc. node	4896 Mar 15 05:49	7°♊44'00	
	4893 Aug 02 20:47	0°♊			4896 Apr 03 12:54	0°♊	
	4893 Aug 29 19:43	0°♊		evening max el	4896 Apr 30 09:45	28°♊42'29	46°19'55
	4893 Sep 24 15:05	0°♊			4896 May 01 17:08	0°♊	
asc. node	4893 Sep 28 10:53	4°♊31'32		greatest brilliancy	4896 Jun 04 08:56	26°♊26'30	-4.5m
	4893 Oct 19 17:04	0°♊			4896 Jun 15 05:40	0°♊	
	4893 Nov 13 06:53	0°♊		retrograde	4896 Jun 19 03:08	0°♊17'36	
	4893 Dec 07 12:37	0°♊			4896 Jun 22 22:42	30°♊	
	4893 Dec 31 13:27	0°♊		evening set	4896 Jul 04 02:21	25°♊53'31	
morning set	4894 Jan 03 21:39	4°♊11'03		desc. node	4896 Jul 04 20:55	25°♊27'36	
desc. node	4894 Jan 18 01:49	21°♊57'42		inferior conj	4896 Jul 10 11:40	22°♊03'14	-1°-20'-56
	4894 Jan 24 11:26	0°♊		minimum elong	4896 Jul 10 08:41	22°♊07'55	1°20'05
				min. Earth dist.	4896 Jul 10 02:13	22°♊18'02	0.28625 AU
superior conj	4894 Feb 13 20:44	25°♊38'08	0°-59'00	morning rise	4896 Jul 16 15:36	18°♊21'47	
minimum elong	4894 Feb 13 08:47	25°♊00'31	0°58'35	direct	4896 Jul 31 21:39	13°♊53'21	
max. Earth dist.	4894 Feb 13 13:38	25°♊15'45	1.71140 AU	greatest brilliancy	4896 Aug 13 16:00	16°♊46'01	-4.5m
	4894 Feb 17 07:59	0°♊			4896 Sep 03 07:39	0°♊	
	4894 Mar 13 04:29	0°♊		morning max el	4896 Sep 18 15:05	13°♊36'12	45°43'01
evening rise	4894 Mar 26 18:58	17°♊04'32			4896 Oct 04 22:12	0°♊	
	4894 Apr 06 02:44	0°♊		asc. node	4896 Oct 25 22:47	22°♊57'10	
	4894 Apr 30 04:49	0°♊			4896 Nov 01 03:43	0°♊	
asc. node	4894 May 11 03:38	13°♊32'44			4896 Nov 26 18:14	0°♊	
	4894 May 24 12:46	0°♊			4896 Dec 21 12:34	0°♊	
	4894 Jun 18 04:39	0°♊			4897 Jan 14 19:58	0°♊	
	4894 Jul 13 07:40	0°♊			4897 Feb 07 21:34	0°♊	
	4894 Aug 08 04:31	0°♊		desc. node	4897 Feb 14 13:39	8°♊20'49	
desc. node	4894 Aug 30 18:29	25°♊00'22			4897 Mar 03 20:17	0°♊	
	4894 Sep 04 11:05	0°♊		morning set	4897 Mar 21 14:24	22°♊16'47	
evening max el	4894 Sep 22 18:57	18°♊30'55	45°48'54		4897 Mar 27 18:06	0°♊	
	4894 Oct 05 11:49	0°♊			4897 Apr 20 16:49	0°♊	
greatest brilliancy	4894 Oct 30 16:13	16°♊19'26	-4.5m				
retrograde	4894 Nov 10 17:48	18°♊31'52		superior conj	4897 Apr 30 19:39	12°♊38'20	-1°-15'-23
evening set	4894 Nov 26 11:06	13°♊46'53		minimum elong	4897 May 01 05:20	13°♊08'33	1°15'11
inferior conj	4894 Dec 01 15:09	10°♊42'48	-4°-50'-1	max. Earth dist.	4897 May 04 19:00	17°♊35'41	1.72007 AU

	4897 May 14 18:04	0°II		greatest brilliancy	4899 Oct 25 01:03	24°II21'23	-4.5m
asc. node	4897 Jun 07 15:34	29°II37'30			4899 Nov 03 17:25	0°II	
	4897 Jun 07 22:51	0°II		asc. node	4899 Nov 23 10:34	16°II17'25	
evening rise	4897 Jun 08 23:58	1°II17'34		morning max el	4899 Nov 29 09:24	22°II02'16	46°14'58
	4897 Jul 02 07:31	0°II			4899 Dec 07 05:21	0°II	
	4897 Jul 26 20:24	0°II			4900 Jan 03 09:52	0°II	
	4897 Aug 20 14:41	0°II			4900 Jan 28 20:23	0°II	
	4897 Sep 14 16:52	0°II			4900 Feb 22 12:58	0°II	
desc. node	4897 Sep 27 06:19	14°II48'41		desc. node	4900 Mar 15 01:28	25°II16'39	
	4897 Oct 10 07:04	0°II			4900 Mar 18 21:06	0°II	
	4897 Nov 05 17:14	0°II			4900 Apr 12 01:32	0°II	
	4897 Dec 04 00:05	0°II			4900 May 06 05:13	0°II	
evening max el	4897 Dec 04 17:05	0°II42'13	46°45'56		4900 May 30 09:59	0°II	
	4898 Jan 11 01:18	0°II		morning set	4900 Jun 04 08:06	6°II05'29	
greatest brilliancy	4898 Jan 12 06:06	0°II30'55	-4.6m		4900 Jun 23 16:36	0°II	
asc. node	4898 Jan 18 08:17	2°II26'23		asc. node	4900 Jul 06 03:21	15°II21'05	
retrograde	4898 Jan 23 22:44	3°II02'58					
	4898 Feb 05 05:39	30°II		superior conj	4900 Jul 12 00:58	22°II37'15	0°14'07
evening set	4898 Feb 08 03:11	28°II29'46		minimum elong	4900 Jul 11 21:57	22°II27'58	0°13'57
min. Earth dist.	4898 Feb 13 00:07	25°II36'33	0.26710 AU	behind sun begin	4900 Jul 11 10:46	21°II53'32	
inferior conj	4898 Feb 13 12:08	25°II18'07	6°12'20	behind sun end	4900 Jul 12 09:08	23°II02'24	
minimum elong	4898 Feb 13 01:17	25°II34'45	6°09'46	max. Earth dist.	4900 Jul 13 05:15	24°II04'19	1.73288 AU
morning rise	4898 Feb 17 23:34	22°II37'16			4900 Jul 18 00:48	0°II	
direct	4898 Mar 06 00:02	17°II37'23			4900 Aug 11 09:59	0°II	
greatest brilliancy	4898 Mar 17 07:23	20°II00'47	-4.7m	evening rise	4900 Aug 17 12:11	7°II29'15	
	4898 Apr 02 20:09	0°II			4900 Sep 04 20:06	0°II	
morning max el	4898 Apr 25 05:18	20°II05'17	46°44'27		4900 Sep 29 07:52	0°II	
	4898 May 04 21:20	0°II			4900 Oct 23 22:20	0°II	
desc. node	4898 May 09 23:15	5°II23'31		desc. node	4900 Oct 25 18:17	2°II13'37	
	4898 Jun 01 04:26	0°II			4900 Nov 17 16:23	0°II	
	4898 Jun 27 03:50	0°II			4900 Dec 12 15:37	0°II	
	4898 Jul 22 13:42	0°II			4901 Jan 07 01:10	0°II	
	4898 Aug 16 15:27	0°II			4901 Feb 02 12:47	0°II	
asc. node	4898 Aug 31 00:58	17°II23'15		asc. node	4901 Feb 15 19:59	14°II03'48	
	4898 Sep 10 10:14	0°II		evening max el	4901 Feb 16 05:52	14°II28'57	47°08'16
	4898 Oct 04 22:29	0°II			4901 Mar 04 14:12	0°II	
morning set	4898 Oct 21 23:11	21°II00'45		greatest brilliancy	4901 Mar 26 00:57	14°II45'30	-4.6m
	4898 Oct 29 05:20	0°II		retrograde	4901 Apr 08 00:55	17°II54'03	
	4898 Nov 22 08:28	0°II		evening set	4901 Apr 25 12:30	11°II59'40	
max. Earth dist.	4898 Nov 25 11:35	3°II54'02	1.72092 AU	inferior conj	4901 Apr 28 23:55	9°II51'22	7°59'11
				minimum elong	4901 Apr 29 08:38	9°II37'46	7°57'56
superior conj	4898 Nov 28 10:36	7°II35'25	0°50'09	min. Earth dist.	4901 Apr 28 20:00	9°II57'28	0.27674 AU
minimum elong	4898 Nov 28 20:15	8°II05'32	0°49'45	morning rise	4901 May 03 04:56	7°II17'11	
	4898 Dec 16 09:21	0°II		direct	4901 May 19 19:16	1°II56'00	
desc. node	4898 Dec 20 16:04	5°II21'09		greatest brilliancy	4901 May 31 05:43	4°II18'45	-4.6m
evening rise	4899 Jan 07 01:09	27°II05'55		desc. node	4901 Jun 07 11:01	7°II51'01	
	4899 Jan 09 08:46	0°II			4901 Jul 05 07:43	0°II	
	4899 Feb 02 07:25	0°II		morning max el	4901 Jul 08 02:32	2°II39'43	45°59'31
	4899 Feb 26 06:50	0°II			4901 Aug 03 13:21	0°II	
	4899 Mar 22 09:47	0°II			4901 Aug 30 09:26	0°II	
asc. node	4899 Apr 12 17:45	26°II13'09			4901 Sep 25 03:28	0°II	
	4899 Apr 15 20:13	0°II		asc. node	4901 Sep 28 12:56	4°II01'17	
	4899 May 10 19:32	0°II			4901 Oct 20 04:45	0°II	
	4899 Jun 05 17:04	0°II			4901 Nov 13 18:13	0°II	
	4899 Jul 03 12:49	0°II			4901 Dec 07 23:46	0°II	
evening max el	4899 Jul 10 22:04	7°II18'59	45°34'40		4902 Jan 01 00:31	0°II	
desc. node	4899 Aug 02 08:44	26°II32'17		morning set	4902 Jan 02 10:03	1°II44'59	
	4899 Aug 07 12:55	0°II		desc. node	4902 Jan 18 03:48	21°II29'14	
greatest brilliancy	4899 Aug 15 07:56	4°II10'38	-4.5m		4902 Jan 24 22:28	0°II	
retrograde	4899 Aug 28 16:12	7°II18'50					
evening set	4899 Sep 15 09:14	1°II27'32		superior conj	4902 Feb 12 07:14	23°II05'29	0°-56'-1
	4899 Sep 17 18:33	30°II		minimum elong	4902 Feb 11 19:28	22°II28'27	0°55'34
inferior conj	4899 Sep 19 05:02	29°II06'03	-8°-19'-41	max. Earth dist.	4902 Feb 11 22:58	22°II39'26	1.71143 AU
minimum elong	4899 Sep 19 00:04	29°II13'50	8°19'20		4902 Feb 17 19:01	0°II	
min. Earth dist.	4899 Sep 19 08:48	29°II00'08	0.29082 AU		4902 Mar 13 15:30	0°II	
morning rise	4899 Sep 22 14:46	26°II59'10		evening rise	4902 Mar 25 05:56	14°II33'53	
direct	4899 Oct 10 18:50	20°II47'36			4902 Apr 06 13:47	0°II	

	4902 Apr 30 15:59	0°♈			4904 Dec 22 00:37	0°♈	
asc. node	4902 May 11 05:44	13°♈04'25			4905 Jan 15 07:38	0°♈	
	4902 May 25 00:11	0°♈			4905 Feb 08 09:01	0°♈	
	4902 Jun 18 16:31	0°♈		desc. node	4905 Feb 14 15:34	7°♈51'07	
	4902 Jul 13 20:22	0°♈			4905 Mar 04 07:36	0°♈	
	4902 Aug 08 18:51	0°♈		morning set	4905 Mar 20 00:44	19°♈43'29	
desc. node	4902 Aug 30 20:28	24°♈19'54			4905 Mar 28 05:17	0°♈	
	4902 Sep 05 05:10	0°♈			4905 Apr 21 03:53	0°♈	
evening max el	4902 Sep 21 09:56	16°♈16'21	45°47'25				
	4902 Oct 06 20:17	0°♈		superior conj	4905 Apr 29 08:27	10°♈14'02	-1°-17'-12
greatest brilliancy	4902 Oct 29 04:10	13°♈58'25	-4.5m	minimum elong	4905 Apr 29 17:41	10°♈42'49	1°17'01
retrograde	4902 Nov 09 07:25	16°♈11'42		max. Earth dist.	4905 May 03 09:27	15°♈16'39	1.71950 AU
evening set	4902 Nov 25 03:37	11°♈22'25			4905 May 15 05:04	0°♈	
inferior conj	4902 Nov 30 04:52	8°♈21'47	-5°-8'-22	evening rise	4905 Jun 07 15:10	29°♈02'19	
minimum elong	4902 Nov 30 14:37	8°♈06'48	5°05'54	asc. node	4905 Jun 07 17:33	29°♈09'42	
min. Earth dist.	4902 Dec 01 02:50	7°♈48'03	0.27563 AU		4905 Jun 08 09:50	0°♈	
morning rise	4902 Dec 06 01:01	4°♈53'55			4905 Jul 02 18:35	0°♈	
direct	4902 Dec 21 05:31	0°♈22'06			4905 Jul 27 07:41	0°♈	
asc. node	4902 Dec 21 22:24	0°♈22'42			4905 Aug 21 02:26	0°♈	
greatest brilliancy	4903 Jan 04 06:58	3°♈59'26	-4.6m		4905 Sep 15 05:26	0°♈	
	4903 Feb 06 07:40	0°♈		desc. node	4905 Sep 27 08:22	14°♈16'09	
morning max el	4903 Feb 09 21:53	3°♈35'57	46°55'15		4905 Oct 10 21:03	0°♈	
	4903 Mar 06 09:05	0°♈			4905 Nov 06 09:58	0°♈	
	4903 Apr 01 06:30	0°♈		evening max el	4905 Dec 03 05:52	28°♈16'26	46°43'58
desc. node	4903 Apr 12 13:29	13°♈25'43			4905 Dec 04 23:57	0°♈	
	4903 Apr 26 08:31	0°♈		greatest brilliancy	4906 Jan 10 20:30	28°♈04'13	-4.6m
	4903 May 21 02:19	0°♈			4906 Jan 17 01:11	0°♈	
	4903 Jun 14 17:00	0°♈		asc. node	4906 Jan 18 10:11	0°♈14'58	
	4903 Jul 09 06:39	0°♈		retrograde	4906 Jan 22 10:29	0°♈33'58	
	4903 Aug 02 19:18	0°♈			4906 Jan 27 16:58	30°♈	
asc. node	4903 Aug 03 15:08	1°♈00'46		evening set	4906 Feb 06 12:22	26°♈05'42	
morning set	4903 Aug 13 07:57	12°♈54'05		min. Earth dist.	4906 Feb 11 13:42	23°♈06'32	0.26691 AU
	4903 Aug 27 06:07	0°♈		inferior conj	4906 Feb 12 00:32	22°♈49'54	5°54'08
max. Earth dist.	4903 Sep 17 00:40	25°♈34'45	1.73278 AU	minimum elong	4906 Feb 11 13:50	23°♈06'20	5°51'28
				morning rise	4906 Feb 16 15:23	20°♈04'05	
superior conj	4903 Sep 18 20:03	27°♈48'32	1°22'11	direct	4906 Mar 04 11:52	15°♈09'06	
minimum elong	4903 Sep 18 15:19	27°♈33'56	1°22'08	greatest brilliancy	4906 Mar 15 22:26	17°♈35'16	-4.7m
	4903 Sep 20 14:40	0°♈			4906 Apr 04 11:29	0°♈	
	4903 Oct 14 21:23	0°♈		morning max el	4906 Apr 23 17:17	17°♈37'10	46°45'50
evening rise	4903 Oct 25 09:39	13°♈00'12			4906 May 05 17:09	0°♈	
	4903 Nov 08 03:15	0°♈		desc. node	4906 May 10 01:19	4°♈38'47	
desc. node	4903 Nov 23 06:12	18°♈43'03			4906 Jun 01 19:46	0°♈	
	4903 Dec 02 08:56	0°♈			4906 Jun 27 17:11	0°♈	
	4903 Dec 26 14:48	0°♈			4906 Jul 23 01:57	0°♈	
	4904 Jan 19 21:46	0°♈			4906 Aug 17 03:01	0°♈	
	4904 Feb 13 08:52	0°♈		asc. node	4906 Aug 31 03:03	16°♈55'21	
	4904 Mar 09 06:46	0°♈			4906 Sep 10 21:24	0°♈	
asc. node	4904 Mar 15 07:53	7°♈08'11			4906 Oct 05 09:27	0°♈	
	4904 Apr 04 05:00	0°♈		morning set	4906 Oct 20 15:53	18°♈50'05	
evening max el	4904 Apr 29 01:48	26°♈28'48	46°22'01		4906 Oct 29 16:16	0°♈	
	4904 May 02 15:59	0°♈			4906 Nov 22 19:27	0°♈	
greatest brilliancy	4904 Jun 03 02:56	24°♈17'11	-4.5m	max. Earth dist.	4906 Nov 24 02:17	1°♈36'03	1.72143 AU
retrograde	4904 Jun 17 19:22	28°♈06'03					
evening set	4904 Jul 02 18:44	23°♈42'16		superior conj	4906 Nov 27 01:07	5°♈16'47	0°52'58
desc. node	4904 Jul 04 22:49	22°♈27'35		minimum elong	4906 Nov 27 10:58	5°♈47'31	0°52'36
inferior conj	4904 Jul 09 03:43	19°♈52'06	-1°00'-47		4906 Dec 16 20:25	0°♈	
minimum elong	4904 Jul 09 01:28	19°♈55'38	1°00'08	desc. node	4906 Dec 20 18:01	4°♈52'32	
min. Earth dist.	4904 Jul 08 18:29	20°♈06'34	0.28592 AU	evening rise	4907 Jan 05 13:14	24°♈38'33	
morning rise	4904 Jul 15 08:49	16°♈08'50			4907 Jan 09 19:56	0°♈	
direct	4904 Jul 30 13:41	11°♈42'54			4907 Feb 02 18:44	0°♈	
greatest brilliancy	4904 Aug 12 05:16	14°♈32'39	-4.5m		4907 Feb 26 18:21	0°♈	
	4904 Sep 04 14:44	0°♈			4907 Mar 22 21:35	0°♈	
morning max el	4904 Sep 17 06:11	11°♈23'54	45°42'30	asc. node	4907 Apr 12 19:51	25°♈42'23	
	4904 Oct 05 15:50	0°♈			4907 Apr 16 08:29	0°♈	
asc. node	4904 Oct 26 00:53	22°♈21'28			4907 May 11 08:40	0°♈	
	4904 Nov 01 17:56	0°♈			4907 Jun 06 08:03	0°♈	
	4904 Nov 27 06:59	0°♈			4907 Jul 04 08:46	0°♈	

evening max el	4907 Jul 09 12:55	5° \mathbb{M} 05'32	45°35'33		4909 Nov 13 05:20	0° \mathbb{M}	
desc. node	4907 Aug 02 10:45	25° \mathbb{M} 22'29			4909 Dec 07 10:44	0° \mathbb{J}	
	4907 Aug 09 21:49	0° $\underline{\mathbb{A}}$		morning set	4909 Dec 30 22:48	29° \mathbb{J} 20'29	
greatest brilliancy	4907 Aug 13 20:24	1° $\underline{\mathbb{A}}$ 57'12	-4.5m		4909 Dec 31 11:25	0° \mathbb{Z}	
retrograde	4907 Aug 27 08:30	5° $\underline{\mathbb{A}}$ 10'00		desc. node	4910 Jan 17 05:47	21° \mathbb{Z} 01'11	
	4907 Sep 12 20:43	30° \mathbb{R} \mathbb{M}			4910 Jan 24 09:24	0° \approx	
evening set	4907 Sep 13 22:43	29° \mathbb{M} 22'01					
inferior conj	4907 Sep 17 21:21	26° \mathbb{M} 56'30	-8°-14'-10	superior conj	4910 Feb 09 17:32	20° \approx 32'24	0°-52'-53
minimum elong	4907 Sep 17 15:43	27° \mathbb{M} 05'18	8°13'42	minimum elong	4910 Feb 09 06:03	19° \approx 56'17	0°52'26
min. Earth dist.	4907 Sep 18 00:00	26° \mathbb{M} 52'20	0.29101 AU	max. Earth dist.	4910 Feb 09 07:14	20° \approx 00'00	1.71153 AU
morning rise	4907 Sep 21 08:36	24° \mathbb{M} 47'31			4910 Feb 17 05:59	0° \mathbb{H}	
direct	4907 Oct 09 11:01	18° \mathbb{M} 37'46			4910 Mar 13 02:31	0° \mathbb{Y}	
greatest brilliancy	4907 Oct 23 17:55	22° \mathbb{M} 12'08	-4.5m	evening rise	4910 Mar 22 16:20	12° \mathbb{Y} 01'28	
	4907 Nov 05 11:27	0° $\underline{\mathbb{A}}$			4910 Apr 06 00:49	0° \mathbb{B}	
asc. node	4907 Nov 23 12:35	15° $\underline{\mathbb{A}}$ 25'10			4910 Apr 30 03:06	0° \mathbb{I}	
morning max el	4907 Nov 28 01:01	19° $\underline{\mathbb{A}}$ 48'06	46°13'20	asc. node	4910 May 10 07:42	12° \mathbb{I} 35'58	
	4907 Dec 08 00:32	0° \mathbb{M}			4910 May 24 11:30	0° \mathbb{S}	
	4908 Jan 04 00:51	0° \mathbb{J}			4910 Jun 18 04:16	0° \mathbb{Q}	
	4908 Jan 29 09:42	0° \mathbb{Z}			4910 Jul 13 08:58	0° \mathbb{M}	
	4908 Feb 23 01:23	0° \approx			4910 Aug 08 09:06	0° $\underline{\mathbb{A}}$	
desc. node	4908 Mar 14 03:38	24° \approx 46'22		desc. node	4910 Aug 29 22:35	23° $\underline{\mathbb{A}}$ 40'14	
	4908 Mar 18 08:59	0° \mathbb{H}			4910 Sep 04 23:23	0° \mathbb{M}	
	4908 Apr 11 13:02	0° \mathbb{Y}		evening max el	4910 Sep 19 01:08	14° \mathbb{M} 03'20	45°46'01
	4908 May 05 16:26	0° \mathbb{B}			4910 Oct 07 07:04	0° \mathbb{J}	
	4908 May 29 21:00	0° \mathbb{I}		greatest brilliancy	4910 Oct 26 17:21	11° \mathbb{J} 40'38	-4.5m
morning set	4908 Jun 01 23:22	3° \mathbb{I} 50'11		retrograde	4910 Nov 06 20:57	13° \mathbb{J} 53'45	
	4908 Jun 23 03:27	0° \mathbb{S}		evening set	4910 Nov 22 20:34	9° \mathbb{J} 00'21	
asc. node	4908 Jul 05 05:18	14° \mathbb{S} 53'46		inferior conj	4910 Nov 27 18:59	6° \mathbb{J} 03'13	-5°-25'-55
				minimum elong	4910 Nov 28 04:59	5° \mathbb{J} 47'50	5°23'28
superior conj	4908 Jul 09 17:53	20° \mathbb{S} 28'20	0°10'51	min. Earth dist.	4910 Nov 28 17:07	5° \mathbb{J} 29'09	0.27628 AU
minimum elong	4908 Jul 09 15:33	20° \mathbb{S} 21'07	0°10'43	morning rise	4910 Dec 03 12:50	2° \mathbb{J} 38'06	
behind sun begin	4908 Jul 08 22:15	19° \mathbb{S} 27'48			4910 Dec 09 01:04	30° \mathbb{R} \mathbb{M}	
behind sun end	4908 Jul 10 08:51	21° \mathbb{S} 14'26		direct	4910 Dec 18 20:41	28° \mathbb{M} 02'50	
max. Earth dist.	4908 Jul 11 00:21	22° \mathbb{S} 02'10	1.73262 AU	asc. node	4910 Dec 21 00:17	28° \mathbb{M} 08'22	
	4908 Jul 17 11:34	0° \mathbb{Q}			4910 Dec 29 00:25	0° \mathbb{J}	
	4908 Aug 10 20:45	0° \mathbb{M}		greatest brilliancy	4911 Jan 01 21:57	1° \mathbb{J} 39'47	-4.6m
evening rise	4908 Aug 15 06:44	5° \mathbb{M} 25'41			4911 Feb 06 06:43	0° \mathbb{Z}	
	4908 Sep 04 07:00	0° $\underline{\mathbb{A}}$		morning max el	4911 Feb 07 12:02	1° \mathbb{Z} 14'05	46°54'15
	4908 Sep 28 19:02	0° \mathbb{M}			4911 Mar 06 01:26	0° \approx	
	4908 Oct 23 09:56	0° \mathbb{J}			4911 Mar 31 20:26	0° \mathbb{H}	
desc. node	4908 Oct 24 20:23	1° \mathbb{J} 44'35		desc. node	4911 Apr 11 15:30	12° \mathbb{H} 52'00	
	4908 Nov 17 04:40	0° \mathbb{Z}			4911 Apr 25 21:12	0° \mathbb{Y}	
	4908 Dec 12 04:56	0° \approx			4911 May 20 14:12	0° \mathbb{B}	
	4909 Jan 06 16:14	0° \mathbb{H}			4911 Jun 14 04:21	0° \mathbb{I}	
	4909 Feb 02 07:38	0° \mathbb{Y}			4911 Jul 08 17:37	0° \mathbb{S}	
evening max el	4909 Feb 13 20:30	12° \mathbb{Y} 07'13	47°08'54		4911 Aug 02 06:00	0° \mathbb{Q}	
asc. node	4909 Feb 14 22:06	13° \mathbb{Y} 12'02		asc. node	4911 Aug 02 17:13	0° \mathbb{Q} 34'21	
	4909 Mar 04 23:40	0° \mathbb{B}		morning set	4911 Aug 11 01:31	10° \mathbb{Q} 48'12	
greatest brilliancy	4909 Mar 23 15:30	12° \mathbb{B} 23'45	-4.6m		4911 Aug 26 16:42	0° \mathbb{M}	
retrograde	4909 Apr 05 15:51	15° \mathbb{B} 32'37		max. Earth dist.	4911 Sep 14 18:54	23° \mathbb{M} 30'32	1.73299 AU
evening set	4909 Apr 23 05:34	9° \mathbb{B} 33'44					
inferior conj	4909 Apr 26 13:56	7° \mathbb{B} 30'10	8°09'31	superior conj	4911 Sep 16 14:07	25° \mathbb{M} 43'43	1°21'17
minimum elong	4909 Apr 26 22:09	7° \mathbb{B} 17'23	8°08'25	minimum elong	4911 Sep 16 08:49	25° \mathbb{M} 27'23	1°21'12
min. Earth dist.	4909 Apr 26 09:16	7° \mathbb{B} 37'25	0.27642 AU		4911 Sep 20 01:13	0° $\underline{\mathbb{A}}$	
morning rise	4909 Apr 30 14:55	5° \mathbb{B} 02'17			4911 Oct 14 08:01	0° \mathbb{M}	
	4909 May 12 21:23	30° \mathbb{R} \mathbb{Y}		evening rise	4911 Oct 23 02:08	10° \mathbb{M} 49'40	
direct	4909 May 17 09:11	29° \mathbb{Y} 35'20			4911 Nov 07 14:02	0° \mathbb{J}	
	4909 May 21 23:37	0° \mathbb{B}		desc. node	4911 Nov 22 08:09	18° \mathbb{J} 15'14	
greatest brilliancy	4909 May 28 18:08	1° \mathbb{B} 57'25	-4.6m		4911 Dec 01 19:58	0° \mathbb{Z}	
desc. node	4909 Jun 06 12:58	6° \mathbb{B} 25'06			4911 Dec 26 02:09	0° \approx	
	4909 Jul 05 07:22	0° \mathbb{I}			4912 Jan 19 09:34	0° \mathbb{H}	
morning max el	4909 Jul 05 18:06	0° \mathbb{I} 25'54	46°00'53		4912 Feb 12 21:21	0° \mathbb{Y}	
	4909 Aug 03 05:29	0° \mathbb{S}			4912 Mar 08 20:25	0° \mathbb{B}	
	4909 Aug 29 22:53	0° \mathbb{Q}		asc. node	4912 Mar 14 09:55	6° \mathbb{B} 32'56	
	4909 Sep 24 15:38	0° \mathbb{M}			4912 Apr 03 21:09	0° \mathbb{I}	
asc. node	4909 Sep 27 15:00	3° \mathbb{M} 31'40		evening max el	4912 Apr 26 16:54	24° \mathbb{I} 12'59	46°23'57
	4909 Oct 19 16:14	0° $\underline{\mathbb{A}}$			4912 May 02 15:42	0° \mathbb{S}	

greatest brilliancy	4912 May 31 21:06	22°08'00	-4.5m	superior conj	4914 Nov 24 15:45	2°27'59.43	0°55'43
retrograde	4912 Jun 15 11:02	25°05'42.7		minimum elong	4914 Nov 25 01:44	3°27'30.51	0°55'21
evening set	4912 Jun 30 11:04	21°03'30.42			4914 Dec 16 07:08	0°00	
desc. node	4912 Jul 04 00:49	19°02'25.09		desc. node	4914 Dec 19 20:02	4°02'25.17	
inferior conj	4912 Jul 06 19:36	17°04'17.07	0°-40'-18	evening rise	4915 Jan 03 01:35	22°02'13.14	
minimum elong	4912 Jul 06 18:06	17°04'32.28	0°39'52		4915 Jan 09 06:47	0°00	
min. Earth dist.	4912 Jul 06 10:57	17°05'44.1	0.28555 AU		4915 Feb 02 05:43	0°00	
morning rise	4912 Jul 13 01:43	13°05'56.09			4915 Feb 26 05:31	0°00	
direct	4912 Jul 28 05:03	9°03'32.33			4915 Mar 22 09:02	0°00	
greatest brilliancy	4912 Aug 09 19:06	12°02'20.17	-4.5m	asc. node	4915 Apr 11 21:48	25°08'12.19	
	4912 Sep 04 19:18	0°00			4915 Apr 15 20:25	0°00	
morning max el	4912 Sep 14 20:22	9°01'10.16	45°42'14		4915 May 10 21:31	0°00	
	4912 Oct 05 08:41	0°00			4915 Jun 05 22:52	0°00	
asc. node	4912 Oct 25 02:49	21°00'46.47			4915 Jul 04 05:02	0°00	
	4912 Nov 01 07:34	0°00		evening max el	4915 Jul 07 04:29	2°00'54.36	45°36'20
	4912 Nov 26 19:16	0°00		desc. node	4915 Aug 01 12:52	24°00'11.21	
	4912 Dec 21 12:13	0°00		greatest brilliancy	4915 Aug 11 09:02	29°00'44.25	-4.5m
	4913 Jan 14 18:53	0°00			4915 Aug 11 23:08	0°00	
	4913 Feb 07 20:03	0°00		retrograde	4915 Aug 25 01:08	3°00'01.22	
desc. node	4913 Feb 13 17:44	7°00'23.32			4915 Sep 06 10:47	30°00'00.00	
	4913 Mar 03 18:28	0°00		evening set	4915 Sep 11 11:57	27°00'17.01	
morning set	4913 Mar 17 11:15	17°00'11.58		inferior conj	4915 Sep 15 13:31	24°00'47.11	-8°-7'-55
	4913 Mar 27 16:02	0°00		minimum elong	4915 Sep 15 07:18	24°00'56.56	8°07'20
	4913 Apr 20 14:35	0°00		min. Earth dist.	4915 Sep 15 14:50	24°00'45.08	0.29115 AU
				morning rise	4915 Sep 19 02:32	22°00'35.46	
superior conj	4913 Apr 26 21:13	7°00'50.41	-1°-18'-52	direct	4915 Oct 07 03:29	16°00'28.21	
minimum elong	4913 Apr 27 05:53	8°00'17.44	1°18'43	greatest brilliancy	4915 Oct 21 10:12	20°00'02.52	-4.5m
max. Earth dist.	4913 Apr 30 21:41	12°00'51.47	1.71899 AU		4915 Nov 06 00:33	0°00	
	4913 May 14 15:44	0°00		asc. node	4915 Nov 22 14:34	14°00'00.00	
evening rise	4913 Jun 05 05:59	26°00'46.44		morning max el	4915 Nov 25 17:09	17°00'00.00	46°11'46
asc. node	4913 Jun 06 19:31	28°00'42.44			4915 Dec 07 18:53	0°00	
	4913 Jun 07 20:31	0°00			4916 Jan 03 15:19	0°00	
	4913 Jul 02 05:21	0°00			4916 Jan 28 22:34	0°00	
	4913 Jul 26 18:41	0°00			4916 Feb 22 13:26	0°00	
	4913 Aug 20 13:52	0°00		desc. node	4916 Mar 13 05:32	24°00'16.18	
	4913 Sep 14 17:42	0°00			4916 Mar 17 20:32	0°00	
desc. node	4913 Sep 26 10:25	13°00'44.40			4916 Apr 11 00:15	0°00	
	4913 Oct 10 10:46	0°00			4916 May 05 03:22	0°00	
	4913 Nov 06 02:32	0°00			4916 May 29 07:43	0°00	
evening max el	4913 Nov 30 18:17	25°00'51.22	46°42'05	morning set	4916 May 30 14:46	1°00'36.10	
	4913 Dec 05 00:21	0°00			4916 Jun 22 14:01	0°00	
greatest brilliancy	4914 Jan 08 10:28	25°00'38.46	-4.6m	asc. node	4916 Jul 04 07:25	14°00'00.00	
asc. node	4914 Jan 17 12:20	28°00'00.09					
retrograde	4914 Jan 19 22:44	28°00'07.15		superior conj	4916 Jul 07 10:48	18°00'20.06	0°07'33
evening set	4914 Feb 03 21:57	23°00'43.05		minimum elong	4916 Jul 07 09:10	18°00'15.02	0°07'28
min. Earth dist.	4914 Feb 09 03:24	20°00'38.35	0.26677 AU	behind sun begin	4916 Jul 06 12:28	17°00'11.15	
inferior conj	4914 Feb 09 13:08	20°00'23.41	5°35'10	behind sun end	4916 Jul 08 05:52	19°00'18.49	
minimum elong	4914 Feb 09 02:39	20°00'39.45	5°32'28	max. Earth dist.	4916 Jul 08 21:27	20°00'06.51	1.73238 AU
morning rise	4914 Feb 14 07:22	17°00'33.12			4916 Jul 16 22:05	0°00	
direct	4914 Mar 01 23:54	12°00'42.39			4916 Aug 10 07:20	0°00	
greatest brilliancy	4914 Mar 13 13:58	15°00'12.15	-4.7m	evening rise	4916 Aug 13 01:15	3°00'22.32	
	4914 Apr 04 22:11	0°00			4916 Sep 03 17:45	0°00	
morning max el	4914 Apr 21 06:01	15°00'12.25	46°47'10		4916 Sep 28 06:05	0°00	
	4914 May 05 11:52	0°00			4916 Oct 22 21:26	0°00	
desc. node	4914 May 09 03:17	3°00'55.48		desc. node	4916 Oct 23 22:16	1°00'15.21	
	4914 Jun 01 10:27	0°00			4916 Nov 16 16:50	0°00	
	4914 Jun 27 06:04	0°00			4916 Dec 11 18:10	0°00	
	4914 Jul 22 13:49	0°00			4917 Jan 06 07:18	0°00	
	4914 Aug 16 14:15	0°00			4917 Feb 02 02:47	0°00	
asc. node	4914 Aug 30 05:08	16°00'28.17		evening max el	4917 Feb 11 11:37	9°00'47.16	47°09'21
	4914 Sep 10 08:14	0°00		asc. node	4917 Feb 14 00:08	12°00'19.39	
	4914 Oct 04 20:05	0°00			4917 Mar 05 12:11	0°00	
morning set	4914 Oct 18 08:35	16°00'40.34		greatest brilliancy	4917 Mar 21 06:46	10°00'03.08	-4.7m
	4914 Oct 29 02:49	0°00		retrograde	4917 Apr 03 06:44	13°00'10.59	
max. Earth dist.	4914 Nov 21 19:36	29°00'27.24	1.72191 AU	evening set	4917 Apr 20 22:25	7°00'08.02	
	4914 Nov 22 06:04	0°00		inferior conj	4917 Apr 24 03:49	5°00'08.52	8°19'00
				minimum elong	4917 Apr 24 11:29	4°00'56.57	8°18'04

min. Earth dist.	4917 Apr 23 22:14	5°♄17'33	0.27609 AU		4919 Sep 19 11:56	0°♊	
morning rise	4917 Apr 28 00:45	2°♄47'08			4919 Oct 13 18:49	0°♌	
	4917 May 03 06:54	30°♌♊		evening rise	4919 Oct 20 18:46	8°♌39'03	
direct	4917 May 14 23:15	27°♊14'48			4919 Nov 07 01:03	0°♋	
greatest brilliancy	4917 May 26 05:30	29°♊34'55	-4.6m	desc. node	4919 Nov 21 10:13	17°♋47'01	
	4917 May 27 06:07	0°♄			4919 Dec 01 07:18	0°♈	
desc. node	4917 Jun 05 14:57	5°♄02'19			4919 Dec 25 13:51	0°♏	
morning max el	4917 Jul 03 09:11	28°♄11'15	46°02'16		4920 Jan 18 21:43	0°♏	
	4917 Jul 05 05:50	0°♊			4920 Feb 12 10:11	0°♊	
	4917 Aug 02 21:11	0°♋			4920 Mar 08 10:29	0°♄	
	4917 Aug 29 12:07	0°♌		asc. node	4920 Mar 13 11:51	5°♄56'21	
	4917 Sep 24 03:41	0°♍			4920 Apr 03 13:52	0°♊	
asc. node	4917 Sep 26 16:55	3°♍01'52		evening max el	4920 Apr 24 06:57	21°♊53'39	46°25'58
	4917 Oct 19 03:40	0°♊			4920 May 02 16:55	0°♋	
	4917 Nov 12 16:27	0°♌		greatest brilliancy	4920 May 29 14:25	19°♋56'41	-4.6m
	4917 Dec 06 21:41	0°♋		retrograde	4920 Jun 13 02:36	23°♋41'59	
morning set	4917 Dec 28 11:28	26°♋55'53		evening set	4920 Jun 28 03:28	19°♋17'40	
	4917 Dec 30 22:19	0°♈		desc. node	4920 Jul 03 02:59	16°♋19'57	
desc. node	4918 Jan 16 07:54	20°♈33'36		inferior conj	4920 Jul 04 11:26	15°♋29'06	0°-19'-37
	4918 Jan 23 20:17	0°♏		minimum elong	4920 Jul 04 10:42	15°♋30'15	0°19'26
max. Earth dist.	4918 Feb 06 14:06	17°♏16'22	1.71162 AU	min. Earth dist.	4920 Jul 04 03:31	15°♋41'31	0.28520 AU
				morning rise	4920 Jul 10 18:24	11°♋42'43	
superior conj	4918 Feb 07 03:49	17°♏59'30	0°-49'-39	direct	4920 Jul 25 19:59	7°♋20'55	
minimum elong	4918 Feb 06 16:43	17°♏24'37	0°49'12	greatest brilliancy	4920 Aug 07 09:56	10°♋08'02	-4.5m
	4918 Feb 16 16:54	0°♏			4920 Sep 04 22:29	0°♌	
	4918 Mar 12 13:28	0°♊		morning max el	4920 Sep 12 10:45	6°♌56'12	45°42'10
evening rise	4918 Mar 20 02:42	9°♊28'59			4920 Oct 05 01:28	0°♍	
	4918 Apr 05 11:50	0°♄		asc. node	4920 Oct 24 04:52	21°♍11'49	
	4918 Apr 29 14:14	0°♊			4920 Oct 31 21:21	0°♊	
asc. node	4918 May 09 09:41	12°♊07'28			4920 Nov 26 07:45	0°♌	
	4918 May 23 22:52	0°♋			4920 Dec 21 00:06	0°♋	
	4918 Jun 17 16:05	0°♌			4921 Jan 14 06:28	0°♈	
	4918 Jul 12 21:38	0°♍			4921 Feb 07 07:27	0°♏	
	4918 Aug 07 23:32	0°♊		desc. node	4921 Feb 12 19:42	6°♏54'05	
desc. node	4918 Aug 29 00:33	22°♊59'32			4921 Mar 03 05:44	0°♏	
	4918 Sep 04 18:08	0°♌		morning set	4921 Mar 14 21:15	14°♏37'29	
evening max el	4918 Sep 16 15:21	11°♌47'42	45°44'26		4921 Mar 27 03:11	0°♊	
	4918 Oct 07 21:51	0°♋			4921 Apr 20 01:38	0°♄	
greatest brilliancy	4918 Oct 24 07:13	9°♋22'55	-4.5m				
retrograde	4918 Nov 04 09:52	11°♋35'04		superior conj	4921 Apr 24 09:36	5°♄24'59	-1°-20'-23
evening set	4918 Nov 20 13:26	6°♋37'22		minimum elong	4921 Apr 24 17:38	5°♄50'06	1°20'16
inferior conj	4918 Nov 25 09:00	3°♋43'57	-5°-42'-56	max. Earth dist.	4921 Apr 28 07:27	10°♄18'05	1.71845 AU
minimum elong	4918 Nov 25 19:10	3°♋28'16	5°40'32		4921 May 14 02:44	0°♊	
min. Earth dist.	4918 Nov 26 07:37	3°♋09'04	0.27694 AU	evening rise	4921 Jun 02 20:34	24°♊29'21	
morning rise	4918 Dec 01 00:19	0°♋21'47		asc. node	4921 Jun 05 21:37	28°♊15'10	
	4918 Dec 01 16:11	30°♌♌			4921 Jun 07 07:33	0°♋	
direct	4918 Dec 16 11:11	25°♌42'38			4921 Jul 01 16:29	0°♌	
asc. node	4918 Dec 20 02:26	25°♌58'15			4921 Jul 26 06:03	0°♍	
greatest brilliancy	4918 Dec 30 13:19	29°♌19'48	-4.6m		4921 Aug 20 01:43	0°♊	
	4918 Dec 31 21:28	0°♋			4921 Sep 14 06:23	0°♌	
morning max el	4919 Feb 05 01:20	28°♋49'19	46°53'24	desc. node	4921 Sep 25 12:22	13°♌11'43	
	4919 Feb 06 05:06	0°♈			4921 Oct 10 00:58	0°♋	
	4919 Mar 05 17:40	0°♏			4921 Nov 05 19:49	0°♈	
	4919 Mar 31 10:21	0°♏		evening max el	4921 Nov 28 06:57	23°♈26'07	46°40'07
desc. node	4919 Apr 10 17:29	12°♏18'06			4921 Dec 05 02:31	0°♏	
	4919 Apr 25 09:54	0°♊		greatest brilliancy	4922 Jan 05 23:08	23°♏10'18	-4.6m
	4919 May 20 02:09	0°♄		asc. node	4922 Jan 16 14:20	25°♏37'50	
	4919 Jun 13 15:48	0°♊		retrograde	4922 Jan 17 11:14	25°♏38'45	
	4919 Jul 08 04:43	0°♋		evening set	4922 Feb 01 07:29	21°♏18'06	
asc. node	4919 Aug 01 19:16	0°♌07'20		min. Earth dist.	4922 Feb 06 16:38	18°♏08'49	0.26669 AU
	4919 Aug 01 16:53	0°♌		inferior conj	4922 Feb 07 01:28	17°♏55'19	5°15'17
morning set	4919 Aug 08 19:10	8°♌41'59		minimum elong	4922 Feb 06 15:17	18°♏10'53	5°12'35
	4919 Aug 26 03:26	0°♍		morning rise	4922 Feb 11 23:05	15°♏00'25	
max. Earth dist.	4919 Sep 12 13:05	21°♍25'40	1.73321 AU	direct	4922 Feb 27 12:09	10°♏13'57	
				greatest brilliancy	4922 Mar 11 05:05	12°♏46'47	-4.7m
superior conj	4919 Sep 14 08:19	23°♍38'54	1°20'15		4922 Apr 05 06:49	0°♏	
minimum elong	4919 Sep 14 02:29	23°♍20'54	1°20'10	morning max el	4922 Apr 18 19:42	12°♏48'14	46°48'29

	4922 May 05 06:42	0°♿			4924 Oct 22 09:16	0°♿	
desc. node	4922 May 08 05:20	3°♿11'59		desc. node	4924 Oct 23 00:22	0°♿45'45	
	4922 Jun 01 01:27	0°♿			4924 Nov 16 05:22	0°♿	
	4922 Jun 26 19:17	0°♿			4924 Dec 11 07:46	0°♿	
	4922 Jul 22 02:02	0°♿			4925 Jan 05 22:49	0°♿	
	4922 Aug 16 01:50	0°♿			4925 Feb 01 22:42	0°♿	
asc. node	4922 Aug 29 07:01	15°♿59'31		evening max el	4925 Feb 09 02:45	7°♿26'42	47°09'40
	4922 Sep 09 19:27	0°♿		asc. node	4925 Feb 13 02:03	11°♿25'26	
	4922 Oct 04 07:06	0°♿			4925 Mar 06 05:10	0°♿	
morning set	4922 Oct 16 01:29	14°♿30'34		greatest brilliancy	4925 Mar 18 22:51	7°♿43'03	-4.7m
	4922 Oct 28 13:46	0°♿		retrograde	4925 Mar 31 21:21	10°♿48'38	
max. Earth dist.	4922 Nov 19 13:11	27°♿18'30	1.72234 AU	evening set	4925 Apr 18 15:09	4°♿42'15	
	4922 Nov 21 17:02	0°♿		inferior conj	4925 Apr 21 17:47	2°♿47'05	8°27'34
				minimum elong	4925 Apr 22 00:47	2°♿36'10	8°26'49
superior conj	4922 Nov 22 06:43	0°♿42'35	0°58'20	min. Earth dist.	4925 Apr 21 11:24	2°♿57'01	0.27576 AU
minimum elong	4922 Nov 22 16:45	1°♿13'51	0°57'58	morning rise	4925 Apr 25 10:39	0°♿31'16	
	4922 Dec 15 18:11	0°♿			4925 Apr 26 08:06	30°♿	
desc. node	4922 Dec 18 22:08	3°♿57'14		direct	4925 May 12 13:20	24°♿53'53	
evening rise	4922 Dec 31 14:13	19°♿47'48		greatest brilliancy	4925 May 23 16:52	27°♿11'35	-4.6m
	4923 Jan 08 17:58	0°♿			4925 May 29 15:46	0°♿	
	4923 Feb 01 17:05	0°♿		desc. node	4925 Jun 04 17:05	3°♿41'48	
	4923 Feb 25 17:08	0°♿		morning max el	4925 Jun 30 23:33	25°♿53'51	46°03'34
	4923 Mar 21 20:58	0°♿			4925 Jul 05 03:46	0°♿	
asc. node	4923 Apr 10 23:48	24°♿40'50			4925 Aug 02 12:57	0°♿	
	4923 Apr 15 08:52	0°♿			4925 Aug 29 01:31	0°♿	
	4923 May 10 10:57	0°♿			4925 Sep 23 15:54	0°♿	
	4923 Jun 05 14:24	0°♿		asc. node	4925 Sep 25 18:59	2°♿31'54	
	4923 Jul 04 02:33	0°♿			4925 Oct 18 15:15	0°♿	
evening max el	4923 Jul 04 20:48	0°♿44'14	45°37'21		4925 Nov 12 03:42	0°♿	
desc. node	4923 Jul 31 14:47	22°♿56'38			4925 Dec 06 08:47	0°♿	
greatest brilliancy	4923 Aug 08 22:29	27°♿31'37	-4.5m	morning set	4925 Dec 26 00:20	24°♿31'25	
	4923 Aug 15 22:39	0°♿			4925 Dec 30 09:22	0°♿	
retrograde	4923 Aug 22 17:44	0°♿51'31		desc. node	4926 Jan 15 09:51	20°♿05'01	
	4923 Aug 29 07:15	30°♿			4926 Jan 23 07:20	0°♿	
evening set	4923 Sep 09 01:10	25°♿11'11		max. Earth dist.	4926 Feb 03 18:14	14°♿23'46	1.71170 AU
inferior conj	4923 Sep 13 05:43	22°♿36'46	-8°00'-58				
minimum elong	4923 Sep 12 22:55	22°♿47'24	8°00'17	superior conj	4926 Feb 04 14:28	15°♿27'22	0°-46'-20
min. Earth dist.	4923 Sep 13 05:33	22°♿37'02	0.29125 AU	minimum elong	4926 Feb 04 03:51	14°♿54'00	0°45'53
morning rise	4923 Sep 16 20:38	20°♿22'33			4926 Feb 16 03:57	0°♿	
direct	4923 Oct 04 20:17	14°♿18'02			4926 Mar 12 00:31	0°♿	
greatest brilliancy	4923 Oct 19 01:26	17°♿51'14	-4.5m	evening rise	4926 Mar 17 13:22	6°♿57'06	
	4923 Nov 06 10:45	0°♿			4926 Apr 04 22:55	0°♿	
asc. node	4923 Nov 21 16:38	13°♿44'03			4926 Apr 29 01:26	0°♿	
morning max el	4923 Nov 23 09:22	15°♿23'42	46°10'15	asc. node	4926 May 08 11:48	11°♿39'13	
	4923 Dec 07 13:09	0°♿			4926 May 23 10:19	0°♿	
	4924 Jan 03 05:56	0°♿			4926 Jun 17 04:02	0°♿	
	4924 Jan 28 11:40	0°♿			4926 Jul 12 10:30	0°♿	
	4924 Feb 22 01:44	0°♿			4926 Aug 07 14:15	0°♿	
desc. node	4924 Mar 12 07:32	23°♿45'33		desc. node	4926 Aug 28 02:33	22°♿18'10	
	4924 Mar 17 08:21	0°♿			4926 Sep 04 13:31	0°♿	
	4924 Apr 10 11:46	0°♿		evening max el	4926 Sep 14 04:52	9°♿30'16	45°43'05
	4924 May 04 14:40	0°♿			4926 Oct 08 17:40	0°♿	
morning set	4924 May 28 05:49	29°♿19'46		greatest brilliancy	4926 Oct 21 21:05	7°♿05'35	-4.5m
	4924 May 28 18:48	0°♿		retrograde	4926 Nov 01 22:55	9°♿17'17	
	4924 Jun 22 00:58	0°♿		evening set	4926 Nov 18 06:30	4°♿14'55	
asc. node	4924 Jul 03 09:24	14°♿00'15		inferior conj	4926 Nov 22 23:16	1°♿25'28	-5°-59'-1
				minimum elong	4926 Nov 23 09:32	1°♿09'37	5°56'42
superior conj	4924 Jul 05 03:19	16°♿09'27	0°04'14	min. Earth dist.	4926 Nov 23 22:31	0°♿49'32	0.27763 AU
minimum elong	4924 Jul 05 02:23	16°♿06'35	0°04'10		4926 Nov 25 06:47	30°♿	
behind sun begin	4924 Jul 04 03:48	14°♿56'58		morning rise	4926 Nov 28 11:55	28°♿06'33	
behind sun end	4924 Jul 06 00:58	17°♿16'12		direct	4926 Dec 14 01:31	23°♿22'58	
max. Earth dist.	4924 Jul 06 18:58	18°♿11'41	1.73208 AU	asc. node	4926 Dec 19 04:26	23°♿53'31	
	4924 Aug 16 08:57	0°♿		greatest brilliancy	4926 Dec 28 05:43	27°♿01'35	-4.6m
	4924 Aug 09 18:14	0°♿			4927 Jan 02 15:07	0°♿	
evening rise	4924 Aug 10 19:28	1°♿17'33		morning max el	4927 Feb 02 14:47	26°♿24'56	46°52'33
	4924 Sep 03 04:48	0°♿			4927 Feb 06 02:38	0°♿	
	4924 Sep 27 17:27	0°♿			4927 Mar 05 09:38	0°♿	

	4927 Mar 31 00:06	0° H		desc. node	4929 Sep 24 14:26	12° M 39'47	
desc. node	4927 Apr 09 19:32	11° H 44'39			4929 Oct 09 15:03	0° J	
	4927 Apr 24 22:28	0° Y			4929 Nov 05 13:11	0° Z	
	4927 May 19 13:59	0° B		evening max el	4929 Nov 25 20:44	21° Z 04'39	46°38'12
	4927 Jun 13 03:08	0° II			4929 Dec 05 05:51	0° \approx	
	4927 Jul 07 15:44	0° S		greatest brilliancy	4930 Jan 03 11:19	20° \approx 42'28	-4.6m
asc. node	4927 Jul 31 21:11	29° S 40'05		retrograde	4930 Jan 15 00:13	23° \approx 11'18	
	4927 Aug 01 03:41	0° Q		asc. node	4930 Jan 15 16:13	23° \approx 10'45	
morning set	4927 Aug 06 12:45	6° Q 35'46		evening set	4930 Jan 29 17:21	18° \approx 53'55	
	4927 Aug 25 14:07	0° M		min. Earth dist.	4930 Feb 04 05:38	15° \approx 40'26	0.26663 AU
max. Earth dist.	4927 Sep 10 07:27	19° M 21'30	1.73344 AU	inferior conj	4930 Feb 04 13:50	15° \approx 27'57	4°54'54
				minimum elong	4930 Feb 04 04:01	15° \approx 42'54	4°52'12
superior conj	4927 Sep 12 02:27	21° M 34'02	1°19'06	morning rise	4930 Feb 09 14:43	12° \approx 28'50	
minimum elong	4927 Sep 11 20:07	21° M 14'31	1°19'00	direct	4930 Feb 25 00:57	7° \approx 46'26	
	4927 Sep 18 22:35	0° L		greatest brilliancy	4930 Mar 08 19:16	10° \approx 21'22	-4.7m
	4927 Oct 13 05:34	0° M			4930 Apr 05 12:37	0° H	
evening rise	4927 Oct 18 11:25	6° M 28'49		morning max el	4930 Apr 16 10:08	10° H 27'00	46°49'37
	4927 Nov 06 12:00	0° J			4930 May 05 00:43	0° Y	
desc. node	4927 Nov 20 12:16	17° J 19'02		desc. node	4930 May 07 07:24	2° Y 29'40	
	4927 Nov 30 18:32	0° Z			4930 May 31 15:57	0° B	
	4927 Dec 25 01:28	0° \approx			4930 Jun 26 08:06	0° II	
	4928 Jan 18 09:49	0° H			4930 Jul 21 13:50	0° S	
	4928 Feb 11 23:00	0° Y			4930 Aug 15 13:01	0° Q	
asc. node	4928 Mar 08 00:34	0° B		asc. node	4930 Aug 28 09:07	15° Q 32'40	
	4928 Mar 12 13:56	5° B 20'17			4930 Sep 09 06:15	0° M	
	4928 Apr 03 06:44	0° II			4930 Oct 03 17:43	0° L	
evening max el	4928 Apr 21 20:51	19° II 34'34	46°28'09	morning set	4930 Oct 13 18:34	12° L 22'23	
	4928 May 02 19:14	0° S			4930 Oct 28 00:22	0° M	
greatest brilliancy	4928 May 27 06:45	17° S 44'57	-4.6m	max. Earth dist.	4930 Nov 17 04:45	25° M 04'28	1.72281 AU
retrograde	4928 Jun 10 18:39	21° S 30'46					
evening set	4928 Jun 25 20:08	17° S 05'21		superior conj	4930 Nov 19 21:48	28° M 26'55	1°00'50
inferior conj	4928 Jul 02 03:24	13° S 18'10	0°00'52	minimum elong	4930 Nov 20 07:49	28° M 58'06	1°00'30
minimum elong	4928 Jul 02 03:25	13° S 18'07	0°00'51		4930 Nov 21 03:42	0° J	
transit middle	4928 Jul 02 03:25	13° S 18'07	0°00'51		4930 Dec 15 04:56	0° Z	
transit begin	4928 Jul 01 23:23	13° S 24'27		desc. node	4930 Dec 18 00:05	3° Z 29'39	
transit end	4928 Jul 02 07:28	13° S 11'46		evening rise	4930 Dec 29 02:46	17° Z 23'03	
min. Earth dist.	4928 Jul 01 20:05	13° S 29'37	0.28487 AU		4931 Jan 08 04:51	0° \approx	
desc. node	4928 Jul 02 04:50	13° S 15'55			4931 Feb 01 04:09	0° H	
morning rise	4928 Jul 08 11:07	9° S 30'47			4931 Feb 25 04:25	0° Y	
direct	4928 Jul 23 10:52	5° S 10'16			4931 Mar 21 08:35	0° B	
greatest brilliancy	4928 Aug 05 01:27	7° S 57'40	-4.5m	asc. node	4931 Apr 10 01:53	24° B 10'37	
	4928 Sep 04 23:50	0° Q			4931 Apr 14 21:02	0° II	
morning max el	4928 Sep 10 02:09	4° Q 45'19	45°42'02		4931 May 10 00:07	0° S	
	4928 Oct 04 17:43	0° M			4931 Jun 05 05:47	0° Q	
asc. node	4928 Oct 23 06:55	20° M 37'40		evening max el	4931 Jul 02 13:35	28° Q 36'03	45°38'24
	4928 Oct 31 10:49	0° L			4931 Jul 04 00:28	0° M	
	4928 Nov 25 20:00	0° M		desc. node	4931 Jul 30 16:50	21° M 41'08	
	4928 Dec 20 11:45	0° J		greatest brilliancy	4931 Aug 06 13:16	25° M 21'48	-4.5m
	4929 Jan 13 17:47	0° Z		retrograde	4931 Aug 20 10:10	28° M 43'06	
	4929 Feb 06 18:35	0° \approx		evening set	4931 Sep 06 14:27	23° M 07'16	
desc. node	4929 Feb 11 21:38	6° \approx 25'22		inferior conj	4931 Sep 10 22:01	20° M 28'05	-7°-53'-27
	4929 Mar 02 16:44	0° H		minimum elong	4931 Sep 10 14:41	20° M 39'34	7°52'38
morning set	4929 Mar 12 07:10	12° H 03'26		min. Earth dist.	4931 Sep 10 20:31	20° M 30'26	0.29129 AU
	4929 Mar 26 14:05	0° Y		morning rise	4931 Sep 14 14:56	18° M 10'47	
	4929 Apr 19 12:28	0° B		direct	4931 Oct 02 13:12	12° M 09'40	
				greatest brilliancy	4931 Oct 16 15:17	15° M 39'32	-4.5m
superior conj	4929 Apr 21 21:54	2° B 59'35	-1°-21'-47		4931 Nov 06 17:32	0° L	
minimum elong	4929 Apr 22 05:16	3° B 22'38	1°21'41	asc. node	4931 Nov 20 18:38	12° L 55'33	
max. Earth dist.	4929 Apr 25 15:13	7° B 38'41	1.71793 AU	morning max el	4931 Nov 21 01:00	13° L 11'10	46°08'34
	4929 May 13 13:31	0° II			4931 Dec 07 06:33	0° M	
evening rise	4929 May 31 11:08	22° II 12'44			4932 Jan 02 20:02	0° J	
asc. node	4929 Jun 04 23:36	27° II 48'06			4932 Jan 28 00:22	0° Z	
	4929 Jun 06 18:18	0° S			4932 Feb 21 13:42	0° \approx	
	4929 Jul 01 03:18	0° Q		desc. node	4932 Mar 11 09:41	23° \approx 16'17	
	4929 Jul 25 17:08	0° M			4932 Mar 16 19:52	0° H	
	4929 Aug 19 13:18	0° L			4932 Apr 09 22:57	0° Y	
	4929 Sep 13 18:52	0° M			4932 May 04 01:36	0° B	

morning set	4932 May 25 20:37	27°♄03'37			4934 Oct 09 20:17	0°♂	
	4932 May 28 05:33	0°♂		greatest brilliancy	4934 Oct 19 10:03	4°♂48'06	-4.5m
	4932 Jun 21 11:35	0°♄		retrograde	4934 Oct 30 12:18	7°♂00'42	
asc. node	4932 Jul 02 11:21	13°♄33'33		evening set	4934 Nov 15 23:36	1°♂53'19	
					4934 Nov 19 03:50	30°♂	
superior conj	4932 Jul 02 19:40	13°♄59'14	0°00'51	inferior conj	4934 Nov 20 13:36	29°♂08'01	-6°-14'-24
minimum elong	4932 Jul 02 19:29	13°♄58'41	0°00'49	minimum elong	4934 Nov 20 23:52	28°♂52'08	6°12'11
behind sun begin	4932 Jul 01 20:17	12°♄47'07		min. Earth dist.	4934 Nov 21 13:23	28°♂31'16	0.27830 AU
behind sun end	4932 Jul 03 18:42	15°♄10'14		morning rise	4934 Nov 25 23:28	25°♂52'49	
max. Earth dist.	4932 Jul 04 16:06	16°♄16'14	1.73175 AU	direct	4934 Dec 11 15:51	21°♂04'15	
	4932 Jul 15 19:31	0°♂		asc. node	4934 Dec 18 06:20	21°♂54'28	
evening rise	4932 Aug 08 13:40	29°♂13'25		greatest brilliancy	4934 Dec 25 22:43	24°♂45'22	-4.6m
	4932 Aug 09 04:50	0°♄			4935 Jan 03 19:19	0°♂	
	4932 Sep 02 15:33	0°♄		morning max el	4935 Jan 31 04:51	24°♂03'02	46°51'39
	4932 Sep 27 04:28	0°♂			4935 Feb 05 23:07	0°♄	
	4932 Oct 21 20:45	0°♂			4935 Mar 05 01:08	0°♄	
desc. node	4932 Oct 22 02:25	0°♂17'10			4935 Mar 30 13:36	0°♄	
	4932 Nov 15 17:36	0°♄		desc. node	4935 Apr 08 21:32	11°♄11'33	
	4932 Dec 10 21:10	0°♄			4935 Apr 24 10:52	0°♄	
	4933 Jan 05 14:18	0°♄			4935 May 19 01:43	0°♄	
	4933 Feb 01 19:02	0°♄			4935 Jun 12 14:24	0°♂	
evening max el	4933 Feb 06 17:13	5°♄04'52	47°09'46		4935 Jul 07 02:40	0°♄	
asc. node	4933 Feb 12 04:09	10°♄31'04		asc. node	4935 Jul 30 23:16	29°♄13'37	
	4933 Mar 07 03:57	0°♄			4935 Jul 31 14:23	0°♂	
greatest brilliancy	4933 Mar 16 15:36	5°♄23'50	-4.7m	morning set	4935 Aug 04 06:01	4°♂28'45	
retrograde	4933 Mar 29 11:16	8°♄26'07			4935 Aug 25 00:43	0°♄	
evening set	4933 Apr 16 07:30	2°♄16'49		max. Earth dist.	4935 Sep 08 03:26	17°♄22'33	1.73367 AU
inferior conj	4933 Apr 19 07:33	0°♄25'23	8°35'24				
minimum elong	4933 Apr 19 13:51	0°♄15'35	8°34'47	superior conj	4935 Sep 09 20:25	19°♄28'50	1°17'52
min. Earth dist.	4933 Apr 19 00:43	0°♄36'04	0.27540 AU	minimum elong	4935 Sep 09 13:37	19°♄07'53	1°17'43
	4933 Apr 19 23:52	30°♄			4935 Sep 18 09:11	0°♄	
morning rise	4933 Apr 22 20:25	28°♄15'20			4935 Oct 12 16:17	0°♂	
direct	4933 May 10 02:44	22°♄33'02		evening rise	4935 Oct 16 04:12	4°♂19'11	
greatest brilliancy	4933 May 21 04:36	24°♄48'51	-4.6m		4935 Nov 05 22:55	0°♂	
	4933 May 31 04:33	0°♄		desc. node	4935 Nov 19 14:12	16°♂50'53	
desc. node	4933 Jun 03 19:02	2°♄23'58			4935 Nov 30 05:43	0°♄	
morning max el	4933 Jun 28 12:54	23°♄34'31	46°04'56		4935 Dec 24 12:59	0°♄	
	4933 Jul 05 00:36	0°♂			4936 Jan 17 21:49	0°♄	
	4933 Aug 02 04:10	0°♄			4936 Feb 11 11:44	0°♄	
	4933 Aug 28 14:31	0°♂			4936 Mar 07 14:41	0°♄	
	4933 Sep 23 03:46	0°♄		asc. node	4936 Mar 11 15:57	4°♄44'03	
asc. node	4933 Sep 24 21:01	2°♄02'48			4936 Apr 02 23:56	0°♂	
	4933 Oct 18 02:31	0°♄		evening max el	4936 Apr 19 11:24	17°♂16'55	46°30'13
	4933 Nov 11 14:38	0°♂			4936 May 02 23:20	0°♄	
	4933 Dec 05 19:34	0°♂		greatest brilliancy	4936 May 24 22:17	15°♄31'27	-4.6m
greatest brilliancy	4933 Dec 09 19:13	4°♂57'50	-3.9m	retrograde	4936 Jun 08 10:52	19°♄18'31	
morning set	4933 Dec 23 13:31	22°♂08'53		evening set	4936 Jun 23 12:44	14°♄51'37	
	4933 Dec 29 20:07	0°♄		inferior conj	4936 Jun 29 19:06	11°♄06'02	0°21'42
desc. node	4934 Jan 14 11:51	19°♄37'30		minimum elong	4936 Jun 29 19:55	11°♄04'46	0°21'27
	4934 Jan 22 18:07	0°♄		min. Earth dist.	4936 Jun 29 12:13	11°♄16'49	0.28456 AU
max. Earth dist.	4934 Jan 31 21:50	11°♄30'21	1.71189 AU	desc. node	4936 Jul 01 06:54	10°♄10'11	
				morning rise	4936 Jul 06 03:29	7°♄18'05	
superior conj	4934 Feb 02 01:08	12°♄56'07	0°-42'-55	direct	4936 Jul 21 01:50	2°♄58'22	
minimum elong	4934 Feb 01 15:05	12°♄24'31	0°42'29	greatest brilliancy	4936 Aug 02 16:44	5°♄46'17	-4.5m
	4934 Feb 15 14:47	0°♄			4936 Sep 05 00:05	0°♂	
	4934 Mar 11 11:23	0°♄		morning max el	4936 Sep 07 18:11	2°♂35'41	45°41'58
evening rise	4934 Mar 14 23:39	4°♄24'32			4936 Oct 04 09:45	0°♄	
	4934 Apr 04 09:51	0°♄		asc. node	4936 Oct 22 08:52	20°♄03'15	
	4934 Apr 28 12:29	0°♂			4936 Oct 31 00:13	0°♄	
asc. node	4934 May 07 13:43	11°♂10'50			4936 Nov 25 08:15	0°♂	
	4934 May 22 21:38	0°♄			4936 Dec 19 23:25	0°♂	
	4934 Jun 16 15:51	0°♂			4937 Jan 13 05:08	0°♄	
	4934 Jul 11 23:17	0°♄			4937 Feb 06 05:43	0°♄	
	4934 Aug 07 05:00	0°♄		desc. node	4937 Feb 10 23:48	5°♄57'18	
desc. node	4934 Aug 27 04:39	21°♄37'01			4937 Mar 02 03:43	0°♄	
	4934 Sep 04 09:18	0°♂		morning set	4937 Mar 09 17:31	9°♄30'48	
evening max el	4934 Sep 11 18:06	7°♂12'46	45°41'53		4937 Mar 26 00:58	0°♄	

	4937 Apr 18 23:18	0°♄		direct	4939 Sep 30 05:52	10°♍00'37	
				greatest brilliancy	4939 Oct 14 04:59	13°♍26'41	-4.5m
superior conj	4937 Apr 19 10:18	0°♄34'22	-1°-23'00		4939 Nov 06 22:37	0°♌	
minimum elong	4937 Apr 19 16:54	0°♄55'04	1°22'56	morning max el	4939 Nov 18 15:44	10°♌55'31	46°06'55
max. Earth dist.	4937 Apr 23 00:55	5°♄05'13	1.71748 AU	asc. node	4939 Nov 19 20:37	12°♌06'48	
	4937 May 13 00:20	0°♊			4939 Dec 06 23:56	0°♍	
evening rise	4937 May 29 01:36	19°♊55'29			4940 Jan 02 10:19	0°♎	
asc. node	4937 Jun 04 01:33	27°♊20'37			4940 Jan 27 13:18	0°♏	
	4937 Jun 06 05:09	0°♐			4940 Feb 21 01:55	0°♑	
	4937 Jun 30 14:17	0°♑		desc. node	4940 Mar 10 11:35	22°♑45'20	
	4937 Jul 25 04:23	0°♒			4940 Mar 16 07:39	0°♓	
	4937 Aug 19 01:05	0°♈			4940 Apr 09 10:25	0°♉	
	4937 Sep 13 07:36	0°♉			4940 May 03 12:47	0°♊	
desc. node	4937 Sep 23 16:28	12°♉07'05		morning set	4940 May 23 11:42	24°♊47'27	
	4937 Oct 09 05:29	0°♋			4940 May 27 16:31	0°♌	
	4937 Nov 05 07:10	0°♍			4940 Jun 20 22:25	0°♎	
evening max el	4937 Nov 23 11:22	18°♍44'54	46°36'14				
	4937 Dec 05 11:16	0°♏		superior conj	4940 Jun 30 12:23	11°♏49'28	0°-2'-31
greatest brilliancy	4937 Dec 31 23:53	18°♏14'42	-4.6m	minimum elong	4940 Jun 30 12:56	11°♏51'11	0°02'31
retrograde	4938 Jan 12 13:13	20°♏43'14		behind sun begin	4940 Jun 29 13:49	10°♏39'54	
asc. node	4938 Jan 14 18:23	20°♏37'12		behind sun end	4940 Jul 01 12:03	13°♏02'27	
evening set	4938 Jan 27 03:31	16°♏29'09		asc. node	4940 Jul 01 13:28	13°♏06'49	
inferior conj	4938 Feb 02 02:10	13°♏00'09	4°33'54	max. Earth dist.	4940 Jul 02 13:20	14°♏20'23	1.73140 AU
minimum elong	4938 Feb 01 16:49	13°♏14'23	4°31'15		4940 Jul 15 06:18	0°♑	
min. Earth dist.	4938 Feb 01 18:40	13°♏11'35	0.26653 AU	evening rise	4940 Aug 06 08:08	27°♑09'18	
morning rise	4938 Feb 07 06:12	9°♏56'53			4940 Aug 08 15:41	0°♒	
direct	4938 Feb 22 14:05	5°♏18'46			4940 Sep 02 02:35	0°♓	
greatest brilliancy	4938 Mar 06 08:40	7°♏54'39	-4.7m		4940 Sep 26 15:50	0°♍	
	4938 Apr 05 16:34	0°♈		desc. node	4940 Oct 21 04:19	29°♍46'59	
morning max el	4938 Apr 14 00:14	8°♈04'50	46°50'46		4940 Oct 21 08:37	0°♎	
	4938 May 04 18:20	0°♉			4940 Nov 15 06:15	0°♏	
desc. node	4938 May 06 09:22	1°♉47'31			4940 Dec 10 11:04	0°♐	
	4938 May 31 06:20	0°♊			4941 Jan 05 06:24	0°♑	
	4938 Jun 25 20:55	0°♋			4941 Feb 01 16:29	0°♒	
	4938 Jul 21 01:46	0°♌		evening max el	4941 Feb 04 06:42	2°♒39'20	47°09'47
	4938 Aug 15 00:23	0°♍		asc. node	4941 Feb 11 06:10	9°♒34'11	
asc. node	4938 Aug 27 11:09	15°♍04'51			4941 Mar 08 12:24	0°♓	
	4938 Sep 08 17:17	0°♎		greatest brilliancy	4941 Mar 14 08:28	3°♓03'24	-4.7m
	4938 Oct 03 04:35	0°♏		retrograde	4941 Mar 27 00:53	6°♓02'29	
morning set	4938 Oct 11 11:31	10°♏13'08		evening set	4941 Apr 13 23:37	29°♒50'36	
	4938 Oct 27 11:12	0°♐			4941 Apr 13 17:25	30°♒♑	
max. Earth dist.	4938 Nov 14 18:47	22°♐45'00	1.72326 AU	inferior conj	4941 Apr 16 21:22	28°♒02'40	8°42'20
				minimum elong	4941 Apr 17 02:54	27°♒54'01	8°41'52
superior conj	4938 Nov 17 12:54	26°♐10'40	1°03'14	min. Earth dist.	4941 Apr 16 14:25	28°♒13'30	0.27503 AU
minimum elong	4938 Nov 17 22:49	26°♐41'34	1°02'55	morning rise	4941 Apr 20 06:21	25°♒58'12	
	4938 Nov 20 14:35	0°♎		direct	4941 May 07 15:35	20°♒10'54	
	4938 Dec 14 15:56	0°♏		greatest brilliancy	4941 May 18 17:25	22°♒26'09	-4.6m
desc. node	4938 Dec 17 02:06	3°♏01'34			4941 Jun 01 07:02	0°♓	
evening rise	4938 Dec 26 15:18	14°♏57'30		desc. node	4941 Jun 02 21:03	1°♓07'40	
	4939 Jan 07 16:00	0°♑		morning max el	4941 Jun 26 02:03	21°♓13'40	46°06'35
	4939 Jan 31 15:29	0°♒			4941 Jul 04 21:02	0°♍	
	4939 Feb 24 15:57	0°♓			4941 Aug 01 19:24	0°♎	
	4939 Mar 20 20:25	0°♔			4941 Aug 28 03:39	0°♏	
asc. node	4939 Apr 09 03:50	23°♔39'26			4941 Sep 22 15:52	0°♐	
	4939 Apr 14 09:23	0°♊		asc. node	4941 Sep 23 22:57	1°♐32'39	
	4939 May 09 13:32	0°♋			4941 Oct 17 14:03	0°♑	
	4939 Jun 04 21:35	0°♌			4941 Nov 11 01:54	0°♒	
evening max el	4939 Jun 30 05:59	26°♌26'16	45°39'15		4941 Dec 05 06:42	0°♓	
	4939 Jul 03 23:32	0°♍		morning set	4941 Dec 21 02:45	19°♓45'23	
desc. node	4939 Jul 29 18:56	20°♍22'36			4941 Dec 29 07:13	0°♔	
greatest brilliancy	4939 Aug 04 04:43	23°♍11'59	-4.5m	desc. node	4942 Jan 13 13:59	19°♔09'18	
retrograde	4939 Aug 18 02:09	26°♍33'54			4942 Jan 22 05:15	0°♕	
evening set	4939 Sep 04 03:46	21°♍02'47		max. Earth dist.	4942 Jan 29 03:15	8°♕41'32	1.71210 AU
inferior conj	4939 Sep 08 14:24	18°♍18'46	-7°-45'-15				
minimum elong	4939 Sep 08 06:36	18°♍31'01	7°44'17	superior conj	4942 Jan 30 11:43	10°♕23'35	0°-39'-25
min. Earth dist.	4939 Sep 08 12:00	18°♍22'33	0.29133 AU	minimum elong	4942 Jan 30 02:17	9°♕53'57	0°39'00
morning rise	4939 Sep 12 09:28	15°♍58'00			4942 Feb 15 01:56	0°♖	

	4942 Mar 10 22:35	0°Υ		morning max el	4944 Sep 05 10:50	0°Ω27'08	45°42'05
evening rise	4942 Mar 12 09:57	1°Υ51'00			4944 Oct 04 01:36	0°η	
	4942 Apr 03 21:07	0°Ϡ		asc. node	4944 Oct 21 10:54	19°η29'01	
	4942 Apr 27 23:55	0°Π			4944 Oct 30 13:35	0°♁	
asc. node	4942 May 06 15:44	10°Π41'40			4944 Nov 24 20:31	0°ℳ	
	4942 May 22 09:20	0°☿			4944 Dec 19 11:09	0°♁	
	4942 Jun 16 04:01	0°Ω			4945 Jan 12 16:36	0°☿	
	4942 Jul 11 12:24	0°η			4945 Feb 05 17:01	0°≈	
	4942 Aug 06 20:10	0°♁		desc. node	4945 Feb 10 01:45	5°≈28'05	
desc. node	4942 Aug 26 06:38	20°♁54'25			4945 Mar 01 14:54	0°♁	
	4942 Sep 04 05:58	0°ℳ		morning set	4945 Mar 07 03:24	6°♁56'00	
evening max el	4942 Sep 09 07:40	4°ℳ55'40	45°40'42		4945 Mar 25 12:05	0°Υ	
	4942 Oct 11 10:40	0°♁					
greatest brilliancy	4942 Oct 16 21:48	2°♁29'00	-4.5m	superior conj	4945 Apr 16 22:03	28°Υ06'27	-1°-24'-5
retrograde	4942 Oct 28 02:14	4°♁43'55		minimum elong	4945 Apr 17 03:50	28°Υ24'32	1°24'02
	4942 Nov 12 20:26	30°ℳ			4945 Apr 18 10:20	0°Ϡ	
evening set	4942 Nov 13 16:50	29°ℳ31'13		max. Earth dist.	4945 Apr 20 11:57	2°Ϡ35'11	1.71702 AU
inferior conj	4942 Nov 18 04:03	26°ℳ50'03	-6°-29'-3		4945 May 12 11:20	0°Π	
minimum elong	4942 Nov 18 14:17	26°ℳ34'14	6°26'57	evening rise	4945 May 26 15:37	17°Π36'17	
min. Earth dist.	4942 Nov 19 04:01	26°ℳ13'02	0.27904 AU	asc. node	4945 Jun 03 03:40	26°Π53'14	
morning rise	4942 Nov 23 11:05	23°ℳ38'57			4945 Jun 05 16:09	0°☿	
direct	4942 Dec 09 06:49	18°ℳ44'57			4945 Jun 30 01:24	0°Ω	
asc. node	4942 Dec 17 08:29	19°ℳ59'20			4945 Jul 24 15:47	0°η	
greatest brilliancy	4942 Dec 23 16:20	22°ℳ29'18	-4.6m		4945 Aug 18 13:00	0°♁	
	4943 Jan 04 16:20	0°♁			4945 Sep 12 20:26	0°ℳ	
morning max el	4943 Jan 28 20:00	21°♁42'55	46°50'40	desc. node	4945 Sep 22 18:26	11°ℳ34'01	
	4943 Feb 05 19:24	0°☿			4945 Oct 08 20:01	0°♁	
	4943 Mar 04 16:47	0°≈			4945 Nov 05 01:27	0°☿	
	4943 Mar 30 03:18	0°♁		evening max el	4945 Nov 21 02:13	16°☿26'16	46°34'09
desc. node	4943 Apr 07 23:33	10°♁37'38			4945 Dec 05 18:37	0°≈	
	4943 Apr 23 23:31	0°Υ		greatest brilliancy	4945 Dec 29 12:54	15°≈48'13	-4.6m
	4943 May 18 13:41	0°Ϡ		retrograde	4946 Jan 10 01:52	18°≈15'34	
	4943 Jun 12 01:55	0°Π		asc. node	4946 Jan 13 20:21	17°≈58'10	
	4943 Jul 06 13:51	0°☿		evening set	4946 Jan 24 14:06	14°≈04'41	
asc. node	4943 Jul 30 01:18	28°☿46'15		inferior conj	4946 Jan 30 14:37	10°≈32'49	4°12'18
	4943 Jul 31 01:21	0°Ω		minimum elong	4946 Jan 30 05:50	10°≈46'14	4°09'46
morning set	4943 Aug 01 23:38	2°Ω21'58		min. Earth dist.	4946 Jan 30 08:00	10°≈42'55	0.26652 AU
	4943 Aug 24 11:32	0°η		morning rise	4946 Feb 04 21:39	7°≈25'21	
max. Earth dist.	4943 Sep 06 01:29	15°η29'22	1.73383 AU	direct	4946 Feb 20 03:18	2°≈51'32	
				greatest brilliancy	4946 Mar 03 22:25	5°≈28'09	-4.7m
superior conj	4943 Sep 07 14:47	17°η24'16	1°16'31		4946 Apr 05 19:04	0°♁	
minimum elong	4943 Sep 07 07:32	17°η01'58	1°16'21	morning max el	4946 Apr 11 13:37	5°♁40'14	46°51'39
	4943 Sep 17 19:59	0°♁			4946 May 04 11:46	0°Υ	
	4943 Oct 12 03:10	0°ℳ		desc. node	4946 May 05 11:26	1°Υ05'35	
evening rise	4943 Oct 13 21:29	2°ℳ10'40			4946 May 30 20:42	0°Ϡ	
	4943 Nov 05 10:02	0°♁			4946 Jun 25 09:44	0°Π	
desc. node	4943 Nov 18 16:19	16°♁22'38			4946 Jul 20 13:40	0°☿	
	4943 Nov 29 17:09	0°☿			4946 Aug 14 11:43	0°Ω	
	4943 Dec 24 00:49	0°≈		asc. node	4946 Aug 26 13:03	14°Ω36'44	
	4944 Jan 17 10:10	0°♁			4946 Sep 08 04:16	0°η	
	4944 Feb 11 00:54	0°Υ			4946 Oct 02 15:24	0°♁	
	4944 Mar 07 05:19	0°Ϡ		morning set	4946 Oct 09 04:40	8°♁04'42	
asc. node	4944 Mar 10 17:53	4°Ϡ06'21			4946 Oct 26 21:57	0°ℳ	
	4944 Apr 02 17:51	0°Π		max. Earth dist.	4946 Nov 12 07:57	20°ℳ23'17	1.72368 AU
evening max el	4944 Apr 17 02:46	15°Π00'25	46°32'22				
	4944 May 03 05:47	0°☿		superior conj	4946 Nov 15 04:33	23°ℳ56'36	1°05'31
greatest brilliancy	4944 May 22 14:07	13°☿17'34	-4.6m	minimum elong	4946 Nov 15 14:19	24°ℳ27'00	1°05'12
retrograde	4944 Jun 06 03:23	17°☿05'16			4946 Nov 20 01:20	0°♁	
evening set	4944 Jun 21 05:30	12°☿36'51			4946 Dec 14 02:47	0°☿	
inferior conj	4944 Jun 27 10:44	8°☿52'54	0°42'39	desc. node	4946 Dec 16 04:13	2°☿34'15	
minimum elong	4944 Jun 27 12:19	8°☿50'25	0°42'09	evening rise	4946 Dec 24 04:22	12°☿34'14	
min. Earth dist.	4944 Jun 27 03:59	9°☿03'26	0.28422 AU		4947 Jan 07 03:00	0°≈	
desc. node	4944 Jun 30 09:02	7°☿04'12			4947 Jan 31 02:40	0°♁	
morning rise	4944 Jul 03 19:37	5°☿04'42			4947 Feb 24 03:24	0°Υ	
direct	4944 Jul 18 17:16	0°☿45'38			4947 Mar 20 08:14	0°Ϡ	
greatest brilliancy	4944 Jul 31 07:11	3°☿33'14	-4.5m	asc. node	4947 Apr 08 05:51	23°Ϡ08'18	
	4944 Sep 04 23:25	0°Ω			4947 Apr 13 21:48	0°Π	

	4947 May 09 03:06	0°☿			4949 Oct 17 01:17	0°♊		
	4947 Jun 04 13:42	0°♋			4949 Nov 10 12:49	0°♌		
evening max el	4947 Jun 27 21:22	24°♋13'46	45°40'19		4949 Dec 04 17:30	0°♍		
	4947 Jul 03 23:45	0°♎		morning set	4949 Dec 18 16:02	17°♍23'13		
desc. node	4947 Jul 28 20:51	19°♎01'09			4949 Dec 28 18:00	0°♎		
greatest brilliancy	4947 Aug 01 20:01	21°♎01'47	-4.5m	desc. node	4950 Jan 12 15:54	18°♎41'33		
retrograde	4947 Aug 15 17:44	24°♎24'42			4950 Jan 21 16:02	0°♏		
evening set	4947 Sep 01 16:55	18°♎58'14		max. Earth dist.	4950 Jan 26 11:07	6°♏01'33	1.71229 AU	
inferior conj	4947 Sep 06 06:41	16°♎09'31	-7°-36'-22					
minimum elong	4947 Sep 05 22:27	16°♎22'29	7°35'16	superior conj	4950 Jan 27 22:29	7°♏52'41	0°-35'-50	
min. Earth dist.	4947 Sep 06 03:41	16°♎14'16	0.29132 AU	minimum elong	4950 Jan 27 13:45	7°♏25'14	0°35'27	
morning rise	4947 Sep 10 03:59	13°♎45'11			4950 Feb 14 12:43	0°♐		
direct	4947 Sep 27 21:55	7°♎51'32		evening rise	4950 Mar 09 20:38	29°♐19'59		
greatest brilliancy	4947 Oct 11 19:20	11°♎14'51	-4.5m		4950 Mar 10 09:23	0°♑		
	4947 Nov 07 01:44	0°♏			4950 Apr 03 07:58	0°♒		
morning max el	4947 Nov 16 05:51	8°♏38'52	46°05'32		4950 Apr 27 10:54	0°♓		
asc. node	4947 Nov 18 22:43	11°♏19'35		asc. node	4950 May 05 17:50	10°♓14'05		
	4947 Dec 06 16:43	0°♐			4950 May 21 20:37	0°♔		
	4948 Jan 02 00:10	0°♑			4950 Jun 15 15:52	0°♕		
	4948 Jan 27 01:51	0°♒			4950 Jul 11 01:17	0°♖		
	4948 Feb 20 13:48	0°♓			4950 Aug 06 11:16	0°♗		
desc. node	4948 Mar 09 13:37	22°♓15'47		desc. node	4950 Aug 25 08:38	20°♗12'01		
	4948 Mar 15 19:07	0°♘			4950 Sep 04 03:05	0°♘		
	4948 Apr 08 21:36	0°♙		evening max el	4950 Sep 06 21:56	2°♘41'07	45°39'40	
	4948 May 02 23:46	0°♚			4950 Oct 13 22:31	0°♙		
morning set	4948 May 21 02:14	22°♚30'04		greatest brilliancy	4950 Oct 14 08:55	0°♙10'08	-4.5m	
	4948 May 27 03:20	0°♛		retrograde	4950 Oct 25 16:32	2°♙27'51		
	4948 Jun 20 09:06	0°♜			4950 Nov 05 20:45	30°♚♌		
				evening set	4950 Nov 11 09:59	27°♌09'56		
superior conj	4948 Jun 28 04:33	9°♜38'24	0°-5'-54	inferior conj	4950 Nov 15 18:22	24°♌32'46	-6°-43'00	
minimum elong	4948 Jun 28 05:51	9°♜42'25	0°05'52	minimum elong	4950 Nov 16 04:32	24°♌17'06	6°41'01	
behind sun begin	4948 Jun 27 07:53	8°♜34'41		min. Earth dist.	4950 Nov 16 18:06	23°♌56'11	0.27975 AU	
behind sun end	4948 Jun 29 03:48	10°♜50'09		morning rise	4950 Nov 20 22:29	21°♌26'03		
max. Earth dist.	4948 Jun 30 07:45	12°♜16'18	1.73103 AU	direct	4950 Dec 06 22:11	16°♌26'38		
asc. node	4948 Jun 30 15:27	12°♜40'03		asc. node	4950 Dec 16 10:28	18°♌09'12		
	4948 Jul 14 16:57	0°♕		greatest brilliancy	4950 Dec 21 09:14	20°♌13'27	-4.6m	
evening rise	4948 Aug 04 02:04	25°♕04'09			4951 Jan 05 07:29	0°♎		
	4948 Aug 08 02:23	0°♖		morning max el	4951 Jan 26 11:40	19°♎25'20	46°49'38	
	4948 Sep 01 13:26	0°♗			4951 Feb 05 14:40	0°♏		
	4948 Sep 26 03:00	0°♘			4951 Mar 04 07:47	0°♐		
desc. node	4948 Oct 20 06:26	29°♘18'04		desc. node	4951 Mar 29 16:27	0°♑		
	4948 Oct 20 20:19	0°♙			4951 Apr 07 01:36	10°♑05'21		
	4948 Nov 14 18:43	0°♒			4951 Apr 23 11:38	0°♓		
	4948 Dec 10 00:46	0°♓			4951 May 18 01:10	0°♔		
	4949 Jan 04 22:21	0°♔			4951 Jun 11 12:58	0°♕		
	4949 Feb 01 14:11	0°♕			4951 Jul 06 00:37	0°♖		
evening max el	4949 Feb 01 19:34	0°♖13'40	47°09'53	asc. node	4951 Jul 29 03:13	28°♖19'42		
asc. node	4949 Feb 10 08:07	8°♖37'22			4951 Jul 30 11:55	0°♗		
	4949 Mar 10 11:18	0°♘		morning set	4951 Jul 30 17:07	0°♗15'58		
greatest brilliancy	4949 Mar 12 00:13	0°♘43'02	-4.7m		4951 Aug 23 22:01	0°♙		
retrograde	4949 Mar 24 14:31	3°♘40'36		max. Earth dist.	4951 Sep 03 23:14	13°♙36'14	1.73401 AU	
	4949 Apr 07 03:08	30°♙♌						
evening set	4949 Apr 11 15:25	27°♙26'17		superior conj	4951 Sep 05 08:48	15°♙19'38	1°15'02	
inferior conj	4949 Apr 14 11:16	25°♙41'24	8°48'09	minimum elong	4951 Sep 05 01:11	14°♙56'09	1°14'51	
minimum elong	4949 Apr 14 16:00	25°♙34'02	8°47'49		4951 Sep 17 06:28	0°♚		
min. Earth dist.	4949 Apr 14 04:10	25°♙52'29	0.27473 AU	evening rise	4951 Oct 11 14:24	0°♚01'56		
morning rise	4949 Apr 17 16:43	23°♙42'15			4951 Oct 11 13:47	0°♛		
direct	4949 May 05 04:26	17°♙49'54			4951 Nov 04 20:52	0°♜		
greatest brilliancy	4949 May 16 07:18	20°♙05'51	-4.6m	desc. node	4951 Nov 17 18:19	15°♜55'00		
desc. node	4949 Jun 01 23:11	29°♙54'52			4951 Nov 29 04:16	0°♝		
	4949 Jun 02 01:55	0°♞			4951 Dec 23 12:20	0°♞		
morning max el	4949 Jun 23 15:42	18°♞54'39	46°08'03		4952 Jan 16 22:14	0°♟		
	4949 Jul 04 16:33	0°♟			4952 Feb 10 13:48	0°♠		
	4949 Aug 01 10:14	0°♠			4952 Mar 06 19:43	0°♡		
	4949 Aug 27 16:30	0°♑		asc. node	4952 Mar 09 19:59	3°♡29'52		
	4949 Sep 22 03:40	0°♒			4952 Apr 02 11:45	0°♓		
asc. node	4949 Sep 23 01:02	1°♒03'45		evening max el	4952 Apr 14 18:50	12°♓46'53	46°34'33	

	4952 May 03 14:03	0°☿		max. Earth dist.	4954 Nov 09 21:40	18°♍03'32	1.72419 AU
greatest brilliancy	4952 May 20 06:57	11°☿06'28	-4.6m				
retrograde	4952 Jun 03 19:58	14°☿53'19		superior conj	4954 Nov 12 20:12	21°♍42'43	1°07'40
evening set	4952 Jun 18 22:30	10°☿23'29		minimum elong	4954 Nov 13 05:45	22°♍12'25	1°07'23
inferior conj	4952 Jun 25 02:25	6°☿41'08	1°03'25		4954 Nov 19 12:05	0°♊	
minimum elong	4952 Jun 25 04:46	6°☿37'27	1°02'41		4954 Dec 13 13:39	0°♊	
min. Earth dist.	4952 Jun 24 19:38	6°☿51'44	0.28389 AU	desc. node	4954 Dec 15 06:09	2°♊06'20	
desc. node	4952 Jun 29 10:53	4°☿01'37		evening rise	4954 Dec 21 17:11	10°♊10'10	
morning rise	4952 Jul 01 11:37	2°☿52'50			4955 Jan 06 14:02	0°♋	
	4952 Jul 07 22:29	30°♋II			4955 Jan 30 13:54	0°♋	
direct	4952 Jul 16 09:09	28°♋34'30			4955 Feb 23 14:53	0°♋	
	4952 Jul 25 04:36	0°☿			4955 Mar 19 20:04	0°♋	
greatest brilliancy	4952 Jul 28 20:38	1°☿20'20	-4.5m	asc. node	4955 Apr 07 07:56	22°♋37'23	
morning max el	4952 Sep 03 03:05	28°☿18'45	45°41'57		4955 Apr 13 10:15	0°♌	
	4952 Sep 04 21:20	0°♌			4955 May 08 16:45	0°☿	
	4952 Oct 03 16:55	0°♍			4955 Jun 04 06:03	0°♌	
asc. node	4952 Oct 20 12:58	18°♍55'48		evening max el	4955 Jun 25 12:09	21°♌59'59	45°41'31
	4952 Oct 30 02:37	0°♎			4955 Jul 04 01:05	0°♍	
	4952 Nov 24 08:31	0°♍		desc. node	4955 Jul 27 22:55	17°♍37'48	
	4952 Dec 18 22:38	0°♊		greatest brilliancy	4955 Jul 30 10:47	18°♍51'24	-4.5m
	4953 Jan 12 03:47	0°♊		retrograde	4955 Aug 13 09:38	22°♍16'34	
	4953 Feb 05 04:01	0°♋		evening set	4955 Aug 30 06:14	16°♍54'26	
desc. node	4953 Feb 09 03:43	4°♋59'46		inferior conj	4955 Sep 03 23:12	14°♍01'13	-7°-26'-50
	4953 Mar 01 01:48	0°♋		minimum elong	4955 Sep 03 14:33	14°♍14'48	7°25'36
morning set	4953 Mar 04 13:13	4°♋21'57		min. Earth dist.	4955 Sep 03 19:38	14°♍06'49	0.29130 AU
	4953 Mar 24 22:54	0°♋		morning rise	4955 Sep 07 22:50	11°♍33'17	
				direct	4955 Sep 25 13:50	5°♍43'17	
superior conj	4953 Apr 14 09:49	25°♋39'16	-1°-25'00	greatest brilliancy	4955 Oct 09 10:50	9°♍05'10	-4.5m
minimum elong	4953 Apr 14 14:43	25°♋54'36	1°24'59		4955 Nov 07 03:12	0°♎	
	4953 Apr 17 21:06	0°♋		morning max el	4955 Nov 13 20:07	6°♎22'58	46°04'01
max. Earth dist.	4953 Apr 18 00:31	0°♋10'41	1.71654 AU	asc. node	4955 Nov 18 00:42	10°♎32'59	
	4953 May 11 22:03	0°♌			4955 Dec 06 09:11	0°♎	
evening rise	4953 May 24 05:38	15°♌17'50			4956 Jan 01 14:00	0°♊	
asc. node	4953 Jun 02 05:38	26°♌26'12			4956 Jan 26 14:31	0°♊	
	4953 Jun 05 02:52	0°☿			4956 Feb 20 01:49	0°♋	
	4953 Jun 29 12:13	0°♌		desc. node	4956 Mar 08 15:45	21°♋46'01	
	4953 Jul 24 02:54	0°♍			4956 Mar 15 06:44	0°♋	
	4953 Aug 18 00:42	0°♎			4956 Apr 08 08:55	0°♋	
	4953 Sep 12 09:08	0°♍			4956 May 02 10:50	0°♋	
desc. node	4953 Sep 21 20:31	11°♍01'37		morning set	4956 May 18 16:33	20°♋11'32	
	4953 Oct 08 10:36	0°♊			4956 May 26 14:13	0°♌	
	4953 Nov 04 20:08	0°♊			4956 Jun 19 19:54	0°☿	
evening max el	4953 Nov 18 16:20	14°♊05'56	46°31'58				
	4953 Dec 06 04:39	0°♋		superior conj	4956 Jun 25 20:44	7°☿27'05	0°-9'-16
greatest brilliancy	4953 Dec 27 02:55	13°♋22'57	-4.6m	minimum elong	4956 Jun 25 22:48	7°☿33'27	0°09'12
retrograde	4954 Jan 07 13:56	15°♋47'53		behind sun begin	4956 Jun 25 03:24	6°☿33'37	
asc. node	4954 Jan 12 22:17	15°♋12'58		behind sun end	4956 Jun 26 18:11	8°☿33'15	
evening set	4954 Jan 22 00:50	11°♋39'58		max. Earth dist.	4956 Jun 28 01:02	10°☿08'24	1.73065 AU
inferior conj	4954 Jan 28 02:59	8°♋05'44	3°50'13	asc. node	4956 Jun 29 17:24	12°☿12'55	
minimum elong	4954 Jan 27 18:49	8°♋18'13	3°47'48		4956 Jul 14 03:42	0°♌	
min. Earth dist.	4954 Jan 27 21:38	8°♋13'54	0.26649 AU	evening rise	4956 Aug 01 20:14	22°♌59'22	
morning rise	4954 Feb 02 12:49	4°♋54'04			4956 Aug 07 13:11	0°♍	
direct	4954 Feb 17 15:52	0°♋24'26			4956 Sep 01 00:24	0°♎	
greatest brilliancy	4954 Mar 01 12:39	3°♋02'23	-4.7m		4956 Sep 25 14:16	0°♍	
	4954 Apr 05 20:01	0°♋		desc. node	4956 Oct 19 08:29	28°♍48'37	
morning max el	4954 Apr 09 01:48	3°♋13'00	46°52'33		4956 Oct 20 08:07	0°♊	
	4954 May 04 04:38	0°♋			4956 Nov 14 07:23	0°♊	
desc. node	4954 May 04 13:29	0°♋24'40			4956 Dec 09 14:47	0°♋	
	4954 May 30 10:43	0°♋			4957 Jan 04 14:54	0°♋	
	4954 Jun 24 22:18	0°♌		evening max el	4957 Jan 30 08:32	27°♋47'02	47°09'44
	4954 Jul 20 01:21	0°☿			4957 Feb 01 13:16	0°♋	
	4954 Aug 13 22:51	0°♌		asc. node	4957 Feb 09 10:13	7°♋38'12	
asc. node	4954 Aug 25 15:11	14°♌09'53		greatest brilliancy	4957 Mar 09 14:56	28°♋19'23	-4.7m
	4954 Sep 07 15:05	0°♍			4957 Mar 14 01:52	0°♋	
	4954 Oct 02 02:05	0°♎		retrograde	4957 Mar 22 04:11	1°♋16'31	
morning set	4954 Oct 06 21:53	5°♎56'54			4957 Mar 30 00:48	30°♋♋	
	4954 Oct 26 08:37	0°♍		evening set	4957 Apr 09 06:28	25°♋00'04	

min. Earth dist.	4957 Apr 11 17:16	23° Υ 29'29	0.27440 AU	minimum elong	4959 Sep 02 18:51	12° η 49'20	1°13'16
inferior conj	4957 Apr 12 00:48	23° Υ 17'47	8°53'05		4959 Sep 16 17:19	0° Ω	
minimum elong	4957 Apr 12 04:40	23° Υ 11'46	8°52'52	evening rise	4959 Oct 09 07:32	27° Ω 52'44	
morning rise	4957 Apr 15 02:58	21° Υ 23'46			4959 Oct 11 00:46	0° \mathbb{M}	
direct	4957 May 02 17:10	15° Υ 26'34			4959 Nov 04 08:03	0° \mathcal{A}	
greatest brilliancy	4957 May 13 20:41	17° Υ 43'23	-4.6m	desc. node	4959 Nov 16 20:15	15° \mathcal{A} 26'05	
desc. node	4957 Jun 01 01:05	28° Υ 42'30			4959 Nov 28 15:45	0° \mathcal{C}	
	4957 Jun 02 16:35	0° \mathcal{B}			4959 Dec 23 00:11	0° \approx	
morning max el	4957 Jun 21 05:51	16° \mathcal{B} 35'52	46°09'43		4960 Jan 16 10:38	0° \mathcal{H}	
	4957 Jul 04 11:50	0° \mathbb{I}			4960 Feb 10 03:06	0° Υ	
	4957 Aug 01 01:06	0° \mathcal{S}			4960 Mar 06 10:39	0° \mathcal{B}	
	4957 Aug 27 05:28	0° Ω		asc. node	4960 Mar 08 21:59	2° \mathcal{B} 51'45	
	4957 Sep 21 15:38	0° η			4960 Apr 02 06:34	0° \mathbb{I}	
asc. node	4957 Sep 22 03:03	0° η 34'06		evening max el	4960 Apr 12 10:52	10° \mathbb{I} 31'42	46°36'22
	4957 Oct 16 12:41	0° Ω			4960 May 04 02:13	0° \mathcal{S}	
	4957 Nov 09 23:56	0° \mathbb{M}		greatest brilliancy	4960 May 18 00:53	8° \mathcal{S} 54'45	-4.6m
	4957 Dec 04 04:30	0° \mathcal{A}		retrograde	4960 Jun 01 12:04	12° \mathcal{S} 38'53	
morning set	4957 Dec 16 05:54	15° \mathcal{A} 02'20		evening set	4960 Jun 16 15:30	8° \mathcal{S} 07'46	
	4957 Dec 28 04:59	0° \mathcal{C}		inferior conj	4960 Jun 22 17:54	4° \mathcal{S} 27'11	1°24'18
desc. node	4958 Jan 11 17:57	18° \mathcal{C} 13'27		minimum elong	4960 Jun 22 21:01	4° \mathcal{S} 22'18	1°23'21
	4958 Jan 21 03:04	0° \approx		min. Earth dist.	4960 Jun 22 11:17	4° \mathcal{S} 37'31	0.28353 AU
max. Earth dist.	4958 Jan 23 21:47	3° \approx 29'33	1.71257 AU	desc. node	4960 Jun 28 12:57	0° \mathcal{S} 58'19	
				morning rise	4960 Jun 29 03:10	0° \mathcal{S} 38'49	
superior conj	4958 Jan 25 09:22	5° \approx 21'20	0°-32'-12		4960 Jun 30 08:44	30° \mathbb{R} \mathbb{I}	
minimum elong	4958 Jan 25 01:24	4° \approx 56'20	0°31'51	direct	4960 Jul 14 00:47	26° \mathbb{I} 21'20	
	4958 Feb 13 23:49	0° \mathcal{H}		greatest brilliancy	4960 Jul 26 09:30	29° \mathbb{I} 04'43	-4.5m
evening rise	4958 Mar 07 07:05	26° \mathcal{H} 47'03			4960 Jul 28 11:27	0° \mathcal{S}	
	4958 Mar 09 20:32	0° Υ		morning max el	4960 Aug 31 18:19	26° \mathcal{S} 06'27	45°42'00
	4958 Apr 02 19:14	0° \mathcal{B}			4960 Sep 04 18:58	0° Ω	
	4958 Apr 26 22:19	0° \mathbb{I}			4960 Oct 03 08:23	0° η	
asc. node	4958 May 04 19:45	9° \mathbb{I} 44'39		asc. node	4960 Oct 19 14:56	18° η 21'27	
	4958 May 21 08:19	0° \mathcal{S}			4960 Oct 29 15:54	0° Ω	
	4958 Jun 15 04:07	0° Ω			4960 Nov 23 20:47	0° \mathbb{M}	
	4958 Jul 10 14:37	0° η			4960 Dec 18 10:23	0° \mathcal{A}	
	4958 Aug 06 02:56	0° Ω			4961 Jan 11 15:14	0° \mathcal{C}	
desc. node	4958 Aug 24 10:44	19° Ω 28'24			4961 Feb 04 15:17	0° \approx	
	4958 Sep 04 01:22	0° \mathbb{M}		desc. node	4961 Feb 08 05:52	4° \approx 31'16	
evening max el	4958 Sep 04 13:14	0° \mathbb{M} 28'22	45°38'46		4961 Feb 28 12:57	0° \mathcal{H}	
greatest brilliancy	4958 Oct 11 20:45	27° \mathbb{M} 52'04	-4.5m	morning set	4961 Mar 01 23:32	1° \mathcal{H} 48'37	
	4958 Oct 20 01:58	0° \mathcal{A}			4961 Mar 24 09:59	0° Υ	
retrograde	4958 Oct 23 07:16	0° \mathcal{A} 11'53					
	4958 Oct 26 11:14	30° \mathbb{R} \mathbb{M}		superior conj	4961 Apr 11 21:50	23° Υ 12'02	-1°-25'-45
evening set	4958 Nov 09 03:27	24° \mathbb{M} 49'09		minimum elong	4961 Apr 12 01:48	23° Υ 24'27	1°25'44
inferior conj	4958 Nov 13 09:00	22° \mathbb{M} 15'43	-6°-56'-4	max. Earth dist.	4961 Apr 15 13:29	27° Υ 46'31	1.71610 AU
minimum elong	4958 Nov 13 18:59	22° \mathbb{M} 00'19	6°54'14		4961 Apr 17 08:08	0° \mathcal{B}	
min. Earth dist.	4958 Nov 14 08:05	21° \mathbb{M} 40'06	0.28041 AU		4961 May 11 09:04	0° \mathbb{I}	
morning rise	4958 Nov 18 10:03	19° \mathbb{M} 13'26		evening rise	4961 May 21 19:29	12° \mathbb{I} 57'43	
direct	4958 Dec 04 14:01	14° \mathbb{M} 08'54		asc. node	4961 Jun 01 07:37	25° \mathbb{I} 58'11	
asc. node	4958 Dec 15 12:23	16° \mathbb{M} 23'03			4961 Jun 04 13:56	0° \mathcal{S}	
greatest brilliancy	4958 Dec 19 01:08	17° \mathbb{M} 56'20	-4.6m		4961 Jun 28 23:26	0° Ω	
	4959 Jan 05 18:54	0° \mathcal{A}			4961 Jul 23 14:26	0° η	
morning max el	4959 Jan 24 03:22	17° \mathcal{A} 07'28	46°48'25		4961 Aug 17 12:48	0° Ω	
	4959 Feb 05 09:37	0° \mathcal{C}			4961 Sep 11 22:16	0° \mathbb{M}	
	4959 Mar 03 22:53	0° \approx		desc. node	4961 Sep 20 22:30	10° \mathbb{M} 27'49	
	4959 Mar 29 05:53	0° \mathcal{H}			4961 Oct 08 01:41	0° \mathcal{A}	
desc. node	4959 Apr 06 03:35	9° \mathcal{H} 31'48			4961 Nov 04 15:39	0° \mathcal{C}	
	4959 Apr 23 00:09	0° Υ		evening max el	4961 Nov 16 05:27	11° \mathcal{C} 42'33	46°29'49
	4959 May 17 13:05	0° \mathcal{B}			4961 Dec 06 18:27	0° \approx	
	4959 Jun 11 00:28	0° \mathbb{I}		greatest brilliancy	4961 Dec 24 17:29	10° \approx 57'44	-4.6m
	4959 Jul 05 11:47	0° \mathcal{S}		retrograde	4962 Jan 05 01:41	13° \approx 20'01	
morning set	4959 Jul 28 10:26	28° \mathcal{S} 08'16		asc. node	4962 Jan 12 00:26	12° \approx 21'21	
asc. node	4959 Jul 28 05:20	27° \mathcal{S} 52'36		evening set	4962 Jan 19 11:54	9° \approx 14'24	
	4959 Jul 29 22:52	0° Ω		inferior conj	4962 Jan 25 15:29	5° \approx 38'26	3°27'47
	4959 Aug 23 08:50	0° η		minimum elong	4962 Jan 25 07:59	5° \approx 49'55	3°25'31
max. Earth dist.	4959 Sep 01 21:02	11° η 42'10	1.73414 AU	min. Earth dist.	4962 Jan 25 11:44	5° \approx 44'10	0.26649 AU
				morning rise	4962 Jan 31 03:58	2° \approx 22'47	
superior conj	4959 Sep 03 02:48	13° η 13'50	1°13'28		4962 Feb 05 02:50	30° \mathbb{R} \mathcal{C}	

direct	4962 Feb 15 04:05	27°☿56'50		4964 Aug 06 23:59	0°♊	
	4962 Feb 25 14:35	0°♊		4964 Aug 31 11:23	0°♊	
greatest brilliancy	4962 Feb 27 03:56	0°♊37'24	-4.7m	4964 Sep 25 01:37	0°♊	
	4962 Apr 05 19:58	0°♊		4964 Oct 18 10:22	28°♊18'29	
morning max el	4962 Apr 06 13:36	0°♊44'10	46°53'35	4964 Oct 19 20:02	0°♊	
desc. node	4962 May 03 15:26	29°♊43'26		4964 Nov 13 20:09	0°☿	
	4962 May 03 21:21	0°♊		4964 Dec 09 04:56	0°♊	
	4962 May 30 00:46	0°♊		4965 Jan 04 07:41	0°♊	
	4962 Jun 24 11:00	0°♊		4965 Jan 27 22:11	25°♊22'33	47°09'40
	4962 Jul 19 13:14	0°☿		4965 Feb 01 13:17	0°♊	
	4962 Aug 13 10:14	0°♊		4965 Feb 08 12:13	6°♊37'42	
asc. node	4962 Aug 24 17:12	13°♊41'52		4965 Mar 07 04:57	25°♊55'11	-4.7m
	4962 Sep 07 02:10	0°♊		4965 Mar 19 18:26	28°♊52'39	
	4962 Oct 01 12:59	0°♊		4965 Apr 06 21:08	22°♊34'28	
morning set	4962 Oct 04 14:54	3°♊47'46		4965 Apr 09 05:58	21°♊07'04	0.27407 AU
	4962 Oct 25 19:28	0°♊		4965 Apr 09 14:17	20°♊54'10	8°57'10
max. Earth dist.	4962 Nov 07 13:48	15°♊50'42	1.72467 AU	4965 Apr 09 17:17	20°♊49'31	8°57'01
				4965 Apr 12 13:33	19°♊04'50	
superior conj	4962 Nov 10 11:49	19°♊28'18	1°09'42	4965 Apr 30 06:20	13°♊03'22	
minimum elong	4962 Nov 10 21:07	19°♊57'11	1°09'27	4965 May 11 09:18	15°♊20'15	-4.6m
	4962 Nov 18 22:59	0°♊		4965 May 31 03:08	27°♊32'46	
	4962 Dec 13 00:41	0°☿		4965 Jun 03 03:23	0°♊	
desc. node	4962 Dec 14 08:11	1°☿38'14		4965 Jun 18 20:45	14°♊19'17	46°11'26
evening rise	4962 Dec 19 06:12	7°☿46'27		4965 Jul 04 06:25	0°♊	
	4963 Jan 06 01:14	0°♊		4965 Jul 31 15:37	0°☿	
	4963 Jan 30 01:19	0°♊		4965 Aug 26 18:11	0°♊	
	4963 Feb 23 02:31	0°♊		4965 Sep 21 05:00	0°♊04'45	
	4963 Mar 19 08:02	0°♊		4965 Sep 21 03:24	0°♊	
asc. node	4963 Apr 06 09:51	22°♊05'36		4965 Oct 15 23:57	0°♊	
	4963 Apr 12 22:51	0°♊		4965 Nov 09 10:57	0°♊	
	4963 May 08 06:35	0°☿		4965 Dec 03 15:25	0°♊	
	4963 Jun 03 22:48	0°♊		4965 Dec 13 19:42	12°♊41'29	
evening max el	4963 Jun 23 02:39	19°♊45'09	45°42'40	4965 Dec 27 15:54	0°☿	
	4963 Jul 04 04:05	0°♊		4966 Jan 10 20:03	17°☿45'53	
desc. node	4963 Jul 27 00:59	16°♊11'00		4966 Jan 20 13:59	0°♊	
greatest brilliancy	4963 Jul 28 00:23	16°♊38'51	-4.5m	4966 Jan 21 08:18	0°♊57'31	1.71279 AU
retrograde	4963 Aug 11 01:50	20°♊07'40				
evening set	4963 Aug 27 19:25	14°♊49'36		4966 Jan 22 20:06	2°♊50'00	0°-28'-30
inferior conj	4963 Sep 01 15:35	11°♊51'58	-7°-16'-38	4966 Jan 22 12:59	2°♊27'36	0°28'10
minimum elong	4963 Sep 01 06:35	12°♊06'06	7°15'15	4966 Feb 13 10:45	0°♊	
min. Earth dist.	4963 Sep 01 11:25	11°♊58'31	0.29130 AU	4966 Mar 04 17:29	24°♊14'30	
morning rise	4963 Sep 05 17:42	9°♊20'28		4966 Mar 09 07:31	0°♊	
direct	4963 Sep 23 05:41	3°♊33'58		4966 Apr 02 06:18	0°♊	
greatest brilliancy	4963 Oct 07 03:21	6°♊56'08	-4.5m	4966 Apr 26 09:34	0°♊	
	4963 Nov 07 03:38	0°♊		4966 May 03 21:46	9°♊16'02	
morning max el	4963 Nov 11 11:08	4°♊08'26	46°02'40	4966 May 20 19:52	0°☿	
asc. node	4963 Nov 17 02:41	9°♊46'37		4966 Jun 14 16:12	0°♊	
	4963 Dec 06 01:30	0°♊		4966 Jul 10 03:49	0°♊	
	4964 Jan 01 03:46	0°♊		4966 Aug 05 18:35	0°♊	
	4964 Jan 26 03:08	0°☿		4966 Aug 23 12:42	18°♊44'37	
	4964 Feb 19 13:50	0°♊		4966 Sep 02 04:38	28°♊16'39	45°37'46
desc. node	4964 Mar 07 17:38	21°♊15'33		4966 Sep 04 00:16	0°♊	
	4964 Mar 14 18:21	0°♊		4966 Oct 09 09:17	25°♊35'29	-4.5m
	4964 Apr 07 20:15	0°♊		4966 Oct 20 21:32	27°♊56'16	
	4964 May 01 21:55	0°♊		4966 Nov 06 20:49	22°♊29'03	
morning set	4964 May 16 06:53	17°♊52'54		4966 Nov 10 23:35	19°♊59'15	-7°-8'-30
	4964 May 26 01:07	0°♊		4966 Nov 11 09:18	19°♊44'13	7°06'48
	4964 Jun 19 06:40	0°☿		4966 Nov 11 22:05	19°♊24'27	0.28109 AU
				4966 Nov 15 21:24	17°♊01'18	
superior conj	4964 Jun 23 12:59	5°☿15'56	0°-12'-38	4966 Dec 02 05:46	11°♊51'44	
minimum elong	4964 Jun 23 15:47	5°☿24'36	0°12'31	4966 Dec 14 14:33	14°♊41'12	
behind sun begin	4964 Jun 23 01:00	4°☿38'59		4966 Dec 16 16:10	15°♊38'23	-4.6m
behind sun end	4964 Jun 24 06:34	6°☿10'13		4967 Jan 06 03:13	0°♊	
max. Earth dist.	4964 Jun 25 18:42	8°☿01'43	1.73028 AU	4967 Jan 21 18:23	14°♊48'15	46°47'09
asc. node	4964 Jun 28 19:31	11°☿46'21		4967 Feb 05 03:58	0°☿	
	4964 Jul 13 14:26	0°♊		4967 Mar 03 13:37	0°♊	
evening rise	4964 Jul 30 14:28	20°♊54'54		4967 Mar 28 18:58	0°♊	

desc. node	4967 Apr 05 05:36	8° H 59'15			4969 Nov 04 11:15	0° Z	
	4967 Apr 22 12:18	0° Y		evening max el	4969 Nov 13 17:51	9° Z 18'51	46°27'41
	4967 May 17 00:40	0° X			4969 Dec 07 12:06	0° \approx	
	4967 Jun 10 11:38	0° II		greatest brilliancy	4969 Dec 22 07:22	8° \approx 33'04	-4.6m
	4967 Jul 04 22:39	0° S		retrograde	4970 Jan 02 13:30	10° \approx 53'40	
morning set	4967 Jul 26 03:52	26° S 01'46		asc. node	4970 Jan 11 02:22	9° \approx 25'18	
asc. node	4967 Jul 27 07:19	27° S 25'59		evening set	4970 Jan 16 23:10	6° \approx 49'30	
	4967 Jul 29 09:31	0° Q		inferior conj	4970 Jan 23 03:59	3° \approx 12'18	3°04'52
	4967 Aug 22 19:23	0° P		minimum elong	4970 Jan 22 21:13	3° \approx 22'40	3°02'47
max. Earth dist.	4967 Aug 30 17:45	9° P 45'43	1.73422 AU	min. Earth dist.	4970 Jan 23 01:54	3° \approx 15'30	0.26659 AU
				morning rise	4970 Jan 28 19:02	29° Z 53'02	
superior conj	4967 Aug 31 21:00	11° P 09'38	1°11'48		4970 Jan 28 13:58	30° R Z	
minimum elong	4967 Aug 31 12:45	10° P 44'14	1°11'34	direct	4970 Feb 12 16:12	25° Z 30'02	
	4967 Sep 16 03:51	0° Q		greatest brilliancy	4970 Feb 24 20:03	28° Z 14'23	-4.7m
evening rise	4967 Oct 07 00:53	25° Q 45'15			4970 Feb 28 12:19	0° \approx	
	4967 Oct 10 11:26	0° M		morning max el	4970 Apr 04 02:12	28° \approx 17'50	46°54'30
	4967 Nov 03 18:57	0° X			4970 Apr 05 18:39	0° H	
desc. node	4967 Nov 15 22:22	14° X 58'33		desc. node	4970 May 02 17:31	29° H 03'34	
	4967 Nov 28 02:58	0° Z			4970 May 03 13:33	0° Y	
	4967 Dec 22 11:51	0° \approx			4970 May 29 14:27	0° X	
	4968 Jan 15 22:54	0° H			4970 Jun 23 23:20	0° II	
	4968 Feb 09 16:16	0° Y			4970 Jul 19 00:46	0° S	
	4968 Mar 06 01:31	0° X			4970 Aug 12 21:16	0° Q	
asc. node	4968 Mar 07 23:56	2° X 13'54		asc. node	4970 Aug 23 19:06	13° Q 14'35	
	4968 Apr 02 01:33	0° II			4970 Sep 06 12:55	0° P	
evening max el	4968 Apr 10 02:01	8° II 15'04	46°38'21		4970 Sep 30 23:36	0° Q	
	4968 May 04 17:56	0° S		morning set	4970 Oct 02 08:05	1° Q 40'06	
greatest brilliancy	4968 May 15 19:20	6° S 44'35	-4.6m		4970 Oct 25 06:02	0° M	
retrograde	4968 May 30 03:41	10° S 25'25		max. Earth dist.	4970 Nov 05 07:32	13° M 43'47	1.72511 AU
evening set	4968 Jun 14 08:40	5° S 52'50					
inferior conj	4968 Jun 20 09:24	2° S 14'16	1°45'11	superior conj	4970 Nov 08 03:49	17° M 15'55	1°11'38
minimum elong	4968 Jun 20 13:16	2° S 08'13	1°44'00	minimum elong	4970 Nov 08 12:48	17° M 43'52	1°11'23
min. Earth dist.	4968 Jun 20 03:12	2° S 23'59	0.28317 AU		4970 Nov 18 09:35	0° X	
	4968 Jun 24 00:36	30° R II			4970 Dec 12 11:24	0° Z	
morning rise	4968 Jun 26 18:31	28° II 25'53		desc. node	4970 Dec 13 10:16	1° Z 11'18	
desc. node	4968 Jun 27 15:05	27° II 58'37		evening rise	4970 Dec 16 19:43	5° Z 25'18	
direct	4968 Jul 11 16:02	24° II 09'08			4971 Jan 05 12:08	0° \approx	
greatest brilliancy	4968 Jul 23 22:36	26° II 50'10	-4.5m		4971 Jan 29 12:25	0° H	
	4968 Jul 30 08:13	0° S			4971 Feb 22 13:53	0° Y	
morning max el	4968 Aug 29 08:53	23° S 53'32	45°42'10		4971 Mar 18 19:48	0° X	
	4968 Sep 04 15:25	0° Q		asc. node	4971 Apr 05 11:54	21° X 34'41	
	4968 Oct 02 23:15	0° P			4971 Apr 12 11:18	0° II	
asc. node	4968 Oct 18 16:56	17° P 48'36			4971 May 07 20:23	0° S	
	4968 Oct 29 04:42	0° Q			4971 Jun 03 15:41	0° Q	
	4968 Nov 23 08:38	0° M		evening max el	4971 Jun 20 17:52	17° Q 32'46	45°44'06
	4968 Dec 17 21:45	0° X			4971 Jul 04 08:30	0° P	
	4969 Jan 11 02:21	0° Z		greatest brilliancy	4971 Jul 25 13:36	14° P 26'41	-4.5m
	4969 Feb 04 02:17	0° \approx		desc. node	4971 Jul 26 02:55	14° P 41'58	
desc. node	4969 Feb 07 07:47	4° \approx 02'53		retrograde	4971 Aug 08 18:37	17° P 59'44	
morning set	4969 Feb 27 09:19	29° \approx 14'19		evening set	4971 Aug 25 08:42	12° P 45'30	
	4969 Feb 27 23:51	0° H		inferior conj	4971 Aug 30 08:00	9° P 43'34	-7°-5'-49
	4969 Mar 23 20:49	0° Y		minimum elong	4971 Aug 29 22:43	9° P 58'06	7°04'18
				min. Earth dist.	4971 Aug 30 02:56	9° P 51'30	0.29126 AU
superior conj	4969 Apr 09 09:19	20° Y 43'55	-1°-26'-20	morning rise	4971 Sep 03 12:42	7° P 08'28	
minimum elong	4969 Apr 09 12:16	20° Y 53'11	1°26'20	direct	4971 Sep 20 21:51	1° P 25'33	
max. Earth dist.	4969 Apr 12 23:03	25° Y 12'28	1.71561 AU	greatest brilliancy	4971 Oct 04 19:51	4° P 48'06	-4.5m
	4969 Apr 16 18:54	0° X			4971 Nov 07 02:38	0° Q	
	4969 May 10 19:46	0° II		morning max el	4971 Nov 09 03:14	1° Q 57'35	46°01'21
evening rise	4969 May 19 08:49	10° II 36'56		asc. node	4971 Nov 16 04:47	9° Q 01'57	
asc. node	4969 May 31 09:43	25° II 31'30			4971 Dec 05 17:15	0° M	
	4969 Jun 04 00:40	0° S			4971 Dec 31 17:08	0° X	
	4969 Jun 28 10:20	0° Q			4972 Jan 25 15:26	0° Z	
	4969 Jul 23 01:39	0° P			4972 Feb 19 01:32	0° \approx	
	4969 Aug 17 00:37	0° Q		desc. node	4972 Mar 06 19:41	20° \approx 46'26	
	4969 Sep 11 11:08	0° M			4972 Mar 14 05:41	0° H	
desc. node	4969 Sep 20 00:30	9° M 54'52			4972 Apr 07 07:19	0° Y	
	4969 Oct 07 16:34	0° X			4972 May 01 08:47	0° X	

morning set	4972 May 13 20:58	15°♄33'54		inferior conj	4974 Nov 08 14:25	17°♌43'29	-7°-20'-5
	4972 May 25 11:51	0°♈		minimum elong	4974 Nov 08 23:49	17°♌28'54	7°18'32
	4972 Jun 18 17:18	0°♉		min. Earth dist.	4974 Nov 09 12:34	17°♌09'08	0.28174 AU
superior conj	4972 Jun 21 04:51	3°♊03'58	0°-16'00	morning rise	4974 Nov 13 08:55	14°♌49'50	
minimum elong	4972 Jun 21 08:25	3°♊14'56	0°15'51	direct	4974 Nov 29 21:20	9°♌35'16	
behind sun begin	4972 Jun 21 05:37	3°♊06'19		asc. node	4974 Dec 13 16:30	13°♌03'03	
behind sun end	4972 Jun 21 11:12	3°♊23'34		greatest brilliancy	4974 Dec 14 07:01	13°♌20'29	-4.6m
max. Earth dist.	4972 Jun 23 12:23	5°♊55'25	1.72990 AU		4975 Jan 06 09:08	0°♌	
asc. node	4972 Jun 27 21:29	11°♊19'43		morning max el	4975 Jan 19 08:36	12°♌26'57	46°45'46
	4972 Jul 13 01:02	0°♈			4975 Feb 04 21:55	0°♌	
evening rise	4972 Jul 28 08:27	18°♈50'05			4975 Mar 03 04:14	0°♌	
	4972 Aug 06 10:38	0°♉		desc. node	4975 Mar 28 08:03	0°♈	
	4972 Aug 30 22:13	0°♊			4975 Apr 04 07:40	8°♈26'43	
	4972 Sep 24 12:49	0°♌			4975 Apr 22 00:31	0°♉	
desc. node	4972 Oct 17 12:31	27°♌49'26			4975 May 16 12:18	0°♈	
	4972 Oct 19 07:50	0°♌			4975 Jun 09 22:51	0°♈	
	4972 Nov 13 08:52	0°♌		morning set	4975 Jul 04 09:35	0°♉	
	4972 Dec 08 19:05	0°♌		asc. node	4975 Jul 23 21:27	23°♉55'25	
	4973 Jan 04 00:36	0°♈			4975 Jul 26 09:16	26°♉58'58	
evening max el	4973 Jan 25 13:01	23°♈01'48	47°09'34		4975 Jul 28 20:15	0°♈	
	4973 Feb 01 14:09	0°♉		max. Earth dist.	4975 Aug 22 06:03	0°♉	
asc. node	4973 Feb 07 14:11	5°♉36'28			4975 Aug 28 12:50	7°♉43'51	1.73433 AU
greatest brilliancy	4973 Mar 04 19:04	23°♉32'04	-4.7m	superior conj	4975 Aug 29 15:19	9°♉05'21	1°10'02
retrograde	4973 Mar 17 09:05	26°♉29'38		minimum elong	4975 Aug 29 06:49	8°♉39'12	1°09'47
evening set	4973 Apr 04 11:28	20°♉10'35			4975 Sep 15 14:35	0°♊	
inferior conj	4973 Apr 07 03:54	18°♉31'26	9°00'12	evening rise	4975 Oct 04 18:17	23°♊37'29	
minimum elong	4973 Apr 07 06:01	18°♉28'09	9°00'08		4975 Oct 09 22:17	0°♊	
min. Earth dist.	4973 Apr 06 18:32	18°♉45'57	0.27372 AU		4975 Nov 03 06:02	0°♌	
morning rise	4973 Apr 10 00:41	16°♉46'01		desc. node	4975 Nov 15 00:22	14°♌30'08	
direct	4973 Apr 27 20:04	10°♉41'18			4975 Nov 27 14:22	0°♌	
greatest brilliancy	4973 May 08 21:00	12°♉56'53	-4.6m		4975 Dec 21 23:42	0°♌	
desc. node	4973 May 30 05:15	26°♉25'43			4976 Jan 15 11:23	0°♈	
	4973 Jun 03 11:03	0°♈			4976 Feb 09 05:45	0°♉	
morning max el	4973 Jun 16 11:53	12°♈03'34	46°12'54		4976 Mar 05 16:49	0°♈	
	4973 Jul 04 00:26	0°♈		asc. node	4976 Mar 07 02:02	1°♈35'27	
	4973 Jul 31 05:55	0°♉			4976 Apr 01 21:22	0°♈	
	4973 Aug 26 06:47	0°♈		evening max el	4976 Apr 07 16:28	5°♈55'46	46°40'18
asc. node	4973 Sep 20 07:05	29°♈36'05			4976 May 05 15:33	0°♉	
	4973 Sep 20 15:05	0°♉		greatest brilliancy	4976 May 13 13:35	4°♉33'28	-4.6m
	4973 Oct 15 11:07	0°♊		retrograde	4976 May 27 19:08	8°♉11'38	
	4973 Nov 08 21:52	0°♌		evening set	4976 Jun 12 02:02	3°♉37'14	
	4973 Dec 03 02:16	0°♌		inferior conj	4976 Jun 18 01:01	0°♉01'09	2°05'47
morning set	4973 Dec 11 09:41	10°♌21'33		minimum elong	4976 Jun 18 05:37	29°♈53'57	2°04'24
	4973 Dec 27 02:45	0°♌		min. Earth dist.	4976 Jun 17 19:32	0°♉09'46	0.28280 AU
desc. node	4974 Jan 09 21:58	17°♌17'51			4976 Jun 18 01:45	30°♈♈	
max. Earth dist.	4974 Jan 18 16:40	28°♌18'54	1.71301 AU	morning rise	4976 Jun 24 09:45	26°♈12'56	
				desc. node	4976 Jun 26 16:56	25°♈02'24	
superior conj	4974 Jan 20 07:08	0°♌19'40	0°-24'-45	direct	4976 Jul 09 06:51	21°♈56'33	
minimum elong	4974 Jan 20 00:53	0°♌00'03	0°24'27	greatest brilliancy	4976 Jul 21 12:26	24°♈36'03	-4.5m
	4974 Jan 20 00:52	0°♌			4976 Jul 31 14:49	0°♉	
	4974 Feb 12 21:39	0°♈		morning max el	4976 Aug 26 23:14	21°♉39'26	45°42'23
evening rise	4974 Mar 02 04:05	21°♈42'37			4976 Sep 04 11:25	0°♈	
	4974 Mar 08 18:28	0°♉			4976 Oct 02 14:11	0°♉	
	4974 Apr 01 17:21	0°♈		asc. node	4976 Oct 17 19:01	17°♉15'21	
	4974 Apr 25 20:46	0°♈			4976 Oct 28 17:42	0°♊	
asc. node	4974 May 02 23:53	8°♈47'49			4976 Nov 22 20:44	0°♌	
	4974 May 20 07:23	0°♉			4976 Dec 17 09:22	0°♌	
	4974 Jun 14 04:20	0°♈			4977 Jan 10 13:43	0°♌	
	4974 Jul 09 17:09	0°♉			4977 Feb 03 13:30	0°♌	
	4974 Aug 05 10:35	0°♊		desc. node	4977 Feb 06 09:49	3°♌34'04	
desc. node	4974 Aug 22 14:44	18°♊00'10		morning set	4977 Feb 24 19:02	26°♌39'01	
evening max el	4974 Aug 30 19:54	26°♊04'21	45°36'48		4977 Feb 27 11:01	0°♈	
	4974 Sep 04 00:21	0°♌			4977 Mar 23 07:56	0°♉	
greatest brilliancy	4974 Oct 06 22:54	23°♌20'17	-4.5m				
retrograde	4974 Oct 18 11:26	25°♌41'10		superior conj	4977 Apr 06 20:46	18°♉14'39	-1°-26'-45
evening set	4974 Nov 04 14:21	20°♌09'42		minimum elong	4977 Apr 06 22:41	18°♉20'41	1°26'46

max. Earth dist.	4977 Apr 10 05:08	22° Υ 26'29	1.71517 AU	direct	4979 Sep 18 14:19	29° Ω 16'02	
	4977 Apr 16 05:58	0° \mathcal{B}			4979 Sep 24 20:42	0° \mathfrak{M}	
	4977 May 10 06:49	0° Π		greatest brilliancy	4979 Oct 02 11:02	2° \mathfrak{M} 37'35	-4.5m
evening rise	4977 May 16 22:04	8° Π 14'48		morning max el	4979 Nov 06 19:40	29° \mathfrak{M} 46'55	46°00'00
asc. node	4977 May 30 11:40	25° Π 03'22			4979 Nov 07 01:02	0° $\underline{\Omega}$	
	4977 Jun 03 11:44	0° \mathfrak{S}		asc. node	4979 Nov 15 06:45	8° $\underline{\Omega}$ 16'47	
	4977 Jun 27 21:32	0° Ω			4979 Dec 05 09:04	0° \mathfrak{M}	
	4977 Jul 22 13:11	0° \mathfrak{M}			4979 Dec 31 06:46	0° \mathcal{Z}	
	4977 Aug 16 12:46	0° $\underline{\Omega}$			4980 Jan 25 04:04	0° \mathcal{Z}	
	4977 Sep 11 00:24	0° \mathfrak{M}			4980 Feb 18 13:37	0° \approx	
desc. node	4977 Sep 19 02:35	9° \mathfrak{M} 21'05		desc. node	4980 Mar 05 21:49	20° \approx 16'24	
	4977 Oct 07 08:01	0° \mathcal{Z}			4980 Mar 13 17:24	0° \mathfrak{H}	
	4977 Nov 04 07:57	0° \mathcal{Z}			4980 Apr 06 18:44	0° Υ	
evening max el	4977 Nov 11 06:33	6° \mathcal{Z} 55'02	46°25'36		4980 Apr 30 20:00	0° \mathcal{B}	
	4977 Dec 08 12:39	0° \approx		morning set	4980 May 11 10:44	13° \mathcal{B} 12'47	
greatest brilliancy	4977 Dec 19 20:35	6° \approx 06'43	-4.6m		4980 May 24 22:54	0° Π	
retrograde	4977 Dec 31 01:51	8° \approx 26'42			4980 Jun 18 04:17	0° \mathfrak{S}	
asc. node	4978 Jan 10 04:21	6° \approx 23'06					
evening set	4978 Jan 14 10:45	4° \approx 23'20		superior conj	4980 Jun 18 20:27	0° \mathfrak{S} 49'58	0°-19'-22
inferior conj	4978 Jan 20 16:34	0° \approx 45'20	2°41'35	minimum elong	4980 Jun 19 00:45	1° \mathfrak{S} 03'15	0°19'12
minimum elong	4978 Jan 20 10:34	0° \approx 54'30	2°39'43	max. Earth dist.	4980 Jun 21 07:33	3° \mathfrak{S} 52'32	1.72953 AU
min. Earth dist.	4978 Jan 20 15:57	0° \approx 46'16	0.26672 AU	asc. node	4980 Jun 26 23:27	10° \mathfrak{S} 52'00	
	4978 Jan 21 22:19	30° \mathfrak{R} \mathcal{Z}			4980 Jul 12 12:00	0° Ω	
morning rise	4978 Jan 26 10:03	27° \mathcal{Z} 22'54		evening rise	4980 Jul 26 02:20	16° Ω 43'48	
direct	4978 Feb 10 04:37	23° \mathcal{Z} 02'20			4980 Aug 05 21:39	0° \mathfrak{M}	
greatest brilliancy	4978 Feb 22 12:12	25° \mathcal{Z} 50'43	-4.7m		4980 Aug 30 09:25	0° $\underline{\Omega}$	
	4978 Mar 02 07:02	0° \approx			4980 Sep 24 00:22	0° \mathfrak{M}	
morning max el	4978 Apr 01 15:50	25° \approx 53'10	46°55'16	desc. node	4980 Oct 16 14:31	27° \mathfrak{M} 19'09	
	4978 Apr 05 16:48	0° \mathfrak{H}			4980 Oct 18 19:58	0° \mathcal{Z}	
desc. node	4978 May 01 19:35	28° \mathfrak{H} 23'08			4980 Nov 12 21:54	0° \mathcal{Z}	
	4978 May 03 05:49	0° Υ			4980 Dec 08 09:40	0° \approx	
	4978 May 29 04:22	0° \mathcal{B}			4981 Jan 03 18:14	0° \mathfrak{H}	
	4978 Jun 23 12:00	0° Π		evening max el	4981 Jan 23 04:13	20° \mathfrak{H} 40'45	47°09'07
	4978 Jul 18 12:39	0° \mathfrak{S}			4981 Feb 01 16:57	0° Υ	
	4978 Aug 12 08:39	0° Ω		asc. node	4981 Feb 06 16:17	4° Υ 32'39	
asc. node	4978 Aug 22 21:15	12° Ω 47'03		greatest brilliancy	4981 Mar 02 09:48	21° Υ 07'52	-4.7m
	4978 Sep 05 23:59	0° \mathfrak{M}		retrograde	4981 Mar 14 23:15	24° Υ 04'04	
morning set	4978 Sep 30 01:30	29° \mathfrak{M} 32'15		evening set	4981 Apr 02 00:59	17° Υ 45'22	
	4978 Sep 30 10:31	0° $\underline{\Omega}$		inferior conj	4981 Apr 04 17:12	16° Υ 06'28	9°02'14
	4978 Oct 24 16:56	0° \mathfrak{M}		minimum elong	4981 Apr 04 18:23	16° Υ 04'37	9°02'13
max. Earth dist.	4978 Nov 03 02:28	11° \mathfrak{M} 39'35	1.72558 AU	min. Earth dist.	4981 Apr 04 06:53	16° Υ 22'28	0.27336 AU
				morning rise	4981 Apr 07 11:55	14° Υ 24'10	
superior conj	4978 Nov 05 19:57	15° \mathfrak{M} 02'54	1°13'25	direct	4981 Apr 25 09:35	8° Υ 17'12	
minimum elong	4978 Nov 06 04:33	15° \mathfrak{M} 29'39	1°13'12	greatest brilliancy	4981 May 06 07:58	10° Υ 30'42	-4.6m
	4978 Nov 17 20:34	0° \mathcal{Z}		desc. node	4981 May 29 07:10	25° Υ 18'43	
	4978 Dec 11 22:32	0° \mathcal{Z}			4981 Jun 03 17:02	0° \mathcal{B}	
desc. node	4978 Dec 12 12:12	0° \mathcal{Z} 42'39		morning max el	4981 Jun 14 02:08	9° \mathcal{B} 44'27	46°14'24
evening rise	4978 Dec 14 09:12	3° \mathcal{Z} 02'54			4981 Jul 03 18:25	0° Π	
	4979 Jan 04 23:26	0° \approx			4981 Jul 30 20:22	0° \mathfrak{S}	
	4979 Jan 28 23:56	0° \mathfrak{H}			4981 Aug 25 19:35	0° Ω	
	4979 Feb 22 01:40	0° Υ		asc. node	4981 Sep 19 09:05	29° Ω 06'25	
	4979 Mar 18 08:00	0° \mathcal{B}			4981 Sep 20 02:59	0° \mathfrak{M}	
asc. node	4979 Apr 04 13:57	21° \mathcal{B} 02'27			4981 Oct 14 22:31	0° $\underline{\Omega}$	
	4979 Apr 12 00:14	0° Π			4981 Nov 08 09:00	0° \mathfrak{M}	
	4979 May 07 10:46	0° \mathfrak{S}			4981 Dec 02 13:18	0° \mathcal{Z}	
	4979 Jun 03 09:27	0° Ω		morning set	4981 Dec 09 00:03	8° \mathcal{Z} 02'19	
evening max el	4979 Jun 18 10:01	15° Ω 21'17	45°45'33		4981 Dec 26 13:45	0° \mathcal{Z}	
	4979 Jul 04 15:42	0° \mathfrak{M}		desc. node	4982 Jan 09 00:02	16° \mathcal{Z} 49'47	
greatest brilliancy	4979 Jul 23 03:29	12° \mathfrak{M} 14'01	-4.5m	max. Earth dist.	4982 Jan 15 23:37	25° \mathcal{Z} 35'28	1.71329 AU
desc. node	4979 Jul 25 05:00	13° \mathfrak{M} 08'45					
retrograde	4979 Aug 06 11:35	15° \mathfrak{M} 50'16		superior conj	4982 Jan 17 18:28	27° \mathcal{Z} 49'56	0°-20'-59
evening set	4979 Aug 22 22:00	10° \mathfrak{M} 40'06		minimum elong	4982 Jan 17 13:08	27° \mathcal{Z} 33'13	0°20'44
inferior conj	4979 Aug 28 00:18	7° \mathfrak{M} 33'48	-6°-54'-19		4982 Jan 19 11:54	0° \approx	
minimum elong	4979 Aug 27 14:48	7° \mathfrak{M} 48'41	6°52'42		4982 Feb 12 08:45	0° \mathfrak{H}	
min. Earth dist.	4979 Aug 27 18:10	7° \mathfrak{M} 43'25	0.29116 AU	evening rise	4982 Feb 27 14:34	19° \mathfrak{H} 09'42	
morning rise	4979 Sep 01 07:39	4° \mathfrak{M} 55'04			4982 Mar 08 05:39	0° Υ	
	4979 Sep 12 12:43	30° \mathfrak{R} Ω			4982 Apr 01 04:38	0° \mathcal{B}	

	4982 Apr 25 08:14	0°♂		4984 Oct 28 06:30	0°♂
asc. node	4982 May 02 01:47	8°♂18'09		4984 Nov 22 08:38	0°♂
	4982 May 19 19:10	0°♂		4984 Dec 16 20:49	0°♂
	4982 Jun 13 16:45	0°♂		4985 Jan 10 00:53	0°♂
	4982 Jul 09 06:50	0°♂		4985 Feb 03 00:32	0°♂
	4982 Aug 05 03:06	0°♂	desc. node	4985 Feb 05 11:55	3°♂06'12
desc. node	4982 Aug 21 16:49	17°♂14'36	morning set	4985 Feb 22 05:07	24°♂05'31
evening max el	4982 Aug 28 10:18	23°♂49'22 45°35'54		4985 Feb 26 21:55	0°♂
	4982 Sep 04 01:56	0°♂		4985 Mar 22 18:45	0°♂
greatest brilliancy	4982 Oct 04 12:49	21°♂04'58 -4.5m			
retrograde	4982 Oct 16 01:07	23°♂25'56	superior conj	4985 Apr 04 08:28	15°♂47'08 -1°-26'-59
evening set	4982 Nov 02 07:48	17°♂50'14	minimum elong	4985 Apr 04 09:22	15°♂49'56 1°27'01
inferior conj	4982 Nov 06 05:17	15°♂27'40 -7°-30'-51	max. Earth dist.	4985 Apr 07 10:49	19°♂40'12 1.71476 AU
minimum elong	4982 Nov 06 14:18	15°♂13'38 7°29'29		4985 Apr 15 16:43	0°♂
min. Earth dist.	4982 Nov 07 03:21	14°♂53'22 0.28235 AU		4985 May 09 17:33	0°♂
morning rise	4982 Nov 10 20:25	12°♂38'28	evening rise	4985 May 14 11:27	5°♂53'56
direct	4982 Nov 27 12:22	7°♂18'39	asc. node	4985 May 29 13:41	24°♂36'11
greatest brilliancy	4982 Dec 11 22:20	11°♂03'11 -4.6m		4985 Jun 02 22:33	0°♂
asc. node	4982 Dec 12 18:27	11°♂28'14		4985 Jun 27 08:32	0°♂
	4983 Jan 06 13:07	0°♂		4985 Jul 22 00:32	0°♂
morning max el	4983 Jan 16 22:14	10°♂04'13 46°44'32		4985 Aug 16 00:44	0°♂
	4983 Feb 04 15:25	0°♂		4985 Sep 10 13:33	0°♂
	4983 Mar 02 18:40	0°♂	desc. node	4985 Sep 18 04:34	8°♂47'29
	4983 Mar 27 21:04	0°♂		4985 Oct 06 23:28	0°♂
desc. node	4983 Apr 03 09:38	7°♂54'03		4985 Nov 04 05:06	0°♂
	4983 Apr 21 12:44	0°♂	evening max el	4985 Nov 08 19:53	4°♂33'44 46°23'34
	4983 May 15 23:59	0°♂		4985 Dec 09 22:26	0°♂
	4983 Jun 09 10:10	0°♂	greatest brilliancy	4985 Dec 17 08:46	3°♂39'58 -4.6m
	4983 Jul 03 20:35	0°♂	retrograde	4985 Dec 28 14:31	6°♂00'19
morning set	4983 Jul 21 14:34	21°♂47'24	asc. node	4986 Jan 09 06:30	3°♂16'09
asc. node	4983 Jul 25 11:23	26°♂32'17	evening set	4986 Jan 11 22:29	1°♂57'24
	4983 Jul 28 07:03	0°♂		4986 Jan 15 09:50	30°♂
	4983 Aug 21 16:46	0°♂	inferior conj	4986 Jan 18 04:59	28°♂18'45 2°17'58
max. Earth dist.	4983 Aug 26 07:23	5°♂40'17 1.73443 AU	minimum elong	4986 Jan 17 23:47	28°♂26'40 2°16'20
			min. Earth dist.	4986 Jan 18 05:36	28°♂17'49 0.26687 AU
superior conj	4983 Aug 27 09:18	7°♂00'03 1°08'09	morning rise	4986 Jan 24 00:46	24°♂53'32
minimum elong	4983 Aug 27 00:36	6°♂33'18 1°07'54	direct	4986 Feb 07 17:34	20°♂35'08
	4983 Sep 15 01:20	0°♂	greatest brilliancy	4986 Feb 20 03:42	23°♂27'00 -4.7m
evening rise	4983 Oct 02 11:36	21°♂29'26		4986 Mar 03 12:05	0°♂
	4983 Oct 09 09:10	0°♂	morning max el	4986 Mar 30 06:15	23°♂31'38 46°56'12
	4983 Nov 02 17:08	0°♂		4986 Apr 05 13:43	0°♂
desc. node	4983 Nov 14 02:19	14°♂01'29	desc. node	4986 Apr 30 21:30	27°♂44'02
	4983 Nov 27 01:47	0°♂		4986 May 02 21:21	0°♂
	4983 Dec 21 11:31	0°♂		4986 May 28 17:41	0°♂
	4984 Jan 14 23:49	0°♂		4986 Jun 23 00:08	0°♂
	4984 Feb 08 19:10	0°♂		4986 Jul 18 00:05	0°♂
	4984 Mar 05 08:09	0°♂		4986 Aug 11 19:39	0°♂
asc. node	4984 Mar 06 04:02	0°♂56'56	asc. node	4986 Aug 21 23:14	12°♂20'03
	4984 Apr 01 17:38	0°♂		4986 Sep 05 10:43	0°♂
evening max el	4984 Apr 05 06:11	3°♂34'52 46°42'04	morning set	4986 Sep 27 18:47	27°♂25'00
	4984 May 06 21:31	0°♂		4986 Sep 29 21:06	0°♂
greatest brilliancy	4984 May 11 06:32	2°♂20'20 -4.6m		4986 Oct 24 03:29	0°♂
retrograde	4984 May 25 10:22	5°♂57'26	max. Earth dist.	4986 Oct 31 20:46	9°♂34'31 1.72601 AU
evening set	4984 Jun 09 19:18	1°♂20'36			
	4984 Jun 12 02:44	30°♂	superior conj	4986 Nov 03 11:56	12°♂50'36 1°15'06
inferior conj	4984 Jun 15 16:27	27°♂47'25 2°26'21	minimum elong	4986 Nov 03 20:07	13°♂16'00 1°14'55
minimum elong	4984 Jun 15 21:44	27°♂39'07 2°24'46		4986 Nov 17 07:12	0°♂
min. Earth dist.	4984 Jun 15 11:46	27°♂54'44 0.28249 AU		4986 Dec 11 09:19	0°♂
morning rise	4984 Jun 22 00:38	23°♂59'45	evening rise	4986 Dec 11 22:35	0°♂41'23
desc. node	4984 Jun 25 19:03	22°♂08'55	desc. node	4986 Dec 11 14:16	0°♂15'28
direct	4984 Jul 06 21:10	19°♂43'08		4987 Jan 04 10:25	0°♂
greatest brilliancy	4984 Jul 19 03:12	22°♂22'37 -4.5m		4987 Jan 28 11:08	0°♂
	4984 Aug 01 13:02	0°♂		4987 Feb 21 13:07	0°♂
morning max el	4984 Aug 24 13:54	19°♂26'02 45°42'44		4987 Mar 17 19:51	0°♂
	4984 Sep 04 06:48	0°♂	asc. node	4987 Apr 03 15:54	20°♂31'07
	4984 Oct 02 04:49	0°♂		4987 Apr 11 12:48	0°♂
asc. node	4984 Oct 16 20:58	16°♂42'15		4987 May 07 00:46	0°♂

	4987 Jun 03 02:59	0°♌		morning set	4989 Dec 06 14:19	5°♏43'42	
evening max el	4987 Jun 16 02:50	13°♌13'04	45°46'58		4989 Dec 26 00:30	0°♏	
	4987 Jul 05 00:40	0°♍		desc. node	4990 Jan 08 02:08	16°♏22'40	
greatest brilliancy	4987 Jul 20 18:22	10°♍04'19	-4.5m	max. Earth dist.	4990 Jan 13 04:39	22°♏46'56	1.71359 AU
desc. node	4987 Jul 24 07:02	11°♍33'57					
retrograde	4987 Aug 04 04:26	13°♍42'21		superior conj	4990 Jan 15 05:43	25°♏20'51	0°-17'-11
evening set	4987 Aug 20 11:32	8°♍36'21		minimum elong	4990 Jan 15 01:20	25°♏07'07	0°16'58
inferior conj	4987 Aug 25 16:44	5°♍25'39	-6°-42'-20		4990 Jan 18 22:40	0°≈	
minimum elong	4987 Aug 25 07:03	5°♍40'48	6°40'35		4990 Feb 11 19:34	0°♐	
min. Earth dist.	4987 Aug 25 09:31	5°♍36'57	0.29107 AU	evening rise	4990 Feb 25 00:56	16°♐37'16	
morning rise	4987 Aug 30 02:41	2°♍43'08			4990 Mar 07 16:33	0°♑	
	4987 Sep 04 05:42	30°♌♌			4990 Mar 31 15:40	0°♒	
direct	4987 Sep 16 07:16	27°♌08'15			4990 Apr 24 19:27	0°♒	
	4987 Sep 29 00:23	0°♍		asc. node	4990 May 01 03:51	7°♒49'43	
greatest brilliancy	4987 Sep 30 01:30	0°♍27'31	-4.5m		4990 May 19 06:43	0°♓	
morning max el	4987 Nov 04 11:51	27°♍36'53	45°58'34		4990 Jun 13 04:55	0°♌	
	4987 Nov 06 22:08	0°♎			4990 Jul 08 20:18	0°♍	
asc. node	4987 Nov 14 08:45	7°♎33'26			4990 Aug 04 19:31	0°♎	
	4987 Dec 05 00:16	0°♏		desc. node	4990 Aug 20 18:46	16°♎29'19	
	4987 Dec 30 19:55	0°♐		evening max el	4990 Aug 25 23:59	21°♎34'01	45°35'09
	4988 Jan 24 16:14	0°♑			4990 Sep 04 04:23	0°♏	
	4988 Feb 18 01:16	0°≈		greatest brilliancy	4990 Oct 02 01:55	18°♏50'22	-4.5m
desc. node	4988 Mar 04 23:42	19°≈46'53		retrograde	4990 Oct 13 15:03	21°♏12'44	
	4988 Mar 13 04:41	0°♐		evening set	4990 Oct 31 01:15	15°♏32'34	
	4988 Apr 06 05:45	0°♑		inferior conj	4990 Nov 03 20:23	13°♏13'33	-7°-40'-42
	4988 Apr 30 06:48	0°♒		minimum elong	4990 Nov 04 04:56	13°♏00'13	7°39'30
morning set	4988 May 09 00:38	10°♒53'21		min. Earth dist.	4990 Nov 04 18:22	12°♏39'21	0.28302 AU
	4988 May 24 09:33	0°♒		morning rise	4990 Nov 08 08:13	10°♏28'55	
				direct	4990 Nov 25 03:28	5°♏03'26	
superior conj	4988 Jun 16 12:18	28°♒38'06	0°-22'-42	greatest brilliancy	4990 Dec 09 15:06	8°♏48'58	-4.6m
minimum elong	4988 Jun 16 17:19	28°♒53'36	0°22'29	asc. node	4990 Dec 11 20:36	9°♏58'00	
	4988 Jun 17 14:48	0°♓			4991 Jan 06 15:15	0°♐	
max. Earth dist.	4988 Jun 19 04:39	1°♓56'59	1.72909 AU	morning max el	4991 Jan 14 12:16	7°♐43'01	46°43'11
asc. node	4988 Jun 26 01:35	10°♓26'16			4991 Feb 04 08:26	0°♑	
	4988 Jul 11 22:28	0°♌			4991 Mar 02 08:50	0°≈	
evening rise	4988 Jul 23 20:28	14°♌39'46			4991 Mar 27 09:52	0°♐	
	4988 Aug 05 08:11	0°♍		desc. node	4991 Apr 02 11:40	7°♐22'03	
	4988 Aug 29 20:10	0°♎			4991 Apr 21 00:45	0°♑	
	4988 Sep 23 11:32	0°♏			4991 May 15 11:29	0°♒	
desc. node	4988 Oct 15 16:26	26°♏49'37			4991 Jun 08 21:16	0°♒	
	4988 Oct 18 07:46	0°♐			4991 Jul 03 07:24	0°♓	
	4988 Nov 12 10:40	0°♑		morning set	4991 Jul 19 07:45	19°♓39'58	
	4988 Dec 08 00:02	0°≈		asc. node	4991 Jul 24 13:21	26°♓05'36	
	4989 Jan 03 11:51	0°♐			4991 Jul 27 17:41	0°♌	
evening max el	4989 Jan 20 18:54	18°♐19'20	47°08'33		4991 Aug 21 03:19	0°♍	
	4989 Feb 01 20:55	0°♑		max. Earth dist.	4991 Aug 24 02:36	3°♍39'19	1.73448 AU
asc. node	4989 Feb 05 18:16	3°♑28'02					
greatest brilliancy	4989 Feb 28 01:19	18°♑45'34	-4.7m	superior conj	4991 Aug 25 03:33	4°♍56'05	1°06'12
retrograde	4989 Mar 12 12:52	21°♑39'13		minimum elong	4991 Aug 24 18:41	4°♍28'49	1°05'55
evening set	4989 Mar 30 13:59	15°♑21'53			4991 Sep 14 11:53	0°♎	
inferior conj	4989 Apr 02 06:28	13°♑42'26	9°03'24	evening rise	4991 Sep 30 05:23	19°♎23'31	
minimum elong	4989 Apr 02 06:42	13°♑42'04	9°03'24		4991 Oct 08 19:52	0°♏	
min. Earth dist.	4989 Apr 01 19:34	13°♑59'20	0.27298 AU		4991 Nov 02 04:04	0°♐	
morning rise	4989 Apr 04 23:33	12°♑02'29		desc. node	4991 Nov 13 04:26	13°♐33'51	
direct	4989 Apr 22 22:47	5°♑05'59			4991 Nov 26 13:05	0°♑	
greatest brilliancy	4989 May 03 19:38	8°♑05'58	-4.6m		4991 Dec 20 23:20	0°≈	
desc. node	4989 May 28 09:15	24°♑14'50			4992 Jan 14 12:19	0°♐	
	4989 Jun 03 20:38	0°♒			4992 Feb 08 08:45	0°♑	
morning max el	4989 Jun 11 15:32	7°♒24'09	46°16'05		4992 Mar 04 23:46	0°♒	
	4989 Jul 03 11:33	0°♒		asc. node	4992 Mar 05 05:59	0°♒17'43	
	4989 Jul 30 10:12	0°♓			4992 Apr 01 14:40	0°♒	
	4989 Aug 25 07:51	0°♌		evening max el	4992 Apr 02 19:52	1°♒13'41	46°44'02
asc. node	4989 Sep 18 11:03	28°♌38'03			4992 May 08 17:50	0°♓	
	4989 Sep 19 14:24	0°♍		greatest brilliancy	4992 May 08 22:34	0°♓05'42	-4.6m
	4989 Oct 14 09:30	0°♎		retrograde	4992 May 23 01:53	3°♓42'59	
	4989 Nov 07 19:48	0°♏			4992 Jun 05 18:23	30°♌♌	
	4989 Dec 02 00:02	0°♐		evening set	4992 Jun 07 12:34	29°♒03'14	

inferior conj	4992 Jun 13 07:45	25°II33'13	2°46'50	minimum elong	4994 Nov 01 11:58	11°ML02'34	1°16'30
minimum elong	4992 Jun 13 13:43	25°II23'53	2°45'05		4994 Nov 16 18:04	0°J	
min. Earth dist.	4992 Jun 13 03:41	25°II39'36	0.28218 AU	evening rise	4994 Dec 09 12:24	28°J20'33	
morning rise	4992 Jun 19 15:15	21°II46'36		desc. node	4994 Dec 10 16:19	29°J47'31	
desc. node	4992 Jun 24 21:08	19°II19'22			4994 Dec 10 20:19	0°Z	
direct	4992 Jul 04 11:28	17°II29'06			4995 Jan 03 21:36	0°≈	
greatest brilliancy	4992 Jul 16 18:12	20°II09'13	-4.5m		4995 Jan 27 22:31	0°K	
	4992 Aug 02 05:31	0°S			4995 Feb 21 00:49	0°Y	
morning max el	4992 Aug 22 05:29	17°S14'51	45°43'16		4995 Mar 17 08:02	0°8	
	4992 Sep 04 01:36	0°Q		asc. node	4995 Apr 02 17:56	19°858'54	
	4992 Oct 01 19:14	0°P			4995 Apr 11 01:49	0°II	
asc. node	4992 Oct 15 23:00	16°P09'49			4995 May 06 15:23	0°S	
	4992 Oct 27 19:09	0°A			4995 Jun 02 21:31	0°Q	
	4992 Nov 21 20:26	0°ML		evening max el	4995 Jun 13 19:28	11°Q02'46	45°48'24
	4992 Dec 16 08:10	0°J			4995 Jul 05 13:49	0°P	
	4993 Jan 09 12:03	0°Z		greatest brilliancy	4995 Jul 18 10:28	7°P54'25	-4.5m
	4993 Feb 02 11:36	0°≈		desc. node	4995 Jul 23 08:57	9°P53'58	
desc. node	4993 Feb 04 13:51	2°≈37'32		retrograde	4995 Aug 01 20:48	11°P32'27	
morning set	4993 Feb 19 14:59	21°≈31'00		evening set	4995 Aug 18 01:03	6°P30'48	
	4993 Feb 26 08:57	0°K		inferior conj	4995 Aug 23 09:00	3°P15'46	-6°-29'-46
	4993 Mar 22 05:44	0°Y		minimum elong	4995 Aug 22 23:13	3°P31'07	6°27'54
				min. Earth dist.	4995 Aug 23 00:58	3°P28'22	0.29091 AU
superior conj	4993 Apr 01 19:34	13°Y16'57	-1°-27'-4	morning rise	4995 Aug 27 21:34	0°P29'19	
minimum elong	4993 Apr 01 19:22	13°Y16'22	1°27'04		4995 Aug 28 17:51	30°RQ	
max. Earth dist.	4993 Apr 04 16:28	16°Y53'06	1.71440 AU	direct	4995 Sep 13 23:59	24°Q58'54	
	4993 Apr 15 03:40	0°8		greatest brilliancy	4995 Sep 27 15:00	28°Q14'45	-4.5m
	4993 May 09 04:29	0°II			4995 Oct 01 04:15	0°P	
evening rise	4993 May 12 00:15	3°II30'39		morning max el	4995 Nov 02 03:03	25°P23'21	45°57'13
asc. node	4993 May 28 15:46	24°II08'42			4995 Nov 06 18:58	0°A	
	4993 Jun 02 09:32	0°S		asc. node	4995 Nov 13 10:51	6°A49'50	
	4993 Jun 26 19:42	0°Q			4995 Dec 04 15:36	0°ML	
	4993 Jul 21 12:04	0°P			4995 Dec 30 09:16	0°J	
	4993 Aug 15 12:56	0°A			4996 Jan 24 04:39	0°Z	
	4993 Sep 10 02:55	0°ML			4996 Feb 17 13:08	0°≈	
desc. node	4993 Sep 17 06:33	8°ML13'20		desc. node	4996 Mar 04 01:45	19°≈17'09	
	4993 Oct 06 15:14	0°J			4996 Mar 12 16:12	0°K	
	4993 Nov 04 03:03	0°Z			4996 Apr 05 17:02	0°Y	
evening max el	4993 Nov 06 10:13	2°Z15'08	46°21'38		4996 Apr 29 17:55	0°8	
	4993 Dec 12 00:46	0°≈		morning set	4996 May 06 14:18	8°831'59	
greatest brilliancy	4993 Dec 14 20:34	1°≈13'31	-4.6m		4996 May 23 20:34	0°II	
retrograde	4993 Dec 26 03:31	3°≈34'27					
asc. node	4994 Jan 08 08:24	0°≈05'48		superior conj	4996 Jun 14 03:40	26°II23'21	0°-26'-3
	4994 Jan 08 13:01	30°RZ		minimum elong	4996 Jun 14 09:22	26°II41'00	0°25'48
evening set	4994 Jan 09 10:44	29°Z31'53		max. Earth dist.	4996 Jun 17 00:32	29°II56'16	1.72868 AU
inferior conj	4994 Jan 15 17:36	25°Z52'35	1°54'15		4996 Jun 17 01:45	0°S	
minimum elong	4994 Jan 15 13:15	25°Z59'11	1°52'52	asc. node	4996 Jun 25 03:31	9°S58'28	
min. Earth dist.	4994 Jan 15 19:07	25°Z50'17	0.26708 AU		4996 Jul 11 09:23	0°Q	
morning rise	4994 Jan 21 15:31	22°Z24'47		evening rise	4996 Jul 21 13:57	12°Q32'20	
direct	4994 Feb 05 07:14	18°Z08'33			4996 Aug 04 19:11	0°P	
greatest brilliancy	4994 Feb 17 18:33	21°Z02'29	-4.7m		4996 Aug 29 07:24	0°A	
	4994 Mar 04 09:20	0°≈			4996 Sep 22 23:10	0°ML	
morning max el	4994 Mar 27 20:56	21°≈10'02	46°56'40	desc. node	4996 Oct 14 18:34	26°ML19'19	
	4994 Apr 05 10:14	0°K			4996 Oct 17 20:03	0°J	
desc. node	4994 Apr 29 23:36	27°K04'46			4996 Nov 11 23:58	0°Z	
	4994 May 02 13:02	0°Y			4996 Dec 07 15:00	0°≈	
	4994 May 28 07:17	0°8			4997 Jan 03 06:16	0°K	
	4994 Jun 22 12:34	0°II		evening max el	4997 Jan 18 08:49	15°K55'04	47°08'03
	4994 Jul 17 11:49	0°S			4997 Feb 02 03:10	0°Y	
	4994 Aug 11 06:55	0°Q		asc. node	4997 Feb 04 20:15	2°Y21'03	
asc. node	4994 Aug 21 01:09	11°Q52'04		greatest brilliancy	4997 Feb 25 17:17	16°Y23'12	-4.7m
	4994 Sep 04 21:42	0°P		retrograde	4997 Mar 10 02:08	19°Y14'04	
morning set	4994 Sep 25 12:05	25°P17'08		evening set	4997 Mar 28 02:36	12°Y59'00	
	4994 Sep 29 07:57	0°A		inferior conj	4997 Mar 30 19:55	11°Y18'14	9°03'34
	4994 Oct 23 14:18	0°ML		minimum elong	4997 Mar 30 19:12	11°Y19'21	9°03'33
max. Earth dist.	4994 Oct 29 13:19	7°ML23'20	1.72639 AU	min. Earth dist.	4997 Mar 30 08:43	11°Y35'39	0.27260 AU
				morning rise	4997 Apr 02 11:55	9°Y39'46	
superior conj	4994 Nov 01 04:15	10°ML38'37	1°16'39	direct	4997 Apr 20 11:38	3°Y30'30	

greatest brilliancy	4997 May 01 08:23	5°Υ41'57	-4.6m	desc. node	4999 Nov 12 06:25	13°Σ04'50	
desc. node	4997 May 27 11:20	23°Υ12'01			4999 Nov 26 00:40	0°Σ	
	4997 Jun 03 22:58	0°Ϡ			4999 Dec 20 11:25	0°≈	
morning max el	4997 Jun 09 04:12	5°Ϡ00'57	46°17'34		5000 Jan 14 01:07	0°Ϡ	
	4997 Jul 03 04:42	0°Π			5000 Feb 07 22:39	0°Υ	
	4997 Jul 30 00:19	0°Σ		asc. node	5000 Mar 05 08:05	29°Υ37'58	
	4997 Aug 24 20:30	0°Ω			5000 Mar 05 15:50	0°Ϡ	
asc. node	4997 Sep 17 13:08	28°Ω08'43		evening max el	5000 Apr 01 10:28	28°Ϡ54'19	46°46'05
	4997 Sep 19 02:14	0°Ϡ			5000 Apr 02 12:40	0°Π	
	4997 Oct 13 20:53	0°Ϡ		greatest brilliancy	5000 May 07 14:23	27°Π50'36	-4.6m
	4997 Nov 07 06:58	0°Ϡ			5000 May 12 22:38	0°Σ	
	4997 Dec 01 11:08	0°Σ		retrograde	5000 May 21 17:59	1°Σ28'28	
morning set	4997 Dec 04 04:32	3°Σ23'49			5000 May 30 05:56	30°ϠΠ	
	4997 Dec 25 11:35	0°Σ		evening set	5000 Jun 06 06:06	26°Π45'35	
desc. node	4998 Jan 07 04:01	15°Σ53'45		inferior conj	5000 Jun 11 23:08	23°Π18'52	3°07'03
max. Earth dist.	4998 Jan 10 11:18	20°Σ02'24	1.71391 AU	minimum elong	5000 Jun 12 05:46	23°Π08'31	3°05'07
				min. Earth dist.	5000 Jun 11 19:17	23°Π24'53	0.28185 AU
superior conj	4998 Jan 12 17:04	22°Σ51'02	0°-13'-21	morning rise	5000 Jun 18 05:49	19°Π33'47	
minimum elong	4998 Jan 12 13:39	22°Σ40'20	0°13'10	desc. node	5000 Jun 24 22:59	16°Π34'56	
behind sun begin	4998 Jan 11 22:24	21°Σ52'28		direct	5000 Jul 03 02:23	15°Π15'04	
behind sun end	4998 Jan 13 04:55	23°Σ28'11		greatest brilliancy	5000 Jul 15 08:40	17°Π55'21	-4.5m
	4998 Jan 18 09:47	0°≈			5000 Aug 03 17:47	0°Σ	
	4998 Feb 11 06:44	0°Ϡ		morning max el	5000 Aug 20 21:41	15°Σ05'05	45°43'39
evening rise	4998 Feb 22 11:32	14°Ϡ04'35			5000 Sep 04 19:59	0°Ω	
	4998 Mar 07 03:46	0°Υ			5000 Oct 02 09:38	0°Ϡ	
	4998 Mar 31 02:58	0°Ϡ		asc. node	5000 Oct 16 01:03	15°Ϡ37'06	
asc. node	4998 Apr 24 06:55	0°Π			5000 Oct 28 07:54	0°Ϡ	
	4998 Apr 30 05:55	7°Π20'33			5000 Nov 22 08:23	0°Ϡ	
	4998 May 18 18:32	0°Σ			5000 Dec 16 19:42	0°Σ	
	4998 Jun 12 17:28	0°Ω			5001 Jan 09 23:21	0°Σ	
	4998 Jul 08 10:16	0°Ϡ			5001 Feb 02 22:47	0°≈	
	4998 Aug 04 12:45	0°Ϡ		desc. node	5001 Feb 04 15:53	2°≈08'52	
desc. node	4998 Aug 19 20:48	15°Ϡ42'09		morning set	5001 Feb 18 00:50	18°≈56'15	
evening max el	4998 Aug 23 13:33	19°Ϡ17'01	45°34'26		5001 Feb 26 20:04	0°Ϡ	
	4998 Sep 04 09:15	0°Ϡ			5001 Mar 22 16:47	0°Υ	
greatest brilliancy	4998 Sep 29 14:02	16°Ϡ33'10	-4.5m				
retrograde	4998 Oct 11 05:20	18°Ϡ58'09		superior conj	5001 Mar 31 06:32	10°Υ46'06	-1°-26'-57
evening set	4998 Oct 28 18:29	13°Ϡ13'26		minimum elong	5001 Mar 31 05:14	10°Υ42'03	1°26'58
inferior conj	4998 Nov 01 11:21	10°Ϡ57'55	-7°-49'-52	max. Earth dist.	5001 Apr 03 00:47	14°Υ14'03	1.71405 AU
minimum elong	4998 Nov 01 19:25	10°Ϡ45'22	7°48'48		5001 Apr 15 14:40	0°Ϡ	
min. Earth dist.	4998 Nov 02 09:02	10°Ϡ24'14	0.28368 AU		5001 May 09 15:28	0°Π	
morning rise	4998 Nov 05 19:57	8°Ϡ18'05		evening rise	5001 May 10 13:03	1°Π07'07	
direct	4998 Nov 22 18:35	2°Ϡ46'44		asc. node	5001 May 28 17:42	23°Π40'38	
greatest brilliancy	4998 Dec 07 08:30	6°Ϡ34'35	-4.6m		5001 Jun 02 20:34	0°Σ	
asc. node	4998 Dec 10 22:32	8°Ϡ29'20			5001 Jun 27 06:53	0°Ω	
	4999 Jan 06 16:27	0°Σ			5001 Jul 21 23:36	0°Ϡ	
morning max el	4999 Jan 12 02:51	5°Σ22'21	46°41'53		5001 Aug 16 01:08	0°Ϡ	
	4999 Feb 04 01:26	0°Σ			5001 Sep 10 16:25	0°Ϡ	
	4999 Mar 01 23:08	0°≈		desc. node	5001 Sep 17 08:39	7°Ϡ39'18	
	4999 Mar 26 22:52	0°Ϡ			5001 Oct 07 07:21	0°Σ	
desc. node	4999 Apr 01 13:42	6°Ϡ49'27		evening max el	5001 Nov 05 00:54	29°Σ57'02	46°19'24
	4999 Apr 20 12:57	0°Υ			5001 Nov 05 02:07	0°Σ	
	4999 May 14 23:09	0°Ϡ		greatest brilliancy	5001 Dec 13 09:10	28°Σ47'21	-4.6m
	4999 Jun 08 08:32	0°Π			5001 Dec 16 23:02	0°≈	
	4999 Jul 02 18:24	0°Σ		retrograde	5001 Dec 24 16:13	1°≈07'31	
morning set	4999 Jul 17 01:03	17°Σ32'10			5002 Jan 01 02:37	30°ϠΣ	
asc. node	4999 Jul 23 15:18	25°Σ38'15		evening set	5002 Jan 07 23:06	27°Σ05'27	
	4999 Jul 27 04:32	0°Ω		asc. node	5002 Jan 08 10:23	26°Σ50'20	
	4999 Aug 20 14:07	0°Ϡ		inferior conj	5002 Jan 14 06:01	23°Σ25'39	1°30'09
max. Earth dist.	4999 Aug 21 22:56	1°Ϡ40'58	1.73461 AU	minimum elong	5002 Jan 14 02:34	23°Σ30'54	1°29'03
				min. Earth dist.	5002 Jan 14 08:35	23°Σ21'44	0.26727 AU
superior conj	4999 Aug 22 21:43	2°Ϡ51'05	1°04'09	morning rise	5002 Jan 20 05:50	19°Σ55'19	
minimum elong	4999 Aug 22 12:44	2°Ϡ23'26	1°03'51	direct	5002 Feb 03 20:42	15°Σ41'25	
	4999 Sep 13 22:45	0°Ϡ		greatest brilliancy	5002 Feb 16 08:39	18°Σ36'28	-4.7m
evening rise	4999 Sep 27 23:03	17°Ϡ16'24			5002 Mar 06 01:18	0°≈	
	4999 Oct 08 06:52	0°Ϡ		morning max el	5002 Mar 26 10:36	18°≈45'49	46°57'10
	4999 Nov 01 15:18	0°Σ			5002 Apr 06 06:07	0°Ϡ	

desc. node	5002 Apr 30 01:38	26° H 25'55		5004 Nov 12 12:56	0° Z	
	5002 May 03 04:23	0° Y		5004 Dec 08 05:45	0° \approx	
	5002 May 28 20:40	0° B		5005 Jan 04 00:50	0° H	
	5002 Jun 23 00:51	0° II	evening max el	5005 Jan 16 21:36	13° H 28'36	47°07'09
	5002 Jul 17 23:23	0° S		5005 Feb 03 11:37	0° Y	
	5002 Aug 11 18:01	0° Ω	asc. node	5005 Feb 04 22:20	1° Y 12'52	
asc. node	5002 Aug 21 03:18	11° Ω 25'13	greatest brilliancy	5005 Feb 24 08:54	14° Y 00'09	-4.7m
	5002 Sep 05 08:31	0° M	retrograde	5005 Mar 08 14:59	16° Y 48'38	
morning set	5002 Sep 24 05:44	23° M 10'52	evening set	5005 Mar 26 14:18	10° Y 36'37	
	5002 Sep 29 18:37	0° A	inferior conj	5005 Mar 29 09:07	8° Y 53'41	9°02'32
	5002 Oct 24 00:59	0° L	minimum elong	5005 Mar 29 07:27	8° Y 56'17	9°02'30
max. Earth dist.	5002 Oct 28 05:10	5° L 10'29	1.72683 AU	min. Earth dist.	5005 Mar 28 21:51	9° Y 11'11 0.27224 AU
				morning rise	5005 Apr 01 00:41	7° Y 15'51
superior conj	5002 Oct 30 20:53	8° L 28'04	1°18'04	direct	5005 Apr 18 23:51	1° Y 06'22
minimum elong	5002 Oct 31 04:05	8° L 50'23	1°17'56	greatest brilliancy	5005 Apr 29 21:58	3° Y 18'42 -4.6m
	5002 Nov 17 04:51	0° J		desc. node	5005 May 27 13:15	22° Y 10'44
evening rise	5002 Dec 08 02:13	25° J 59'54			5005 Jun 04 23:46	0° B
desc. node	5002 Dec 10 18:16	29° J 19'29		morning max el	5005 Jun 07 16:45	2° B 37'49 46°19'18
	5002 Dec 11 07:17	0° Z			5005 Jul 03 21:14	0° II
	5003 Jan 04 08:46	0° \approx			5005 Jul 30 13:57	0° S
	5003 Jan 28 09:54	0° H			5005 Aug 25 08:42	0° Ω
	5003 Feb 21 12:29	0° Y	asc. node	5005 Sep 17 15:07	27° Ω 40'19	
	5003 Mar 17 20:09	0° B		5005 Sep 19 13:40	0° M	
asc. node	5003 Apr 02 19:59	19° B 27'02		5005 Oct 14 07:52	0° A	
	5003 Apr 11 14:46	0° II		5005 Nov 07 17:45	0° L	
	5003 May 07 05:59	0° S		5005 Dec 01 21:49	0° J	
	5003 Jun 03 16:17	0° Ω	morning set	5005 Dec 02 19:29	1° J 07'30	
evening max el	5003 Jun 12 11:30	8° Ω 51'32	45°49'55		5005 Dec 25 22:16	0° Z
	5003 Jul 07 06:53	0° M		desc. node	5006 Jan 07 06:08	15° Z 26'48
greatest brilliancy	5003 Jul 17 03:20	5° M 46'24	-4.5m	max. Earth dist.	5006 Jan 08 22:24	17° Z 33'05 1.71429 AU
desc. node	5003 Jul 23 11:05	8° M 11'50				
retrograde	5003 Jul 31 13:03	9° M 24'00		superior conj	5006 Jan 11 04:57	20° Z 24'09 0°-9'-32
evening set	5003 Aug 16 14:54	4° M 26'36		minimum elong	5006 Jan 11 02:30	20° Z 16'29 0°09'25
min. Earth dist.	5003 Aug 21 17:02	1° M 20'51	0.29071 AU	behind sun begin	5006 Jan 10 05:23	19° Z 10'12
inferior conj	5003 Aug 22 01:31	1° M 07'31	-6°-16'-38	behind sun end	5006 Jan 11 23:38	21° Z 22'46
minimum elong	5003 Aug 21 15:41	1° M 22'58	6°14'41		5006 Jan 18 20:30	0° \approx
	5003 Aug 23 20:39	30° R Ω			5006 Feb 11 17:32	0° H
morning rise	5003 Aug 26 16:39	28° Ω 17'03		evening rise	5006 Feb 20 22:21	11° H 33'44
direct	5003 Sep 12 16:24	22° Ω 51'12			5006 Mar 07 14:42	0° Y
greatest brilliancy	5003 Sep 26 04:41	26° Ω 03'33	-4.5m		5006 Mar 31 14:01	0° B
	5003 Oct 03 13:29	0° M			5006 Apr 24 18:11	0° II
morning max el	5003 Oct 31 17:28	23° M 09'01	45°55'55	asc. node	5006 Apr 30 07:49	6° II 51'34
	5003 Nov 07 14:42	0° A			5006 May 19 06:09	0° S
asc. node	5003 Nov 13 12:47	6° A 07'29			5006 Jun 13 05:48	0° Ω
	5003 Dec 05 06:25	0° L			5006 Jul 09 00:03	0° M
	5003 Dec 30 22:18	0° J			5006 Aug 05 05:58	0° A
	5004 Jan 24 16:50	0° Z		desc. node	5006 Aug 19 22:54	14° A 55'33
	5004 Feb 18 00:50	0° \approx		evening max el	5006 Aug 22 03:49	17° A 03'04 45°33'58
desc. node	5004 Mar 04 03:52	18° \approx 48'03			5006 Sep 05 15:34	0° L
	5004 Mar 13 03:34	0° H		greatest brilliancy	5006 Sep 28 01:38	14° L 17'13 -4.5m
	5004 Apr 06 04:09	0° Y		retrograde	5006 Oct 09 20:28	16° L 45'38
	5004 Apr 30 04:51	0° B		evening set	5006 Oct 27 11:49	10° L 56'32
morning set	5004 May 05 03:34	6° B 09'59		inferior conj	5006 Oct 31 02:32	8° L 44'14 -7°-58'-11
	5004 May 24 07:20	0° II		minimum elong	5006 Oct 31 10:05	8° L 32'30 7°57'17
				min. Earth dist.	5006 Oct 31 23:30	8° L 11'41 0.28429 AU
superior conj	5004 Jun 12 18:57	24° II 09'11	0°-29'-21	morning rise	5006 Nov 04 08:00	6° L 09'13
minimum elong	5004 Jun 13 01:20	24° II 28'53	0°29'04	direct	5006 Nov 21 10:18	0° L 32'09
max. Earth dist.	5004 Jun 15 19:38	27° II 53'57	1.72821 AU	greatest brilliancy	5006 Dec 06 01:50	4° L 22'09 -4.6m
	5004 Jun 17 12:25	0° S		asc. node	5006 Dec 11 00:31	7° L 05'27
asc. node	5004 Jun 25 05:31	9° S 31'45			5007 Jan 07 15:49	0° J
	5004 Jul 11 20:02	0° Ω		morning max el	5007 Jan 10 18:33	3° J 06'16 46°40'37
evening rise	5004 Jul 20 07:34	10° Ω 26'05			5007 Feb 04 17:35	0° Z
	5004 Aug 05 05:54	0° M			5007 Mar 02 12:50	0° \approx
	5004 Aug 29 18:20	0° A			5007 Mar 27 11:23	0° H
	5004 Sep 23 10:29	0° L		desc. node	5007 Apr 01 15:42	6° H 18'00
desc. node	5004 Oct 14 20:35	25° L 49'49			5007 Apr 21 00:47	0° Y
	5004 Oct 18 08:00	0° J			5007 May 15 10:31	0° B

	5007 Jun 08 19:33	0°♊		asc. node	5010 Jan 07 12:33	23°♊33'00	
	5007 Jul 03 05:08	0°♋		inferior conj	5010 Jan 11 18:42	21°♊00'14	1°06'04
morning set	5007 Jul 15 18:00	15°♋24'09		minimum elong	5010 Jan 11 16:09	21°♊04'07	1°05'16
asc. node	5007 Jul 23 17:26	25°♋12'17		min. Earth dist.	5010 Jan 11 22:34	20°♊54'20	0.26749 AU
	5007 Jul 27 15:05	0°♌		morning rise	5010 Jan 17 20:08	17°♊27'23	
max. Earth dist.	5007 Aug 20 20:55	29°♌48'41	1.73465 AU	direct	5010 Feb 01 09:59	13°♊15'41	
	5007 Aug 21 00:36	0°♍		greatest brilliancy	5010 Feb 13 23:09	16°♊11'50	-4.7m
					5010 Mar 06 12:52	0°♎	
superior conj	5007 Aug 21 15:39	0°♍46'20	1°01'59	morning max el	5010 Mar 23 23:35	16°♎20'26	46°57'41
minimum elong	5007 Aug 21 06:36	0°♍18'29	1°01'41		5010 Apr 06 01:08	0°♏	
	5007 Sep 14 09:16	0°♎		desc. node	5010 Apr 29 03:35	25°♏47'54	
evening rise	5007 Sep 26 16:50	15°♎10'42			5010 May 02 19:17	0°♐	
	5007 Oct 08 17:32	0°♏			5010 May 28 09:42	0°♑	
	5007 Nov 02 02:13	0°♐			5010 Jun 22 12:53	0°♒	
desc. node	5007 Nov 12 08:23	12°♐36'51			5010 Jul 17 10:48	0°♓	
	5007 Nov 26 11:57	0°♑			5010 Aug 11 05:03	0°♓	
	5007 Dec 20 23:10	0°♒		asc. node	5010 Aug 20 05:15	10°♓57'57	
	5008 Jan 14 13:34	0°♒			5010 Sep 04 19:18	0°♑	
	5008 Feb 08 12:13	0°♓		morning set	5010 Sep 21 23:10	21°♑03'59	
asc. node	5008 Mar 04 10:05	28°♓58'53			5010 Sep 29 05:16	0°♒	
	5008 Mar 05 07:43	0°♑			5010 Oct 23 11:37	0°♓	
evening max el	5008 Mar 30 01:49	26°♑37'53	46°47'49	max. Earth dist.	5010 Oct 25 20:15	2°♓55'29	1.72725 AU
	5008 Apr 02 11:08	0°♒					
greatest brilliancy	5008 May 05 06:30	25°♒36'22	-4.6m	superior conj	5010 Oct 28 13:27	6°♓17'34	1°19'22
retrograde	5008 May 19 10:04	29°♒13'50		minimum elong	5010 Oct 28 20:04	6°♓38'07	1°19'15
evening set	5008 Jun 03 23:35	24°♒27'48			5010 Nov 16 15:35	0°♑	
inferior conj	5008 Jun 09 14:18	21°♒04'18	3°27'06	evening rise	5010 Dec 05 16:02	23°♑39'43	
minimum elong	5008 Jun 09 21:33	20°♒53'01	3°25'02	desc. node	5010 Dec 09 20:20	28°♑52'00	
min. Earth dist.	5008 Jun 09 10:24	21°♒10'23	0.28156 AU		5010 Dec 10 18:10	0°♓	
morning rise	5008 Jun 15 19:57	17°♒21'04			5011 Jan 03 19:51	0°♑	
desc. node	5008 Jun 24 01:08	13°♒54'57			5011 Jan 27 21:14	0°♒	
direct	5008 Jun 30 17:36	13°♒01'00			5011 Feb 21 00:08	0°♓	
greatest brilliancy	5008 Jul 12 22:21	15°♒40'34	-4.5m		5011 Mar 17 08:18	0°♑	
	5008 Aug 04 02:44	0°♓		asc. node	5011 Apr 01 21:56	18°♑54'52	
morning max el	5008 Aug 18 13:55	12°♓55'51	45°44'07		5011 Apr 11 03:45	0°♒	
	5008 Sep 04 13:43	0°♓			5011 May 06 20:42	0°♓	
	5008 Oct 01 23:36	0°♑			5011 Jun 03 11:31	0°♓	
asc. node	5008 Oct 15 03:01	15°♑05'08		evening max el	5011 Jun 10 02:33	6°♓37'52	45°51'22
	5008 Oct 27 20:17	0°♒			5011 Jul 08 06:10	0°♑	
	5008 Nov 21 19:59	0°♓		greatest brilliancy	5011 Jul 14 19:14	3°♑36'51	-4.5m
	5008 Dec 16 06:55	0°♑		desc. node	5011 Jul 22 13:06	6°♑25'35	
	5009 Jan 09 10:22	0°♓		retrograde	5011 Jul 29 04:55	7°♑15'15	
	5009 Feb 02 09:41	0°♑		evening set	5011 Aug 14 04:42	2°♑21'41	
desc. node	5009 Feb 03 17:59	1°♑41'20			5011 Aug 18 02:59	30°♒♌	
morning set	5009 Feb 15 11:12	16°♑24'01		inferior conj	5011 Aug 19 17:56	28°♓58'53	-6°-2'-55
	5009 Feb 26 06:53	0°♒		minimum elong	5011 Aug 19 08:06	29°♓14'22	6°00'53
	5009 Mar 22 03:31	0°♓		min. Earth dist.	5011 Aug 19 09:19	29°♓12'28	0.29055 AU
				morning rise	5011 Aug 24 11:39	26°♓04'26	
superior conj	5009 Mar 28 17:48	8°♓17'07	-1°-26'-39	direct	5011 Sep 10 08:18	20°♓42'50	
minimum elong	5009 Mar 28 15:27	8°♓09'43	1°26'41	greatest brilliancy	5011 Sep 23 19:32	23°♓53'12	-4.5m
max. Earth dist.	5009 Mar 31 11:49	11°♓44'23	1.71371 AU		5011 Oct 04 13:24	0°♑	
	5009 Apr 15 01:21	0°♑		morning max el	5011 Oct 29 07:33	20°♑53'26	45°54'44
evening rise	5009 May 08 01:57	28°♑44'39			5011 Nov 07 10:02	0°♒	
	5009 May 09 02:10	0°♒		asc. node	5011 Nov 12 14:50	5°♒25'28	
asc. node	5009 May 27 19:44	23°♒13'33			5011 Dec 04 21:11	0°♓	
	5009 Jun 02 07:22	0°♓			5011 Dec 30 11:20	0°♑	
	5009 Jun 26 17:55	0°♓			5012 Jan 24 05:02	0°♓	
	5009 Jul 21 11:00	0°♑			5012 Feb 17 12:32	0°♑	
	5009 Aug 15 13:14	0°♒		desc. node	5012 Mar 03 05:45	18°♑18'05	
	5009 Sep 10 05:51	0°♓			5012 Mar 12 14:58	0°♒	
desc. node	5009 Sep 16 10:38	7°♓05'14			5012 Apr 05 15:20	0°♓	
	5009 Oct 06 23:33	0°♑			5012 Apr 29 15:52	0°♑	
evening max el	5009 Nov 02 15:21	27°♑39'16	46°17'17	morning set	5012 May 02 16:46	3°♑47'18	
	5009 Nov 05 01:55	0°♓			5012 May 23 18:12	0°♒	
greatest brilliancy	5009 Dec 10 22:51	26°♓23'43	-4.6m				
retrograde	5009 Dec 22 04:37	28°♓41'58		superior conj	5012 Jun 10 10:22	21°♒55'00	0°-32'-35
evening set	5010 Jan 05 11:56	24°♓40'11		minimum elong	5012 Jun 10 17:22	22°♒16'42	0°32'18

max. Earth dist.	5012 Jun 13 13:06	25°II46'11	1.72771 AU	morning rise	5014 Nov 01 20:05	3°ML59'04	
	5012 Jun 16 23:11	0°☿			5014 Nov 09 21:19	30°RL	
asc. node	5012 Jun 24 07:38	9°☿05'04		direct	5014 Nov 19 02:24	28°L16'39	
	5012 Jul 11 06:47	0°♂			5014 Nov 28 16:36	0°ML	
evening rise	5012 Jul 18 01:15	8°♂19'44		greatest brilliancy	5014 Dec 03 18:14	2°ML07'28	-4.6m
	5012 Aug 04 16:45	0°♍		asc. node	5014 Dec 10 02:39	5°ML43'19	
	5012 Aug 29 05:26	0°♊			5015 Jan 07 14:46	0°♂	
	5012 Sep 22 22:03	0°ML		morning max el	5015 Jan 08 10:39	0°♂49'58	46°39'07
desc. node	5012 Oct 13 22:30	25°ML19'16			5015 Feb 04 09:59	0°☿	
	5012 Oct 17 20:15	0°♂			5015 Mar 02 02:54	0°≈	
	5012 Nov 12 02:15	0°☿			5015 Mar 27 00:17	0°♂	
	5012 Dec 07 20:58	0°≈		desc. node	5015 Mar 31 17:44	5°♂45'29	
	5013 Jan 03 20:09	0°♂			5015 Apr 20 12:58	0°♀	
evening max el	5013 Jan 14 09:59	11°♂00'37	47°06'28		5015 May 14 22:11	0°♂	
	5013 Feb 03 23:20	0°♀			5015 Jun 08 06:52	0°II	
asc. node	5013 Feb 04 00:19	0°♀01'58			5015 Jul 02 16:13	0°☿	
greatest brilliancy	5013 Feb 21 23:34	11°♀35'19	-4.7m	morning set	5015 Jul 13 11:00	13°☿15'03	
retrograde	5013 Mar 06 04:05	14°♀22'47		asc. node	5015 Jul 22 19:23	24°☿44'34	
evening set	5013 Mar 24 01:24	8°♀14'13			5015 Jul 27 02:01	0°♂	
inferior conj	5013 Mar 26 22:18	6°♀28'24	9°00'30				
minimum elong	5013 Mar 26 19:39	6°♀32'29	9°00'25	superior conj	5015 Aug 19 09:39	28°♂40'34	0°59'45
min. Earth dist.	5013 Mar 26 10:47	6°♀46'14	0.27191 AU	minimum elong	5015 Aug 19 00:36	28°♂12'42	0°59'25
morning rise	5013 Mar 29 14:00	4°♀50'31		max. Earth dist.	5015 Aug 18 19:19	27°♂56'27	1.73466 AU
	5013 Apr 08 11:50	30°RL			5015 Aug 20 11:28	0°♍	
direct	5013 Apr 16 12:07	28°♂41'17			5015 Sep 13 20:10	0°♊	
	5013 Apr 24 20:08	0°♀		evening rise	5015 Sep 24 10:45	13°♊04'19	
greatest brilliancy	5013 Apr 27 11:49	0°♀55'05	-4.6m		5015 Oct 08 04:33	0°ML	
desc. node	5013 May 26 15:21	21°♀10'42			5015 Nov 01 13:31	0°♂	
	5013 Jun 04 23:39	0°♂		desc. node	5015 Nov 11 10:31	12°♂08'15	
morning max el	5013 Jun 05 06:09	0°♂15'55	46°21'05		5015 Nov 25 23:38	0°☿	
	5013 Jul 03 13:41	0°II			5015 Dec 20 11:25	0°≈	
	5013 Jul 30 03:42	0°☿			5016 Jan 14 02:34	0°♂	
	5013 Aug 24 21:05	0°♂			5016 Feb 08 02:27	0°♀	
asc. node	5013 Sep 16 17:05	27°♂11'08		asc. node	5016 Mar 03 12:02	28°♀17'42	
	5013 Sep 19 01:18	0°♍			5016 Mar 05 00:26	0°♂	
	5013 Oct 13 19:07	0°♊		evening max el	5016 Mar 27 17:32	24°♂20'42	46°49'40
	5013 Nov 07 04:49	0°ML			5016 Apr 02 11:14	0°II	
morning set	5013 Nov 30 10:13	28°ML49'32		greatest brilliancy	5016 May 02 23:39	23°II21'59	-4.6m
	5013 Dec 01 08:50	0°♂		retrograde	5016 May 17 02:05	26°II57'25	
	5013 Dec 25 09:17	0°☿		evening set	5016 Jun 01 17:10	22°II08'26	
desc. node	5014 Jan 06 08:12	14°☿58'35		inferior conj	5016 Jun 07 05:22	18°II48'10	3°46'55
max. Earth dist.	5014 Jan 06 10:42	15°☿06'25	1.71463 AU	minimum elong	5016 Jun 07 13:11	18°II35'59	3°44'44
				min. Earth dist.	5016 Jun 07 01:20	18°II54'27	0.28123 AU
superior conj	5014 Jan 08 16:30	17°☿55'07	0°-5'-41	morning rise	5016 Jun 13 09:45	15°II06'54	
minimum elong	5014 Jan 08 15:02	17°☿50'33	0°05'37	desc. node	5016 Jun 23 03:11	11°II18'34	
behind sun begin	5014 Jan 07 14:50	16°☿34'39		direct	5016 Jun 28 08:50	10°II45'35	
behind sun end	5014 Jan 09 15:14	19°☿06'27		greatest brilliancy	5016 Jul 10 10:50	13°II22'56	-4.5m
	5014 Jan 18 07:34	0°≈			5016 Aug 04 09:42	0°☿	
	5014 Feb 11 04:41	0°♂		morning max el	5016 Aug 16 05:40	10°☿44'12	45°44'35
evening rise	5014 Feb 18 08:57	9°♂01'14			5016 Sep 04 07:29	0°♂	
	5014 Mar 07 01:55	0°♀			5016 Oct 01 13:49	0°♍	
	5014 Mar 31 01:23	0°♂		asc. node	5016 Oct 14 05:03	14°♍32'25	
	5014 Apr 24 05:45	0°II			5016 Oct 27 08:58	0°♊	
asc. node	5014 Apr 29 09:53	6°II22'05			5016 Nov 21 07:54	0°ML	
	5014 May 18 18:08	0°☿			5016 Dec 15 18:26	0°♂	
	5014 Jun 12 18:32	0°♂			5017 Jan 08 21:43	0°☿	
	5014 Jul 08 14:20	0°♍			5017 Feb 01 20:57	0°≈	
	5014 Aug 04 23:56	0°♊		desc. node	5017 Feb 02 19:54	1°≈12'00	
desc. node	5014 Aug 19 00:51	14°♊06'59		morning set	5017 Feb 12 21:18	13°≈49'44	
evening max el	5014 Aug 19 18:56	14°♊50'18	45°33'34		5017 Feb 25 18:06	0°♂	
	5014 Sep 06 00:53	0°ML			5017 Mar 21 14:42	0°♀	
greatest brilliancy	5014 Sep 25 12:54	12°ML00'09	-4.5m				
retrograde	5014 Oct 07 11:46	14°ML32'02		superior conj	5017 Mar 26 04:33	5°♀45'05	-1°-26'-12
evening set	5014 Oct 25 04:56	8°ML38'58		minimum elong	5017 Mar 26 01:08	5°♀34'21	1°26'11
inferior conj	5014 Oct 28 17:40	6°ML29'27	-8°-5'-40	max. Earth dist.	5017 Mar 28 20:57	9°♀07'17	1.71336 AU
minimum elong	5014 Oct 29 00:39	6°ML18'38	8°04'56		5017 Apr 14 12:29	0°♂	
min. Earth dist.	5014 Oct 29 13:33	5°ML58'37	0.28491 AU	evening rise	5017 May 05 14:11	26°♂18'46	

	5017 May 08 13:18	0°II		asc. node	5019 Nov 11 16:55	4°♄43'55	
asc. node	5017 May 26 21:49	22°II45'28			5019 Dec 04 11:51	0°♍	
	5017 Jun 01 18:34	0°☿			5019 Dec 30 00:21	0°♁	
	5017 Jun 26 05:19	0°♊			5020 Jan 23 17:12	0°♂	
	5017 Jul 20 22:47	0°♎			5020 Feb 17 00:13	0°♌	
	5017 Aug 15 01:46	0°♋		desc. node	5020 Mar 02 07:50	17°♌48'48	
	5017 Sep 09 19:48	0°♍			5020 Mar 12 02:19	0°♁	
desc. node	5017 Sep 15 12:37	6°♍29'58			5020 Apr 05 02:28	0°♑	
	5017 Oct 06 16:24	0°♁			5020 Apr 29 02:51	0°♄	
evening max el	5017 Oct 31 05:05	25°♁19'00	46°15'12	morning set	5020 Apr 30 05:52	1°♄24'17	
	5017 Nov 05 03:15	0°♂			5020 May 23 05:05	0°II	
greatest brilliancy	5017 Dec 08 13:10	24°♂00'23	-4.6m				
retrograde	5017 Dec 19 16:37	26°♂16'15		superior conj	5020 Jun 08 01:33	19°II40'01	0°-35'-49
evening set	5018 Jan 03 01:05	22°♂14'17		minimum elong	5020 Jun 08 09:10	20°II03'36	0°35'30
asc. node	5018 Jan 06 14:25	20°♂13'25		max. Earth dist.	5020 Jun 11 04:02	23°II30'32	1.72725 AU
inferior conj	5018 Jan 09 07:31	18°♂34'44	0°42'07		5020 Jun 16 09:59	0°☿	
minimum elong	5018 Jan 09 05:53	18°♂37'13	0°41'36	asc. node	5020 Jun 23 09:34	8°♄37'43	
min. Earth dist.	5018 Jan 09 12:59	18°♂26'21	0.26775 AU		5020 Jul 10 17:33	0°♊	
morning rise	5018 Jan 15 10:20	14°♂59'29		evening rise	5020 Jul 15 18:38	6°♊12'25	
direct	5018 Jan 29 22:53	10°♂49'35			5020 Aug 04 03:37	0°♎	
greatest brilliancy	5018 Feb 11 14:26	13°♂47'36	-4.7m		5020 Aug 28 16:33	0°♋	
	5018 Mar 06 21:45	0°♌			5020 Sep 22 09:35	0°♍	
morning max el	5018 Mar 21 12:02	13°♌52'39	46°58'00	desc. node	5020 Oct 13 00:38	24°♍49'22	
	5018 Apr 05 20:00	0°♁			5020 Oct 17 08:30	0°♁	
desc. node	5018 Apr 28 05:41	25°♁09'30			5020 Nov 11 15:38	0°♂	
	5018 May 02 10:22	0°♑			5020 Dec 07 12:20	0°♌	
	5018 May 27 23:03	0°♄			5021 Jan 03 15:57	0°♁	
	5018 Jun 22 01:12	0°II		evening max el	5021 Jan 11 23:22	8°♁35'38	47°05'48
	5018 Jul 16 22:29	0°☿		asc. node	5021 Feb 03 02:19	28°♁49'32	
	5018 Aug 10 16:17	0°♊			5021 Feb 04 14:44	0°♑	
asc. node	5018 Aug 19 07:13	10°♊30'02		greatest brilliancy	5021 Feb 19 13:22	9°♑10'01	-4.7m
	5018 Sep 04 06:16	0°♎		retrograde	5021 Mar 03 17:48	11°♑57'41	
morning set	5018 Sep 19 16:31	18°♎56'13		evening set	5021 Mar 21 12:05	5°♑53'05	
	5018 Sep 28 16:07	0°♋		inferior conj	5021 Mar 24 11:31	4°♑03'44	8°57'31
	5018 Oct 22 22:29	0°♍		minimum elong	5021 Mar 24 07:57	4°♑09'15	8°57'20
max. Earth dist.	5018 Oct 23 11:56	0°♍41'41	1.72767 AU	min. Earth dist.	5021 Mar 23 23:28	4°♑22'21	0.27157 AU
				morning rise	5021 Mar 27 03:53	2°♑25'05	
superior conj	5018 Oct 26 06:11	4°♍07'00	1°20'32		5021 Mar 31 10:25	30°♁♁	
minimum elong	5018 Oct 26 12:15	4°♍25'46	1°20'27	direct	5021 Apr 14 00:50	26°♁16'57	
	5018 Nov 16 02:32	0°♁		greatest brilliancy	5021 Apr 25 00:58	28°♁31'35	-4.6m
evening rise	5018 Dec 03 06:13	21°♁20'07			5021 Apr 28 10:08	0°♑	
desc. node	5018 Dec 08 22:23	28°♁23'53		desc. node	5021 May 25 17:24	20°♑12'41	
	5018 Dec 10 05:15	0°♂		morning max el	5021 Jun 02 20:31	27°♑57'05	46°22'45
	5019 Jan 03 07:06	0°♌			5021 Jun 04 22:14	0°♄	
	5019 Jan 27 08:43	0°♁			5021 Jul 03 05:39	0°II	
	5019 Feb 20 11:58	0°♑			5021 Jul 29 17:09	0°☿	
	5019 Mar 16 20:40	0°♄			5021 Aug 24 09:16	0°♊	
asc. node	5019 Apr 01 00:00	18°♄22'22		asc. node	5021 Sep 15 19:11	26°♊42'50	
	5019 Apr 10 17:02	0°II			5021 Sep 18 12:46	0°♎	
	5019 May 06 11:51	0°☿			5021 Oct 13 06:11	0°♋	
	5019 Jun 03 07:39	0°♊			5021 Nov 06 15:41	0°♍	
evening max el	5019 Jun 07 17:09	4°♊22'19	45°53'00	morning set	5021 Nov 28 01:05	26°♍32'49	
	5019 Jul 09 15:22	0°♎			5021 Nov 30 19:38	0°♁	
greatest brilliancy	5019 Jul 12 10:18	1°♎25'30	-4.5m		5021 Dec 24 20:06	0°♂	
desc. node	5019 Jul 21 15:01	4°♎34'43		max. Earth dist.	5022 Jan 03 23:10	12°♂41'04	1.71499 AU
retrograde	5019 Jul 26 21:01	5°♎06'04		desc. node	5022 Jan 05 10:05	14°♂30'29	
evening set	5019 Aug 11 18:35	0°♎15'50					
	5019 Aug 12 05:41	30°♁♁		superior conj	5022 Jan 06 04:12	15°♂27'17	0°-1'-50
inferior conj	5019 Aug 17 10:21	26°♁49'45	-5°-48'-44	minimum elong	5022 Jan 06 03:43	15°♂25'45	0°01'48
minimum elong	5019 Aug 17 00:34	27°♁05'09	5°46'37	behind sun begin	5022 Jan 05 02:22	14°♂06'18	
min. Earth dist.	5019 Aug 17 01:36	27°♁03'31	0.29036 AU	behind sun end	5022 Jan 07 05:03	16°♂45'13	
morning rise	5019 Aug 22 06:39	23°♁51'30			5022 Jan 17 18:27	0°♌	
direct	5019 Sep 07 23:54	18°♁33'53			5022 Feb 10 15:38	0°♁	
greatest brilliancy	5019 Sep 21 11:12	21°♁43'35	-4.5m	evening rise	5022 Feb 15 19:45	6°♁29'59	
	5019 Oct 05 07:09	0°♎			5022 Mar 06 12:56	0°♑	
morning max el	5019 Oct 26 22:17	18°♎39'18	45°53'37		5022 Mar 30 12:29	0°♄	
	5019 Nov 07 04:55	0°♋			5022 Apr 23 17:03	0°II	

asc. node	5022 Apr 28 11:58	5° Π 53'32		5024 Nov 20 19:24	0° \mathbb{M}	
	5022 May 18 05:50	0° \mathfrak{S}		5024 Dec 15 05:34	0° \mathfrak{Z}	
	5022 Jun 12 07:02	0° Ω		5025 Jan 08 08:40	0° \mathfrak{Z}	
	5022 Jul 08 04:27	0° \mathfrak{M}		5025 Feb 01 07:49	0° \approx	
	5022 Aug 04 18:02	0° $\underline{\Delta}$		5025 Feb 01 21:57	0° \approx 44'21	
evening max el	5022 Aug 17 11:01	12° $\underline{\Delta}$ 40'43	45°33'08	5025 Feb 10 07:25	11° \approx 16'46	
desc. node	5022 Aug 18 02:54	13° $\underline{\Delta}$ 18'34		5025 Feb 25 04:54	0° \mathfrak{H}	
	5022 Sep 06 12:58	0° \mathbb{M}		5025 Mar 21 01:27	0° Υ	
greatest brilliancy	5022 Sep 23 01:12	9° \mathbb{M} 45'23	-4.5m			
retrograde	5022 Oct 05 03:00	12° \mathbb{M} 19'33		superior conj	5025 Mar 23 15:17	3° Υ 14'13 -1°-25'-33
evening set	5022 Oct 22 22:03	6° \mathbb{M} 23'13		minimum elong	5025 Mar 23 10:48	3° Υ 00'09 1°25'31
inferior conj	5022 Oct 26 08:59	4° \mathbb{M} 16'06	-8°-12'-25	max. Earth dist.	5025 Mar 26 04:00	6° Υ 24'53 1.71305 AU
minimum elong	5022 Oct 26 15:20	4° \mathbb{M} 06'15	8°11'49		5025 Apr 13 23:14	0° \mathfrak{B}
min. Earth dist.	5022 Oct 27 03:38	3° \mathbb{M} 47'06	0.28549 AU	evening rise	5025 May 03 02:17	23° \mathfrak{B} 53'23
morning rise	5022 Oct 30 08:23	1° \mathbb{M} 50'03			5025 May 08 00:04	0° Π
	5022 Nov 02 14:44	30° \mathbb{R} $\underline{\Delta}$		asc. node	5025 May 25 23:44	22° Π 18'00
direct	5022 Nov 16 18:49	26° $\underline{\Delta}$ 02'50			5025 Jun 01 05:25	0° \mathfrak{S}
greatest brilliancy	5022 Dec 01 09:30	29° $\underline{\Delta}$ 52'38	-4.6m		5025 Jun 25 16:20	0° Ω
	5022 Dec 01 15:29	0° \mathbb{M}			5025 Jul 20 10:11	0° \mathfrak{M}
asc. node	5022 Dec 09 04:34	4° \mathbb{M} 24'35			5025 Aug 14 13:55	0° $\underline{\Delta}$
morning max el	5023 Jan 06 02:25	28° \mathbb{M} 34'06	46°37'29		5025 Sep 09 09:24	0° \mathbb{M}
	5023 Jan 07 12:22	0° \mathfrak{Z}		desc. node	5025 Sep 14 14:43	5° \mathbb{M} 56'05
	5023 Feb 04 01:43	0° \mathfrak{Z}			5025 Oct 06 09:10	0° \mathfrak{Z}
	5023 Mar 01 16:29	0° \approx		evening max el	5025 Oct 28 17:57	22° \mathfrak{Z} 57'47 46°12'58
	5023 Mar 26 12:46	0° \mathfrak{H}			5025 Nov 05 05:34	0° \mathfrak{Z}
desc. node	5023 Mar 30 19:45	5° \mathfrak{H} 14'04		greatest brilliancy	5025 Dec 06 03:20	21° \mathfrak{Z} 37'40 -4.6m
	5023 Apr 20 00:46	0° Υ		retrograde	5025 Dec 17 04:23	23° \mathfrak{Z} 51'32
	5023 May 14 09:30	0° \mathfrak{B}		evening set	5025 Dec 31 14:19	19° \mathfrak{Z} 48'39
	5023 Jun 07 17:48	0° Π		asc. node	5026 Jan 05 16:27	16° \mathfrak{Z} 52'31
	5023 Jul 02 02:54	0° \mathfrak{S}		inferior conj	5026 Jan 06 20:16	16° \mathfrak{Z} 10'03 0°17'59
morning set	5023 Jul 11 04:15	11° \mathfrak{S} 07'59		minimum elong	5026 Jan 06 19:34	16° \mathfrak{Z} 11'07 0°17'46
asc. node	5023 Jul 21 21:22	24° \mathfrak{S} 18'14		min. Earth dist.	5026 Jan 07 03:37	15° \mathfrak{Z} 58'48 0.26807 AU
	5023 Jul 26 12:33	0° Ω		morning rise	5026 Jan 13 00:17	12° \mathfrak{Z} 32'47
max. Earth dist.	5023 Aug 16 17:43	26° Ω 05'24	1.73468 AU	direct	5026 Jan 27 11:27	8° \mathfrak{Z} 23'59
				greatest brilliancy	5026 Feb 09 06:42	11° \mathfrak{Z} 25'26 -4.7m
superior conj	5023 Aug 17 03:46	26° Ω 36'21	0°57'26		5026 Mar 07 03:47	0° \approx
minimum elong	5023 Aug 16 18:45	26° Ω 08'36	0°57'05	morning max el	5026 Mar 19 00:29	11° \approx 25'44 46°58'22
	5023 Aug 19 21:57	0° \mathfrak{M}			5026 Apr 05 14:02	0° \mathfrak{H}
	5023 Sep 13 06:42	0° $\underline{\Delta}$		desc. node	5026 Apr 27 07:42	24° \mathfrak{H} 32'13
evening rise	5023 Sep 22 04:42	10° $\underline{\Delta}$ 59'06			5026 May 02 00:54	0° Υ
	5023 Oct 07 15:15	0° \mathbb{M}			5026 May 27 11:56	0° \mathfrak{B}
	5023 Nov 01 00:28	0° \mathfrak{Z}			5026 Jun 21 13:09	0° Π
desc. node	5023 Nov 10 12:28	11° \mathfrak{Z} 40'08			5026 Jul 16 09:49	0° \mathfrak{S}
	5023 Nov 25 10:59	0° \mathfrak{Z}			5026 Aug 10 03:11	0° Ω
	5023 Dec 19 23:19	0° \approx		asc. node	5026 Aug 18 09:20	10° Ω 03'35
	5024 Jan 13 15:15	0° \mathfrak{H}			5026 Sep 03 16:53	0° \mathfrak{M}
	5024 Feb 07 16:26	0° Υ		morning set	5026 Sep 17 10:05	16° \mathfrak{M} 50'11
asc. node	5024 Mar 02 14:08	27° Υ 37'35			5026 Sep 28 02:37	0° $\underline{\Delta}$
	5024 Mar 04 17:04	0° \mathfrak{B}		max. Earth dist.	5026 Oct 21 06:18	28° $\underline{\Delta}$ 37'18 1.72811 AU
evening max el	5024 Mar 25 09:06	22° \mathfrak{B} 04'00	46°51'20		5026 Oct 22 09:00	0° \mathbb{M}
	5024 Apr 02 12:04	0° Π				
greatest brilliancy	5024 Apr 30 17:46	21° Π 09'45	-4.6m	superior conj	5026 Oct 23 23:10	1° \mathbb{M} 58'17 1°21'34
retrograde	5024 May 14 17:42	24° Π 41'50		minimum elong	5026 Oct 24 04:37	2° \mathbb{M} 15'09 1°21'30
evening set	5024 May 30 10:52	19° Π 50'04			5026 Nov 15 13:10	0° \mathfrak{Z}
inferior conj	5024 Jun 04 20:27	16° Π 33'14	4°06'30	evening rise	5026 Nov 30 20:35	19° \mathfrak{Z} 02'06
minimum elong	5024 Jun 05 04:46	16° Π 20'13	4°04'11	desc. node	5026 Dec 08 00:19	27° \mathfrak{Z} 56'18
min. Earth dist.	5024 Jun 04 16:34	16° Π 39'18	0.28086 AU		5026 Dec 09 16:04	0° \mathfrak{Z}
morning rise	5024 Jun 10 23:15	12° Π 53'59			5027 Jan 02 18:08	0° \approx
desc. node	5024 Jun 22 05:02	8° Π 48'35			5027 Jan 26 20:00	0° \mathfrak{H}
direct	5024 Jun 25 23:48	8° Π 31'29			5027 Feb 19 23:36	0° Υ
greatest brilliancy	5024 Jul 07 22:56	11° Π 06'03	-4.5m		5027 Mar 16 08:50	0° \mathfrak{B}
	5024 Aug 04 13:54	0° \mathfrak{S}		asc. node	5027 Mar 31 02:01	17° \mathfrak{B} 50'24
morning max el	5024 Aug 13 20:31	8° \mathfrak{S} 31'44	45°45'08		5027 Apr 10 06:10	0° Π
	5024 Sep 04 00:18	0° Ω			5027 May 06 02:57	0° \mathfrak{S}
	5024 Oct 01 03:25	0° \mathfrak{M}			5027 Jun 03 04:09	0° Ω
asc. node	5024 Oct 13 07:06	14° \mathfrak{M} 01'11		evening max el	5027 Jun 05 07:54	2° Ω 07'46 45°54'43
	5024 Oct 26 21:09	0° $\underline{\Delta}$		greatest brilliancy	5027 Jul 10 00:32	29° Ω 13'35 -4.5m

	5027 Jul 11 17:12	0° \mathfrak{M}			5029 Dec 24 06:54	0° \mathfrak{Z}	
desc. node	5027 Jul 20 17:09	2° \mathfrak{M} 40'21		max. Earth dist.	5030 Jan 01 10:43	10° \mathfrak{Z} 12'57	1.71533 AU
retrograde	5027 Jul 24 13:31	2° \mathfrak{M} 57'26					
	5027 Aug 05 19:34	30° \mathfrak{R} Ω		superior conj	5030 Jan 03 16:22	13° \mathfrak{Z} 01'00	0°02'01
evening set	5027 Aug 09 08:29	28° Ω 10'08		minimum elong	5030 Jan 03 16:52	13° \mathfrak{Z} 02'33	0°02'00
min. Earth dist.	5027 Aug 14 17:42	24° Ω 55'07	0.29015 AU	behind sun begin	5030 Jan 02 15:38	11° \mathfrak{Z} 43'29	
inferior conj	5027 Aug 15 02:41	24° Ω 41'01	-5°-33'-51	behind sun end	5030 Jan 04 18:06	14° \mathfrak{Z} 21'37	
minimum elong	5027 Aug 14 17:00	24° Ω 56'13	5°31'42	desc. node	5030 Jan 04 12:11	14° \mathfrak{Z} 03'07	
morning rise	5027 Aug 20 01:35	21° Ω 39'10			5030 Jan 17 05:19	0° \approx	
direct	5027 Sep 05 15:29	16° Ω 25'17			5030 Feb 10 02:36	0° \mathfrak{H}	
greatest brilliancy	5027 Sep 19 03:09	19° Ω 35'06	-4.5m	evening rise	5030 Feb 13 06:46	3° \mathfrak{H} 59'16	
	5027 Oct 05 19:58	0° \mathfrak{M}			5030 Mar 06 00:02	0° \mathfrak{Y}	
morning max el	5027 Oct 24 13:53	16° \mathfrak{M} 28'14	45°52'39		5030 Mar 29 23:43	0° \mathfrak{B}	
	5027 Nov 06 23:00	0° \mathfrak{A}			5030 Apr 23 04:32	0° \mathfrak{H}	
asc. node	5027 Nov 10 18:50	4° \mathfrak{A} 03'14		asc. node	5030 Apr 27 13:50	5° \mathfrak{H} 23'52	
	5027 Dec 04 02:03	0° \mathfrak{M}			5030 May 17 17:45	0° \mathfrak{S}	
	5027 Dec 29 13:02	0° \mathfrak{X}			5030 Jun 11 19:48	0° Ω	
	5028 Jan 23 05:09	0° \mathfrak{Z}			5030 Jul 07 18:57	0° \mathfrak{M}	
	5028 Feb 16 11:44	0° \approx			5030 Aug 04 12:51	0° \mathfrak{A}	
desc. node	5028 Mar 01 09:55	17° \approx 19'50		evening max el	5030 Aug 15 02:48	10° \mathfrak{A} 29'46	45°32'44
	5028 Mar 11 13:34	0° \mathfrak{H}		desc. node	5030 Aug 17 04:57	12° \mathfrak{A} 28'41	
	5028 Apr 04 13:32	0° \mathfrak{Y}			5030 Sep 07 05:39	0° \mathfrak{M}	
morning set	5028 Apr 27 18:27	28° \mathfrak{Y} 59'49		greatest brilliancy	5030 Sep 20 14:30	7° \mathfrak{M} 31'06	-4.5m
	5028 Apr 28 13:44	0° \mathfrak{B}		retrograde	5030 Oct 02 17:41	10° \mathfrak{M} 06'19	
	5028 May 22 15:50	0° \mathfrak{H}		evening set	5030 Oct 20 14:55	4° \mathfrak{M} 07'10	
				inferior conj	5030 Oct 24 00:13	2° \mathfrak{M} 02'11	-8°-18'-29
superior conj	5028 Jun 05 16:20	17° \mathfrak{H} 24'03	0°-39'-1	minimum elong	5030 Oct 24 05:54	1° \mathfrak{M} 53'20	8°18'00
minimum elong	5028 Jun 06 00:32	17° \mathfrak{H} 49'26	0°38'40	min. Earth dist.	5030 Oct 24 17:53	1° \mathfrak{M} 34'40	0.28600 AU
max. Earth dist.	5028 Jun 08 19:08	21° \mathfrak{H} 15'40	1.72679 AU		5030 Oct 27 07:28	30° \mathfrak{R} \mathfrak{A}	
	5028 Jun 15 20:39	0° \mathfrak{S}		morning rise	5030 Oct 27 20:42	29° \mathfrak{A} 40'11	
asc. node	5028 Jun 22 11:33	8° \mathfrak{S} 10'54		direct	5030 Nov 14 10:57	23° \mathfrak{A} 48'30	
	5028 Jul 10 04:14	0° Ω		greatest brilliancy	5030 Nov 28 23:47	27° \mathfrak{A} 35'54	-4.6m
evening rise	5028 Jul 13 11:51	4° Ω 04'55			5030 Dec 03 10:04	0° \mathfrak{M}	
	5028 Aug 03 14:25	0° \mathfrak{M}		asc. node	5030 Dec 08 06:34	3° \mathfrak{M} 07'47	
	5028 Aug 28 03:36	0° \mathfrak{A}		morning max el	5031 Jan 03 17:20	26° \mathfrak{M} 15'45	46°36'02
	5028 Sep 21 21:04	0° \mathfrak{M}			5031 Jan 07 09:22	0° \mathfrak{X}	
desc. node	5028 Oct 12 02:37	24° \mathfrak{M} 19'23			5031 Feb 03 17:19	0° \mathfrak{Z}	
	5028 Oct 16 20:40	0° \mathfrak{X}			5031 Mar 01 06:03	0° \approx	
	5028 Nov 11 04:58	0° \mathfrak{Z}			5031 Mar 26 01:18	0° \mathfrak{H}	
	5028 Dec 07 03:46	0° \approx		desc. node	5031 Mar 29 21:44	4° \mathfrak{H} 42'12	
	5029 Jan 03 12:18	0° \mathfrak{H}			5031 Apr 19 12:40	0° \mathfrak{Y}	
evening max el	5029 Jan 09 13:30	6° \mathfrak{H} 12'51	47°04'49		5031 May 13 20:59	0° \mathfrak{B}	
asc. node	5029 Feb 02 04:24	27° \mathfrak{H} 34'47			5031 Jun 07 04:59	0° \mathfrak{H}	
	5029 Feb 05 11:36	0° \mathfrak{Y}			5031 Jul 01 13:51	0° \mathfrak{S}	
greatest brilliancy	5029 Feb 17 02:23	6° \mathfrak{Y} 43'11	-4.7m	morning set	5031 Jul 08 21:03	8° \mathfrak{S} 58'40	
retrograde	5029 Mar 01 07:36	9° \mathfrak{Y} 31'20		asc. node	5031 Jul 20 23:28	23° \mathfrak{S} 51'25	
evening set	5029 Mar 18 21:58	3° \mathfrak{Y} 31'23			5031 Jul 25 23:21	0° Ω	
min. Earth dist.	5029 Mar 21 11:38	1° \mathfrak{Y} 57'24	0.27124 AU				
inferior conj	5029 Mar 22 00:23	1° \mathfrak{Y} 37'43	8°53'21	superior conj	5031 Aug 14 21:30	24° Ω 30'11	0°55'00
minimum elong	5029 Mar 21 19:56	1° \mathfrak{Y} 44'35	8°53'03	minimum elong	5031 Aug 14 12:34	24° Ω 02'43	0°54'40
morning rise	5029 Mar 24 18:01	29° \mathfrak{H} 57'26		max. Earth dist.	5031 Aug 14 14:46	24° Ω 09'28	1.73464 AU
	5029 Mar 24 16:18	30° \mathfrak{R} \mathfrak{H}			5031 Aug 19 08:42	0° \mathfrak{M}	
direct	5029 Apr 11 13:43	23° \mathfrak{H} 51'23			5031 Sep 12 17:30	0° \mathfrak{A}	
greatest brilliancy	5029 Apr 22 13:11	26° \mathfrak{H} 05'59	-4.6m	evening rise	5031 Sep 19 22:27	8° \mathfrak{A} 52'30	
	5029 Apr 30 10:33	0° \mathfrak{Y}			5031 Oct 07 02:13	0° \mathfrak{M}	
desc. node	5029 May 24 19:19	19° \mathfrak{Y} 15'05			5031 Oct 31 11:44	0° \mathfrak{X}	
morning max el	5029 May 31 11:11	25° \mathfrak{Y} 38'31	46°24'26	desc. node	5031 Nov 09 14:26	11° \mathfrak{X} 11'10	
	5029 Jun 04 20:05	0° \mathfrak{B}			5031 Nov 24 22:40	0° \mathfrak{Z}	
	5029 Jul 02 21:26	0° \mathfrak{H}			5031 Dec 19 11:32	0° \approx	
	5029 Jul 29 06:32	0° \mathfrak{S}			5032 Jan 13 04:14	0° \mathfrak{H}	
	5029 Aug 23 21:25	0° Ω			5032 Feb 07 06:43	0° \mathfrak{Y}	
asc. node	5029 Sep 14 21:08	26° Ω 14'01		asc. node	5032 Mar 01 16:07	26° \mathfrak{Y} 56'17	
	5029 Sep 18 00:14	0° \mathfrak{M}			5032 Mar 04 10:10	0° \mathfrak{B}	
	5029 Oct 12 17:17	0° \mathfrak{A}		evening max el	5032 Mar 22 23:48	19° \mathfrak{B} 44'30	46°52'51
	5029 Nov 06 02:34	0° \mathfrak{M}			5032 Apr 02 14:28	0° \mathfrak{H}	
morning set	5029 Nov 25 16:22	24° \mathfrak{M} 17'25		greatest brilliancy	5032 Apr 28 11:50	18° \mathfrak{H} 56'37	-4.6m
	5029 Nov 30 06:26	0° \mathfrak{X}		retrograde	5032 May 12 08:40	22° \mathfrak{H} 25'24	

evening set	5032 May 28 04:40	17° Π 30'34		superior conj	5034 Oct 21 16:04	29° Ω 48'11	1°22'29
inferior conj	5032 Jun 02 11:33	14° Π 17'27	4°25'39	minimum elong	5034 Oct 21 20:52	0° \mathbb{M} 03'02	1°22'26
minimum elong	5032 Jun 02 20:21	14° Π 03'40	4°23'16		5034 Oct 21 19:53	0° \mathbb{M}	
min. Earth dist.	5032 Jun 02 08:07	14° Π 22'49	0.28055 AU		5034 Nov 15 00:10	0° \mathcal{A}	
morning rise	5032 Jun 08 12:34	10° Π 40'19		evening rise	5034 Nov 28 10:57	16° \mathcal{A} 43'06	
desc. node	5032 Jun 21 07:12	6° Π 22'34		desc. node	5034 Dec 07 02:25	27° \mathcal{A} 28'10	
direct	5032 Jun 23 14:25	6° Π 16'18			5034 Dec 09 03:14	0° \mathcal{C}	
greatest brilliancy	5032 Jul 05 12:02	8° Π 48'59	-4.5m		5035 Jan 02 05:30	0° \approx	
	5032 Aug 04 16:56	0° \mathcal{C}			5035 Jan 26 07:39	0° \mathcal{H}	
morning max el	5032 Aug 11 10:48	6° \mathcal{C} 16'32	45°45'42		5035 Feb 19 11:38	0° \mathcal{Y}	
	5032 Sep 03 17:13	0° Ω			5035 Mar 15 21:25	0° \mathcal{B}	
	5032 Sep 30 17:16	0° \mathbb{M}		asc. node	5035 Mar 30 03:57	17° \mathcal{B} 17'03	
asc. node	5032 Oct 12 09:03	13° \mathbb{M} 28'41			5035 Apr 09 19:41	0° Π	
	5032 Oct 26 09:38	0° Ω			5035 May 05 18:30	0° \mathcal{C}	
	5032 Nov 20 07:11	0° \mathbb{M}		evening max el	5035 Jun 02 23:33	29° \mathcal{C} 55'01	45°56'37
	5032 Dec 14 17:01	0° \mathcal{A}			5035 Jun 03 01:35	0° Ω	
	5033 Jan 07 19:57	0° \mathcal{C}		greatest brilliancy	5035 Jul 07 14:43	27° Ω 01'27	-4.5m
	5033 Jan 31 19:00	0° \approx			5035 Jul 15 17:15	0° \mathbb{M}	
desc. node	5033 Feb 01 00:02	0° \approx 15'46		desc. node	5035 Jul 19 19:08	0° \mathbb{M} 41'35	
morning set	5033 Feb 07 17:45	8° \approx 43'28		retrograde	5035 Jul 22 06:34	0° \mathbb{M} 48'44	
	5033 Feb 24 16:00	0° \mathcal{H}			5035 Jul 28 15:15	30° \mathcal{R} Ω	
	5033 Mar 20 12:28	0° \mathcal{Y}		evening set	5035 Aug 06 22:46	26° Ω 04'07	
				inferior conj	5035 Aug 12 19:11	22° Ω 32'04	-5°-18'-34
superior conj	5033 Mar 21 02:21	0° \mathcal{Y} 43'36	-1°-24'-44	minimum elong	5035 Aug 12 09:40	22° Ω 46'59	5°16'23
minimum elong	5033 Mar 20 20:51	0° \mathcal{Y} 26'21	1°24'42	min. Earth dist.	5035 Aug 12 09:38	22° Ω 47'01	0.28997 AU
max. Earth dist.	5033 Mar 23 09:04	3° \mathcal{Y} 35'30	1.71271 AU	morning rise	5035 Aug 17 20:42	19° Ω 26'48	
	5033 Apr 13 10:13	0° \mathcal{B}		direct	5035 Sep 03 07:47	14° Ω 16'30	
evening rise	5033 Apr 30 14:36	21° \mathcal{B} 27'58		greatest brilliancy	5035 Sep 16 19:09	17° Ω 26'19	-4.5m
	5033 May 07 11:05	0° Π			5035 Oct 06 05:46	0° \mathbb{M}	
asc. node	5033 May 25 01:47	21° Π 50'08		morning max el	5035 Oct 22 06:24	14° \mathbb{M} 18'43	45°51'32
	5033 May 31 16:32	0° \mathcal{C}			5035 Nov 06 17:00	0° Ω	
	5033 Jun 25 03:40	0° Ω		asc. node	5035 Nov 09 20:54	3° Ω 22'23	
	5033 Jul 19 21:58	0° \mathbb{M}			5035 Dec 03 16:28	0° \mathbb{M}	
	5033 Aug 14 02:32	0° Ω			5035 Dec 29 01:59	0° \mathcal{A}	
	5033 Sep 08 23:36	0° \mathbb{M}			5036 Jan 22 17:21	0° \mathcal{C}	
desc. node	5033 Sep 13 16:41	5° \mathbb{M} 20'21			5036 Feb 15 23:30	0° \approx	
	5033 Oct 06 02:45	0° \mathcal{A}		desc. node	5036 Feb 29 11:49	16° \approx 49'33	
evening max el	5033 Oct 26 06:26	20° \mathcal{A} 34'44	46°10'54		5036 Mar 11 01:05	0° \mathcal{H}	
	5033 Nov 05 10:02	0° \mathcal{C}			5036 Apr 04 00:51	0° \mathcal{Y}	
greatest brilliancy	5033 Dec 03 16:29	19° \mathcal{C} 12'53	-4.6m	morning set	5036 Apr 25 06:58	26° \mathcal{Y} 34'12	
retrograde	5033 Dec 14 16:25	21° \mathcal{C} 26'06			5036 Apr 28 00:53	0° \mathcal{B}	
evening set	5033 Dec 29 03:45	17° \mathcal{C} 21'34			5036 May 22 02:50	0° Π	
inferior conj	5034 Jan 04 09:00	13° \mathcal{C} 44'17	0°-6'-10				
minimum elong	5034 Jan 04 09:14	13° \mathcal{C} 43'55	0°06'05	superior conj	5036 Jun 03 07:10	15° Π 07'23	0°-42'-8
transit middle	5034 Jan 04 09:14	13° \mathcal{C} 43'55	0°06'05	minimum elong	5036 Jun 03 15:54	15° Π 34'27	0°41'47
transit begin	5034 Jan 04 05:27	13° \mathcal{C} 49'43		max. Earth dist.	5036 Jun 06 11:39	19° Π 04'21	1.72628 AU
transit end	5034 Jan 04 13:02	13° \mathcal{C} 38'07			5036 Jun 15 07:32	0° \mathcal{C}	
asc. node	5034 Jan 04 18:35	13° \mathcal{C} 29'39		asc. node	5036 Jun 21 13:41	7° \mathcal{C} 43'51	
min. Earth dist.	5034 Jan 04 18:05	13° \mathcal{C} 30'25	0.26844 AU		5036 Jul 09 15:06	0° Ω	
morning rise	5034 Jan 10 14:04	10° \mathcal{C} 05'32		evening rise	5036 Jul 11 05:18	1° Ω 57'30	
direct	5034 Jan 25 00:10	5° \mathcal{C} 57'04			5036 Aug 03 01:24	0° \mathbb{M}	
greatest brilliancy	5034 Feb 06 23:37	9° \mathcal{C} 03'03	-4.7m		5036 Aug 27 14:51	0° Ω	
	5034 Mar 07 08:21	0° \approx			5036 Sep 21 08:47	0° \mathbb{M}	
morning max el	5034 Mar 16 13:56	9° \approx 00'13	46°58'54	desc. node	5036 Oct 11 04:34	23° \mathbb{M} 48'28	
	5034 Apr 05 08:01	0° \mathcal{H}			5036 Oct 16 09:09	0° \mathcal{A}	
desc. node	5034 Apr 26 09:39	23° \mathcal{H} 54'09			5036 Nov 10 18:42	0° \mathcal{C}	
	5034 May 01 15:34	0° \mathcal{Y}			5036 Dec 06 19:47	0° \approx	
	5034 May 27 01:00	0° \mathcal{B}			5037 Jan 03 09:40	0° \mathcal{H}	
	5034 Jun 21 01:18	0° Π		evening max el	5037 Jan 07 04:23	3° \mathcal{H} 51'14	47°03'50
	5034 Jul 15 21:22	0° \mathcal{C}		asc. node	5037 Feb 01 06:21	26° \mathcal{H} 16'39	
	5034 Aug 09 14:22	0° Ω			5037 Feb 06 16:41	0° \mathcal{Y}	
asc. node	5034 Aug 17 11:17	9° Ω 35'40		greatest brilliancy	5037 Feb 14 15:46	4° \mathcal{Y} 16'12	-4.7m
	5034 Sep 03 03:51	0° \mathbb{M}		retrograde	5037 Feb 26 21:21	7° \mathcal{Y} 04'04	
morning set	5034 Sep 15 03:36	14° \mathbb{M} 42'56		evening set	5037 Mar 16 07:31	1° \mathcal{Y} 09'36	
	5034 Sep 27 13:29	0° Ω			5037 Mar 18 05:25	30° \mathcal{R} \mathcal{H}	
max. Earth dist.	5034 Oct 19 01:39	26° Ω 34'53	1.72853 AU	min. Earth dist.	5037 Mar 18 23:44	29° \mathcal{H} 31'48	0.27089 AU
				inferior conj	5037 Mar 19 13:15	29° \mathcal{H} 10'58	8°48'12

minimum elong	5037 Mar 19 07:56	29° K 19'10	8°47'47	max. Earth dist.	5039 Aug 12 10:02	22° Ω 08'13	1.73456 AU
morning rise	5037 Mar 22 08:30	27° K 28'22			5039 Aug 18 19:24	0° M	
direct	5037 Apr 09 02:58	21° K 25'19			5039 Sep 12 04:13	0° Ω	
greatest brilliancy	5037 Apr 20 00:55	23° K 39'01	-4.6m	evening rise	5039 Sep 17 16:36	6° Ω 47'31	
	5037 May 01 19:24	0° Y			5039 Oct 06 13:04	0° M	
desc. node	5037 May 23 21:28	18° Y 18'39			5039 Oct 30 22:52	0° X	
morning max el	5037 May 29 01:32	23° Y 18'30	46°26'05	desc. node	5039 Nov 08 16:35	10° X 43'15	
	5037 Jun 04 17:21	0° X			5039 Nov 24 10:14	0° Z	
	5037 Jul 02 13:07	0° II			5039 Dec 18 23:41	0° \approx	
	5037 Jul 28 19:56	0° S			5040 Jan 12 17:14	0° K	
	5037 Aug 23 09:37	0° Ω			5040 Feb 06 21:10	0° Y	
asc. node	5037 Sep 13 23:08	25° Ω 45'11		asc. node	5040 Feb 29 18:05	26° Y 14'17	
	5037 Sep 17 11:45	0° M			5040 Mar 04 03:43	0° X	
	5037 Oct 12 04:26	0° Ω		evening max el	5040 Mar 20 13:28	17° X 22'03	46°54'22
	5037 Nov 05 13:34	0° M			5040 Apr 02 18:37	0° II	
morning set	5037 Nov 23 07:46	22° M 01'59		greatest brilliancy	5040 Apr 26 05:26	16° II 42'19	-4.6m
	5037 Nov 29 17:23	0° X		retrograde	5040 May 09 23:22	20° II 08'33	
	5037 Dec 23 17:54	0° Z		evening set	5040 May 25 22:23	15° II 10'17	
max. Earth dist.	5037 Dec 29 19:09	7° Z 34'32	1.71571 AU	inferior conj	5040 May 31 02:31	12° II 01'14	4°44'26
				minimum elong	5040 May 31 11:43	11° II 46'49	4°42'00
superior conj	5038 Jan 01 04:33	10° Z 34'18	0°05'50	min. Earth dist.	5040 May 30 23:42	12° II 05'38	0.28023 AU
minimum elong	5038 Jan 01 06:01	10° Z 38'52	0°05'46	morning rise	5040 Jun 06 01:30	8° II 26'36	
behind sun begin	5037 Dec 31 06:08	9° Z 24'06		desc. node	5040 Jun 20 09:13	4° II 01'16	
behind sun end	5038 Jan 02 05:53	11° Z 53'38		direct	5040 Jun 21 04:23	4° II 00'31	
desc. node	5038 Jan 03 14:16	13° Z 35'04		greatest brilliancy	5040 Jul 03 01:54	6° II 32'37	-4.5m
	5038 Jan 16 16:23	0° \approx			5040 Aug 04 18:23	0° S	
	5038 Feb 09 13:44	0° K		morning max el	5040 Aug 09 00:59	4° S 01'14	45°46'29
evening rise	5038 Feb 10 17:31	1° K 27'16			5040 Sep 03 09:40	0° Ω	
	5038 Mar 05 11:16	0° Y			5040 Sep 30 06:47	0° M	
	5038 Mar 29 11:06	0° X		asc. node	5040 Oct 11 11:05	12° M 57'11	
	5038 Apr 22 16:09	0° II			5040 Oct 25 21:49	0° Ω	
asc. node	5038 Apr 26 15:56	4° II 54'24			5040 Nov 19 18:41	0° M	
	5038 May 17 05:51	0° S			5040 Dec 14 04:11	0° X	
	5038 Jun 11 08:45	0° Ω			5041 Jan 07 06:59	0° Z	
	5038 Jul 07 09:41	0° M		desc. node	5041 Jan 31 01:57	29° Z 47'27	
	5038 Aug 04 08:09	0° Ω			5041 Jan 31 05:58	0° \approx	
evening max el	5038 Aug 12 18:05	8° Ω 17'43	45°32'29	morning set	5041 Feb 05 04:11	6° \approx 11'07	
desc. node	5038 Aug 16 06:56	11° Ω 37'53			5041 Feb 24 02:55	0° K	
	5038 Sep 08 03:48	0° M					
greatest brilliancy	5038 Sep 18 04:30	5° M 18'27	-4.5m	superior conj	5041 Mar 18 13:00	28° K 12'01	-1°-23'-43
retrograde	5038 Sep 30 08:18	7° M 54'29		minimum elong	5041 Mar 18 06:33	27° K 51'44	1°23'40
evening set	5038 Oct 18 07:51	1° M 53'00			5041 Mar 19 23:22	0° Y	
	5038 Oct 21 09:17	30° R Ω		max. Earth dist.	5041 Mar 20 11:28	0° Y 38'00	1.71248 AU
inferior conj	5038 Oct 21 15:51	29° Ω 49'44	-8°-23'-34		5041 Apr 12 21:07	0° X	
minimum elong	5038 Oct 21 20:50	29° Ω 41'57	8°23'12	evening rise	5041 Apr 28 02:17	19° X 00'47	
min. Earth dist.	5038 Oct 22 08:43	29° Ω 23'25	0.28652 AU		5041 May 06 22:00	0° II	
morning rise	5038 Oct 25 09:38	27° Ω 31'26		asc. node	5041 May 24 03:51	21° II 22'40	
direct	5038 Nov 12 03:02	21° Ω 35'35			5041 May 31 03:32	0° S	
greatest brilliancy	5038 Nov 26 14:37	25° Ω 20'43	-4.6m		5041 Jun 24 14:53	0° Ω	
	5038 Dec 04 14:54	0° M			5041 Jul 19 09:37	0° M	
asc. node	5038 Dec 07 08:42	1° M 53'58			5041 Aug 13 15:02	0° Ω	
morning max el	5039 Jan 01 07:30	23° M 55'36	46°34'19		5041 Sep 08 13:42	0° M	
	5039 Jan 07 05:40	0° X		desc. node	5041 Sep 12 18:42	4° M 45'15	
	5039 Feb 03 08:48	0° Z			5041 Oct 05 20:23	0° X	
	5039 Feb 28 19:38	0° \approx		evening max el	5041 Oct 23 19:35	18° X 14'44	46°09'05
	5039 Mar 25 13:52	0° K			5041 Nov 05 15:53	0° Z	
desc. node	5039 Mar 28 23:47	4° K 10'25		greatest brilliancy	5041 Dec 01 04:52	16° Z 49'21	-4.6m
	5039 Apr 19 00:35	0° Y		retrograde	5041 Dec 12 05:20	19° Z 03'09	
	5039 May 13 08:27	0° X		evening set	5041 Dec 26 17:42	14° Z 56'36	
	5039 Jun 06 16:07	0° II		inferior conj	5042 Jan 01 22:02	11° Z 20'46	0°-29'-55
	5039 Jul 01 00:46	0° S		minimum elong	5042 Jan 01 23:12	11° Z 19'01	0°29'33
morning set	5039 Jul 06 13:50	6° S 49'16		min. Earth dist.	5042 Jan 02 08:23	11° Z 05'00	0.26883 AU
asc. node	5039 Jul 20 01:24	23° S 24'09		asc. node	5042 Jan 03 20:27	10° Z 10'12	
	5039 Jul 25 10:08	0° Ω		morning rise	5042 Jan 08 04:00	7° Z 41'04	
				direct	5042 Jan 22 13:41	3° Z 32'34	
superior conj	5039 Aug 12 15:28	22° Ω 24'56	0°52'32	greatest brilliancy	5042 Feb 04 16:19	6° Z 42'34	-4.7m
minimum elong	5039 Aug 12 06:41	21° Ω 57'55	0°52'11		5042 Mar 07 10:38	0° \approx	

morning max el	5042 Mar 14 04:26	6°≈38'42	46°59'01		5044 Nov 10 08:15	0°☾	
	5042 Apr 05 01:13	0°☿			5044 Dec 06 11:43	0°≈	
desc. node	5042 Apr 25 11:45	23°☿17'36			5045 Jan 03 07:24	0°☿	
	5042 May 01 05:48	0°☿		evening max el	5045 Jan 04 19:26	1°☿31'05	47°02'48
	5042 May 26 13:47	0°♄		asc. node	5045 Jan 31 08:23	24°☿57'29	
	5042 Jun 20 13:13	0°♂			5045 Feb 08 09:32	0°☿	
	5042 Jul 15 08:41	0°☿		greatest brilliancy	5045 Feb 12 06:13	1°☿51'59	-4.7m
	5042 Aug 09 01:16	0°♂		retrograde	5045 Feb 24 10:54	4°☿38'18	
asc. node	5042 Aug 16 13:15	9°♂08'36			5045 Mar 11 16:43	30°☿☿	
	5042 Sep 02 14:31	0°♄		evening set	5045 Mar 13 17:00	28°☿50'03	
morning set	5042 Sep 12 20:57	12°♄36'04		min. Earth dist.	5045 Mar 16 12:12	27°☿07'43	0.27049 AU
	5042 Sep 27 00:04	0°♂		inferior conj	5045 Mar 17 02:16	26°☿46'00	8°42'11
max. Earth dist.	5042 Oct 16 21:16	24°♂34'10	1.72890 AU	minimum elong	5045 Mar 16 20:08	26°☿55'29	8°41'37
				morning rise	5045 Mar 19 23:26	25°☿00'31	
superior conj	5042 Oct 19 09:00	27°♂39'09	1°23'17	direct	5045 Apr 06 16:16	19°☿01'14	
minimum elong	5042 Oct 19 13:08	27°♂51'57	1°23'15	greatest brilliancy	5045 Apr 17 12:40	21°☿13'41	-4.6m
	5042 Oct 21 06:29	0°♂			5045 May 02 18:08	0°☿	
	5042 Nov 14 10:51	0°☿		desc. node	5045 May 22 23:28	17°☿24'35	
evening rise	5042 Nov 26 01:35	14°☿26'01		morning max el	5045 May 26 14:54	20°☿57'22	46°27'34
desc. node	5042 Dec 06 04:25	27°☿00'50			5045 Jun 04 13:21	0°♄	
	5042 Dec 08 14:03	0°☾			5045 Jul 02 04:09	0°♂	
	5043 Jan 01 16:30	0°≈			5045 Jul 28 08:54	0°☿	
	5043 Jan 25 18:55	0°☿			5045 Aug 22 21:30	0°♂	
	5043 Feb 18 23:16	0°☿		asc. node	5045 Sep 13 01:13	25°♂17'18	
	5043 Mar 15 09:39	0°♄			5045 Sep 16 23:01	0°♄	
asc. node	5043 Mar 29 06:02	16°♄45'04			5045 Oct 11 15:21	0°♂	
	5043 Apr 09 08:59	0°♂			5045 Nov 05 00:18	0°♂	
	5043 May 05 10:03	0°☿		morning set	5045 Nov 20 22:58	19°♂46'46	
evening max el	5043 May 31 15:52	27°☿44'11	45°58'22		5045 Nov 29 04:04	0°☿	
	5043 Jun 02 23:43	0°♂			5045 Dec 23 04:37	0°☾	
greatest brilliancy	5043 Jul 05 06:00	24°♂50'40	-4.5m	max. Earth dist.	5045 Dec 27 02:53	4°☾54'57	1.71611 AU
desc. node	5043 Jul 18 21:05	28°♂37'59					
retrograde	5043 Jul 19 23:28	28°♂39'24		superior conj	5045 Dec 29 16:46	8°☾08'39	0°09'36
evening set	5043 Aug 04 12:55	23°♂57'39		minimum elong	5045 Dec 29 19:10	8°☾16'08	0°09'30
inferior conj	5043 Aug 10 11:20	20°♂22'39	-5°-2'-42	behind sun begin	5045 Dec 28 22:29	7°☾11'23	
minimum elong	5043 Aug 10 02:02	20°♂37'12	5°00'30	behind sun end	5045 Dec 30 15:51	9°☾20'54	
min. Earth dist.	5043 Aug 10 01:05	20°♂38'41	0.28973 AU	desc. node	5046 Jan 02 16:09	13°☾07'19	
morning rise	5043 Aug 15 15:25	17°♂14'01			5046 Jan 16 03:11	0°≈	
direct	5043 Sep 01 00:12	12°♂07'33		evening rise	5046 Feb 08 04:21	28°≈56'19	
greatest brilliancy	5043 Sep 14 09:51	15°♂16'09	-4.5m		5046 Feb 09 00:37	0°☿	
	5043 Oct 06 12:38	0°♄			5046 Mar 04 22:13	0°☿	
morning max el	5043 Oct 19 22:41	12°♄09'30	45°50'30		5046 Mar 28 22:10	0°♄	
	5043 Nov 06 10:18	0°♂			5046 Apr 22 03:28	0°♂	
asc. node	5043 Nov 08 22:59	2°♂42'53		asc. node	5046 Apr 25 17:59	4°♂25'50	
	5043 Dec 03 06:24	0°♂			5046 May 16 17:38	0°☿	
	5043 Dec 28 14:29	0°☿			5046 Jun 10 21:27	0°♂	
	5044 Jan 22 05:07	0°☾			5046 Jul 07 00:17	0°♄	
	5044 Feb 15 10:51	0°≈			5046 Aug 04 03:50	0°♂	
desc. node	5044 Feb 28 13:54	16°≈21'08		evening max el	5046 Aug 10 08:28	6°♂03'53	45°32'06
	5044 Mar 10 12:08	0°☿		desc. node	5046 Aug 15 08:59	10°♂46'39	
	5044 Apr 03 11:43	0°☿			5046 Sep 09 10:31	0°♂	
morning set	5044 Apr 22 19:39	24°☿10'22		greatest brilliancy	5046 Sep 15 18:16	3°♂05'31	-4.5m
	5044 Apr 27 11:37	0°♄		retrograde	5046 Sep 27 22:43	5°♂42'45	
	5044 May 21 13:27	0°♂			5046 Oct 15 10:23	30°☿♂	
				evening set	5046 Oct 16 00:19	29°♂39'14	
superior conj	5044 May 31 21:51	12°♂51'08	0°-45'-12	inferior conj	5046 Oct 19 07:22	27°♂37'21	-8°-27'-52
minimum elong	5044 Jun 01 07:04	13°♂19'43	0°44'51	minimum elong	5046 Oct 19 11:35	27°♂30'44	8°27'38
max. Earth dist.	5044 Jun 04 05:34	16°♂58'18	1.72586 AU	min. Earth dist.	5046 Oct 19 23:38	27°♂11'55	0.28703 AU
	5044 Jun 14 18:07	0°☿		morning rise	5046 Oct 22 22:39	25°♂22'33	
asc. node	5044 Jun 20 15:36	7°☿17'06		direct	5046 Nov 09 18:30	19°♂22'34	
evening rise	5044 Jul 08 22:21	29°☿49'40		greatest brilliancy	5046 Nov 24 06:22	23°♂06'57	-4.6m
	5044 Jul 09 01:43	0°♂			5046 Dec 05 11:42	0°♂	
	5044 Aug 02 12:08	0°♄		asc. node	5046 Dec 06 10:36	0°♂42'00	
	5044 Aug 27 01:51	0°♂		morning max el	5046 Dec 29 21:07	21°♂34'30	46°32'45
	5044 Sep 20 20:16	0°♂			5047 Jan 07 01:12	0°☿	
desc. node	5044 Oct 10 06:42	23°♂18'51			5047 Feb 02 23:52	0°☾	
	5044 Oct 15 21:25	0°☿			5047 Feb 28 08:54	0°≈	

	5047 Mar 25 02:10	0° H			5049 Nov 06 00:28	0° Z	
desc. node	5047 Mar 28 01:49	3° H 39'15		greatest brilliancy	5049 Nov 28 16:38	14° Z 24'13	-4.6m
	5047 Apr 18 12:16	0° Y		retrograde	5049 Dec 09 18:21	16° Z 38'46	
	5047 May 12 19:41	0° B		evening set	5049 Dec 24 07:42	12° Z 30'05	
	5047 Jun 06 03:02	0° II		inferior conj	5049 Dec 30 10:51	8° Z 55'42	0°-53'-45
	5047 Jun 30 11:27	0° S		minimum elong	5049 Dec 30 12:54	8° Z 52'34	0°53'06
morning set	5047 Jul 04 06:47	4° S 41'04		min. Earth dist.	5049 Dec 30 22:12	8° Z 38'24	0.26927 AU
asc. node	5047 Jul 19 03:25	22° S 57'50		asc. node	5050 Jan 02 22:31	6° Z 49'42	
	5047 Jul 24 20:42	0° Q		morning rise	5050 Jan 05 17:30	5° Z 15'23	
				direct	5050 Jan 20 03:34	1° Z 06'40	
superior conj	5047 Aug 10 09:32	20° Q 20'31	0°49'59	greatest brilliancy	5050 Feb 02 08:12	4° Z 19'46	-4.7m
minimum elong	5047 Aug 10 00:56	19° Q 54'04	0°49'37		5050 Mar 07 11:58	0° \approx	
max. Earth dist.	5047 Aug 10 04:54	20° Q 06'14	1.73454 AU	morning max el	5050 Mar 11 19:11	4° \approx 16'57	46°59'11
	5047 Aug 18 05:56	0° M			5050 Apr 04 18:21	0° H	
	5047 Sep 11 14:50	0° A		desc. node	5050 Apr 24 13:46	22° H 40'26	
evening rise	5047 Sep 15 10:45	4° A 42'51			5050 Apr 30 20:07	0° Y	
	5047 Oct 05 23:53	0° M			5050 May 26 02:41	0° B	
	5047 Oct 30 10:00	0° J			5050 Jun 20 01:15	0° II	
desc. node	5047 Nov 07 18:31	10° J 14'41			5050 Jul 14 20:09	0° S	
	5047 Nov 23 21:47	0° Z			5050 Aug 08 12:21	0° Q	
	5047 Dec 18 11:50	0° \approx		asc. node	5050 Aug 15 15:24	8° Q 41'34	
	5048 Jan 12 06:16	0° H			5050 Sep 02 01:21	0° M	
	5048 Feb 06 11:43	0° Y		morning set	5050 Sep 10 14:45	10° M 30'08	
asc. node	5048 Feb 28 20:11	25° Y 32'19			5050 Sep 26 10:49	0° A	
	5048 Mar 03 21:35	0° B		max. Earth dist.	5050 Oct 14 17:22	22° A 34'33	1.72928 AU
evening max el	5048 Mar 18 02:43	14° B 58'37	46°55'55				
	5048 Apr 03 00:38	0° II		superior conj	5050 Oct 17 02:19	25° A 30'48	1°23'57
greatest brilliancy	5048 Apr 23 22:10	14° II 26'59	-4.6m	minimum elong	5050 Oct 17 05:47	25° A 41'31	1°23'56
retrograde	5048 May 07 14:17	17° II 52'03			5050 Oct 20 17:16	0° M	
evening set	5048 May 23 16:09	12° II 49'50			5050 Nov 13 21:45	0° J	
inferior conj	5048 May 28 17:28	9° II 45'12	5°02'50	evening rise	5050 Nov 23 16:25	12° J 08'47	
minimum elong	5048 May 29 03:03	9° II 30'13	5°00'23	desc. node	5050 Dec 05 06:23	26° J 32'31	
min. Earth dist.	5048 May 28 15:11	9° II 48'47	0.27991 AU		5050 Dec 08 01:09	0° Z	
morning rise	5048 Jun 03 14:16	6° II 13'33			5051 Jan 01 03:52	0° \approx	
direct	5048 Jun 18 18:14	1° II 44'45			5051 Jan 25 06:35	0° H	
desc. node	5048 Jun 19 11:07	1° II 45'20			5051 Feb 18 11:20	0° Y	
greatest brilliancy	5048 Jun 30 16:24	4° II 17'18	-4.5m		5051 Mar 14 22:19	0° B	
	5048 Aug 04 18:25	0° S		asc. node	5051 Mar 28 08:02	16° B 11'37	
morning max el	5048 Aug 06 15:40	1° S 47'27	45°47'22		5051 Apr 08 22:44	0° II	
	5048 Sep 03 01:41	0° Q			5051 May 05 02:11	0° S	
	5048 Sep 29 20:09	0° M		evening max el	5051 May 29 08:29	25° S 33'14	46°00'12
asc. node	5048 Oct 10 13:08	12° M 25'52			5051 Jun 02 23:08	0° Q	
	5048 Oct 25 09:58	0° A		greatest brilliancy	5051 Jul 02 22:40	22° Q 41'03	-4.5m
	5048 Nov 19 06:15	0° M		retrograde	5051 Jul 17 16:21	26° Q 29'29	
	5048 Dec 13 15:28	0° J		desc. node	5051 Jul 17 23:13	26° Q 29'24	
	5049 Jan 06 18:07	0° Z		evening set	5051 Aug 02 03:25	21° Q 50'42	
desc. node	5049 Jan 30 04:03	29° Z 19'23		min. Earth dist.	5051 Aug 07 16:49	18° Q 29'47	0.28943 AU
	5049 Jan 30 16:59	0° \approx		inferior conj	5051 Aug 08 03:38	18° Q 12'50	-4°-46'-27
morning set	5049 Feb 02 14:30	3° \approx 38'10		minimum elong	5051 Aug 07 18:37	18° Q 26'57	4°44'14
	5049 Feb 23 13:53	0° H		morning rise	5051 Aug 13 10:11	15° Q 00'47	
				direct	5051 Aug 29 16:54	9° Q 58'25	
superior conj	5049 Mar 15 23:28	25° H 39'35	-1°-22'-33	greatest brilliancy	5051 Sep 11 23:34	13° Q 04'20	-4.5m
minimum elong	5049 Mar 15 16:04	25° H 16'21	1°22'27		5051 Oct 06 17:37	0° M	
max. Earth dist.	5049 Mar 17 15:30	27° H 45'26	1.71227 AU	morning max el	5051 Oct 17 14:27	9° M 58'32	45°49'30
	5049 Mar 19 10:19	0° Y			5051 Nov 06 03:27	0° A	
	5049 Apr 12 08:04	0° B		asc. node	5051 Nov 08 00:54	2° A 02'45	
evening rise	5049 Apr 25 13:59	16° B 33'24			5051 Dec 02 20:25	0° M	
	5049 May 06 09:00	0° II			5051 Dec 28 03:12	0° J	
asc. node	5049 May 23 05:47	20° II 54'34			5052 Jan 21 17:12	0° Z	
	5049 May 30 14:37	0° S			5052 Feb 14 22:34	0° \approx	
	5049 Jun 24 02:09	0° Q		desc. node	5052 Feb 27 15:58	15° \approx 51'25	
	5049 Jul 18 21:20	0° M			5052 Mar 09 23:38	0° H	
	5049 Aug 13 03:38	0° A			5052 Apr 02 23:01	0° Y	
	5049 Sep 08 04:01	0° M		morning set	5052 Apr 20 07:48	21° Y 43'30	
desc. node	5049 Sep 11 20:47	4° M 09'51			5052 Apr 26 22:46	0° B	
	5049 Oct 05 14:36	0° J			5052 May 21 00:28	0° II	
evening max el	5049 Oct 21 09:25	15° J 56'01	46°07'03				

superior conj	5052 May 29 12:10	10°II32'35	0°-48'-14	inferior conj	5054 Oct 16 23:02	25°♂24'41	-8°-31'-29
minimum elong	5052 May 29 21:48	11°II02'28	0°47'52	minimum elong	5054 Oct 17 02:30	25°♂19'15	8°31'19
max. Earth dist.	5052 Jun 02 00:44	14°II54'53	1.72534 AU	min. Earth dist.	5054 Oct 17 14:40	25°♂00'15	0.28751 AU
	5052 Jun 14 05:04	0°♂		morning rise	5054 Oct 20 12:06	23°♂13'11	
asc. node	5052 Jun 19 17:37	6°♂49'35		direct	5054 Nov 07 09:55	17°♂09'08	
evening rise	5052 Jul 06 15:16	27°♂40'14		greatest brilliancy	5054 Nov 21 23:09	20°♂54'14	-4.6m
	5052 Jul 08 12:41	0°♂		asc. node	5054 Dec 05 12:39	29°♂31'43	
	5052 Aug 01 23:14	0°♂			5054 Dec 06 03:22	0°♂	
	5052 Aug 26 13:13	0°♂		morning max el	5054 Dec 27 11:35	19°♂15'05	46°31'21
	5052 Sep 20 08:06	0°♂			5055 Jan 06 20:23	0°♂	
desc. node	5052 Oct 09 08:39	22°♂47'43			5055 Feb 02 14:55	0°♂	
	5052 Oct 15 10:01	0°♂			5055 Feb 27 22:16	0°♂	
	5052 Nov 09 22:12	0°♂			5055 Mar 24 14:37	0°♂	
	5052 Dec 06 04:13	0°♂		desc. node	5055 Mar 27 03:47	3°♂07'20	
evening max el	5053 Jan 02 09:21	29°♂07'04	47°01'23		5055 Apr 18 00:09	0°♂	
	5053 Jan 03 06:28	0°♂			5055 May 12 07:11	0°♂	
asc. node	5053 Jan 30 10:27	23°♂34'09			5055 Jun 05 14:16	0°♂	
greatest brilliancy	5053 Feb 09 21:13	29°♂26'35	-4.7m		5055 Jun 29 22:29	0°♂	
	5053 Feb 11 06:04	0°♂		morning set	5055 Jul 01 23:18	2°♂30'17	
retrograde	5053 Feb 21 23:41	2°♂10'14		asc. node	5055 Jul 18 05:31	22°♂30'47	
	5053 Mar 04 06:21	30°♂			5055 Jul 24 07:35	0°♂	
evening set	5053 Mar 11 01:55	26°♂28'46		superior conj	5055 Aug 08 03:14	18°♂14'02	0°47'20
min. Earth dist.	5053 Mar 14 00:55	24°♂40'40	0.27015 AU	minimum elong	5055 Aug 07 18:51	17°♂48'15	0°46'58
inferior conj	5053 Mar 14 15:03	24°♂18'50	8°35'00	max. Earth dist.	5055 Aug 07 23:50	18°♂03'34	1.73447 AU
minimum elong	5053 Mar 14 08:08	24°♂29'31	8°34'16		5055 Aug 17 16:45	0°♂	
morning rise	5053 Mar 17 14:32	22°♂29'44			5055 Sep 11 01:41	0°♂	
direct	5053 Apr 04 04:47	16°♂34'43		evening rise	5055 Sep 13 04:48	2°♂37'15	
greatest brilliancy	5053 Apr 15 01:25	18°♂47'00	-4.6m		5055 Oct 05 10:56	0°♂	
	5053 May 03 11:56	0°♂			5055 Oct 29 21:22	0°♂	
desc. node	5053 May 22 01:24	16°♂29'32		desc. node	5055 Nov 06 20:30	9°♂45'35	
morning max el	5053 May 24 03:10	18°♂31'29	46°29'12		5055 Nov 23 09:36	0°♂	
	5053 Jun 04 09:23	0°♂			5055 Dec 18 00:14	0°♂	
	5053 Jul 01 19:29	0°♂			5056 Jan 11 19:32	0°♂	
	5053 Jul 27 22:12	0°♂			5056 Feb 06 02:33	0°♂	
	5053 Aug 22 09:43	0°♂		asc. node	5056 Feb 27 22:10	24°♂49'15	
asc. node	5053 Sep 12 03:11	24°♂48'04			5056 Mar 03 15:59	0°♂	
	5053 Sep 16 10:36	0°♂		evening max el	5056 Mar 15 16:20	12°♂35'55	46°57'23
	5053 Oct 11 02:34	0°♂			5056 Apr 03 09:13	0°♂	
	5053 Nov 04 11:20	0°♂		greatest brilliancy	5056 Apr 21 13:46	12°♂09'40	-4.6m
morning set	5053 Nov 18 14:37	17°♂32'03		retrograde	5056 May 05 05:31	15°♂34'54	
	5053 Nov 28 15:02	0°♂		evening set	5056 May 21 09:55	10°♂28'18	
	5053 Dec 22 15:37	0°♂		inferior conj	5056 May 26 08:20	7°♂28'12	5°20'49
max. Earth dist.	5053 Dec 24 12:58	2°♂21'54	1.71652 AU	minimum elong	5056 May 26 18:13	7°♂12'46	5°18'20
superior conj	5053 Dec 27 05:36	5°♂44'07	0°13'18	min. Earth dist.	5056 May 26 06:14	7°♂31'28	0.27966 AU
minimum elong	5053 Dec 27 08:53	5°♂54'23	0°13'10	morning rise	5056 Jun 01 02:49	4°♂00'03	
behind sun begin	5053 Dec 26 18:01	5°♂07'52			5056 Jun 11 04:33	30°♂	
behind sun end	5053 Dec 27 23:44	6°♂40'53		direct	5056 Jun 16 08:22	29°♂27'56	
desc. node	5054 Jan 01 18:16	12°♂39'27		desc. node	5056 Jun 18 13:16	29°♂33'35	
	5054 Jan 15 14:15	0°♂			5056 Jun 21 15:47	0°♂	
evening rise	5054 Feb 05 15:35	26°♂25'49		greatest brilliancy	5056 Jun 28 06:54	2°♂01'09	-4.5m
	5054 Feb 08 11:48	0°♂		morning max el	5056 Aug 04 07:16	29°♂35'01	45°48'16
	5054 Mar 04 09:32	0°♂			5056 Aug 04 17:42	0°♂	
	5054 Mar 28 09:39	0°♂			5056 Sep 02 17:40	0°♂	
	5054 Apr 21 15:15	0°♂		asc. node	5056 Sep 29 09:34	0°♂	
asc. node	5054 Apr 24 19:53	3°♂55'21			5056 Oct 09 15:05	11°♂53'56	
	5054 May 16 05:55	0°♂			5056 Oct 24 22:11	0°♂	
	5054 Jun 10 10:41	0°♂			5056 Nov 18 17:51	0°♂	
	5054 Jul 06 15:32	0°♂			5056 Dec 13 02:47	0°♂	
	5054 Aug 04 00:35	0°♂		desc. node	5057 Jan 06 05:16	0°♂	
evening max el	5054 Aug 07 22:16	3°♂47'46	45°32'02		5057 Jan 29 06:04	28°♂51'01	
desc. node	5054 Aug 14 11:01	9°♂53'25			5057 Jan 30 04:04	0°♂	
	5054 Sep 11 08:30	0°♂		morning set	5057 Jan 31 01:13	1°♂06'23	
greatest brilliancy	5054 Sep 13 07:16	0°♂51'06	-4.5m		5057 Feb 23 00:53	0°♂	
retrograde	5054 Sep 25 13:37	3°♂30'55		superior conj	5057 Mar 13 10:10	23°♂07'50	-1°-21'-12
	5054 Oct 09 01:28	30°♂		minimum elong	5057 Mar 13 01:55	22°♂41'51	1°21'04
evening set	5054 Oct 13 16:41	27°♂25'25					

max. Earth dist.	5057 Mar 14 22:26	25° Υ 01'52	1.71206 AU	greatest brilliancy	5059 Sep 09 13:03	10° Ω 52'47	-4.5m
	5057 Mar 18 21:17	0° Υ			5059 Oct 06 20:33	0° η	
	5057 Apr 11 19:01	0° Υ		morning max el	5059 Oct 15 05:24	7° η 46'09	45°48'27
evening rise	5057 Apr 23 01:56	14° Υ 06'51			5059 Nov 05 20:04	0° Ω	
	5057 May 05 19:58	0° Π		asc. node	5059 Nov 07 02:57	1° Ω 23'51	
asc. node	5057 May 22 07:50	20° Π 26'53			5059 Dec 02 10:08	0° \mathcal{M}	
	5057 May 30 01:41	0° \mathfrak{S}			5059 Dec 27 15:39	0° \mathfrak{A}	
	5057 Jun 23 13:29	0° Ω			5060 Jan 21 04:58	0° \mathfrak{C}	
	5057 Jul 18 09:11	0° η			5060 Feb 14 09:58	0° \approx	
	5057 Aug 12 16:23	0° Ω		desc. node	5060 Feb 26 17:52	15° \approx 22'08	
	5057 Sep 07 18:35	0° \mathcal{M}			5060 Mar 09 10:48	0° Υ	
desc. node	5057 Sep 10 22:43	3° \mathcal{M} 33'33			5060 Apr 02 10:01	0° Υ	
	5057 Oct 05 09:19	0° \mathfrak{A}		morning set	5060 Apr 17 19:47	19° Υ 16'55	
evening max el	5057 Oct 19 00:03	13° \mathfrak{A} 39'27	46°05'12		5060 Apr 26 09:36	0° Υ	
	5057 Nov 06 11:59	0° \mathfrak{C}			5060 May 20 11:11	0° Π	
greatest brilliancy	5057 Nov 26 04:47	12° \mathfrak{C} 00'14	-4.6m				
retrograde	5057 Dec 07 07:30	14° \mathfrak{C} 14'57		superior conj	5060 May 27 02:28	8° Π 14'46	0°-51'-11
evening set	5057 Dec 21 22:04	10° \mathfrak{C} 04'14		minimum elong	5060 May 27 12:27	8° Π 45'46	0°50'49
inferior conj	5057 Dec 27 23:46	6° \mathfrak{C} 31'19	-1°-17'-24	max. Earth dist.	5060 May 30 18:53	12° Π 49'10	1.72479 AU
minimum elong	5057 Dec 28 02:43	6° \mathfrak{C} 26'49	1°16'27		5060 Jun 13 15:42	0° \mathfrak{S}	
min. Earth dist.	5057 Dec 28 11:57	6° \mathfrak{C} 12'45	0.26971 AU	asc. node	5060 Jun 18 19:43	6° \mathfrak{S} 23'13	
asc. node	5058 Jan 02 00:37	3° \mathfrak{C} 31'54		evening rise	5060 Jul 04 08:05	25° \mathfrak{S} 31'28	
morning rise	5058 Jan 03 06:50	2° \mathfrak{C} 50'31			5060 Jul 07 23:20	0° Ω	
	5058 Jan 09 18:40	30° \mathcal{R} \mathfrak{A}			5060 Aug 01 10:00	0° η	
direct	5058 Jan 17 17:41	28° \mathfrak{A} 41'40			5060 Aug 26 00:17	0° Ω	
	5058 Jan 25 22:47	0° \mathfrak{C}			5060 Sep 19 19:40	0° \mathcal{M}	
greatest brilliancy	5058 Jan 30 23:09	1° \mathfrak{C} 56'16	-4.7m	desc. node	5060 Oct 08 10:37	22° \mathcal{M} 17'17	
	5058 Mar 07 11:58	0° \approx			5060 Oct 14 22:27	0° \mathfrak{A}	
morning max el	5058 Mar 09 09:53	1° \approx 55'24	46°59'12		5060 Nov 09 12:04	0° \mathfrak{C}	
	5058 Apr 04 11:03	0° Υ			5060 Dec 05 20:49	0° \approx	
desc. node	5058 Apr 23 15:41	22° Υ 03'36		evening max el	5060 Dec 30 22:19	26° \approx 41'27	47°00'05
	5058 Apr 30 10:09	0° Υ			5061 Jan 03 06:14	0° Υ	
	5058 May 25 15:21	0° Υ		asc. node	5061 Jan 29 12:23	22° Υ 08'37	
	5058 Jun 19 13:05	0° Π		greatest brilliancy	5061 Feb 07 12:27	27° Υ 02'16	-4.7m
	5058 Jul 14 07:27	0° \mathfrak{S}		retrograde	5061 Feb 19 12:08	29° Υ 43'13	
	5058 Aug 07 23:18	0° Ω		evening set	5061 Mar 08 10:38	24° Υ 08'40	
asc. node	5058 Aug 14 17:18	8° Ω 14'07		min. Earth dist.	5061 Mar 11 13:57	22° Υ 14'16	0.26980 AU
	5058 Sep 01 12:07	0° η		inferior conj	5061 Mar 12 03:51	21° Υ 52'46	8°26'46
morning set	5058 Sep 08 08:19	8° η 23'49		minimum elong	5061 Mar 11 20:12	22° Υ 04'35	8°25'52
	5058 Sep 25 21:30	0° Ω		morning rise	5061 Mar 15 05:55	19° Υ 59'41	
max. Earth dist.	5058 Oct 12 11:14	20° Ω 28'18	1.72962 AU	direct	5061 Apr 01 16:47	14° Υ 09'02	
				greatest brilliancy	5061 Apr 12 15:05	16° Υ 22'23	-4.6m
superior conj	5058 Oct 14 19:27	23° Ω 22'13	1°24'30		5061 May 04 00:45	0° Υ	
minimum elong	5058 Oct 14 22:12	23° Ω 30'44	1°24'28	desc. node	5061 May 21 03:33	15° Υ 37'11	
	5058 Oct 20 03:57	0° \mathcal{M}		morning max el	5061 May 21 15:10	16° Υ 05'51	46°30'51
	5058 Nov 13 08:32	0° \mathfrak{A}			5061 Jun 04 04:25	0° Υ	
evening rise	5058 Nov 21 07:03	9° \mathfrak{A} 51'26			5061 Jul 01 10:13	0° Π	
desc. node	5058 Dec 04 08:28	26° \mathfrak{A} 05'00			5061 Jul 27 11:01	0° \mathfrak{S}	
	5058 Dec 07 12:06	0° \mathfrak{C}			5061 Aug 21 21:29	0° Ω	
	5058 Dec 31 15:04	0° \approx		asc. node	5061 Sep 11 05:10	24° Ω 20'10	
	5059 Jan 24 18:06	0° Υ			5061 Sep 15 21:46	0° η	
	5059 Feb 17 23:15	0° Υ			5061 Oct 10 13:24	0° Ω	
	5059 Mar 14 10:51	0° Υ			5061 Nov 03 22:01	0° \mathcal{M}	
asc. node	5059 Mar 27 09:59	15° Υ 38'23		morning set	5061 Nov 16 06:11	15° \mathcal{M} 18'05	
	5059 Apr 08 12:23	0° Π			5061 Nov 28 01:43	0° \mathfrak{A}	
	5059 May 04 18:19	0° \mathfrak{S}		max. Earth dist.	5061 Dec 22 00:30	29° \mathfrak{A} 54'13	1.71698 AU
evening max el	5059 May 27 00:47	23° \mathfrak{S} 22'09	46°02'02		5061 Dec 22 02:21	0° \mathfrak{C}	
	5059 Jun 02 23:17	0° Ω					
greatest brilliancy	5059 Jun 30 15:48	20° Ω 32'47	-4.5m	superior conj	5061 Dec 24 18:12	3° \mathfrak{C} 19'45	0°17'01
retrograde	5059 Jul 15 08:47	24° Ω 20'14		minimum elong	5061 Dec 24 22:21	3° \mathfrak{C} 32'43	0°16'49
desc. node	5059 Jul 17 01:10	24° Ω 16'53		desc. node	5061 Dec 31 20:18	12° \mathfrak{C} 12'07	
evening set	5059 Jul 30 18:05	19° Ω 44'22			5062 Jan 15 01:05	0° \approx	
inferior conj	5059 Aug 05 19:56	16° Ω 03'52	-4°-29'-42	evening rise	5062 Feb 03 02:34	23° \approx 55'27	
minimum elong	5059 Aug 05 11:15	16° Ω 17'28	4°27'32		5062 Feb 07 22:42	0° Υ	
min. Earth dist.	5059 Aug 05 08:51	16° Ω 21'15	0.28916 AU		5062 Mar 03 20:31	0° Υ	
morning rise	5059 Aug 11 04:50	12° Ω 48'17			5062 Mar 27 20:49	0° Υ	
direct	5059 Aug 27 09:20	7° Ω 50'07			5062 Apr 21 02:42	0° Π	

asc. node	5062 Apr 23 21:59	3° Π 26'33		asc. node	5064 Oct 08 17:07	11° η 23'11	
	5062 May 15 17:54	0° \mathfrak{G}			5064 Oct 24 10:05	0° \mathfrak{L}	
	5062 Jun 09 23:39	0° Ω			5064 Nov 18 05:11	0° \mathfrak{M}	
	5062 Jul 06 06:36	0° η			5064 Dec 12 13:50	0° \mathfrak{X}	
	5062 Aug 03 21:36	0° \mathfrak{L}			5065 Jan 05 16:10	0° \mathfrak{Z}	
evening max el	5062 Aug 05 12:32	1° \mathfrak{L} 33'56	45°32'07	desc. node	5065 Jan 28 08:00	28° \mathfrak{Z} 23'03	
desc. node	5062 Aug 13 13:00	9° \mathfrak{L} 00'07		morning set	5065 Jan 28 12:08	28° \mathfrak{Z} 36'01	
greatest brilliancy	5062 Sep 10 19:02	28° \mathfrak{L} 36'42	-4.5m		5065 Jan 29 14:54	0° \approx	
	5062 Sep 14 15:31	0° \mathfrak{M}			5065 Feb 22 11:43	0° \mathfrak{K}	
retrograde	5062 Sep 23 05:02	1° \mathfrak{M} 20'35					
	5062 Oct 01 10:58	30° \mathfrak{R} \mathfrak{L}		superior conj	5065 Mar 10 20:33	20° \mathfrak{K} 35'23	-1°-19'-39
evening set	5062 Oct 11 08:42	25° \mathfrak{L} 13'28		minimum elong	5065 Mar 10 11:30	20° \mathfrak{K} 06'57	1°19'30
inferior conj	5062 Oct 14 14:44	23° \mathfrak{L} 13'21	-8°-34'-9	max. Earth dist.	5065 Mar 12 06:33	22° \mathfrak{K} 22'21	1.71191 AU
minimum elong	5062 Oct 14 17:26	23° \mathfrak{L} 09'07	8°34'03		5065 Mar 18 08:07	0° \mathfrak{Y}	
min. Earth dist.	5062 Oct 15 05:26	22° \mathfrak{L} 50'24	0.28800 AU		5065 Apr 11 05:51	0° \mathfrak{X}	
morning rise	5062 Oct 18 01:58	21° \mathfrak{L} 04'46		evening rise	5065 Apr 20 13:17	11° \mathfrak{X} 38'38	
direct	5062 Nov 05 01:40	14° \mathfrak{L} 57'04			5065 May 05 06:50	0° Π	
greatest brilliancy	5062 Nov 19 16:16	18° \mathfrak{L} 43'29	-4.6m	asc. node	5065 May 21 09:52	19° Π 59'26	
asc. node	5062 Dec 04 14:44	28° \mathfrak{L} 24'31			5065 May 29 12:39	0° \mathfrak{G}	
	5062 Dec 06 14:31	0° \mathfrak{M}			5065 Jun 23 00:42	0° Ω	
morning max el	5062 Dec 25 02:56	16° \mathfrak{M} 59'03	46°29'45		5065 Jul 17 20:54	0° η	
	5063 Jan 06 14:45	0° \mathfrak{X}			5065 Aug 12 05:05	0° \mathfrak{L}	
	5063 Feb 02 05:33	0° \mathfrak{Z}		desc. node	5065 Sep 07 09:10	0° \mathfrak{M}	
	5063 Feb 27 11:19	0° \approx			5065 Sep 10 00:46	2° \mathfrak{M} 57'40	
	5063 Mar 24 02:47	0° \mathfrak{K}			5065 Oct 05 04:22	0° \mathfrak{X}	
desc. node	5063 Mar 26 05:50	2° \mathfrak{K} 36'33		evening max el	5065 Oct 16 15:00	11° \mathfrak{X} 24'16	46°03'19
	5063 Apr 17 11:44	0° \mathfrak{Y}			5065 Nov 07 02:59	0° \mathfrak{Z}	
	5063 May 11 18:21	0° \mathfrak{X}		greatest brilliancy	5065 Nov 23 17:59	9° \mathfrak{Z} 38'33	-4.6m
	5063 Jun 05 01:10	0° Π		retrograde	5065 Dec 04 20:27	11° \mathfrak{Z} 52'13	
	5063 Jun 29 09:11	0° \mathfrak{G}		evening set	5065 Dec 19 12:48	7° \mathfrak{Z} 39'33	
morning set	5063 Jun 29 15:41	0° \mathfrak{G} 20'04		inferior conj	5065 Dec 25 12:53	4° \mathfrak{Z} 08'20	-1°-40'-37
asc. node	5063 Jul 17 07:26	22° \mathfrak{G} 04'08		minimum elong	5065 Dec 25 16:42	4° \mathfrak{Z} 02'30	1°39'24
	5063 Jul 23 18:08	0° Ω		min. Earth dist.	5065 Dec 26 02:03	3° \mathfrak{Z} 48'12	0.27015 AU
				morning rise	5065 Dec 31 20:04	0° \mathfrak{Z} 27'02	
superior conj	5063 Aug 05 20:54	16° Ω 08'24	0°44'36	asc. node	5066 Jan 01 02:28	0° \mathfrak{Z} 18'33	
minimum elong	5063 Aug 05 12:48	15° Ω 43'28	0°44'15		5066 Jan 01 16:44	30° \mathfrak{R} \mathfrak{X}	
max. Earth dist.	5063 Aug 05 19:55	16° Ω 05'21	1.73440 AU	direct	5066 Jan 15 07:45	26° \mathfrak{X} 18'06	
	5063 Aug 17 03:15	0° η		greatest brilliancy	5066 Jan 28 13:33	29° \mathfrak{X} 33'02	-4.7m
evening rise	5063 Sep 10 23:04	0° \mathfrak{L} 33'16			5066 Jan 29 12:16	0° \mathfrak{Z}	
	5063 Sep 10 12:15	0° \mathfrak{L}		morning max el	5066 Mar 06 23:46	29° \mathfrak{Z} 32'17	46°59'00
	5063 Oct 04 21:40	0° \mathfrak{M}			5066 Mar 07 10:42	0° \approx	
	5063 Oct 29 08:25	0° \mathfrak{X}			5066 Apr 04 03:20	0° \mathfrak{K}	
desc. node	5063 Nov 05 22:39	9° \mathfrak{X} 17'58		desc. node	5066 Apr 22 17:49	21° \mathfrak{K} 27'49	
	5063 Nov 22 21:07	0° \mathfrak{Z}			5066 Apr 30 00:01	0° \mathfrak{Y}	
	5063 Dec 17 12:23	0° \approx			5066 May 25 03:57	0° \mathfrak{X}	
	5064 Jan 11 08:40	0° \mathfrak{K}			5066 Jun 19 00:54	0° Π	
	5064 Feb 05 17:24	0° \mathfrak{Y}			5066 Jul 13 18:42	0° \mathfrak{G}	
asc. node	5064 Feb 27 00:08	24° \mathfrak{Y} 05'56			5066 Aug 07 10:11	0° Ω	
	5064 Mar 03 10:44	0° \mathfrak{X}		asc. node	5066 Aug 13 19:18	7° Ω 47'12	
evening max el	5064 Mar 13 06:53	10° \mathfrak{X} 15'53	46°58'53		5066 Aug 31 22:48	0° η	
	5064 Apr 03 20:42	0° Π		morning set	5066 Sep 06 01:51	6° η 17'32	
greatest brilliancy	5064 Apr 19 05:19	9° Π 52'27	-4.6m		5066 Sep 25 08:08	0° \mathfrak{L}	
retrograde	5064 May 02 21:08	13° Π 17'38		max. Earth dist.	5066 Oct 10 03:44	18° \mathfrak{L} 18'02	1.72997 AU
evening set	5064 May 19 03:38	8° Π 06'37					
inferior conj	5064 May 23 23:00	5° Π 11'04	5°38'19	superior conj	5066 Oct 12 12:47	21° \mathfrak{L} 14'26	1°24'54
minimum elong	5064 May 24 09:09	4° Π 55'15	5°35'52	minimum elong	5066 Oct 12 14:49	21° \mathfrak{L} 20'45	1°24'54
min. Earth dist.	5064 May 23 20:43	5° Π 14'38	0.27936 AU		5066 Oct 19 14:38	0° \mathfrak{M}	
morning rise	5064 May 29 14:59	1° Π 46'52			5066 Nov 12 19:20	0° \mathfrak{X}	
	5064 Jun 02 02:25	30° \mathfrak{R} \mathfrak{X}		evening rise	5066 Nov 18 22:01	7° \mathfrak{X} 35'12	
direct	5064 Jun 13 22:45	27° \mathfrak{X} 11'14		desc. node	5066 Dec 03 10:27	25° \mathfrak{X} 37'15	
desc. node	5064 Jun 17 15:15	27° \mathfrak{X} 26'59			5066 Dec 06 23:03	0° \mathfrak{Z}	
greatest brilliancy	5064 Jun 25 20:06	29° \mathfrak{X} 43'58	-4.5m		5066 Dec 31 02:14	0° \approx	
	5064 Jun 26 11:38	0° Π			5067 Jan 24 05:34	0° \mathfrak{K}	
morning max el	5064 Aug 01 23:17	27° Π 24'21	45°49'08		5067 Feb 17 11:08	0° \mathfrak{Y}	
	5064 Aug 04 15:42	0° \mathfrak{G}			5067 Mar 13 23:23	0° \mathfrak{X}	
	5064 Sep 02 09:06	0° Ω		asc. node	5067 Mar 26 12:04	15° \mathfrak{X} 05'28	
	5064 Sep 28 22:36	0° η			5067 Apr 08 02:09	0° Π	

	5067 May 04 10:50	0°☿		max. Earth dist.	5069 Dec 19 14:35	27°☿33'49	1.71743 AU
evening max el	5067 May 24 16:25	21°☿08'53	46°03'47		5069 Dec 21 13:20	0°☿	
	5067 Jun 03 00:54	0°♌					
greatest brilliancy	5067 Jun 28 09:09	18°♌24'05	-4.5m	superior conj	5069 Dec 22 06:59	0°☿55'14	0°20'39
retrograde	5067 Jul 13 00:51	22°♌10'29		minimum elong	5069 Dec 22 11:57	1°☿10'45	0°20'26
desc. node	5067 Jul 16 03:08	21°♌59'06		desc. node	5069 Dec 30 22:13	11°☿43'39	
evening set	5067 Jul 28 08:53	17°♌37'15			5070 Jan 14 12:09	0°≈	
min. Earth dist.	5067 Aug 03 01:18	14°♌11'45	0.28884 AU	evening rise	5070 Jan 31 13:48	21°≈25'08	
inferior conj	5067 Aug 03 12:15	13°♌54'33	-4°-12'-34		5070 Feb 07 09:53	0°☿	
minimum elong	5067 Aug 03 03:57	14°♌07'35	4°10'27		5070 Mar 03 07:48	0°☿	
morning rise	5067 Aug 08 23:24	10°♌35'29			5070 Mar 27 08:16	0°☿	
direct	5067 Aug 25 01:11	5°♌41'23			5070 Apr 20 14:26	0°♌	
greatest brilliancy	5067 Sep 07 02:54	8°♌41'16	-4.5m	asc. node	5070 Apr 23 00:00	2°♌56'39	
	5067 Oct 06 22:07	0°♍			5070 May 15 06:09	0°☿	
morning max el	5067 Oct 12 19:44	5°♍32'04	45°47'32		5070 Jun 09 12:56	0°♌	
	5067 Nov 05 12:26	0°♌			5070 Jul 05 22:09	0°♍	
asc. node	5067 Nov 06 05:02	0°♌45'18		evening max el	5070 Aug 03 03:49	29°♍21'49	45°32'10
	5067 Dec 01 23:47	0°♍			5070 Aug 03 19:47	0°♌	
	5067 Dec 27 04:06	0°☿		desc. node	5070 Aug 12 15:03	8°♌05'00	
	5068 Jan 20 16:48	0°☿		greatest brilliancy	5070 Sep 08 06:28	26°♌21'06	-4.5m
	5068 Feb 13 21:26	0°≈		retrograde	5070 Sep 20 20:56	29°♌09'24	
desc. node	5068 Feb 25 19:58	14°≈53'19		evening set	5070 Oct 09 00:27	23°♌01'13	
	5068 Mar 08 22:02	0°☿		inferior conj	5070 Oct 12 06:29	21°♌01'08	-8°-36'-1
	5068 Apr 01 21:04	0°☿		minimum elong	5070 Oct 12 08:24	20°♌58'08	8°36'00
morning set	5068 Apr 15 07:57	16°☿50'37		min. Earth dist.	5070 Oct 12 19:55	20°♌40'12	0.28846 AU
	5068 Apr 25 20:31	0°☿		morning rise	5070 Oct 15 16:11	18°♌55'01	
	5068 May 19 22:00	0°♌		direct	5070 Nov 02 17:57	12°♌44'20	
				greatest brilliancy	5070 Nov 17 08:59	16°♌31'33	-4.6m
superior conj	5068 May 24 16:51	5°♌56'50	0°-54'-2	asc. node	5070 Dec 03 16:37	27°♌17'48	
minimum elong	5068 May 25 03:08	6°♌28'46	0°53'41		5070 Dec 06 23:06	0°♍	
max. Earth dist.	5068 May 28 11:10	10°♌37'13	1.72429 AU	morning max el	5070 Dec 22 19:08	14°♍44'27	46°28'07
	5068 Jun 13 02:30	0°☿			5071 Jan 06 09:00	0°☿	
asc. node	5068 Jun 17 21:37	5°☿55'48			5071 Feb 01 20:19	0°☿	
evening rise	5068 Jul 02 00:43	23°☿21'33			5071 Feb 27 00:34	0°≈	
	5068 Jul 07 10:10	0°♌			5071 Mar 23 15:12	0°☿	
	5068 Jul 31 20:59	0°♍		desc. node	5071 Mar 25 07:52	2°☿04'49	
	5068 Aug 25 11:32	0°♌			5071 Apr 16 23:36	0°☿	
	5068 Sep 19 07:27	0°♍			5071 May 11 05:50	0°☿	
desc. node	5068 Oct 07 12:45	21°♍46'42			5071 Jun 04 12:21	0°♌	
	5068 Oct 14 11:07	0°☿		morning set	5071 Jun 27 08:20	28°♌09'41	
	5068 Nov 09 02:16	0°☿			5071 Jun 28 20:08	0°☿	
	5068 Dec 05 13:56	0°≈		asc. node	5071 Jul 16 09:28	21°☿37'02	
evening max el	5068 Dec 28 10:59	24°≈14'35	46°58'44		5071 Jul 23 04:57	0°♌	
	5069 Jan 03 07:25	0°☿					
asc. node	5069 Jan 28 14:26	20°☿39'49		superior conj	5071 Aug 03 14:45	14°♌02'22	0°41'50
greatest brilliancy	5069 Feb 05 03:14	24°☿36'51	-4.7m	minimum elong	5071 Aug 03 06:58	13°♌38'25	0°41'29
retrograde	5069 Feb 17 00:44	27°☿16'05		max. Earth dist.	5071 Aug 03 18:17	14°♌13'15	1.73433 AU
evening set	5069 Mar 05 19:16	21°☿48'15			5071 Aug 16 14:03	0°♍	
min. Earth dist.	5069 Mar 09 03:06	19°☿47'28	0.26946 AU	evening rise	5071 Sep 08 17:31	28°♍28'55	
inferior conj	5069 Mar 09 16:43	19°☿26'26	8°17'34		5071 Sep 09 23:08	0°♌	
minimum elong	5069 Mar 09 08:23	19°☿39'19	8°16'29		5071 Oct 04 08:47	0°♍	
morning rise	5069 Mar 12 21:37	17°☿29'14			5071 Oct 28 19:52	0°☿	
direct	5069 Mar 30 04:43	11°☿42'54		desc. node	5071 Nov 05 00:34	8°☿48'29	
greatest brilliancy	5069 Apr 10 05:16	13°☿58'08	-4.6m		5071 Nov 22 09:00	0°☿	
	5069 May 04 10:21	0°☿			5071 Dec 17 00:56	0°≈	
morning max el	5069 May 19 03:56	13°☿41'40	46°32'35		5072 Jan 10 22:14	0°☿	
desc. node	5069 May 20 05:33	14°☿45'12			5072 Feb 05 08:48	0°☿	
	5069 Jun 03 23:03	0°☿		asc. node	5072 Feb 26 02:14	23°☿21'25	
	5069 Jul 01 00:56	0°♌			5072 Mar 03 06:25	0°☿	
	5069 Jul 26 23:58	0°☿		evening max el	5072 Mar 10 22:22	7°☿57'05	47°00'13
	5069 Aug 21 09:29	0°♌			5072 Apr 04 12:47	0°♌	
asc. node	5069 Sep 10 07:15	23°♌51'47		greatest brilliancy	5072 Apr 16 21:27	7°♌34'46	-4.6m
	5069 Sep 15 09:12	0°♍		retrograde	5072 Apr 30 12:49	10°♌58'49	
	5069 Oct 10 00:30	0°♌		evening set	5072 May 16 21:25	5°♌43'35	
	5069 Nov 03 08:57	0°♍		inferior conj	5072 May 21 13:36	2°♌52'31	5°55'23
morning set	5069 Nov 13 21:53	13°♍03'53		minimum elong	5072 May 21 23:56	2°♌36'26	5°52'59
	5069 Nov 27 12:37	0°☿		min. Earth dist.	5072 May 21 10:59	2°♌56'36	0.27904 AU

	5072 May 26 07:24	30°R♄			5074 Nov 12 06:17	0°♄		
morning rise	5072 May 27 02:50	29°♄32'28		evening rise	5074 Nov 16 13:16	5°♄19'26		
direct	5072 Jun 11 13:26	24°♄53'20		desc. node	5074 Dec 02 12:27	25°♄08'53		
desc. node	5072 Jun 16 17:11	25°♄23'56			5074 Dec 06 10:13	0°♄		
greatest brilliancy	5072 Jun 23 08:17	27°♄24'17	-4.5m		5074 Dec 30 13:40	0°≈		
	5072 Jun 28 19:28	0°♄			5075 Jan 23 17:20	0°♄		
morning max el	5072 Jul 30 15:08	25°♄12'19	45°50'08		5075 Feb 16 23:20	0°♄		
	5072 Aug 04 13:13	0°♄			5075 Mar 13 12:15	0°♄		
	5072 Sep 02 00:36	0°♄		asc. node	5075 Mar 25 14:03	14°♄31'19		
	5072 Sep 28 11:51	0°♄			5075 Apr 07 16:18	0°♄		
asc. node	5072 Oct 07 19:09	10°♄51'39			5075 May 04 03:56	0°♄		
	5072 Oct 23 22:16	0°♄		evening max el	5075 May 22 07:01	18°♄52'16	46°05'37	
	5072 Nov 17 16:51	0°♄			5075 Jun 03 04:20	0°♄		
	5072 Dec 12 01:14	0°♄		greatest brilliancy	5075 Jun 26 01:28	16°♄13'06	-4.5m	
	5073 Jan 05 03:26	0°♄		retrograde	5075 Jul 10 16:38	19°♄59'52		
morning set	5073 Jan 25 23:05	26°♄04'43		desc. node	5075 Jul 15 05:16	19°♄35'26		
desc. node	5073 Jan 27 10:07	27°♄54'37		evening set	5075 Jul 25 23:39	15°♄28'43		
	5073 Jan 29 02:05	0°≈		min. Earth dist.	5075 Jul 31 17:54	12°♄00'51	0.28854 AU	
	5073 Feb 21 22:52	0°♄		inferior conj	5075 Aug 01 04:25	11°♄44'18	-3°-54'-58	
				minimum elong	5075 Jul 31 20:34	11°♄56'40	3°52'54	
superior conj	5073 Mar 08 06:49	18°♄01'42	-1°-17'-58	morning rise	5075 Aug 06 17:46	8°♄21'53		
minimum elong	5073 Mar 07 21:05	17°♄31'05	1°17'46	direct	5075 Aug 22 16:31	3°♄31'29		
max. Earth dist.	5073 Mar 09 15:11	19°♄43'28	1.71176 AU	greatest brilliancy	5075 Sep 04 17:40	6°♄30'03	-4.5m	
	5073 Mar 17 19:16	0°♄			5075 Oct 06 22:35	0°♄		
	5073 Apr 10 17:01	0°♄		morning max el	5075 Oct 10 10:06	3°♄17'41	45°46'54	
evening rise	5073 Apr 18 00:31	9°♄08'54		asc. node	5075 Nov 05 06:55	0°♄06'20		
	5073 May 04 18:02	0°♄			5075 Nov 05 04:37	0°♄		
asc. node	5073 May 20 11:48	19°♄30'34			5075 Dec 01 13:21	0°♄		
	5073 May 28 23:58	0°♄			5075 Dec 26 16:31	0°♄		
	5073 Jun 22 12:17	0°♄			5076 Jan 20 04:39	0°♄		
	5073 Jul 17 09:00	0°♄			5076 Feb 13 08:59	0°≈		
	5073 Aug 11 18:10	0°♄		desc. node	5076 Feb 24 22:01	14°≈24'04		
	5073 Sep 07 00:13	0°♄			5076 Mar 08 09:23	0°♄		
desc. node	5073 Sep 09 02:51	2°♄20'53			5076 Apr 01 08:14	0°♄		
	5073 Oct 05 00:17	0°♄		morning set	5076 Apr 12 19:26	14°♄21'42		
evening max el	5073 Oct 14 05:18	9°♄06'48	46°01'17		5076 Apr 25 07:32	0°♄		
	5073 Nov 07 23:40	0°♄			5076 May 19 08:54	0°♄		
greatest brilliancy	5073 Nov 21 07:50	7°♄16'45	-4.6m					
retrograde	5073 Dec 02 08:42	9°♄28'40		superior conj	5076 May 22 06:45	3°♄37'05	0°-56'-51	
evening set	5073 Dec 17 03:43	5°♄13'46		minimum elong	5076 May 22 17:16	4°♄09'46	0°56'29	
inferior conj	5073 Dec 23 02:04	1°♄44'38	-2°-3'-31	max. Earth dist.	5076 May 26 01:11	8°♄17'58	1.72375 AU	
minimum elong	5073 Dec 23 06:42	1°♄37'32	2°02'04		5076 Jun 12 13:21	0°♄		
min. Earth dist.	5073 Dec 23 16:33	1°♄22'26	0.27064 AU	asc. node	5076 Jun 16 23:40	5°♄28'36		
	5073 Dec 25 22:54	30°R♄		evening rise	5076 Jun 29 17:03	21°♄10'30		
morning rise	5073 Dec 29 09:05	28°♄02'57			5076 Jul 06 21:04	0°♄		
asc. node	5073 Dec 31 04:33	27°♄07'22			5076 Jul 31 08:02	0°♄		
direct	5074 Jan 12 21:29	23°♄53'37			5076 Aug 24 22:53	0°♄		
greatest brilliancy	5074 Jan 26 04:47	27°♄09'43	-4.7m		5076 Sep 18 19:19	0°♄		
	5074 Jan 31 12:37	0°♄		desc. node	5076 Oct 06 14:41	21°♄15'25		
morning max el	5074 Mar 04 12:46	27°♄05'49	46°58'49		5076 Oct 13 23:52	0°♄		
	5074 Mar 07 08:57	0°≈			5076 Nov 08 16:32	0°♄		
	5074 Apr 03 19:39	0°♄			5076 Dec 05 07:18	0°≈		
desc. node	5074 Apr 21 19:49	20°♄51'06		evening max el	5076 Dec 25 23:42	21°≈48'27	46°57'21	
	5074 Apr 29 14:00	0°♄			5077 Jan 03 09:49	0°♄		
	5074 May 24 16:43	0°♄		asc. node	5077 Jan 27 16:28	19°♄07'57		
	5074 Jun 18 12:53	0°♄		greatest brilliancy	5077 Feb 02 16:38	22°♄09'50	-4.7m	
	5074 Jul 13 06:11	0°♄		retrograde	5077 Feb 14 13:34	24°♄48'53		
	5074 Aug 06 21:20	0°♄		evening set	5077 Mar 03 03:38	19°♄27'25		
asc. node	5074 Aug 12 21:25	7°♄19'51		min. Earth dist.	5077 Mar 06 15:57	17°♄20'28	0.26919 AU	
	5074 Aug 31 09:44	0°♄		inferior conj	5077 Mar 07 05:27	16°♄59'40	8°07'19	
morning set	5074 Sep 03 19:32	4°♄11'02		minimum elong	5077 Mar 06 20:30	17°♄13'28	8°06'00	
	5074 Sep 24 18:58	0°♄		morning rise	5077 Mar 10 13:28	14°♄58'06		
max. Earth dist.	5074 Oct 07 20:32	16°♄08'13	1.73031 AU	direct	5077 Mar 27 16:53	9°♄16'09		
				greatest brilliancy	5077 Apr 07 19:32	11°♄33'38	-4.6m	
superior conj	5074 Oct 10 06:25	19°♄07'06	1°25'11		5077 May 04 17:27	0°♄		
minimum elong	5074 Oct 10 07:45	19°♄11'15	1°25'12	morning max el	5077 May 16 17:37	11°♄19'28	46°34'13	
	5074 Oct 19 01:28	0°♄		desc. node	5077 May 19 07:29	13°♄53'49		

	5077 Jun 03 17:17	0°♄		asc. node	5080 Feb 25 04:13	22°♄37'29	
	5077 Jun 30 15:29	0°♂			5080 Mar 03 02:06	0°♄	
	5077 Jul 26 12:48	0°♂		evening max el	5080 Mar 08 14:04	5°♄40'16	47°01'30
	5077 Aug 20 21:21	0°♂			5080 Apr 05 09:24	0°♂	
asc. node	5077 Sep 09 09:12	23°♂23'18		greatest brilliancy	5080 Apr 14 14:17	5°♂19'39	-4.6m
	5077 Sep 14 20:30	0°♄		retrograde	5080 Apr 28 04:13	8°♂41'29	
	5077 Oct 09 11:29	0°♂		evening set	5080 May 14 15:22	3°♂22'12	
	5077 Nov 02 19:47	0°♂		inferior conj	5080 May 19 04:19	0°♂35'36	6°11'54
morning set	5077 Nov 11 13:49	10°♂50'47		minimum elong	5080 May 19 14:45	0°♂19'19	6°09'32
	5077 Nov 26 23:25	0°♄		min. Earth dist.	5080 May 19 01:22	0°♂40'12	0.27874 AU
max. Earth dist.	5077 Dec 17 05:30	25°♄16'37	1.71781 AU		5080 May 20 03:10	30°♄	
				morning rise	5080 May 24 14:34	27°♄19'43	
superior conj	5077 Dec 19 20:08	28°♄32'26	0°24'14	direct	5080 Jun 09 04:16	22°♄37'08	
minimum elong	5077 Dec 20 01:52	28°♄50'20	0°23'58	desc. node	5080 Jun 15 19:21	23°♄27'11	
	5077 Dec 21 00:08	0°♄		greatest brilliancy	5080 Jun 20 20:08	25°♄05'28	-4.5m
desc. node	5077 Dec 30 00:21	11°♄16'31			5080 Jun 30 06:48	0°♂	
	5078 Jan 13 23:02	0°♄		morning max el	5080 Jul 28 06:26	22°♂59'54	45°50'56
evening rise	5078 Jan 29 01:25	18°♄56'44			5080 Aug 04 09:35	0°♂	
	5078 Feb 06 20:50	0°♄			5080 Sep 01 15:31	0°♂	
	5078 Mar 02 18:53	0°♄			5080 Sep 28 00:39	0°♄	
	5078 Mar 26 19:33	0°♄		asc. node	5080 Oct 06 21:07	10°♄21'03	
	5078 Apr 20 02:04	0°♂			5080 Oct 23 10:04	0°♂	
asc. node	5078 Apr 22 01:55	2°♂26'45			5080 Nov 17 04:07	0°♄	
	5078 May 14 18:21	0°♂			5080 Dec 11 12:14	0°♄	
	5078 Jun 09 02:13	0°♂			5081 Jan 04 14:19	0°♄	
	5078 Jul 05 13:50	0°♄		morning set	5081 Jan 23 10:02	23°♄34'32	
evening max el	5078 Jul 31 19:41	27°♄11'27	45°32'21	desc. node	5081 Jan 26 12:08	27°♄26'58	
	5078 Aug 03 18:46	0°♂			5081 Jan 28 12:54	0°♄	
desc. node	5078 Aug 11 17:05	7°♄09'02			5081 Feb 21 09:39	0°♄	
greatest brilliancy	5078 Sep 05 18:26	24°♄06'34	-4.5m				
retrograde	5078 Sep 18 12:45	26°♄58'20		superior conj	5081 Mar 05 17:17	15°♄29'48	-1°-16'-6
evening set	5078 Oct 06 15:51	20°♄49'47		minimum elong	5081 Mar 05 06:55	14°♄57'14	1°15'52
inferior conj	5078 Oct 09 22:07	18°♄49'12	-8°-37'-18	max. Earth dist.	5081 Mar 06 21:24	16°♄58'14	1.71156 AU
minimum elong	5078 Oct 09 23:15	18°♄47'26	8°37'17		5081 Mar 17 06:00	0°♄	
min. Earth dist.	5078 Oct 10 10:03	18°♄30'35	0.28887 AU		5081 Apr 10 03:44	0°♄	
morning rise	5078 Oct 13 06:31	16°♄45'04		evening rise	5081 Apr 15 11:56	6°♄41'03	
direct	5078 Oct 31 10:28	10°♄32'04			5081 May 04 04:46	0°♂	
greatest brilliancy	5078 Nov 15 00:33	14°♄18'39	-4.6m	asc. node	5081 May 19 13:54	19°♂03'40	
asc. node	5078 Dec 02 18:43	26°♄13'42			5081 May 28 10:50	0°♂	
	5078 Dec 07 05:02	0°♄			5081 Jun 21 23:26	0°♄	
morning max el	5078 Dec 20 11:23	12°♄30'51	46°26'37		5081 Jul 16 20:43	0°♄	
	5079 Jan 06 02:34	0°♄			5081 Aug 11 06:55	0°♄	
	5079 Feb 01 10:36	0°♄		desc. node	5081 Sep 06 15:06	0°♄	
	5079 Feb 26 13:22	0°♄			5081 Sep 08 04:47	1°♄44'25	
	5079 Mar 23 03:10	0°♄			5081 Oct 04 20:26	0°♄	
desc. node	5079 Mar 24 09:50	1°♄34'11		evening max el	5081 Oct 11 18:40	6°♄48'12	45°59'20
	5079 Apr 16 11:04	0°♄			5081 Nov 09 03:12	0°♄	
	5079 May 10 16:59	0°♄		greatest brilliancy	5081 Nov 18 21:47	4°♄56'19	-4.6m
	5079 Jun 03 23:15	0°♂		retrograde	5081 Nov 29 20:42	7°♄06'38	
morning set	5079 Jun 25 00:42	25°♂59'11		evening set	5081 Dec 14 18:47	2°♄48'56	
	5079 Jun 28 06:51	0°♂			5081 Dec 19 14:41	30°♄	
asc. node	5079 Jul 15 11:34	21°♂10'55		inferior conj	5081 Dec 20 15:17	29°♄22'18	-2°-26'-6
	5079 Jul 22 15:32	0°♂		minimum elong	5081 Dec 20 20:42	29°♄14'00	2°24'26
				min. Earth dist.	5081 Dec 21 07:16	28°♄57'46	0.27116 AU
superior conj	5079 Aug 01 08:10	11°♂55'48	0°38'58	morning rise	5081 Dec 26 21:55	25°♄40'35	
minimum elong	5079 Aug 01 00:45	11°♂32'59	0°38'38	asc. node	5081 Dec 30 06:38	24°♄01'30	
max. Earth dist.	5079 Aug 01 16:58	12°♂22'50	1.73421 AU	direct	5082 Jan 10 10:51	21°♄30'13	
	5079 Aug 16 00:35	0°♄		greatest brilliancy	5082 Jan 23 21:02	24°♄48'52	-4.6m
evening rise	5079 Sep 06 11:39	26°♄24'23			5082 Feb 01 20:32	0°♄	
	5079 Sep 09 09:45	0°♄		morning max el	5082 Mar 02 01:34	24°♄39'47	46°58'42
	5079 Oct 03 19:37	0°♄			5082 Mar 07 05:59	0°♄	
	5079 Oct 28 07:02	0°♄			5082 Apr 03 11:18	0°♄	
desc. node	5079 Nov 04 02:34	8°♄20'03		desc. node	5082 Apr 20 21:46	20°♄15'47	
	5079 Nov 21 20:39	0°♄			5082 Apr 29 03:27	0°♄	
	5079 Dec 16 13:14	0°♄			5082 May 24 04:57	0°♄	
	5080 Jan 10 11:33	0°♄			5082 Jun 18 00:22	0°♂	
	5080 Feb 04 23:58	0°♄			5082 Jul 12 17:10	0°♂	

	5082 Aug 06 08:01	0°♈		evening set	5085 Feb 28 11:53	17°♋06'22	
asc. node	5082 Aug 11 23:20	6°♈53'13		min. Earth dist.	5085 Mar 04 04:23	14°♋53'38	0.26891 AU
	5082 Aug 30 20:15	0°♍		inferior conj	5085 Mar 04 18:03	14°♋32'39	7°55'58
morning set	5082 Sep 01 13:15	2°♍05'47		minimum elong	5085 Mar 04 08:34	14°♋47'12	7°54'28
	5082 Sep 24 05:26	0°♊		morning rise	5085 Mar 08 05:23	12°♋26'31	
max. Earth dist.	5082 Oct 05 13:53	14°♊01'06	1.73068 AU	direct	5085 Mar 25 05:32	6°♋49'18	
				greatest brilliancy	5085 Apr 05 08:58	9°♋08'13	-4.6m
superior conj	5082 Oct 08 00:01	17°♊00'46	1°25'21		5085 May 04 22:22	0°♌	
minimum elong	5082 Oct 08 00:39	17°♊02'42	1°25'21	morning max el	5085 May 14 07:55	8°♌58'56	46°35'49
	5082 Oct 18 11:59	0°♍		desc. node	5085 May 18 09:39	13°♌04'07	
	5082 Nov 11 16:55	0°♋			5085 Jun 03 11:01	0°♍	
evening rise	5082 Nov 14 04:28	3°♋04'39			5085 Jun 30 05:49	0°♎	
desc. node	5082 Dec 01 14:32	24°♋41'47			5085 Jul 26 01:29	0°♏	
	5082 Dec 05 21:03	0°♐			5085 Aug 20 09:05	0°♈	
	5082 Dec 30 00:48	0°♑		asc. node	5085 Sep 08 11:13	22°♈55'26	
	5083 Jan 23 04:48	0°♋			5085 Sep 14 07:40	0°♍	
	5083 Feb 16 11:16	0°♌			5085 Oct 08 22:20	0°♊	
	5083 Mar 13 00:54	0°♍			5085 Nov 02 06:31	0°♎	
asc. node	5083 Mar 24 16:01	13°♍57'52		morning set	5085 Nov 09 06:00	8°♎38'48	
	5083 Apr 07 06:16	0°♎			5085 Nov 26 10:10	0°♋	
	5083 May 03 20:58	0°♏		max. Earth dist.	5085 Dec 14 19:03	22°♋55'09	1.71827 AU
evening max el	5083 May 19 21:31	16°♏36'39	46°07'40				
	5083 Jun 03 08:55	0°♈		superior conj	5085 Dec 17 09:20	26°♋09'44	0°27'45
greatest brilliancy	5083 Jun 23 16:57	14°♈02'39	-4.5m	minimum elong	5085 Dec 17 15:46	26°♋29'51	0°27'28
retrograde	5083 Jul 08 08:53	17°♈51'21			5085 Dec 20 10:59	0°♐	
desc. node	5083 Jul 14 07:12	17°♈09'11		desc. node	5085 Dec 29 02:21	10°♐48'43	
evening set	5083 Jul 23 14:47	13°♈21'40			5086 Jan 13 09:59	0°♑	
inferior conj	5083 Jul 29 20:49	9°♈35'56	-3°-37'-4	evening rise	5086 Jan 26 12:45	16°♑27'09	
minimum elong	5083 Jul 29 13:26	9°♈47'32	3°35'05		5086 Feb 06 07:53	0°♋	
min. Earth dist.	5083 Jul 29 10:33	9°♈52'03	0.28825 AU		5086 Mar 02 06:05	0°♌	
morning rise	5083 Aug 04 12:18	6°♈10'33			5086 Mar 26 06:58	0°♍	
direct	5083 Aug 20 08:01	1°♈23'20			5086 Apr 19 13:48	0°♎	
greatest brilliancy	5083 Sep 02 09:32	4°♈21'50	-4.5m	asc. node	5086 Apr 21 04:02	1°♎57'10	
	5083 Oct 06 21:28	0°♍			5086 May 14 06:41	0°♏	
morning max el	5083 Oct 08 01:23	1°♍06'37	45°46'09		5086 Jun 08 15:41	0°♈	
asc. node	5083 Nov 04 09:01	29°♍29'11			5086 Jul 05 05:51	0°♍	
	5083 Nov 04 20:12	0°♊		evening max el	5086 Jul 29 12:08	25°♍02'27	45°32'40
	5083 Dec 01 02:35	0°♎			5086 Aug 03 18:48	0°♊	
	5083 Dec 26 04:41	0°♋		desc. node	5086 Aug 10 19:04	6°♊11'52	
	5084 Jan 19 16:16	0°♐		greatest brilliancy	5086 Sep 03 07:54	21°♊54'21	-4.5m
	5084 Feb 12 20:17	0°♑		retrograde	5086 Sep 16 04:35	24°♊48'09	
desc. node	5084 Feb 23 23:55	13°♑55'06		evening set	5086 Oct 04 07:16	18°♊40'02	
	5084 Mar 07 20:29	0°♋		inferior conj	5086 Oct 07 14:04	16°♊38'23	-8°-37'-46
	5084 Mar 31 19:11	0°♌		minimum elong	5086 Oct 07 14:26	16°♊37'49	8°37'47
morning set	5084 Apr 10 06:45	11°♌52'43		min. Earth dist.	5086 Oct 08 00:30	16°♊22'06	0.28922 AU
	5084 Apr 24 18:20	0°♍		morning rise	5086 Oct 10 21:31	14°♊35'36	
	5084 May 18 19:37	0°♎		direct	5086 Oct 29 03:24	8°♊21'10	
				greatest brilliancy	5086 Nov 12 15:07	12°♊05'12	-4.5m
superior conj	5084 May 19 20:39	1°♎17'51	0°-59'-34	asc. node	5086 Dec 01 20:47	25°♊11'29	
minimum elong	5084 May 20 07:21	1°♎51'05	0°59'11		5086 Dec 07 08:54	0°♎	
max. Earth dist.	5084 May 23 13:17	5°♎53'16	1.72319 AU	morning max el	5086 Dec 18 02:55	10°♎15'37	46°24'46
	5084 Jun 12 00:01	0°♏			5087 Jan 05 19:49	0°♋	
asc. node	5084 Jun 16 01:46	5°♏02'09			5087 Feb 01 00:54	0°♐	
evening rise	5084 Jun 27 09:32	19°♏00'37			5087 Feb 26 02:20	0°♑	
	5084 Jul 06 07:44	0°♈			5087 Mar 22 15:23	0°♋	
	5084 Jul 30 18:49	0°♍		desc. node	5087 Mar 23 11:53	1°♋03'01	
	5084 Aug 24 09:59	0°♊			5087 Apr 15 22:48	0°♌	
	5084 Sep 18 06:59	0°♎			5087 May 10 04:21	0°♍	
desc. node	5084 Oct 05 16:41	20°♎44'49			5087 Jun 03 10:21	0°♎	
	5084 Oct 13 12:31	0°♋		morning set	5087 Jun 22 16:51	23°♎47'24	
	5084 Nov 08 06:52	0°♐			5087 Jun 27 17:45	0°♏	
	5084 Dec 05 00:59	0°♑		asc. node	5087 Jul 14 13:27	20°♏43'25	
evening max el	5084 Dec 23 13:22	19°♑25'00	46°55'57		5087 Jul 22 02:19	0°♈	
	5085 Jan 03 13:49	0°♋					
asc. node	5085 Jan 26 18:26	17°♋32'39		superior conj	5087 Jul 30 01:35	9°♈48'29	0°36'02
greatest brilliancy	5085 Jan 31 05:10	19°♋41'50	-4.7m	minimum elong	5087 Jul 29 18:35	9°♈26'58	0°35'43
retrograde	5085 Feb 12 02:47	22°♋21'33		max. Earth dist.	5087 Jul 30 14:52	10°♈29'23	1.73404 AU

	5087 Aug 15 11:20	0° \cap		greatest brilliancy	5090 Jan 21 14:04	22° \mathcal{Z} 29'02	-4.6m
evening rise	5087 Sep 04 05:56	24° \cap 19'43			5090 Feb 02 19:38	0° \mathcal{Z}	
	5087 Sep 08 20:36	0° $\underline{\cap}$		morning max el	5090 Feb 27 14:50	22° \mathcal{Z} 14'21	46°58'25
	5087 Oct 03 06:39	0° \cap			5090 Mar 07 02:34	0° \approx	
	5087 Oct 27 18:23	0° \mathcal{Z}			5090 Apr 03 03:03	0° \mathcal{H}	
desc. node	5087 Nov 03 04:42	7° \mathcal{Z} 51'31		desc. node	5090 Apr 19 23:52	19° \mathcal{H} 40'00	
	5087 Nov 21 08:29	0° \mathcal{Z}			5090 Apr 28 17:13	0° Υ	
	5087 Dec 16 01:48	0° \approx			5090 May 23 17:37	0° \mathcal{B}	
	5088 Jan 10 01:16	0° \mathcal{H}			5090 Jun 17 12:20	0° \cap	
	5088 Feb 04 15:46	0° Υ			5090 Jul 12 04:39	0° \mathcal{G}	
asc. node	5088 Feb 24 06:11	21° Υ 51'30			5090 Aug 05 19:10	0° \cap	
	5088 Mar 02 23:02	0° \mathcal{B}		asc. node	5090 Aug 11 01:21	6° \cap 25'31	
evening max el	5088 Mar 06 04:56	3° \mathcal{B} 19'35	47°02'29	morning set	5090 Aug 30 06:34	29° \cap 57'59	
	5088 Apr 06 15:15	0° \cap			5090 Aug 30 07:13	0° \cap	
greatest brilliancy	5088 Apr 12 07:53	3° \cap 03'14	-4.6m		5090 Sep 23 16:20	0° $\underline{\cap}$	
retrograde	5088 Apr 25 18:48	6° \cap 21'29		max. Earth dist.	5090 Oct 03 08:54	11° $\underline{\cap}$ 57'55	1.73103 AU
evening set	5088 May 12 09:05	0° \cap 58'17					
	5088 May 13 23:54	30° $\mathcal{R}\mathcal{B}$		superior conj	5090 Oct 05 17:27	14° $\underline{\cap}$ 52'38	1°25'24
inferior conj	5088 May 16 18:43	28° \mathcal{B} 16'19	6°27'54	minimum elong	5090 Oct 05 17:21	14° $\underline{\cap}$ 52'20	1°25'24
minimum elong	5088 May 17 05:12	27° \mathcal{B} 59'57	6°25'38		5090 Oct 17 22:55	0° \cap	
min. Earth dist.	5088 May 16 15:45	28° \mathcal{B} 20'56	0.27841 AU		5090 Nov 11 03:58	0° \mathcal{Z}	
morning rise	5088 May 22 01:43	25° \mathcal{B} 04'45		evening rise	5090 Nov 11 19:50	0° \mathcal{Z} 49'10	
direct	5088 Jun 06 18:26	20° \mathcal{B} 18'37		desc. node	5090 Nov 30 16:29	24° \mathcal{Z} 13'04	
desc. node	5088 Jun 14 21:18	21° \mathcal{B} 32'42			5090 Dec 05 08:18	0° \mathcal{Z}	
greatest brilliancy	5088 Jun 18 08:08	22° \mathcal{B} 44'43	-4.5m		5090 Dec 29 12:17	0° \approx	
	5088 Jul 01 08:43	0° \cap			5091 Jan 22 16:36	0° \mathcal{H}	
morning max el	5088 Jul 25 20:29	20° \cap 43'02	45°51'56		5091 Feb 15 23:30	0° Υ	
	5088 Aug 04 05:44	0° \mathcal{G}			5091 Mar 12 13:53	0° \mathcal{B}	
	5088 Sep 01 06:36	0° \cap		asc. node	5091 Mar 23 18:06	13° \mathcal{B} 23'44	
	5088 Sep 27 13:42	0° \cap			5091 Apr 06 20:43	0° \cap	
asc. node	5088 Oct 05 23:09	9° \cap 49'52			5091 May 03 14:51	0° \mathcal{G}	
	5088 Oct 22 22:07	0° $\underline{\cap}$		evening max el	5091 May 17 12:17	14° \mathcal{G} 20'13	46°09'34
	5088 Nov 16 15:39	0° \cap			5091 Jun 03 16:30	0° \cap	
	5088 Dec 10 23:29	0° \mathcal{Z}		greatest brilliancy	5091 Jun 21 07:57	11° \cap 49'27	-4.5m
	5089 Jan 04 01:25	0° \mathcal{Z}		retrograde	5091 Jul 06 01:24	15° \cap 40'21	
morning set	5089 Jan 20 21:27	21° \mathcal{Z} 05'02		desc. node	5091 Jul 13 09:10	14° \cap 35'36	
desc. node	5089 Jan 25 14:03	26° \mathcal{Z} 58'15		evening set	5091 Jul 21 05:46	11° \cap 11'49	
	5089 Jan 27 23:58	0° \approx		min. Earth dist.	5091 Jul 27 02:39	7° \cap 40'58	0.28796 AU
	5089 Feb 20 20:44	0° \mathcal{H}		inferior conj	5091 Jul 27 12:53	7° \cap 24'57	-3°-18'-34
				minimum elong	5091 Jul 27 06:00	7° \cap 35'44	3°16'41
superior conj	5089 Mar 03 03:46	12° \mathcal{H} 56'56	-1°-14'-5	morning rise	5091 Aug 02 06:29	3° \cap 56'54	
minimum elong	5089 Mar 02 16:53	12° \mathcal{H} 22'44	1°13'49		5091 Aug 11 15:47	30° $\mathcal{R}\mathcal{G}$	
max. Earth dist.	5089 Mar 04 00:26	14° \mathcal{H} 01'55	1.71149 AU	direct	5091 Aug 17 23:26	29° \mathcal{G} 12'35	
	5089 Mar 16 17:07	0° Υ			5091 Aug 24 12:32	0° \cap	
	5089 Apr 09 14:53	0° \mathcal{B}		greatest brilliancy	5091 Aug 31 01:23	2° \cap 11'37	-4.5m
evening rise	5089 Apr 12 22:51	4° \mathcal{B} 10'12		morning max el	5091 Oct 05 17:11	28° \cap 55'32	45°45'31
	5089 May 03 15:58	0° \cap			5091 Oct 06 19:59	0° \cap	
asc. node	5089 May 18 15:54	18° \cap 35'00		asc. node	5091 Nov 03 11:04	28° \cap 51'04	
	5089 May 27 22:09	0° \mathcal{G}			5091 Nov 04 11:59	0° $\underline{\cap}$	
	5089 Jun 21 11:04	0° \cap			5091 Nov 30 16:03	0° \cap	
	5089 Jul 16 08:56	0° \cap			5091 Dec 25 17:07	0° \mathcal{Z}	
	5089 Aug 10 20:15	0° $\underline{\cap}$			5092 Jan 19 04:09	0° \mathcal{Z}	
	5089 Sep 06 06:38	0° \cap			5092 Feb 12 07:51	0° \approx	
desc. node	5089 Sep 07 06:49	1° \cap 06'41		desc. node	5092 Feb 23 02:01	13° \approx 25'55	
	5089 Oct 04 17:44	0° \mathcal{Z}			5092 Mar 07 07:48	0° \mathcal{H}	
evening max el	5089 Oct 09 07:28	4° \mathcal{Z} 27'18	45°57'36		5092 Mar 31 06:19	0° Υ	
	5089 Nov 10 19:04	0° \mathcal{Z}		morning set	5092 Apr 07 18:20	9° Υ 23'55	
greatest brilliancy	5089 Nov 16 11:29	2° \mathcal{Z} 35'14	-4.6m		5092 Apr 24 05:21	0° \mathcal{B}	
retrograde	5089 Nov 27 09:15	4° \mathcal{Z} 44'54					
evening set	5089 Dec 12 10:13	0° \mathcal{Z} 23'48		superior conj	5092 May 17 10:34	28° \mathcal{B} 57'47	-1°-2'-9
	5089 Dec 13 03:33	30° $\mathcal{R}\mathcal{Z}$		minimum elong	5092 May 17 21:21	29° \mathcal{B} 31'21	1°01'49
inferior conj	5089 Dec 18 04:47	27° \mathcal{Z} 00'03	-2°-48'-10		5092 May 18 06:34	0° \cap	
minimum elong	5089 Dec 18 10:56	26° \mathcal{Z} 50'37	2°46'18	max. Earth dist.	5092 May 21 02:45	3° \cap 32'01	1.72272 AU
min. Earth dist.	5089 Dec 18 22:11	26° \mathcal{Z} 33'22	0.27170 AU		5092 Jun 11 10:57	0° \mathcal{G}	
morning rise	5089 Dec 24 10:50	23° \mathcal{Z} 18'51		asc. node	5092 Jun 15 03:40	4° \mathcal{G} 34'14	
asc. node	5089 Dec 29 08:30	21° \mathcal{Z} 00'53		evening rise	5092 Jun 25 01:48	16° \mathcal{G} 49'07	
direct	5090 Jan 08 00:17	19° \mathcal{Z} 06'48			5092 Jul 05 18:44	0° \cap	

	5092 Jul 30 05:58	0°♎		desc. node	5095 Mar 22 13:55	0°♎32'04	
	5092 Aug 23 21:28	0°♏			5095 Apr 15 10:25	0°♐	
	5092 Sep 17 19:04	0°♐			5095 May 09 15:38	0°♑	
desc. node	5092 Oct 04 18:46	20°♐13'23			5095 Jun 02 21:21	0°♒	
	5092 Oct 13 01:35	0°♑		morning set	5095 Jun 20 09:15	21°♒36'35	
	5092 Nov 07 21:42	0°♒			5095 Jun 27 04:31	0°♓	
	5092 Dec 04 19:25	0°♓		asc. node	5095 Jul 13 15:31	20°♓16'54	
evening max el	5092 Dec 21 03:49	17°♓02'52	46°54'30		5095 Jul 21 12:57	0°♈	
	5093 Jan 03 20:04	0°♈					
asc. node	5093 Jan 25 20:28	15°♈53'13		superior conj	5095 Jul 27 19:12	7°♈42'19	0°33'05
greatest brilliancy	5093 Jan 28 17:47	17°♈13'22	-4.7m	minimum elong	5095 Jul 27 12:40	7°♈22'13	0°32'47
retrograde	5093 Feb 09 16:13	19°♈53'23		max. Earth dist.	5095 Jul 28 12:13	8°♈34'39	1.73387 AU
evening set	5093 Feb 25 20:12	14°♈44'40			5095 Aug 14 21:58	0°♎	
min. Earth dist.	5093 Mar 01 16:35	12°♈26'24	0.26859 AU	evening rise	5095 Sep 02 00:22	22°♎15'50	
inferior conj	5093 Mar 02 06:36	12°♈04'55	7°43'42		5095 Sep 08 07:21	0°♏	
minimum elong	5093 Mar 01 20:40	12°♈20'09	7°42'01		5095 Oct 02 17:38	0°♐	
morning rise	5093 Mar 05 21:18	9°♈54'06			5095 Oct 27 05:44	0°♑	
direct	5093 Mar 22 18:32	4°♈22'06		desc. node	5095 Nov 02 06:36	7°♑22'19	
greatest brilliancy	5093 Apr 02 21:21	6°♈41'09	-4.6m		5095 Nov 20 20:20	0°♒	
	5093 May 05 01:35	0°♐			5095 Dec 15 14:23	0°♓	
morning max el	5093 May 11 22:06	6°♐37'53	46°37'22		5096 Jan 09 15:01	0°♈	
desc. node	5093 May 17 11:35	12°♐14'35			5096 Feb 04 07:41	0°♐	
	5093 Jun 03 04:26	0°♑		asc. node	5096 Feb 23 08:16	21°♐05'42	
	5093 Jun 29 20:04	0°♒			5096 Mar 02 20:30	0°♑	
	5093 Jul 25 14:13	0°♓		evening max el	5096 Mar 03 18:42	0°♑56'30	47°03'29
	5093 Aug 19 20:58	0°♈			5096 Apr 08 10:21	0°♒	
asc. node	5093 Sep 07 13:17	22°♈27'08		greatest brilliancy	5096 Apr 10 01:37	0°♒47'23	-4.6m
	5093 Sep 13 19:02	0°♎		retrograde	5096 Apr 23 09:03	4°♒02'13	
	5093 Oct 08 09:24	0°♏			5096 May 07 14:37	30°♒♈	
	5093 Nov 01 17:27	0°♐		evening set	5096 May 10 02:52	28°♒34'55	
morning set	5093 Nov 06 21:59	6°♐25'42		inferior conj	5096 May 14 09:12	25°♒57'47	6°43'15
	5093 Nov 25 21:06	0°♑		minimum elong	5096 May 14 19:38	25°♒41'28	6°41'06
max. Earth dist.	5093 Dec 12 06:56	20°♑28'09	1.71869 AU	min. Earth dist.	5096 May 14 06:27	26°♒02'05	0.27807 AU
				morning rise	5096 May 19 12:45	22°♒50'50	
superior conj	5093 Dec 14 22:30	23°♑46'41	0°31'14	direct	5096 Jun 04 08:11	18°♒00'43	
minimum elong	5093 Dec 15 05:35	24°♑08'49	0°30'54	desc. node	5096 Jun 13 23:15	19°♒43'18	
	5093 Dec 19 21:58	0°♒		greatest brilliancy	5096 Jun 15 21:10	20°♒25'45	-4.5m
desc. node	5093 Dec 28 04:16	10°♒20'18			5096 Jul 02 03:22	0°♒	
	5094 Jan 12 21:02	0°♓		morning max el	5096 Jul 23 10:03	18°♒25'38	45°53'07
evening rise	5094 Jan 24 00:05	13°♓57'15			5096 Aug 04 00:57	0°♓	
	5094 Feb 05 19:04	0°♈			5096 Aug 31 21:10	0°♈	
	5094 Mar 01 17:23	0°♐			5096 Sep 27 02:23	0°♎	
	5094 Mar 25 18:27	0°♑		asc. node	5096 Oct 05 01:11	9°♎19'37	
	5094 Apr 19 01:36	0°♒			5096 Oct 22 09:53	0°♏	
asc. node	5094 Apr 20 06:01	1°♒27'03			5096 Nov 16 02:57	0°♐	
	5094 May 13 19:03	0°♓			5096 Dec 10 10:34	0°♑	
	5094 Jun 08 05:14	0°♈			5097 Jan 03 12:23	0°♒	
	5094 Jul 04 22:08	0°♎		morning set	5097 Jan 18 08:41	18°♒35'24	
evening max el	5094 Jul 27 04:01	22°♎51'51	45°32'45	desc. node	5097 Jan 24 16:11	26°♒30'39	
	5094 Aug 03 20:10	0°♏			5097 Jan 27 10:53	0°♓	
desc. node	5094 Aug 09 21:07	5°♏13'18			5097 Feb 20 07:38	0°♈	
greatest brilliancy	5094 Aug 31 22:15	19°♏42'36	-4.5m				
retrograde	5094 Sep 13 19:51	22°♏37'15		superior conj	5097 Feb 28 14:02	10°♈24'05	-1°-11'-53
evening set	5094 Oct 01 22:11	16°♏30'21		minimum elong	5097 Feb 28 02:44	9°♈48'32	1°11'35
inferior conj	5094 Oct 05 05:56	14°♏27'00	-8°-37'-23	max. Earth dist.	5097 Mar 01 02:04	11°♈01'56	1.71140 AU
minimum elong	5094 Oct 05 05:30	14°♏27'40	8°37'25		5097 Mar 16 04:00	0°♐	
min. Earth dist.	5094 Oct 05 15:09	14°♏12'34	0.28956 AU		5097 Apr 09 01:46	0°♑	
morning rise	5094 Oct 08 12:44	12°♏24'57		evening rise	5097 Apr 10 09:41	1°♑39'55	
direct	5094 Oct 26 19:52	6°♏09'42			5097 May 03 02:54	0°♒	
greatest brilliancy	5094 Nov 10 05:23	9°♏50'45	-4.5m	asc. node	5097 May 17 17:50	18°♒06'55	
asc. node	5094 Nov 30 22:40	24°♏09'56			5097 May 27 09:14	0°♓	
	5094 Dec 07 11:21	0°♐			5097 Jun 20 22:26	0°♈	
morning max el	5094 Dec 15 17:24	7°♐57'30	46°23'03		5097 Jul 15 20:52	0°♎	
	5095 Jan 05 12:48	0°♑			5097 Aug 10 09:16	0°♏	
	5095 Jan 31 15:03	0°♒			5097 Sep 05 21:59	0°♐	
	5095 Feb 25 15:11	0°♓		desc. node	5097 Sep 06 08:55	0°♐30'00	
	5095 Mar 22 03:29	0°♈			5097 Oct 04 15:22	0°♑	

evening max el	5097 Oct 06 20:12	2°♌07'36	45°55'47		5100 Mar 31 17:13	0°♑	
	5097 Nov 13 09:45	0°♌		morning set	5100 Apr 06 05:22	6°♑54'02	
greatest brilliancy	5097 Nov 13 23:54	0°♌13'40	-4.6m		5100 Apr 24 16:07	0°♌	
retrograde	5097 Nov 24 22:06	2°♌23'58					
	5097 Dec 05 22:25	30°♌♌		superior conj	5100 May 15 23:54	26°♌36'36	-1°-4'-41
evening set	5097 Dec 10 01:40	27°♌58'57		minimum elong	5100 May 16 10:43	27°♌10'17	1°04'21
inferior conj	5097 Dec 15 18:09	24°♌38'15	-3°-9'-50		5100 May 18 17:15	0°♌	
minimum elong	5097 Dec 16 01:00	24°♌27'45	3°07'48	max. Earth dist.	5100 May 19 17:32	1°♌15'33	1.72220 AU
min. Earth dist.	5097 Dec 16 12:42	24°♌09'48	0.27233 AU		5100 Jun 11 21:36	0°♌	
morning rise	5097 Dec 21 23:28	20°♌58'04		asc. node	5100 Jun 15 05:43	4°♌07'42	
asc. node	5097 Dec 28 10:36	18°♌05'24		evening rise	5100 Jun 23 17:45	14°♌37'32	
direct	5098 Jan 05 14:01	16°♌43'39			5100 Jul 06 05:24	0°♌	
greatest brilliancy	5098 Jan 19 07:34	20°♌10'18	-4.6m		5100 Jul 30 16:48	0°♌	
	5098 Feb 03 12:36	0°♌			5100 Aug 24 08:38	0°♌	
morning max el	5098 Feb 25 05:04	19°♌51'49	46°58'12		5100 Sep 18 06:49	0°♌	
	5098 Mar 06 22:21	0°♌		desc. node	5100 Oct 04 20:43	19°♌42'34	
	5098 Apr 02 18:21	0°♌			5100 Oct 13 14:21	0°♌	
desc. node	5098 Apr 19 01:51	19°♌04'56			5100 Nov 08 12:14	0°♌	
	5098 Apr 28 06:33	0°♑			5100 Dec 05 13:46	0°♌	
	5098 May 23 05:52	0°♌		evening max el	5100 Dec 19 18:32	14°♌42'56	46°52'50
	5098 Jun 16 23:53	0°♌					
	5098 Jul 11 15:44	0°♌					
	5098 Aug 05 05:56	0°♌					
asc. node	5098 Aug 10 03:26	5°♌59'09					
morning set	5098 Aug 28 00:15	27°♌52'29					
	5098 Aug 29 17:48	0°♌					
	5098 Sep 23 02:49	0°♌					
max. Earth dist.	5098 Oct 01 06:20	10°♌03'28	1.73134 AU				
superior conj	5098 Oct 03 11:18	12°♌47'04	1°25'18				
minimum elong	5098 Oct 03 10:30	12°♌44'37	1°25'19				
	5098 Oct 17 09:25	0°♌					
evening rise	5098 Nov 09 11:40	28°♌36'29					
	5098 Nov 10 14:37	0°♌					
desc. node	5098 Nov 29 18:30	23°♌45'38					
	5098 Dec 04 19:12	0°♌					
	5098 Dec 28 23:29	0°♌					
	5099 Jan 22 04:10	0°♌					
	5099 Feb 15 11:33	0°♑					
	5099 Mar 12 02:43	0°♌					
asc. node	5099 Mar 22 20:04	12°♌49'49					
	5099 Apr 06 11:04	0°♌					
	5099 May 03 08:49	0°♌					
evening max el	5099 May 15 03:48	12°♌06'39	46°11'42				
	5099 Jun 04 02:14	0°♌					
greatest brilliancy	5099 Jun 18 23:25	9°♌38'11	-4.5m				
retrograde	5099 Jul 03 18:20	13°♌30'39					
desc. node	5099 Jul 12 11:18	11°♌58'49					
evening set	5099 Jul 18 21:03	9°♌03'10					
inferior conj	5099 Jul 25 05:00	5°♌15'13	-2°-59'-51				
minimum elong	5099 Jul 24 22:40	5°♌25'07	2°58'05				
min. Earth dist.	5099 Jul 24 18:32	5°♌31'34	0.28764 AU				
morning rise	5099 Jul 31 00:38	1°♌44'44					
	5099 Aug 03 09:50	30°♌♌					
direct	5099 Aug 15 15:26	27°♌03'14					
greatest brilliancy	5099 Aug 28 16:37	0°♌02'07	-4.5m				
	5099 Aug 28 14:39	0°♌					
morning max el	5099 Oct 03 09:38	26°♌47'31	45°44'59				
	5099 Oct 06 17:05	0°♌					
asc. node	5099 Nov 02 12:57	28°♌14'17					
	5099 Nov 04 03:00	0°♌					
	5099 Nov 30 04:57	0°♌					
	5099 Dec 25 05:03	0°♌					
	5100 Jan 18 15:38	0°♌					
	5100 Feb 11 19:04	0°♌					
desc. node	5100 Feb 22 04:03	12°♌57'31					
	5100 Mar 07 18:51	0°♌					